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EXPERIENCES OF PERSONS WITH LOWER LIMB PROSTHESIS IN A SELECTED ORTHOPEDIC CENTER IN EASTERN REGION OF GHANA

By

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DECLARATION

I, Rebecca Dordunu, certify that this thesis is the product of a research I have undertaken towards the award of Master of Philosophy Degree in Nursing in the School of Nursing and Midwifery, University of Ghana, Legon. This research has been taken with the guidance and supervision of Dr. Josephine Mpomaa Kyei and Dr. Charles Ampong Adjei, School of Nursing and Midwifery, University of Ghana, Legon. This study has not been submitted for any degree in any other institutions. All authors and publishers whose work were used have been duly cited.

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DEDICATION

I dedicate this work to the Almighty God for being my strength and divine inspiration throughout this study. To my beloved parents for their constant prayers and encouragement. To my siblings Mr. Prosper Dordunu, Mr. Martin Aflo, Mrs. Patricia Atsu and my ever-supporting friends Miss Ekua Selom Yerenkyiwaa and Mr. Eric Worlawoe Gaba for being there for me and encouraging me to work hard.

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LIST OF ABBREVIATIONS

ISO: International Organization for Standardization

ISPO: International Society for Prosthetics and Orthotics

WHO: World Health Organization

UN: United Nations

MOH: Ministry of Health

NHIS: National Health Insurance Scheme

LLA: Lower Limb Amputation

TFA: Transfemoral Amputation

TTA: Transtibial Amputation

CDC: Center for Disease Control

NGO: Non-Governmental Organization

OTC: Orthopedic Training Center

PWD: Persons Living with Disability

SVD: Society of The Divine Word.

IRB: International Review Board

CHAG: Christian Health Association of Ghana

SoNM: School of Nursing and Midwifery

IT: Information Technology

NRSC: National Road Safety Commission

TBS: Traditional Bone Settlers

RTA: Road Traffic Accident

ABSTRACT

Persons with lower limb amputation (LLA) experience a myriad of physical, psychological and functional problems. Although, ambulation with a prosthesis is the goal of rehabilitation for persons with LLA, there is limited empirical data on the usability, adaptability and the comfort associated with prosthesis usage amongst users. This study therefore sought to explore experiences of persons with lower limb prosthesis in the Eastern region of Ghana using the Social-Ecological model. Exploratory descriptive qualitative design was used for the study. Overall, seventeen (17) participants were purposefully recruited for the study. Data was collected using a semi-structured interview guide. The interview was audio-taped, transcribed verbatim and analyzed deductively using thematic content analysis. The findings show that prosthetic users experience internal stigma, physical discomforts from the prosthesis, difficulty adjusting to sex-life and depended upon their family and friends for support. Additional finding shows that, prosthetic users experience discrimination and challenges with participating in community activities. Also, participants experience challenges with accessing healthcare facilities and high cost in securing or repairing a prosthetic foot. However, participants utilized social media, listening to music, reading the Bible or Quran to cope with the challenges. Interventions for addressing stigma, discrimination and cost of prosthesis are required to improve the lived experiences of persons with lower limb prosthesis.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Limb amputation is defined as the loss of a limb segment or a whole limb (Maitin, 2014). It is one of the consequences resulting from physical illness such as diabetes mellitus and traumatic events, notably, road traffic accidents (Fujioka, 2019). Lower limb amputation (LLA) can also be classified as transtibial (occurring below the knee) or transfemoral (occurring above the knee) (ISO, 2015). Whereas patients with transtibial amputation are likely to have greater functional abilities, individuals with transfemoral amputation appear to suffer from greater functional impairment (Isaacs-Itua & Sedki, 2018).

Importantly available data indicate that LLA is a major public health problem in sub-Saharan Africa. Illustrating the prevalence of LLA reported by a study conducted in Ethiopia was 58.8% (Gebreslassie et al., 2018), in Nigeria, the rate was 84.4% (Nwosu et al., 2017), South Africa recorded 71% on a monthly basis (Wegner & Rhoda, 2016) and in Ghana, a retrospective cohort study at a tertiary hospital, reported a rise in the LLA from 0.6 per 1000 follow up in 2010 to 10.9 per 1000 follow up in 2015 (Sarfo-Kantanka et al., 2019). The supposedly high prevalence of LLA in sub-Saharan Africa could be attributed to the abundance of the risk factors of LLA (Ahmad et al., 2019; Kalbaugh et al., 2020). Notable among them are trauma (Aaron et al., 2021; Agu & Ojiaku, 2016; Buunaaim et al., 2019), tumour, peripheral vascular diseases (Chaturvedi et al., 2020; Gebreslassie et al., 2018; Nwosu et al., 2017) and their consequent mismanagement by traditional bone setters

LLA has been linked to several physical, psychosocial, socioeconomic, behavioural and functional problems including those relating to the performance of activities of daily living

(Amoah et al., 2018; Norlyk et al., 2016). Beyond difficulty in walking (Ennion & Yu, 2019), persons with LLAs do experience enormous psychological problems such as phantom limb pain, post-traumatic stress disorder, anxiety and depression (Anderson et al., 2017; Falgares et al., 2019; Iqbal et al., 2019; Sahu et al., 2016), inability or difficulty returning to work (Hebert & Burger, 2016), increased socio-economic burden resulting in food insecurity, poor housing, lack of access to safe water, sanitation, and inadequate access to health (WHO, 2018). Additionally, people with LLA also suffer the consequences of underlying conditions such as diabetes mellitus, perivascular diseases, stroke, kidney diseases, chronic osteomyelitis and associated injuries (Wurdeman et al., 2018). Management of these underlying conditions is necessary to bring back the positive impacts on the individual's ability to function (Paisey et al., 2018).

One of the purposes of rehabilitation following amputation is to help amputees regain their everyday activities by reducing their reliance on others and increasing their mobility (WHO, 2018). As a result, a person who has had a lower leg amputated will be given a lower limb prosthesis to help them regain movement (Gravano & Lusardi, 2020). A prosthesis is an externally applied device made up of a single component or an assembly of components that is used to replace an absent or inadequate lower or upper limb segment whole or partially (ISO, 2015; WHO, 2018). The four most common types of prostheses includes the transradial and transhumeral prostheses, which replace a lost arm below the elbow and above the elbow respectively (Braza & Martin, 2020). Transtibial and transfemoral prostheses on the other hand are the two most common forms of lower limb prosthesis which are used to replace a lost leg below or above the knee respectively (Grimm & Potter, 2020). Technically, a socket, interface systems, joints, terminal devices, and a foot are few examples of prosthetic components (Kumar et al., 2017). Factors such as level of amputation, aetiology of amputation and activities of daily

living for persons with amputation are mostly taken into consideration in the prescription of the correct prosthesis components (O'Keeffe & Rout, 2019).

Another core component of rehabilitation programs for LLA is vocational rehabilitation (Tophoven et al., 2019; Wing, 2017). Regardless of one's disability, employment provides an opportunity for economic self-sufficiency, contributes to a sense of dignity and self-worth, and acts as a form of self-expression (Lamichhane, 2015). However, many disabled people in African countries do not have the same educational and training possibilities as their non-disabled peers (Odame et al., 2021). For example, youth with disabilities are commonly disadvantaged in their search for work and mainstream employment because they lack access to school or vocational training, or because teaching staff are not properly prepared, or because appropriate facilities are not accessible (UN, 2011). Lacking educational qualifications and training in marketable skills puts them at competitive disadvantage in their search for descent jobs (UN, 2011). Also, there may be perceptions that people with disabilities are unintelligent and slow to learn, or that changing the workplace to make it more disability friendly will cost firms money (Wolstenholm, 2019). These same stereotypes and prejudices that can lead to exclusion from school and occupational training can also generate extra impediments in terms of employment, as prejudices and stigma may be seen among many employers, co-workers and the general public (Ennion & Manig, 2019; Handy Eone et al., 2018).

Furthermore, living in a community as a disable can be very challenging as the real challenge begins after prostheses rehabilitation when the prosthetic user starts reintegration into the society (Toor et al., 2017). This is because community reintegration includes being independent, engagement in productive activities and participation in social activities (Maziriri & Madinga, 2016). Meanwhile, prosthetic users experience social stigmatization in their quest to

participate in social events. This form of stigmatization is a major factor affecting the level of adjustment in using a prosthesis within the community (Ibrahim et al., 2019). Although several educations against the stigmatization of persons with physical disabilities have been emphasized, natives within these communities still hold negative and wrongful perceptions about physical disability (Barbareschi et al., 2021). Subsequently, the overarching goal of this study is to explore the experiences of persons with lower limb prosthesis using the Social-Ecological model as guide.

1.2 Statement of Problem

Limb amputation has been noted to adversely affect the self-esteem of amputees and overtime diminishes their physical integrity (Bekrater-Bodmann, 2020). There is therefore an increasing quest to improve the quality of life of persons living with disability (W H O, 2015). However, whereas high income countries have embraced and implemented modalities to this effect, same cannot be said for low and middle income countries (Shakespeare, 2017). Apart from the advances in healthcare systems in high income countries, there is evidence to the effect that, these countries invest in disability research and thus care provision is based on the best available evidence (Needham & Dickinson, 2018). According to Quartey et al (2015), prosthesis usage has been noted to enhance the quality of life of LLAs. However, reliability and usability of these devices to achieve optimal outcome has remained the focus of the manufacturers of these devices (Kumar et al., 2017). Disability research currently focuses more on the rehabilitation process and the clinical suitability of the prosthetic devices (Niedernhuber et al., 2018). This has led to the flooding of the markets with various brands and types of prosthesis with scanty evidence on the adaptability of the prosthetic users. Prosthesis usage has been associated with

challenges such as discomfort from the prostheses, pain, skin damage and excessive sweating (Williams, 2020).

In Ghana, there is evidence to that, few studies have examined LLA (Baidoo & Debrah, 2016; Buunaaim et al., 2019; Kyei et al., 2015; Sarfo-Kantanka et al., 2019). The focus of these studies only centered on the causes and prevalence of LLA (Baidoo & Debrah, 2016; Buunaaim et al., 2019; Kyei et al., 2015; Sarfo-Kantanka et al., 2019). There is limited evidence on the experiences of persons with LLA with respect to prosthetic usage in Ghana. Usability, adaptability and the comfort associated with prosthesis use remains a subjective experience, and can only be described by what the prosthetic users perceive and understand these experiences to mean to them. This study seeks to explore the experiences of persons with lower limb amputation with respect to the use of prostheses in their everyday lives.

1.3 Purpose of the Study

This study explores the experiences of lower limb prosthetic users accessing care at a selected Orthopedic Training Center (OTC), Eastern Region.

1.4 Specific Objectives

1. Explore the individual level experiences of persons with lower limb prosthesis.
2. Describe family and peer level experiences of persons with lower limb prosthesis.
3. Explore community level experiences of persons with lower limb prosthesis
4. Describe structural level factors that persons with lower limb prosthesis experience.
5. Identify the coping mechanisms of persons with lower limb prosthesis.

1.5 Research Questions

1. What are the individual level experiences of persons with lower limb prosthesis?
2. Does the family and peers level factors have any bearing on prosthetic users' experience?
3. By what means does community level factors influence the experiences of lower limb prosthetic users?
4. What structural level factors affect experiences of lower limb prosthetic users?
5. In what way do persons with lower limb prosthesis cope with issues?

1.6 Significance of the Study

Exploring Lower limb prosthetic users' experiences will provide valuable information for evidence-based factors affecting lower limb prosthetic usage in Ghana. The findings of the study will provide information that can assist prosthetists and other rehabilitative service providers to understand the challenges of prosthesis use in Ghana. The result of the study will also provide further information for national policy decision making bodies to help in the provision of appropriate strategies aimed at improving employment, psychosocial and physical rehabilitation services for persons with LLA. Finally, the findings of this study will highlight some gaps in the rehabilitation process for persons with LLA, thereby establishing the need for continuous care following rehabilitation.

1.7 Definition of Terms

Lower limb amputation: is defined as the loss of a lower limb segment, either below knee or above the knee which can be congenital or can be caused by trauma or complications from a chronic illness, and cause permanent disability (Edelstein, 2014; Xiuqun & Yuru, 2019).

Transfemoral amputation: loss of a limb segment above the knee (ISO, 2015).

Transtibial amputation: loss of a limb segment below the knee (ISO, 2015).

Lower limb prosthesis: Externally placed device that replaces a missing or deficient lower limb section whole or partially (WHO, 2017).

Transtibial prostheses: is an artificial limb designed to replace a missing leg below the knee (ISO, 2015).

Transfemoral prostheses: is an artificial limb designed to replace a missing leg above the knee (ISO, 2015).

Internal stigma: this occurs when a person cognitively or emotionally absorbs stigmatization assumptions (Oexle et al., 2018).

Resilience: can be defined as the ability to adapt well in the face of adversity, trauma, tragedy, threats, or severe sources of stress such as family and relationship issues, serious health issues, work place or financial stressors (American Psychological Association, 2020).

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviewed already existing literature that is relevant and has a relation to the research topic. In the search for relevant publications and reports for this study, databases such as Scopus, ScienceDirect, MEDLINE, Pubmed as well as data at ISPO and WHO websites were seen as authentic sources in obtaining the needed and right information. Search terms or keywords used for the literature search were: “lower limb amputation”, “lower limb prosthesis” and “prosthetic users’ experience”. The chapter is comprised of the theoretical framework and review of relevant literature. The literature was reviewed according to the constructs of the Social-Ecological model.

2.2 Conceptual models underpinning the study

A conceptual model serves as a guide for the research, ensuring no deviation from the main objectives. Three possible conceptual models were considered for this study. They were:

1. The social model of disability
2. The International Classification of Functioning, Disability, and Health (ICF) model
3. The social-ecological model

2.2.1 The social model of disability

The social model of disability was discovered by Mike Oliver in 1983. This model of disability is not a traditional diagrammatic model like many psychological and sociological models. The model distinguished impairment and disability form a social constructionist perspective. According to Oliver (1983), impairment exists in the real physical world while disability exists in a realm beyond language but within the limitations imposed by the environment at a particular time and place.

The model posits that, although some individuals have physical or psychological impairment which can affect their ability to function in the society, these individuals are not disabled by their impairments. Instead, their impairments are caused by the existence of environmental, economic and cultural barriers existing within their societies which do not take into account their needs.

According to the social model of disability, the environment disables impaired people by not being accessible enough for them to move, function and communicate as effectively as their fellow human beings without impairments. Economically, society does not provide the same opportunities to people with impairments. Disabled people are more than twice as likely as non-disabled people to have no qualifications, and only about half of impaired people of working age who can work are in work, compared with 80% of non-disabled people of working age (Trust, 2005). Culturally, society lets impaired people down because of the prejudiced views and negative shared attitudes of the non-impaired community towards people with physical and psychological impairments.

The social model of disability was not suitable for this study because, the constructs in the model are limited to social determinants that may affect a person with disability, it does not emphasize on the individual's internalized factors that could affect a person with disability as well.

2.2.2 The WHO International Classification of Functioning, Disability, and Health (ICF)

The ICF model was first developed in the 1980's by WHO with the aim of revising the already existing International Classification of Impairment, Disability and Handicap (ICIDH) which focused on the consequences of disease instead of the disease itself (WHO, 2001). Unlike the ICIDH, the ICF concepts provide classification with neutral components ('activity' and 'participation') rather than using negative terminologies like 'Handicapped' (WHO, 2001).

The ICF posits that, health condition/disorder affects an individual's body function or structure which in turn results into activity limitation and participation restriction. The activity limitations and participation restrictions are not only the resultant of the health condition as they may also be influenced by environmental factors and personal factors which may either negatively affect or facilitate participation and activity performance. The contextual factors within the ICF, include aspects of the human-built, social, and attitudinal environment that create the lived experience of functioning and disability as well as personal factors such as sex, age, coping styles, social background, education, and overall behavior patterns that may influence how disablement is experienced by the individual.

This model was not selected for the study because the constructs in the ICF model are too complex and cannot be used as a guide to organize and achieve the objectives of the study

2.2.3 Social-Ecological Model

The social-ecological model was formulated by the Center for Disease Control (CDC) on July 13th, 2013. The model was primarily developed to better understand violence and the effect of potential prevention strategies. There are 4 levels in the socio-ecological model. The individual, families/peers, community and structural level. The model posits that the overall health experienced by individuals is a result of the equilibrium interactions between these various factors. The model's overlapping rings depict how factors at one level influence factors at another. Therefore, to promote the general wellbeing of people with a lower-limb prosthesis, it is important to understand the multi-faceted nature of problems they face through exploring their physical, psychological, social and economic well-being (Lasanthi et al., 2021). Additionally, adopting the Social-Ecological model approach to understand the experiences of persons using lower-limb prostheses could help program planners in decision making regarding rehabilitation efforts to address the personal and environmental factors affecting prosthetic users (Lee et al., 2017). Disability is defined as an interaction between a person with a health condition and their personal and environmental factors (Linden, 2017). Hence, to achieve better health outcomes for persons with lower limb prostheses, health prevention, control, and intervention programs should be well addressed (Razuvaeva et al., 2019; Rohwerder, 2018). According to the CDC (2013), it is necessary to take action against identified problems at the same time to yield optimum results.

Over the years, the social-ecological model has been adopted by researchers for studies amongst vulnerable groups. Notable among them is a study on "Classifying stigma experience of women living with HIV in Indonesia through the social-ecological model" (Ismail et al., 2020). The four interconnected factors at the individual, family/peer, community, and structural levels that determined the experiences of vulnerable groups like HIV-positive women were also used in

this study. In addition, the framework has been modified in areas such as health promotion (Bogardus et al., 2019), violence prevention (DeGue et al., 2012; McDaniel & Sayegh, 2020); community reintegration (Elnitsky et al., 2017), and education (Naylor et al., 2006; Register-Mihalik et al., 2017).

The social-ecological model was deemed appropriate for this study because its constructs (individual level, family/peer level, community level and structural level) highlight the overall wellbeing as experienced by an individual.

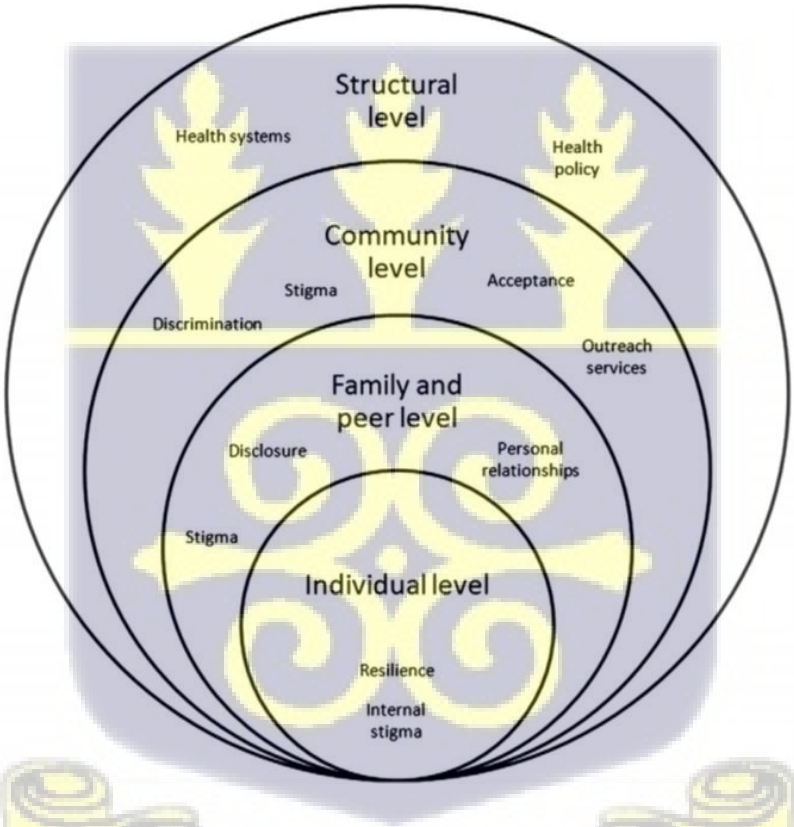

Figure 2. 1 The Social-Ecological Conceptual Framework (CDC, 2013)

2.2.3.1 Individual level factors

The individual level of the social-ecological model identifies the individual's biological and personal history factors that increase the likelihood of becoming a victim or perpetrator of violence. Some of these factors include age, history of physical disability, occupation, substance abuse and history of abuse. Identification of these factors could help the individual engage in learning a vocation or education which can prevent them from being violated. This will in turn also promote positive attitudes and believes for the individual's mental health.

The social-ecological model has been adopted in the area of health for this study. The individual level of the social-ecological model in this study explains the individual experiences of persons with lower limb prostheses following prostheses rehabilitation and subsequent reintegration into society. How individuals adjust and respond to the life experiences such as physical, psychosocial, economic and cultural concerns of amputation is a major determinant of a prosthetic rehabilitative outcome. Therefore, exploring the interactions between these factors is important in ensuring a positive health outlook for persons with lower limb prostheses. Furthermore, the individual level also explains the measures available that the individual with lower limb prostheses can rely on to experience life to the fullest.

2.2.3.2 Family/Peer level factors

Family and peer is the second level in the social-ecological model. This level illustrates how family and peer interactions can raise the chance of being a victim or perpetrator of violence. The likelihood of an individual suffering violence at this level is determined by his or her closest social circle—peers, partners, and family members. To increase family support, promote positive peer behaviors, and promote healthy relationships, violence prevention at this

level relies on good family-focused prevention programs, mentoring, and peer positive support groups.

In this study, the family/peer level discusses what the prosthetic user goes through when interacting with his family and peers.

2.2.3.3 Community level Factors

Community is the third level of the social-ecological model. This level delves into the environments where social relationships take place and can lead to violence, such as schools, workplaces, and neighborhoods. The identification of these structures can aid in the development of preventative efforts to improve the physical and social environment. For example, by building safe locations for people to live, work, and play, as well as addressing other factors that contribute to community violence.

The third level in this study explains the experiences of prosthetic users within their community. It is also identifying the community support systems available for persons living with a disability within the geographical area in which they find themselves.

2.2.3.4. Structural-related factors

The fourth level of the social-ecological model examines the broad sociocultural elements that contribute to a climate that encourages or discourages violence. Structures inside society, such as socio-cultural norms, that support violence as an acceptable means of resolving conflicts are among these variables. Other large structural factors include economic, educational, and healthcare systems that contribute to the perpetuation of social inequalities among groups in society. This level also identifies available health policies for the disabled and other vulnerable groups. Violence preventive strategies at this level include efforts to strengthen policies that affect the structural determinants of health.

The fourth level of the social-ecological in this study looks at the structural factors that impact the prosthetic users' experiences within the society. These structural factors consist of health policy and health system. Health system is the experiences of the prosthetic users within the health system (i.e., health facility etc) while the healthcare policy includes the educational and employment opportunities available for people living with a disability within the society

2.3. Individual Level Experiences of Lower Limb Prosthesis Users

Aside the physical mobility issues such as difficulty in walking (Järnhammer et al., 2018; Magnusson & Ahlström, 2017), due to pain (Jacobs et al., 2018), sweat and sores on the skin produced by using the prosthesis in hot weather (Williams, 2020), individuals with lower limb amputation who have undergone prosthetic rehabilitation often feel disconnected from their usual life and the beginning of a different life (Norlyk et al., 2016). This loss of mobility and the dependence on a prosthesis and walking aids leads to feelings of self-pity and subsequently, reduced quality of life (Quartey et al., 2015).These self-pity and low quality of life experienced by prosthetic users can lead to attitudinal barriers including prejudice and stereotype which can result in stigma (Rohwerder, 2018). At the individual level, the socio-ecological model classifies lower limb prosthetic users experience into internal stigma and resilience.

Internal stigma occurs when a person cognitively or emotionally absorbs stigmatization assumptions (Oexle et al., 2018). For internal stigma to occur, the individual internalizes the stigma, perceives a loss of control, and accepts ridicule. Internalized stigma has been associated with several negative outcomes including self-perception of shame, guilt and fear, avoidant coping, social avoidance, decreased hope (Bradstreet et al., 2018; Corrigan et al., 2016; Huggett et al., 2018). Internal stigma manifests itself in two ways for lower limb prosthetic users. Those based on "physical" parts of the self, such as body and visual appearance, as well as those based

on "behavioural" aspects of the people they contact with, such as how people treat them. Regarding prosthetic users' experiences of internal stigma based on physical aspects of the self (body and visual appearance), it has been documented in studies that prosthetic users have expressed dissatisfaction with the appearance of their prosthetic leg and believe that it has a negative impact on their body image (Vlachaki, 2019). In the same study, prosthetic users said whenever someone they are interacting with notices that they are using an artificial leg, they begin to experience self-induced nervousness due to the unattractive appearance of the prosthetic leg. In a related study, it was revealed that, to avoid being stigmatized by conveying the wrong message to people, prosthesis users chose to remove their prostheses and instead use crutches (Vlachaki et al., 2020). However, the removal of the prostheses made them aware of the prostheses' unattractive appearance, the contour of their bodies, and how the prosthetic cover interacted with their clothing. Therefore, prosthetic users tried to conceal the prostheses so that it does not negatively affect their self-image as this makes them anxious (Vlachaki et al., 2020). Similarly, a study revealed that prosthetic users were worried about the colour fluctuations between their bodies and the prostheses (Cairns et al., 2014).

Concerning internal stigma experiences based on the behavioural aspects (the way people behave towards them), prosthetic users expressed fear of being judged and seen as an outsider by the society as a major contributor to internal stigma. They refrained from going to public places because of anticipatory negative reactions from people (Abouammoh et al., 2021). As a result, prosthetic users' manifest feelings of mental distress and dissatisfaction with life and sufferings of life (Lasanthi et al., 2021). In addition, they experience feelings of hopelessness, depression, and body image distress (Luza et al., 2020; Webster et al., 2012). These occurrences could result in various psychological consequences such as depression sleep disturbances and suicidal

thoughts (Zaheer et al., 2020). Similarly, another study in Mexico revealed a high incidence of suicide attempts and depression among persons with lower limb amputation (Arias Vázquez et al., 2018). Internal stigma has a great negative impact on the prosthetic user's ability to cope and live a productive life. Therefore, understanding how internal stigma develops, how it is maintained and how it interacts with other psychological and behavioural processes is important for identifying and developing interventions to reduce internal stigma amongst persons with lower limb prosthesis (Razuvaeva et al., 2019).

Despite the challenges of self-induced stigmatization experienced, studies showed some level of resilience exhibited by prosthetic users at some point in their life (Walsh et al., 2016). Resilience here means, the ability to bounce back from tragedy, disruptive change and failure (Masten, 2001). It is thought that our inherent attributes, attitudes, and behaviors drive our resilience (Shambaugh, 2010). Therefore, when people face setbacks and disappointments in life, it is the resilient element that helps them get back on course and pushes them to pursue their goals rather than becoming disheartened and giving up (Shambaugh, 2010). Also, a study by Walsh et al., (2016) indicated that, resilient people are more likely than non-resilient people to maintain or develop personally meaningful objectives, interests, and experiences that might promote well-being and alleviate suffering following a catastrophic handicap. Similarly, in a study of 'being just normal', (Jefferies et al., 2018), explained that, prosthetic users kept living normally despite the difficulties that came along with being a prosthetic user. The above assertion showed that, they were often concerned with being able to live in a way that is perceived as right and normal (Jefferies et al., 2018). In addition, amputees were still able to maintain positive self-esteem despite their body image (Mireille & FOJE, 2019). Also, lower limb amputees who were resilient during the rehabilitative phase, accepted their prosthesis more

than expected (Ibrahim et al., 2019; Livingstone et al., 2011). Furthermore, persons with lower-limb amputations often come to an understanding that this is how life is generally going to be for them and therefore come to terms with their new life and work towards achieving better outcomes (Abouammoh et al., 2021). Resilience can boost an amputee's self-esteem and is required to use a prosthesis successfully (Amorelli et al., 2019; Norlyk et al., 2016; Pereira et al., 2018). However, many amputees build resilience by the use of unhealthy coping mechanisms like substance abuse which may later cause separate health conditions for them (Kearns et al., 2019). The capacity to recover quickly from difficult situations is crucial for lower limb prosthetic users (Walsh et al., 2016). Therefore, it is necessary to develop psychological intervention programs geared towards resilience promotion at rehabilitative centres for lower limb prosthetic users (Newcomb et al., 2018).

2.4. Family/peer level experiences of lower limb prosthesis users

Family and peer relationships define individuals' perception of the family/peer group as a source of support (Paul, 2018). Belonging to a family is an essential part of human life and the relationship that exists between family members is varied. Individuals become part of a family either by blood or acquaintance (Engels, 2021). Most often, individuals within a family expert their sense of belongingness to be respected within an atmosphere of acceptance and support (Amoah et al., 2018). Peer connection also refers to a friendship or relationship built on mutual respect, appreciation, and liking (Reichmann & Bartman, 2018). However, being disabled and having one's family or peers express their love and support might help one overcome the challenges that life throws at them. The family and peers play a vital role for a person with lower limb amputation, acting as their support system at a crucial time (Paul, 2018). Consequently, a lot of things may change when independent people may now become very dependent on others,

requiring extra care. Studies revealed that, in situations where members of the family or peers are unable to cope correctly with these changes, it may have a very devastating effect on the prosthetic users (Khan et al., 2019). On the other hand, families and peers of prosthetic users may provide a lot of positive reinforcement that goes a long way to generate positive prosthetic fitting outcomes (Newcomb et al., 2018). The support from family members, spouses, children and friends was in the form of offering advice, giving assistance with activities of daily living and financial help which motivated the use of the prosthesis (Amoah et al., 2018; Amorelli et al., 2019; Gonçalves et al., 2017). Studies revealed that social support from significant family relations induced satisfaction with prosthesis use and enhanced positive self-esteem of persons with lower limb prostheses (Handy Eone et al., 2018; Hawkins et al., 2016; Kizilkurt et al., 2020). Furthermore, concerning peer support, a study discovered that successful peer support groups where resilient prosthetic users help new patients through the rehabilitative process have proven to improve positive outcomes of prosthetic users (Reichmann & Bartman, 2018). Another study reported that prosthetic users were able to participate in games and other societal hobbies as the number of their friends increased as their colleagues and friends felt sympathy for them (Handy Eone et al., 2018). Similarly, in a study on being a peer support mentor for individuals with lower limb amputation, Richardson et al (2020), found that lower limb amputees who received support from peers previously expressed positive feelings of being valued through helping others. Also, a study done in New York showed that amputees who joined peer support groups, developed a strong social relationship, learned new skills about living as an amputee and also gained mobility and functionality to return to their normal life (Nathan & Winkler, 2019). More so, family and peers support prosthetic users financially due to the loss of jobs. Studies revealed that the socio-economic burden of amputation and the ensuing prosthetic fitting is

usually lessened by family/peers who take up part of the cost (Sayeed et al., 2021). In addition, before amputation till the time of prosthetic fitting, family and peers act as caregivers (Newcomb et al., 2018).

Although family and peers may provide the most support for prosthetic users, they may also contribute to the discrimination and stigmatization that persons who wear lower limb prostheses face (Milačić-Vidojević et al., 2017). Stigma at the family/peer level of the ecological model describes the discrimination experienced by prosthetic users from their family and friends. In a study by Milačić-Vidojević et al (2017), prosthetic users reported being perceived as outsiders by members of their family and friends. Prosthetic users were neglected by family members and peers especially in the early stages of their disability (Andregård & Magnusson, 2017). The same study found that, prosthetic users were usually prevented from carrying out some duties that they could perform on their own with the aid of a prosthesis by family members who considered them as fragile (Andregård & Magnusson, 2017). Although these feelings may be coming from a genuine mindset, they make the prosthetic user feel useless which can be a source of great despair for them (Walsh et al., 2016). More often than not, prosthetic users feel they have become a burden for their families whom most of the time abandoned them (Day et al., 2019; Mitchell et al., 2020). Also, about 50% of prosthetic users were neglected by family members and peers especially in the early stages of their disability (Andregård & Magnusson, 2017).

Another important aspect of prosthetic users is in building a relationship with people around them. A relationship is how two or more people behave towards each other (Robinson et al., 2021). Relationship comes in the form of dating, marriage, intimacy and friendship (Gottman, 2014). Choosing a life partner and someone to share love and intimacy with is an

important aspect of human life (Mayseless & Keren, 2014). However, persons with a disability seem to avoid relationships with the opposite sex due to the fear of being avoided or shunned (Ward Khan et al., 2021). More often, prosthetic users experience difficulty in finding marriage partners and they are usually the object of fetishization by others (only good for sex and fit to be discarded immediately after) (Morales et al., 2016). Also, some prosthetic users shut down and avoid starting a family of their own with a life partner. They were afraid of rejection and embarrassment (Ward Khan et al., 2021). A study by Verschuren et al., (2016), showed that some lower limb prosthetic users become worried about their sexual partners leaving them and they felt hopeless about being able to start a new relationship due to their physical disfigurement (Verschuren et al., 2016). In the same study, prosthetic users were also concerned about changes in sexual intimacy and traditional gender roles due to difficulty in assuming previously enjoyed sex positions. Meanwhile, lack of sexual gratification is a major source of frustration for persons using lower limb prostheses (Ward Khan et al., 2021). Milačić-Vidojević et al., (2017), identified another area in which prosthetic users experience relationship problems as the role of a parent. In their study, it was discovered that, a parent's disability state can have an impact on official judgments about child custody (Milačić-Vidojević et al., 2017).

2.5. Community Level Experiences of Lower Limb Prosthesis Users

The community level explains the experiences of lower limb prosthetic users in society. Apart from the physical challenges at the personal level, lower limb amputees also experience varying degrees of challenges ranging from reintegration into his/her daily activities, how they are accepted back into their societies, diminished social relations and avocational tendencies (Rathore et al., 2016; Toor et al., 2017). Some of such challenges at the community level may manifest in stigmatization, environmental barriers, discrimination, and community support.

Notably, these challenges usually occur not mutually exclusive of each other and affect the social and psychological recovery processes of these amputees.

Community level stigma can be described as the tag of discredit and labelling that is associated with people especially the marginalized in the community (Oexle et al., 2018; Tabah et al., 2014). Living in a community as disabled can be quite challenging (Maziriri & Madinga, 2016; Uromi & Mazagwa, 2014). Community level stigma comes in the form of name-calling, being treated as an outcast, being mocked at, being looked down upon and being mimicked by children (Barbareschi et al., 2021). Although several education against the stigmatization of persons with physical disabilities have been greatly emphasized, natives within these communities still hold negative and wrongful perceptions about physical disability (Barbareschi et al., 2021). A study in Sierra Leone emphasized that participants were mocked and provoked when participating in the community (Andregård & Magnusson, 2017). Similarly, a study in South Africa by Wegner & Rhoda (2016), reported that people with disabilities face stigmatization in accessing public structures because they are perceived as being the cursed ones. Lower limb amputation and the use of prostheses comes with psychological trauma which often affects the recovery and rehabilitation process (Roșca et al., 2021). The trajectory of stigma against marginalized individuals in society in both high income and low- and middle-income countries has been well documented. Findings from a study in Poland for instance revealed that, disabled people were denied representation in public space which led to social isolation (Borowska-Beszta, 2019). Similar findings in Africa have been well documented, and community level stigma has been noted to significantly affect the acceptability to initiate prosthesis use after limb amputations (Aaron et al., 2021; Ibrahim et al., 2019). In other related studies, community level stigma was explored to include stigma by association, where close

relatives of marginalized individuals experienced stigma based on their relationships with marginalized individuals (Vlachaki et al., 2020). Whereas some studies suggest that, stigmatization of prosthesis users is a universal phenomenon that must be expected, other studies attribute community level stigma to the overall makeup of society. Individuals in individualistic society have more favourable attitudes toward people with impairments than those in collective societies, where community aims take precedence over individual ones (Vlachaki et al., 2020). The feeling of vulnerability within the community setting momentarily affect the level of adjustment in using a prosthesis.

In addition, despite the advances made in prosthetic use as a gold standard rehabilitation modality for lower limb amputees, lower limb amputees still suffer discrimination in relation to the cost of prosthetic services which significantly impacts the rehabilitation process globally (Arifin et al., 2017; Ennion & Manig, 2019). In Sub Saharan Africa where disparities in access to healthcare remains a major challenge (Doctor et al., 2018), access and cost of healthcare for prosthetic users significantly impacts their livelihoods. Apart from the cost of the fitting prosthesis, maintaining the prosthesis comes at a cost that is mostly not covered by the public health insurance systems (Moibi, 2018). This situation is often compounded by the low employability prospects of individuals with lower limb prostheses (Järnhammer et al., 2018). Similarly, a study by Ennion & Manig (2019), indicated participants were excluded from being employed because of their disability status. More so, most prosthetic users have lost their jobs mainly due to excuses like 'staff reduction', or voluntary resignation because they cannot stand the eyes of others and they felt unfit in their workplaces (Handy Eone et al., 2018).

Furthermore, individual prosthetic users also experience a wide range of unfavourable environmental structures within the community. An interplay between personal and

environmental enablers have been associated with an increased level of adjustment and a positive attitude towards prosthetic use among lower limb amputees (Batten et al., 2020). Environmental barriers such as terrain, crowds, finances, unwanted attention, play significant roles in an individual's level of adaptation to prosthesis use (Batten et al., 2020; Stuckey et al., 2020). Studies revealed that prosthetic users experienced environmental challenges such as the inability to walk on tiled floors, muddy roads, stony grounds, climb stairs and story buildings (Batten et al., 2020; Stuckey et al., 2020). Similarly, a study by Hafner et al., (2016), revealed that lower limb prosthetic users described walking in public places as 'scary' because they mostly become afraid of falling over stairs. In the same study, it was revealed that prosthetic users expressed difficulty in walking on slippery floors which prevent them from going to the shops and other places where tiles are used for the ground (Hafner et al., 2016). Another study found that people with disabilities have challenges related to limited living opportunities such employment, housing, health care, education, shopping, leisure, and recreational activities (Milačić-Vidojević et al., 2017). Also, a study by Torkia et al., (2015), showed that persons with physical disabilities had difficulties accessing and using public buildings or facilities such as KVIP as well as problems of unforeseen events. Consequently, they are limited to enjoying equal opportunities as the abled people.

Also, findings from secondary data analysis to determine the influence of environmental barriers on the lives of lower limb amputees revealed that, despite rehabilitation, these amputees encounter challenges in participation restriction in sporting and other leisure activities, cultural activities as well as certain job opportunities that require prolonged standing (Gallagher et al., 2011). Barriers in the environment predictably worsen the feeling of self-disgust among lower limb prosthetic users over time (Burden, 2016). Whereas the focus of rehabilitation after lower

limb amputees primarily remains to promote physical functioning, social integration has not received much attention, especially in sub-Saharan Africa due to existing cultural perceptions regarding disability (Aaron et al., 2021).

Despite the challenges regarding stigmatization and discrimination, participants also received some support from their communities. Community support is believed to be a well-established stress buffer for persons with amputation (Anderson et al., 2017; Knepper & Arrington, 2020). Social integration has been noted to have a positive association with increasing quality of life and promoting activity participation (Xiuqun & Yuru, 2018). Researchers in an attempt to determine the association between community support and outcomes of amputation found that patients with high community integration were more likely to ambulate than those with low community integration (Hawkins et al., 2016). Social support systems, therefore, have a great impact on the lives of prosthetic users (Knepper & Arrington, 2020). Community support from church leaders, individuals' government and Non-Governmental Organizations (NGOs) supports usually come in the form of grants to secure or repair the prosthetic feet, vocational education, foodstuffs and sometimes job opportunities (Bekmansurov et al., 2019; Ennion & Manig, 2019).

2.6. Structural Level Experiences of Lower Limb Prosthesis Users

Access to health care facilities for people with disabilities is a difficult problem facing all nations but the challenges are greater in low-income countries (Munthali et al., 2019). Notable among these challenges include stigmatization and discrimination and attitudinal barriers (Martinez-Hume et al., 2017). Interpersonal stigma in the healthcare sector stems from healthcare providers who have the power to stigmatize and exclude others (Major et al., 2018) . This stigmatization can stem from the providers assumptions about attributes such as race, class,

gender, illness and disability status of the patient (Rai et al., 2020). A research in Ghana, for example, found that healthcare providers were impolite, insensitive, and unprepared to address the healthcare requirements of people with disabilities (Ganle et al., 2016; Hashemi et al., 2020). In a related study by Kabia et al., (2018) report showed that persons with disability experienced prejudice and negative attitudes from healthcare providers. In their study, disabled people reported that due to the nature of their disability, they needed an additional assistance but some healthcare providers were unwilling to offer the extra help needed which made them felt disempowered (Kabia et al., 2018). Similar report from a Ghanian hospital indicated that, 71% of people with disabilities have faced discrimination from healthcare providers in the form of derogatory remarks, frustration, and unavailable services because of their disability, the type of service they require, and the location of these services (Badu et al., 2017). Another field of stigmatization by healthcare professionals towards persons with disability is privacy concerns. For instance, a study by Richards et al., (2016) on prevalence of healthcare-related stigma among veterans reported that participants were worried about healthcare professional not providing privacy for them which deterred them from seeking healthcare services. The stigma associated with disabilities has been proved to have genuine and serious health repercussions (Rai et al., 2020). Health care stigma, for example, has been linked to underutilization of treatment, infrequent routine check-ups, delaying seeking care, avoiding essential tests, illness progression, and a lower quality of life (Martinez-Hume et al., 2017).

Nevertheless, other studies also reported positive attitudes by some healthcare providers. For example, a study conducted in China revealed that medical staff provided care and support for amputees which aided them to accept their new face of life (Xiuqun & Yuru, 2018). Also, a study in Malaysia which showed that, majority of people living with physical disability said that

there was positive attitude displayed by healthcare professions towards them (Ismail et al., 2020). In a systematic assessment of healthcare students' and professionals' views toward disabled patients, it was discovered that healthcare students and professionals had overall more favorable opinions about disabled people (Satchidanand et al., 2012).

Health policy concerns is an important aspect regarding the structural level factors affecting the prosthetic user's ability to experience life to the fullest. Ghana is a signatory to the United Nations Convention on the Rights of Persons with Disabilities, and the Persons with Disability Act 715 was enacted to ensure compliance. The statute ensures that people with disabilities have access to the same or a specialized range, quality, and standard of healthcare as other people. The statute mandates that the Ghanaian Ministry of Health provide free general and specialist medical care, rehabilitative treatment, and suitable assistive assistance to people with disabilities. Despite considerable campaigning for the inclusion of persons with disabilities' needs in national policies and programs, they continue to face discrimination in a variety of ways. It is therefore imperative for disables to know their rights against public discrimination (Australian Human Rights Commission, 2016). For example, people living with lower limb disability experienced pain and discomfort for standing in long queues when accessing healthcare facilities (Munthali et al., 2019). Other studies revealed that, people living with lower limb disabilities described the hospital infrastructure as unfriendly to disables as they had to struggle through walking on steep staircases (Ganle et al., 2016; Hashemi et al., 2020). Another health policy concerns of persons with lower limb prosthesis are the high cost of prosthetic services. Studies in Ghana revealed the high cost incurred in accessing prosthesis services since the National Health Insurance Scheme (NHIS) does not entirely cater for the prosthetic rehabilitation service (Moibi, 2018). Other related studies also emphasized on the high cost of

orthopedic devices for persons with lower limb prosthesis (Donnelley et al., 2021). Long distance to access rehabilitative services is also a major problem facing persons with physical disability. Studies reports showed that only half of Ghanaians can reach a facility capable of providing basic orthopedic care within an hour from their homes (Stewart et al., 2016).

2.7. Coping Mechanisms of Lower Limb Prosthetic Users

Coping can be defined as conscious or unconscious strategies used to reduce unpleasant emotions or deal with difficult situations (Townsend & Wells, 2019). More often than not, lower limb amputation can result in psychological and socio-economic sequelae. These experiences of extreme sadness, anxiety, rage (directed towards self, family or caregivers) depression, denial and shock can be overwhelming for them (Pereira et al., 2018). Coping strategies however play an important role in recovery following such devastating events (Dančová et al., 2019). Coping strategies are therefore substantial determinants of outcomes such as well-being, quality of life, recovery and depression (Greenaway et al., 2015). Some common coping strategies include accepting the situation, planning steps to solve the problem, seeking social support, using humour (Blum et al., 2012), listening to music, reading, sharing one's thoughts with others (Durnford, 2015). A study by (Pereira et al., 2018), indicated that individuals with prostheses used more self-distracted strategies such as watching television, exercising, reading or engaging in pleasurable activities to overcome negative challenges in life. Another form of coping is by turning to religious believes. This was evident in studies that showed participants coped by believing that their situation was willed by God (Amoah et al., 2018; Burley & Thurman, 2019). Other ways of coping include planning steps to solve the problem (Blum et al., 2012). A study revealed that prosthetic users devised various strategies to walk around with the prosthesis though it requires careful attention (Couture et al., 2012). These forms of coping strategies were

noted to be a life-saving method that has positive outcomes for persons facing traumatic stressors like amputation

Other studies have discovered coping strategies like avoidance, denial, self-blame, venting feelings, or withdrawing from social support, as well as unhealthy coping methods like alcohol or drug abuse as a dysfunctional way of dealing with challenges (Simpson, 2016). A similar study also revealed a high level of substance use among persons with limb amputation as a means of coping (Kearns et al., 2019). These unhealthy ways of coping can be detrimental to participants health and increase more psychological outcomes like anxiety and depression (Rodriquez et al., 2017). Studies reveal that, even though alcohol and other forms of the drug can temporally make the patient forget his/her misery when the pain eventually subsides or the drug wears off, the substance abuse is likely to continue as it has been learned over time (Blum et al., 2012). This process can lead the patient into an increasingly constricted, unsatisfying lifestyle in which the behaviour continues to become the main focus of attention.

Notwithstanding, coping may have serious effects on the satisfaction with life amongst prosthetic users if the problem-solving abilities of a prosthetic user are not effective. In an attempt to help amputees cope, a study by Belon & Vigoda (2014), developed relaxation skills for participants. In their study, patients were taught a range of ways to relieve physical tension, manage anxiety, regulate pain, and distress themselves, allowing them to feel more empowered and in control of their lives (Belon & Vigoda, 2014). In addition, positive outcomes have been associated with communicating one's feelings to someone. Amputees are encouraged to speak with people who are good listeners, have a positive attitude, and are concerned about their best interests (Durnford, 2015). According to the same study, amputees should also seek feedback

because, it is through listening that people learn how they truly feel, what their amputation means to them, and how to go on (Durnford, 2015).

2.8 Summary of Literature

Lower limb amputation (LLA) is mostly done to restore function or as a life-saving procedure for complex fractures or infections of the extremities (Huang et al., 2011). Despite advancement in medicine and surgery worldwide, LLA continues to be a large problem among adults (Pran et al., 2021). From literature, the major causes of amputation are trauma resulting from road traffic accidents and complications of diabetes mellitus (Isaacs-Itua & Sedki, 2018; McDonald et al., 2020). LLA is noted to cause a sudden change in the body's form (Vlachaki, 2019). Prostheses prescription to replace the lost limb improves their quality of life (O'Keeffe & Rout, 2019). Prosthetic users still suffer numerous physical and psychological problems stemming from individual, family and peers, community and the structural or healthcare institutions they attend. Literature revealed experiences of stigmatization directed towards prosthetic users themselves (Bradstreet et al., 2018; Huggett et al., 2018). The family/peer's level stigma came in the form of neglect and being regarded as weakling (Andregård & Magnusson, 2017; Mitchell et al., 2020). Community level stigmatization was in a form of labelling, being mocked and being mimicked by children (Barbareschi et al., 2021; Oexle et al., 2018; Tabah et al., 2014). Structurally, literature has proven poor attitude from healthcare service providers and lack of health policy implementation for prosthetic users (Badu et al., 2017; Richards et al., 2016). Support for prosthetic users came from family and peers (Amoah et al., 2018; Amorelli et al., 2019), religious leaders as well as NGO's (Bekmansurov et al., 2019; Ennion & Manig, 2019). Most prosthetic users resorted to recreational activities as a form of coping mechanism (Pereira et al., 2018), while others used unhealthy coping mechanisms such as substance abuse

(Kearns et al., 2019; Simpson, 2016). This compounded their problems as some of them suffered depression and suicidal thoughts. Hence, the purpose of this study is to explore the experiences of lower limb prosthetic users at a selected orthopedic center in Eastern Region, Ghana, based on the 4-levels of the social-ecological model.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This section described the methodology that was employed to achieve the research objectives. The setting, target population, sample and sampling technique(s), data collection methods and data analysis plan is discussed. The chapter also explained how ethical conduct and methodological rigor (Trustworthiness) was ensured.

3.2 Research Design

A qualitative exploratory research design was deemed appropriate for this study. This is because little is known about the phenomenon of interest (Gonçalves Junior et al., 2017; Polit & Beck, 2009). The researcher aimed at gaining new insights, discover new ideas, and to describe the phenomenon under study in its natural environment. Hence the Orthopedic Training Center was used as the natural setting for this study as participants identified with the environment and felt comfortable. The qualitative approach enabled the researcher to probe into the life experiences of persons with LLA and unearth issues regarding prosthetic usage. 'Qualitative research entails reporting how individuals talk about things, describe them, and perceive the world' (Creswell & Báez, 2020).

3.3 The study setting

The study was conducted at the Orthopedic Training Centre (OTC), located in Nsawam Adoagyiri in Eastern Region of Ghana. The center was established by Brother Tarcisius de Ruyter (SVD), Divine Word Missionaries in 1961. OTC is, by far, the most recognized centre for providing assistive devices and rehabilitation services for persons with physical disabilities in Ghana. It was established purposely to meet the needs of physically disabled persons in terms of

providing assistive devices and rehabilitation services in Ghana and other countries in West Africa. From the OTC's 2020 annual report, over 7000 persons received mobility-enhancing orthopedic and prosthetic appliances and intense physiotherapy treatment in 2020. Out of this number, 1,751 amputees received new prostheses. OTC was chosen for this study because it is the most preferred place for persons with lower limb amputation requiring prosthesis from all sixteen (16) regions in Ghana. Hence, the researcher had access to a variety of individual experiences of lower limb amputation in relation to prostheses usage.

3.4 Target population

The target population in this study was the entire set of persons who meet the sampling criteria for the study. Participant included all persons with lower limb amputation who received prosthetic treatment from the OTC as the target population.

3.4.1 Inclusion Criteria

1. Persons with lower limb amputation who were at least >18 years old.
2. Persons with lower limb amputation who are at least 9 months post-discharge from the OTC were recruited for the study.

   This is because the time taken for persons with amputation to return to the community/ work ranges from 9 months to 3 years (Hebert & Burger, 2016).

3.4.2 Exclusion criteria

Exclusion criteria are characteristics of research participants who meet the inclusion criteria but have extra traits that may jeopardize the study's success or raise their likelihood of a negative outcome (Patino & Ferreira, 2018). This study excluded all persons with lower limb

amputation who were discharged from OTC but are known to have an underlying mental condition.

3.5 Sampling Size

The sample size was 17. This was determined during the data collection where the researcher reached saturation because no new topics or issues arose. 'In interview, when the researcher begins to hear the same responses again and again, data saturation is reached' (Francis et al., 2010).

3.6 Sampling Technique

Purposive sampling technique was used to select participants who met the inclusion criteria. This technique was chosen because it focused on gathering information first hand which provided needed data for the study (Etikan & Bala, 2017).

3.7 Data Collection Tool

The study made use of semi-structured interview guide that was developed in relation to the specific objectives of the study with reference from a previous related study (Morgan et al., 2020). The interview guide was also reviewed by experts in qualitative research. The questions were open-ended with probes to seek additional information and clarifications on some responses from participants. The purpose of an in-depth interview is to allow the participants to describe their experiences in their own words (MacDougall & Fudge, 2001). The interview guide consisted of two parts; A and B. Part A gathered data on demographic characteristics and Part B are open-ended questions with probes on knowledge on experiences of persons with lower limb prosthesis (Appendix F and G).

3.8. Pre-testing the Instrument

Pretesting is the process of conducting evaluation research before the main study takes place (Knapp, 2016). A pre-test was conducted at the St. Joseph Hospital (Orthopedic clinic) to assess the accurateness, clarity and efficiency of the interview guide. The instrument pretested to determine whether participants' responses provided answers to the objectives of the study. Also, pre-testing the instrument got rid of all ambiguities in the questions by reframing some the interview questions. In some instances, the interview guide was restructured. Based on the outcome of the pre-test, all biases were noted and errors corrected with the assistance of supervisors. Three lower limb prosthetic users who met the inclusion criteria indicated above were recruited for the pre-tests.

3.9 Data collection procedure

Ethical approval was sought from the Christian Health Association of Ghana Institutional Review Board (CHAG-IRB06022020). An introductory letter from the School of Nursing and Midwifery (SoNM) was sent to the management of the Orthopedic Training Center, Nsawam Adoagyiri. Informed written consent was also sought from the prosthetist and orthotists at the center. Participants within the inclusion criteria were selected for the study. The purpose of the research was explained and participants who agreed signed a consent form. The interview was conducted in English language and Twi. The interviews lasted between 30 minutes to 1 hour. Two voice recorders were used simultaneously for recording the interviews, one as a backup to avoid loss of information collected. Field notes was used to capture non-verbal and facial expressions during the interviews and also to support with data analysis. Interviews were conducted in two places chosen by participants (OTC and participants homes) to ensure privacy and limited interruptions. Both researcher and participants wore face mask and used hand

sanitizers to maintain COVID-19 protocols. Data collection ended when saturation was reached as no new responses emerged from the interviews

3.10 Data management procedure

The interviews were audio taped and transcribed verbatim and field note was taken. The audio recordings were downloaded on a personal computer and saved. To ensure confidentiality, data saved on the computer was secured with a password. The data collected was transcribed by the researcher herself to minimize other people's access. All hard copies of the data are locked in a cabinet with the key.

3.11 Data analysis procedure

Data analysis in qualitative research is the systematic process of making meaningful deductions from the available information generated from transcripts and field notes (Sanders et al., 2020). Data collected in this study was analyzed using thematic content analysis approach (Braun & Clarke, 2013). Thematic content analysis by Braun & Clarke (2013), involves analyzing transcripts into themes. According to (Braun & Clarke (2013), thematic content analysis involves seven steps.

First, the recorded interviews were transcribed. The transcribed data was then carefully read to ensure familiarization with the data in the second step. Thirdly, the initial codes were generated and in the step four, the codes were organized into appropriate themes. In the fifth step, themes were then reviewed in consideration with the codes. At the sixth step, the themes were defined and named. After which the report was well written. The conceptual model used for the study guided the development of the themes and sub-themes. In all, 5 themes and 19 sub-themes were generated and summarized (Table 4.2). The themes and sub-themes were revised

repeatedly, double-checked with the transcripts and the conceptual model to ensure consistency and accuracy.

3.12 Methodological Rigor

Methodological rigor or trustworthiness is essential for evaluating the qualitative findings of a research. Rigor refers to a researcher's capacity to conduct and report on a study with competence, integrity, and ethics (Tobin & Begley, 2004). To maintain the quality of a social research, truth value, applicability, consistency, and neutrality are used. The four indicators identified to maintain trustworthiness are known as credibility, transferability, dependability and confirmability (Shenton, 2004).

Credibility: this is about describing the experiences of the participants truthfully. To ensure credibility, the researcher met the participants prior to the research to familiarize with their environment and to establish a trusting relationship with them. The interviews were conducted face to face and participants were engaged long enough to ensure in-depth information is collected. After coding, the researcher made sure to transcribe the interview immediately to enable recall of some of the gestures and also reflect on how the interview was conducted. A skilled language translator was involved in the transcription of interviews conducted in Twi and the transcripts reviewed with the participants to ensure that the data transcribed was a true representation of participants responses. Field notes taken used to summarize the interview and participants were asked to clarify when necessary. In addition, peer scrutiny of the research report was done to ensure the data gathered was genuine and reflects participant information

Transferability: This entails providing background information to create the study's context as well as a full description of the phenomena in question to allow for comparisons

(Shenton, 2004). To ensure transferability, a clear description of the participants' characteristics, the study setting, the methodology as well as the whole research process was clearly written. This detailed description of the whole research process was to ensure applicability of the findings to other settings and population.

Dependability: this involves the use of many methodologies and a detailed methodological explanation to allow the study to be replicated (Shenton, 2004). To ensure a thorough understanding of the research; the exact methods used for data collection, data analysis and its interpretation was clearly written in the report writing. The data collected was peer reviewed by supervisors.

Confirmability: this involves objectivity and neutrality of the researcher to be able to conduct the research free from bias (Shenton, 2004). This was done by using diagrams to demonstrate an audit trail (records of field notes, audios recordings, tapes, coded details and analysis details) which will help different researchers to identify the stepwise procedure used in the study. The researcher employed a neutral person to scrutinize the transcripts to ensure that codes were a true reflection of the information provided by the participants. Also, the researcher adopted reflexivity to exclude researcher bias. Reflexivity is describing the awareness of personal experiences and associations of the researcher that could shape how the meaning of a phenomenon is understood (Haynes, 2012). The researcher made sure not to perpetuate any oppressive ideas towards the participants and the data collected was also transcribed immediately to avoid any misinterpretation.

3.13 Ethical Consideration

Before commencement of the study, ethical approval was sought from the Christian Health Association of Ghana Institutional Review Board (CHAG-IRB06022020). An introductory letter, received from the School of Nursing and Midwifery (SoNM) was sent to the management of the Orthopedic Training Center, Nsawam Adoayiri, seeking permission to carry out the research and an approval letter received from the Orthopedic Training Center, Nsawam Adoayiri. Written consent form was given to the participants to sign after all their concerns had been addressed. Further clarification about the study was given and all risks and benefits of the study was made known to participants. Participation in the study was voluntary and confidential. Participants were allowed to opt out of the study at any time they wished. Participants were allowed to choose settings convenient for the interview and privacy was ensured. Participants who become emotionally disturbed during the interview were allowed to grieve and the interview was paused and continued whenever they were ready to continue. The researcher used her digression throughout the research process; codded names was used throughout the project. The researcher and her supervisors were the only ones with access to the audio tapes and notes from the interviews. Hard copies were kept in lock cabinet and soft copies under password. Also, the searcher provided support to participants in her own capacity by providing a qualified psychologist to support participants who exhibited extreme emotions.

CHAPTER FOUR

4.0 FINDINGS

4.1. Introduction

This chapter describes the results of the data generated from the respondents on their experiences as lower limb prosthetic users. The initial part presents with the demographic characteristics whilst the second part describes the various themes that were generated to answer the research questions taking into consideration the social-ecological model used to guide the study. Using thematic content analysis, four themes and their corresponding subthemes emerged from the interviews. The major themes derived from the interviews were individual level experiences of persons using lower limb prosthesis, family/peer level experiences of persons using lower limb prosthesis, community level experiences of persons using lower limb prosthesis and structural level experiences of persons using lower limb prosthesis. The major themes and subthemes were presented in an anonymized verbatim quotation from the respondents using pseudonyms. However, an additional theme that emerged because of content analysis was coping mechanism of persons using lower limb prosthesis.

4.2 Demographic Characteristics of Study Participants

Seventeen (17) people with lower limb prosthesis were interviewed for the study. Seven (7) were females and ten (10) were males. Their ages range between nineteen (19) and forty-seven (47). Their educational level ranged from no formal education, junior and senior secondary school dropouts to tertiary. With regards to their religious affiliation, fifteen (15) respondents belonged to Christianity and two (2) belonged to the Islamic religion. Concerning marital status, fourteen (14) were single, two (2) were married and one (1) was a widow. Five (5) of the respondents were unemployed and ten (10) of them engaged in diverse occupation with the

except for two (2) who were students. Participants mentioned parents, mother, elder sister, mother-in-law, self and company as their major care giver. Regarding the type of prosthesis, thirteen (13) participants had above knee prosthesis whilst four (4) had below knee prosthesis with six (6) of them reporting being a prosthetic user from 10-20 years, five (5) used the prosthesis for 5 – 9 years whilst seven (6) used their prosthesis from 1-4 years. Participants belonged to the Akan, Ga, Ewe, Ga-Adangme, Kotokoli and Dagomba tribes but could speak at least English and Twi. The demographic characteristics of the respondents are represented in below (Table 4.1).

Table 4.1 Demographic Characteristics of the Respondents

Participant's Pseudonym	Age	Gender	Occupation	Level of Education	Religion	Marital Status	Main Care Giver	Type of Prosthesis	Duration of Prosthesis Usage
Esi	26	Female	Unemployed	Senior High School	Christian	Single	Company/ mother	Above knee	10 years
Max	19	Male	Student	Senior High School	Christian	Single	Parents	Above knee	1 year
Vic	37	Female	Unemployed	No formal education	Christian	Widow	Mother-in-law	Above knee	5 years
Nafiz	27	Female	Unemployed	Senior High School	Islam	Single	Elder sister	Above knee	8 years
Sam	25	Male	Cobbler	Senior High School	Christian	Single	Adopted family	Above knee	4 years
Ahmed	25	Male	Unemployed	Junior High School	Islam	Single	Self	Above knee	3 years
Austin	26	Male	Unemployed	Junior High School	Christian	Single	Mother	Below knee	1 year
Olivia	33	Female	Seamstress	Senior High School	Christian	Married	Husband	Below knee	14 years
Philby	20	Female	Student	Tertiary	Christian	Single	Mother	Above knee	2 years
Dan	24	Male	Shoe maker	Senior High School	Christian	Single	Bishop	Above knee	16 years
Charity	32	Female	Business woman	Tertiary	Christian	Single	Self	Above knee	7 years
Tobi	47	Male	Carpenter	Senior High School	Christian	Single	Self	Above knee	6 years

Ceaser	32	Male	Micro module operator	Tertiary	Christian	Single	Self	Below knee	5 years
Calton	25	Male	Shoe maker	Junior High School	Christian	Single	Self	Above knee	3 years
Franco	32	Male	Prosthetic Assistant	Tertiary	Christian	Single	Mother	Above knee	10 years
Beauty	23	Female	Administrator	Tertiary	Christian	Single	Mother	Above knee	20 years
Joshua	36	Male	IT Manager	Tertiary	Christian	Single	Self	Below knee	19 years

4.3 Organization of Themes

The thematic areas were from the Social-Ecological model with an additional theme which emerged from the data. The sub-themes were congruent with the description of each of the constructs in the model. Five major themes were developed from the data with nineteen (19) sub-themes. The sub-themes were acquired through continuous engagement with data and a comparison of the researcher's cluster of themes. The data was carefully examined and coded to be consistent with the structure of the themes and the sub-themes. The first (1) major theme of the study was individual level experiences of lower limb prosthetic users and the corresponding sub-themes for this theme were: discomfort from prostheses, internal stigma and resilience. The second (2) major theme was family and peer level experiences of lower limb prosthetic users and its sub-themes were; family and peer support, family and peer stigma, relationship avoidance, loss of independence and altered sex life. The third (3) major theme was community level experiences of lower limb prosthetic users and its sub-themes were; community level stigma, discrimination, community support, environmental barriers. The fourth (4) major theme was structural level experiences of lower limb prosthetic users and its sub-themes are; satisfaction with health services, health care workers attitude, cost of prosthesis. The fifth (5) major theme was coping mechanisms of lower limb prosthetic users and its sub-themes include; isolation, recreation, disregard and faith in God. The themes and sub-themes for the study are illustrated in Table 4.2 below.

Table 4.2 Themes and Sub-themes from Transcribed Data

Themes	Sub-themes
Individual level experiences of lower limb prosthetic users	• Discomfort from prostheses • Internal stigma • Resilience
Family and peer level experiences of lower limb prosthetic users	• Family and peer support • Family/peer level stigma • Relationship avoidance • Loss of independence • Altered sex life
Community level experiences of lower limb prosthetic users	• Community level stigma • Discrimination • Community support • Environmental barriers
Structural level experiences of lower limb prosthetic users	• Satisfaction with health services • Health care workers attitude • Cost of prosthesis
Coping mechanisms of lower limb prosthetic users	• Isolation • Recreation • Disregard • Faith in God

Several sub-themes that emerged from the themes. These sub-themes were however explained under their corresponding themes and supported by verbatim quotes from the participants. For anonymity, pseudonyms were used to represent the participants.

4.4: Individual level experience of lower limb prosthetic users

This theme explains the personal or self-directed life experiences of persons with lower limb prostheses. The psychological and social events that took place in their lives, spanning from the onset of amputation to retuning to life after acquiring a prosthesis. Participants gave varied responses about the history (cause) of their amputation, they shared self-induced psychological problems they faced as an amputee and also the challenges that come along with being a prosthetic user. Pertaining to the individual level experiences of lower limb prosthetic users, three sub-themes emerged. These were; 1. Discomfort from prosthesis, 2. Internal stigma, 3. Resilience.

4.4.1 Discomfort from prostheses

For many of the participants, mobility with the prosthesis was challenging every day. Participant's account suggested that while some experienced pain, heat and wetness from the prosthesis. others were struggling with the type/level of prosthesis they were using. A participant narrated how he was walking with the transfemoral (above knee) prosthesis and the knee socket bend on its own making him fall to the ground and sustained injuries on the face.

> *"I quite remember I was walking with my artificial leg like some borga.... (laughed).... unfortunately, you see we those using the above knee, if you don't take care the knee can ...err.... brake on its own. Stepping on a small stone will bend the knee (laughed), that's when I fell to the ground and got this cut on my cheek (laughed, showing scar to interviewer) there… hmmm…. somebody will say "borga ay3 loose" (borga is on the loose)"* **(Sam, 25 years)**

Another discomfort with the prosthesis was wetness if the prosthesis due to excessive sweating. Three participants said the prosthesis became wet and slippery while walking therefore, one had to slow down to avoid falling to the ground.

> *"With the kind of prosthesis, I am wearing, when you walk for a long distance, it becomes slippery and if you are not very careful it can make you fall because when the inside becomes wet and slippery it can remove and make you fall to the ground"* **(Max. 19 years)**

> *"It is true that you can slip and fall while walking with the prosthesis, but you will have to bear the risk and do it"* **(Tobi, 47years)**

> "*Yes it (prosthesis) becomes wet and even sometimes least mistake 'koraa' (too) you fall down. Oh yeah! I even have some wounds from falling (pointing at scars) hmm it's not easy using it (prosthesis). The walking is somehow bad"* **(Esi, 26 years)**.

Similarly, participants also sustained painful cuts or abrasion and tingling sensation on the residual limb as a result of wearing the prosthesis for a longer period within the day. Five (5) participants narrated:

> *"First of all, when wearing for long, sores develop on the leg. It is painful "(***Tobi, 47years)**

> *"Funny! mobility is not a joke, sometimes I walk and gnash my teeth, I will be grinding it (teeth) because of the pain, errmmm it (prosthesis) was hurting me, cutting me here (pointing to his groin), even my butt was cut"* **(Joshua, 36 years)**

> *"If I wear it for long, I feel pain tingling below the leg. That is why I do not wear it for long"* **(Austin, 26 years).**

"*Walking with the prosthesis is not easy 'dier' (like that). Yeah! it is somehow painful. We sometimes get cuts"* **(Esi, 26 years)**.

"Yes, I get hurt when I walk for long. I get bruises.". **(Beauty, 23 years)**

4.4.2 Internal stigma

The study uncovered that participant experienced internal stigma as they absorbed the negative comments and discrediting labelling from the public and believed that, those comments were true about them. Participant's account suggests that, the internal stigma did not occur just because of the negative attitude from the public, but also due to the absent lower limb, and the appearance of prosthesis. As far as its consequences are concerned, internal stigma as stipulated by participants create regrets, brings about self-pity and leaves them with no choice than to develop inferiority complex and even contemplate suicide. Concerning negative attitude from the public, participants shared their experiences of being called the 'cursed one' 'using toys leg', and a cripple. This produced feeling of shyness, feeling bad of which some contemplated suicide or returned to their homes without accomplishing their task: Three (3) participants narrated:

"I do feel shy because when I am walking someone will say look at this girl, she's using babies' leg or toys leg, when I hear that person's voice, hmmm…all my body will be, (shook her body), I will be shivering and feel I am different from that person. Then if I was walking, I will return to the room then I'll begin to think to myself. Then I begin to cry and wish that I will just die" **(Nafiz, 27 years).**

"*One day I was going to withdraw money from the bank and there was this children's playing in the park, as I was going then they stated saying, look! He is apatkyi (cripple). They started laughing. I felt bad that day paaa…I began to think, should I return and just go and sit somewhere and later go and withdraw the money? Oh! I felt sad for myself".* **(Sam, 25 years).**

> *"Mmm…. like they'll say oh! this girl is putting on this (prosthesis)? I feel bad. Sometimes people say this happened to me because I am cursed and sometimes, I believe them. Maybe I deserved it. Yea!"* **(Philby, 20 years).**

Some participants think about how they looked and how people see them. Two (2) female participants shared their worry about the appearance of prosthesis. They couldn't stand the way people stare at their feet. This made them felt worthless as they constantly tried to cover it up with much longer cloths. Some painted the prosthetic leg brown to match their skin colour and constantly uses nail polish to paint the toes, but the feelings couldn't go away. Two (2) participants narrated:

> *"When I started wearing it (prosthesis), what I realized was that, when people see you walking from afar, they start to look at you from the feet as if they have not seen it (prosthesis) before. So, I began to wear long skirt to cover it (prosthesis) because the stare makes me feel uncomfortable and bad"* **(Olivia, 33 years)**.

> *"I decided to buy qutex (nail polish) to paint the toes of the prosthesis and my own foot too, I painted the toes the same color. Laughed…I painted the leg (prosthesis) brown so if I am out, nobody will get the idea that this girl is using different leg (prosthesis). Maybe the person will think am I am just limping"* **(Nafiz, 27 years)**.

Some of the participants still grief about the limb loss despite the prosthesis. Two (2) participants narrated:

> *"I wanted to commit suicide. When I go out like that and return home, I began to think, I overthink a lot. Because I am a cripple now"* **(Vic, 37 years)**.

> *I find it very difficult accepting my new look ... yeah! I always cry, thinking, indoors. I don't eat. Like I find it very very very difficult* **(Esi, 26 years).**

4.4.3 Resilience

This sub-theme describes how individuals were able to recover from negative reactions from others over time. Resilience, according to the American Psychological Association (APA), is the process of adjusting well in the face of adversity, trauma, tragedy, threats, or severe causes of stress such as family and interpersonal issues, serious health issues, work place or financial difficulties (American Psychological Association, 2020). Therefore, detained narration from participants about this sub-theme has been explained under coping mechanism on pages 80-83.

4.5.0 Family and peer level experiences of persons using lower limb prosthesis

This level describes the participants experiences with family and peers. Participants gave account of the kind of relationship that existed between them and their family/peers ranging from the kind of support they had from family and peers, the level of stigmatization or discrimination experienced, issues with relationship and sexuality as well as physical and socio-economic problems they encountered. Five sub-themes were generated from this theme which included:1. Family and peer support 2. Family/peer level stigma 3. Loss of independence 4. Relationship avoidance 5. Sex life.

4.5.1: Family and peer support

This sub-theme explains the type of support family and peer gave to the participants. While peer support came in a form of encouragement, helping with various forms of coping strategies and helping participants socialize, family members support came in the form of assistance with daily activities, emotional and psychological support. Participants did not receive any financial support from family and friends, but they managed to survive on their own. For family support, four (4) participants narrated the encouragement and regular check-ups they received:

"For my family, especially my mom and sisters, they have done a great job. I can always say that if it wasn't for them, I wouldn't be alive today. They have been calling me, asking how far, and asking about my general wellbeing while giving me encouragement and inspiration" **(Franko, 32 years)**

"I am with my mother in-law, she has taken me as a daughter, she wouldn't let me go, she always encourages me" **(Vic, 37 years)**

"Oh! My family, they'll help you; they'll comfort you, yeah! They'll tell you things like, you can be more than other people so, just move forward" **(Philby, 20 years)**.

"They do not make me feel like I have an artificial leg. They treat everyone the same. My dad, he encourages me to go out and be happy. He did not want me to stay in a room and cry" **(Beauty, 23 years)**

For financial support, it was observed that participants came from a poor home and therefore did not get any financial support from their families, but they still tried to survive. Three (3) of the participants narrated:

As for finance, there's no help from anywhere. My parents aren't wealthy. We are only 2 kids, my sister and me. My dad too has passed away. So, who will get it for you? When I came to Accra, I joined my sister and we continued with selling pastries to survive" **(Charity, 32 years)**

"*So, for my family, it's just that they don't have money to care for me. Like the way it is now, I have branded myself as a hustler"* **(Carlton, 25 years).**

They contributed for me to have the leg (prosthesis). But from there, I didn't get any support from them again. I'm just struggling on my own". **(Nafiz, 27 years).**

In terms of peer support, participants explained how their friends encouraged them to participate in recreational activities or socialization. Two (2) participants recounted:

> *"Where I am, the boys always encourage me. Oh! like we go to the pool for a swim, and we go to watch a football match or play a football match". They always encourage me not to give up"* **(Ceaser, 32 years).**

> *"Yeah, I remember one day my friends decided to surprise me, they took me to Accra mall and that made me happy"* **(Sam, 25 years)**

One participant however did not receive support from his family nor his friends, but his support came from strangers. He recounted:

> *"Most of my help have come solely from strangers. I sincerely don't know why, because the kind of things the family was supposed to do for me, I don't get it from them because they think am the eldest, they were looking up to me and now I don't have anything to give them. So, emotionally, financially, and psychologically they are not there*" **(Joshua, 36 years)**

4.5.2: Family/peer level stigma

This sub-theme explains how participants experienced stigmatization and discrimination from family and friends. Participant's account suggests that family and friends were afraid to associate with them in public gathering. Whilst some participants experienced name calling by their families, others thought their families under-estimated their capabilities. Some participants narrated being avoided by their friends. Three (3) participants had this to say:

> *"I had a friend who was close to me, but due to the way I walk now, they try to avoid me because they can't stay around me and joke freely like before. So, they stopped being around me"* **(Nafiz, 27 years)**

> *"With the prosthesis if we are walking, I don't walk fast so my friends sometimes, they'll ask are you ok? should we take a car? Hmmm, me I feel very very bad, it's*

annoying and so sometimes "kwraa" they don't let mee join them again" **(Sam, 25 years).**

"With my boyfriend, what I experienced was that even though he had a car, I realized that when we were in public, he would tell me to stay in the car and he would run the errands. I knew he loves me, but he found my condition difficult for him. Sometimes too when we had to go for outings, he would tell me the type of clothes to wear" **(Olivia, 33 years)**

Contrarily, a participant avoided the company of her family members because she was called names at the slightest provocation. She said:

Sometimes, when you are with your family members immediately small thing happen "pe", they'll start all sorts of name calling like "na apatchie nunsu s3 d3n"? (What is that one with a disability also saying?) So, because I do not want something like that to happen, I don't go near them" **(Charity, 32 years)**

Also, two (2) participants explained stigmatization in the form of under-estimation of their capabilities by their family members. Participants recounted:

"My mother and father sat down and wanted to send me to Teacher Training College, I saw that as an under estimation of my abilities. Yea! So, because of the hustle and beatings of life, they saw that (Teacher Training College) as the modest way of helping me? Oh! no (shook his head), to me, it's an insult, you understand? it's a big insult to me. If I had not had this accident and using a prosthesis, would they ever talk about me going into teaching? No. So, just because I don't have a leg, I am fit to be in a classroom or what?" **(Joshua, 36 years)**

So sometimes they make some remarks that makes me feel very bad. Something like, 'Wei ketewa wei koraa wontumi ny3'. (You can't even do the smallest things). Meanwhile you feel like doing it but the strength is not there" **(Esi, 26 years)**

4.5.3: Relationship avoidance

This sub-theme explains how participants experienced intimate relationship with the opposite sex. Observation from the narrative suggests that participants understood that choosing a life partner and someone to share love and intimacy with is an important aspect of human life. However, majority of the participants seems to avoid relationships with the opposite sex. As some participants were afraid of being sexually abused or exploited. Others avoided relationship because of repeated rejection, being embarrassed and being shunned. Four (4) participants gave their reasons for avoiding relationships:

> *"I remember proposing to a lady and the lady told me oh! I am not interested, I am having a guy and I said oh! hmmm…so, you know, the best thing is just forget about them because you will keep proposing and they will keep telling you they are in a relationship so, the best thing is just (hesitated) …hmmmm avoid them"* **(Sam, 25 years)**

> ***"****When I meet ladies, I try to hide or to ignore them. I don't want to be rejected so I hide"* **(Ceaser, 32 years)**

> *"I haven't been in a relationship because am always afraid I will be shunned. I feel shy a lot. You know girls like complete guys, but for me, am not, so I don't even approach"* ***(Max, 19 years).***

> *"Ok the thing is that, you've seen the lady you love her but if you don't get bold you will start criticizing yourself that even those on both feet are getting rejected how more me an amputee, will she accept me? You see a woman and you are interested in her but how to approach the woman and tell her how you feel towards her is difficult. Proposing to a woman isn't easy"* **(Carlton, 25 years).**

A participant avoided relationships because she was afraid of being sexually abused or exploited. She said:

> *"Hmmm…so the guys, they will say they love you but they are lying, they just want to sleep with you. Even my ex-boyfriend, he will force and sleep with me even if I don't want. So, me I have told myself even those who have two legs 'kwraaaa' boys deceive them, how much more me" (***Philby, 20 years)**

A participant attributed his relationship avoidance to the fear of not receiving assistance from potential helpers. He said:

> *"You see right now I am not up and doing. Maybe friends and family are the ones helping me out and then I'll go in for a woman in addition. Someone sees you with the woman and then passes the remark "you are not able with yourself or working and you go in for a lady in addition" then if the person has some help to give you, the person will reconsider. These are all reasons why I don't want a woman by me"* **(Austin, 26 years)**.

4.5.5: Loss of independence

This sub-theme describes how the participants felt about losing their independence. Participants believed that losing a limb reduced their independence, imposed constraints, and made them reliant on others. In those who have undergone lower limb amputations, mobility is the best predictor of quality of life. Participants mentioned issues such as difficulties walking with the prosthesis, trouble eliminating waste, and unpleasant daily tasks brought on by the prosthesis. Due to their incapacity to undertake previously performed activities, participants experienced feelings of loneliness, despair, and frustration, which increased their reliance on others. They are completely reliant on others for food, clothing, and day-to-day activities.

Participant's narration indicated they felt sad and sometimes hurt when they realized there are going to live as a prosthetic user for the rest of their lives. Three (3) participants narrated:

> *"Any time I take it (prosthesis) to wear, it saddens my heart. It saddens my heart greatly. Am not the kind of person that stays home often. I have many siblings and among them, am the eldest. And we are all not wealthy to depend on someone. We all work had to get what we have. Now that am home and again, they take care of me, it worries me, it worries me greatly"* **(Austin, 26 years.)**

> *I cannot do the job I used to do. I used to go to the forest. I cannot walk on the mountain with the prosthesis. Now there are financial problems. When I used to be normal, I used to make my own money but now it is my relatives. When I call them, the time they get money then they send it* **(Ceaser, 32 years)**

> *"People tell me that I don't have two legs and that am a burden on my sister and I give her extra work, it really hurt my feelings then I'll feel very sad"* **(Nafiz, 27 years).**

4.5.6: Altered sex life

This sub-theme describes the challenges lower limb prosthetic users face with regards to sexual life. Some participants mentioned practical problems concerning sexuality, mostly related to loss of self confidence in sexual proficiency. A participant narrated how the thought of having sex with a man sickens her she said:

> *"To remove the leg in front of a man was unthinkable to me, the thought of it sickens me. I have no confidence in me that a man will desire me"* **(Philby, 20 years)**

Other participants narrated difficulties in assuming certain sexual positions. Three (3) participants narrated:

> *"Before I got hurt it was all stand-up positions. Now it's all lying-positions, oh! yeah, the knee position, all I need is to raise the leg and that's the problem. Previously I could have 3 rounds of sex but oh! for now like just two rounds of sex then am tired. But for now, I feel restricted, because of the prosthetic weight, any time I try to turn to myside, it falls over on the other leg and the leg feels tired. And, the prosthesis hits each other and I feel pain because of its hardness"* **(Ceaser, 32 years)**

> *"Every sex position has a way of positioning to feel ok. So, when you are standing on one leg and balancing yourself on the other knee is tedious"* **(Carlton, 25 years)**

> *"Our sex life is normal but sometimes it's difficult because I feel uncomfortable removing the prosthetic leg but its normal. My husband is ok"* **(Olivia, 33 years).**

4.6.0: Community level experiences of persons using lower limb prosthesis

This major theme describes community level experiences that lived an impression on the participants. Participant's account indicated that most of them encountered many challenges within their communities as they attended social events or participate in community activities. These experiences ranged from being excluded from social activities, prejudice, stigmatization and sometimes community support. Due to the narration from participants the following sub-themes were generated. 1. Community level stigma 2. Community support 3. Discrimination 4. Environmental barriers.

4.6.1: Community level stigma

This sub-theme explains the tag of discredit and labelling that people with lower limb prosthesis experienced within their communities. This community level stigma came in the form of being mocked, being looked down upon and name calling and being mimicked by children. Two (2) participants recounted being called names and seen as 'cursed' people or a 'sinner'. They narrated:

> *"Sometimes people say this happened to me because I am cursed"* **(Philby, 20 years)**

> *"At times, people think that it is because of my sin or robbery that resulted in my amputation. Some people say it is because of my sins that is why my leg is amputated. When I hear such things, it makes me think a lot"* **(Carlton, 25 years)**

Another participant explained how children mocked and mimicked his walking. He narrated:

> *"It is true that sometimes when children see me walking like that, they do laugh and mimic my walking and sometimes when you are not well mature you will get angry, and you will do a whole lot of things.* **(Franko, 32 years).**

Participants accounts indicated that most of them were not comfortable with how people constantly stared at them. They felt bad because they couldn't stand the eyes of people looking or staring at them all the time. Three (3) participants narrated:

> *Oh! it's annoying.... the looking is so annoying most at times. So due to that I don't normally like to wear the prosthesis when am going somewhere.... if am in the crutches, people already know* **(Ahmed, 25 years)**

> *"With the adult, they don't normally complain about the prosthesis, but theirs is the looking. The looking is too much. Meanwhile, you live in the same community with them. But if you even pass by within 5 minutes and come back again, they'll*

be looking at you as if you are not in that community too, as if you are a stranger over there, you see, it's too much. that one sometimes you feel bad. You feel like is better you move from that community, go to different community. but if you go to another place too, it's the same thing that you will go and meet" **(Sam, 25 years).**

"People can look at you for a longtime whilst they are approaching you, to the extent that they will turn and continue looking and stand there to look at you. It's too much. No, it was too much. The person was looking at me when we were facing each other and she stood there, turned and continued looking at me. Looking at the person in such manner even makes the person feels bad" **(Esi, 26 years).**

4.6.2: Discrimination

Discrimination is making unjustified distinctions about a person based on the groups or categories to which they are perceived to belong such as persons with lower limb prosthesis. People are discriminated based on their disability status. Participants experienced discrimination within their community in different forms. For example, being a prosthetic user triggered a discriminatory attitude from their employers and colleagues. Landlords within their communities refused to rent their houses to participants. Some were denied jobs because of their disability status. Others were bullied by their classmates or treated as inferior. Two (2) participants who had issues with accommodation had this to say:

"Since I moved from OTC this is the first apartment I have rented. It wasn't easy getting a place to rent. Landlords were not willing to rent apartments to me because of my disability. They think I wouldn't be able to perform chores like sweeping, and cleaning. While renting this place, the landlord did not say anything like that to me but this place was not the house I wished to rent because it does not have water closet" **(Dan, 24 years)**

> "*When I was going to stay with my sister the landlady of my sister was asking my sister since she has brought me, do I have leg, can I fetch water for myself, can I scrub the toilet so she won't rent out the room to me".* **(Nafiz, 27 years)**

Other participants were denied a job in his community because of his disability status. He said:

> *"We went to work at a certain place but when we got there, there was one who said as for me, I should go and sit down because I couldn't work, am a sick person. So those things that he said, sometimes when I think about it, it makes me feel bad"* **(Max, 19 years)**

A participant narrated how she was bullied or treated as inferior by their school mates.

> *"When I was in school, there was this senior that anytime I come close to her, she will say, madam, madam, go and find a seat for yourself, you that you are not having legs, if two legs people are talking aaah then you are also coming to participate, go and get a friend somewhere else. So, she always, continuously uses those words to me, then I will become worried and angry at myself but what can I do? Hmmm.* **(Nafiz, 27 years)**

4.6.5: Environmental barriers

This sub-theme describes those structures within the environment that impede free movement of persons with lower limb prosthesis. Participant's account suggests that, community structures such as bad roads, story buildings with staircases, tiled grounds, big gutters, and tall bridges without disability friendly walkways was a major problem that impede their free movements. Participants complained about these environmental barriers they can encounter daily within their communities. Three (3) participants were concerned about the bad roads, stony floors, and difficulty in walking in the mud when it rains. Here is what they had to say:

> *"The roads are bad, and it does not help because of the gravels. when you step on them, it can change how you walk"* **(Beauty, 23 years)**

"We have bad roads here, sometimes I get injuries because of falling so I don and use the prosthesis after the wounds heal. My environment is an uneven terrain, not leveled, I sometimes fall down" **(Vic, 37 years)**

"There are too much stones and recently before voting there is some rough road and the MP around the area says he wants to fix the road; they brought some materials on the road and didn't fix the road and it even worsened the condition of the road. As a result of that I can't go out when it rains. It is very slippery. The least mistake you'll fall so when it rains. At times too maybe a big gutter that you want to jump over. For that one, you have to get a help but if you are walking alone you will have to use a long route and see if you will get access to pass. Yeah, if not it is sometimes difficult" **(Esi, 26 years)**

Two (2) participants had difficulties using the pit latrine within their community which made life quite challenging for them.

"Important structures like water, like toilets and other amenities that will make life simple is not available. There are water closets and pit latrine in my community but at times, the water closets are always messed up. So, you must use the pit latrine. If you wear the prosthesis and using the pit latrine, oh! it doesn't come easily but just so that you will be able to accomplish the purpose for going there, you must manage" **(Carlton, 25 years)**

*"And also, I can only talk about my household. In my household, the toilet is like "atonko" [KVIP], but a water closet would be more appropriate for me. But that isn't the case so sometimes I have to ease myself at work before going home" (***Dan, 24 years)**

Some participants had challenges with the story building without disability walkways which made climbing with the prosthesis very challenging. They lamented about how they felt pain and even fall over the stairs while climbing those buildings. Three (3) participants had this to say:

"For my community buildings there are steps, and I will have to carefully use the steps and take my time so that I do not fall. I must do it carefully and take my time. Carefully adjusting the prosthesis so that I can sit well" **(Ceaser, 32 years)**

"Especially the schools, schools with storey buildings there is no disability friend you must climb and if you don't have that stamina, you will be just fall to the ground and get hurt. How can you build a three-storey building and how do you want the disables to climb the three storey buildings?" **(Franko, 32 years)**

"When it rains.....for me when I go out and its rains, on my way back home, I struggle it can make your legs spread apart, and when that happens, you can fall to the ground too. You just get up and continue your journey" **(Max, 19 years)**

4.6.4: Activity participation

Activity participation describes the experiences of being actively involved in events such as sports, game or recreational play that is organized by a community. Observation from participants narration suggests that persons with lower limb prosthesis usually encounter two problems with regards to being part of community activities. The first challenge has to do with activity limitations and the second was activity participation restrictions. Participant's narration suggests that they withdrew from social events themselves because the prosthesis limited their movements. Also, they were excluded from community activities because of name calling and the fear of being stigmatized. Six (6) participants had this to say:

"If its certain games like ball... ball...if it's the whole community, as for me, I don't even attend such games or another game with friends, I don't join inn because if even if I go, they'll not agree for me to be a part of it, they wouldn't. they wouldn't allow me to participate in the games" **(Max, 19 years)**

"What do I have to do with playing football? what do I do with playing cards? when later on they are going to be all looking at me in the eye like i am some freak, I won't come, you understand" **(Joshua, 36 years)**

"Sometimes all I see if they are doing something in the community, they don't think that there are some disability people around" **(Esi, 26years)**

"The games I feel so bad because me myself I am footballer. So sometimes if ladies are playing the games. It just I don't feel happy at all and don't feel comfortable" **(Esi, 26years)**

"They don't make me participate but I do what I can to help?" **(Beauty, 23 years)**

"For community works me, I don't go" **(Ahmed, 25 years)**

4.6.3: Community support

This sub-theme explains the help or support received by persons with lower limb prosthesis within their communities. It could be government initiative, NGO's, community-based initiatives, or a religious leader. This support came in the form of provision of jobs, financial assistance to secure or repair the prosthetic feet, to further their education and provision of food stuffs. While some participants did not receive any form of support from their communities, some mentioned being supported by their municipal assemblies, PWD's and community leaders and religious leaders. Four (4) participants gave varied narratives depending on who supported them and what they were supported with. The first participants participant was supported by his municipal assembly and PWD's group. He had this to say:

"Errrm the Korle Klottey Municipal Assembly helped paid my fees for a semester, I was really in need of that money and the other semester too, they are still talking about it, yeah so guys at the PWD department helped me a lot, big time. Yeah,

and they helped me secured a job too, I ask for a job from the PWD company and they gave me a job" **(Joshua, 36 years)**

Another participant mentioned how his municipality supports him with the purchase and repairs of his prosthetic feet. He said:

"I didn't purchase the prosthesis myself, there is a group like Obuasi Municipal Assembly members, they paid the money for us so if there's a fault with it (prosthesis), we write a letter to the Obuasi, and they pay for it. So, either we receive it at any point in Obuasi or when we go to Nsawam they fix it, then we take the bill and bring it to them to pay" **(Max, 19 years)**

A participant received so much support in her community. She narrated:

"The community has helped us a lot, with a place to have our personal meetings, they've provided us chairs, they've provided somebody who helps us pack the chairs in the room, they even provided an office for us. We have office that we will go and damp the issues there, and even we have police around, we have lawyers, the community provide all for us, so if you are there and you are facing problems or your landlord want to disturb you, just call your court madam or you call your lawyer to come and deal with the person there" **(Nafiz, 27 years)**

In another circumstance, two (2) participants received their support from some religious leaders. They narrated as follows:

"While I was a student, I used crutches. And I was seen by a certain woman in the school, and she led me to the bishop who decided to help me, and he brought me here. the bishop also helped me got a job here at OTC" **(Dan, 24 years)**

"Yeah, when I was not using the prothesis, I was with a certain pastor and by God willing I was doing the evangelism work, so through that he supports me financially. He even helped rent my house" **(Franko, 32 years).**

4.7 Structural level experiences of persons using lower limb prosthesis

The structural level experiences are considered as the institutional level experiences of persons with lower limb prosthesis. This level reveals how persons with lower limb prosthesis felt with regards to visiting the hospital environment for treatment of comorbid disease conditions. This major theme also reveals the support they receive from healthcare institutions. From the narrative it was revealed that most of the prosthetic users were treated fairly by healthcare professionals. They appreciated the special treatment they received from the healthcare facilities and the positive attitudes exhibited by healthcare providers. Participants reported being allowed to jump the que at the hospital. With regards to structural experiences, three subthemes emerged. These included: 1. Satisfaction with health services, 2. Healthcare workers attitude and 3. Cost of prosthesis.

4.7.1 Health care worker's attitude

Persons with lower limb prosthesis have experienced countless level of maltreatment within their environs. Findings of this study reveal the reactions of healthcare workers towards lower limb prosthetic users. Most of the participants reported that healthcare workers showed positive attitude in interacting with them. They described their experiences as special. Some said they felt like a king being attended to and they liked the way healthcare workers spoke to them in a calmy manner. However, few experienced embarrassments in a form of denied privacy. For example, a participant was made to remove his shoes and the prosthetic feet in the presence of other patients. A participants said:

> *I remember sometime, I went to the hospital and the nurse told me to stand on the weighing scale. I thought I could stand on it with my shoes on because when the shoes are tight it is difficult to remove them. Regardless, she made me take them*

off. That is what I did not feel okay with that day. Yes, she made me remove all of them. Later, I had difficulty putting them on again" **(Dan, 24 years)**.

Those participants who had positive experiences had this to say:

"Oh, they were very calm and there were no abusive words being used against me, actually, they respected the protocol" **(Sam, 25 years**

"Okay, charley.....when I go there and they see that I use leg (prosthesis), they see me to be a disabled...and so whatever I need, they see me as a disabled and not as strong as the other people who can move about any how.... even if I do something that they don't like.... the way in which they respond to me is good. they slow down when attending to me, they have patience with me" **(Max. 19 years)**

"Oh, for the hospital, I take it normal because sometimes if I go to hospital and then nurses see that this girl her leg is paining her, they won't let me join the queue, straight forward to the doctor and then, even if it is lab, they will go and pressure the lab that the leg is not good so they just take of me, am done then am leave" **(Nafiz, 27 years)**

"*They will tell me to sit. They will do it all. If it's a lab results, they will get it, if its drugs, they will get it for me"* **(Beauty, 23 years)**

4.7.2 Satisfaction with health services

Satisfaction with health services explains the outcome of service expectations of the lower limb prosthetic users. This subtheme describes how satisfied the prosthetic users were with the services provided at the hospitals for the treatment of comorbid conditions. Participants shared negative experiences with regards to the organization of care and services rendered. Four (4) participants narrated:

"Sometimes they make you walk up and down too much, if you walk and you get tired, walking becomes difficult and very painful. Sometimes if you get tired" **(Esi, 26 years).**

"I remember sometime when I went to the 37 hospitals, I was hurt and the queue was long but then I was attended to first" **(Beauty, 23 years)**

"*Oh, if you go there, the first place, the OPD is at the ground and then you have to climb the top there for the consultation and then you will have to climb down to do the labs and climb another staircase to get the medicine. For the organization is poor kwraa*" **(Nafiz, 27 years)**

"Sometimes the doctor would prescribe a drug for you and would direct you to where to get it. Upon reaching there, you would be redirected again. And sometimes because of how my leg is, when I walk for long it becomes slippery which can make me fall" **(Dan, 24 years)**

4.7.3 Cost of prosthesis

This sub-theme uncovers participants experiences regarding the cost of securing a prosthesis. Majority of participants expressed their worries for not being aware of established financial support purposely meant to assist them in securing or repairing their prosthetic feet. Majority of participants said the cost of securing the prosthesis is expensive, yet prosthesis services are not included in the NHIS.

"Oh! securing this prosthesis was expensive, when the accident happened, my company paid for me but now, I look for money to repair it. It is not part of NHIS, I don't even know why" **(Beauty, 23 years)**

Ok, so for the prosthesis is expensive but the NHIS doesn't cover for it. Ghana particularly we don't have a plan, can you imagine I visited the disability office at Accra around ministries and there no one disable person there, yeah! and the

people there were sleeping at 8:30 in the morning. How can they plan for us? you understand? So, as for the structures they don't help" **(Joshua, 36 years)**

"That one hmmm. The hospital dieerrr, me I pay for everything" **(Ahmed, 25 years)**

"I wasn't feeling well so I went for a check-up at Old hospital. It normal. As far as you have insurance, that's all. But insurance for repairing the prosthesis, no some is not there" **(Carlton, 25 years)**

4.8 Coping mechanisms of persons using lower limb prosthesis

At this level, participants were asked how they coped with the challenges they stated earlier. Varied responses were elicited to that effect. Participants narrated various strategies they used that helped them coped with the problems they faced. These coping mechanisms came in a form of relations and excitement. Some participants utilized social media, listening to music, reading the Bible or Quran to overcome challenges. The following sub-themes were generated. 1. Isolation 2. Recreation 3. Disregard 4. Faith in God

4.8.1: Isolation

This sub-theme reveals participants withdrawal from social events and people. Participant's account indicated that they preferred being alone, especially when they feel unhappy. They also said, to get away from public discrimination and humiliation, participants separated or disconnect themselves form the community. Participants said they cope by isolating themselves. Two (2) participants said:

*"I don't mix up with the crowd.... I isolate myself "***(Max, 19 years)**

"I seldom joined other people friends for outing. I prefer to isolate myself. I became like that after the accident. I have this innate fear that I might be overpowered physically. Maybe, you would anger someone, and they might

verbally hurt me. So, I wouldn't want to find myself in that situation, so I don't go out" **(Charity, 32 years).**

4.8.2: Recreation

This subtheme describes the coping strategy participants used that helped them derived some excitement and enjoyment especially they are sad, stressed out and not working. Participants reported using diversional therapy in a form of listening to music, watching television, using social media and engouement in conversations as a form of recreation to cope. She said:

"I sing to motivate me, just to encourage myself that it will be well. I use to sing or listen to gospel music. It's either I play games" **(Beauty, 23 years)**

"I really like music. Sometimes when I feel bad, I play music and forget about it. I listen to the radio and watch television sometimes", **(Dan, 24 years)**

Two (2) participants said they cope through communicating with others.

"I cope through communication. I prefer communication to food. So, talking to others helped me to overcome the thoughts". **(Vic, 37 year)**

"I talk to people about, I help others grow out of it" **(Joshua, 36 years)**

One (1) participant said she watched television to cope with her situations.

"I watch television. I would watch my on the television. My phone makes me happy. I chat and watch videos". **(Charity, 32 years)**

A participant said reading a book of using her phone helps divert her attention from bad experiences. She said:

"Busy with my phone, reading something on. Yeah. Just find some book, if I am home and I think I am tired I just start watching movie or yeah" **(Esi, 26 years)**

4.8.3 Disregard

Disregard describes the action or state of paying no attention to something. The study reveals that participants use disregard as a form of coping. From the narration, participants preferred to turned a death ear to the negative reactions from people. A participant said:

> *"I ignore them simply because I can also work for my daily bread after you say that, and I respond I will not hang around and wait for you to continue the conversation. I will not have that time for you"* **(Tobi, 47years)**

> *"When someone does something to offend me, I ignore it. I view it as lack of knowledge because when I was not in this situation I used to stare at disabled people. I wondered whether God created them that way. Now that I am in their shoes, I have realized people lack knowledge about these conditions"* **(Olivia, 33 years)**

> *"Yes, I understand that part, so the moment where let's say, you are passing and someone makes some nasty comment. I will never mind you, I move on, it is not written on me, if I leave here and I go to different place, am not going to get that comment"* **(Sam, 25 years)**

> *"Me my family hmm… the way they are, it's like they are different. So, now the place I am, let's say I have putting cotton into my ears, whatever they will say, I will just forget them because now am struggling for my life"* **(Nafiz, 27 years)**

> *"Oh! it's very simple, so there are two ways, one is to ignore and if I can't ignore, I relate it to the past. I visit the past to see if there was or there has been anything worse than that, if there has been I can overlook it, easily"* **(Joshua, 36 years)**

4.8.4 Faith in God

This sub-theme refers to a coping method used by the participants to deal with life's hardships. Some of the participants considered God to be their protection. Participants had confidence in God, therefore they prayed to Him or read Bible verses to bolster their spirits. A participant narrated:

> *"In the Bible, someone was born blind. When Jesus was asked why he was born blind, He replied that it was for the Glory of God. I have faith in God. Maybe if I hadn't gone into this situation, like I said earlier, I would have taken a lot of things for granted and live my life anyhow. With this leg, I have been able to have children and look after them, do my work, do everything, why will I not thank God? Why would I depend on man?"* **(Tobi, 47years)**

A participant who reads the Bible to cope explained:

> *"The bible I have been studying made me to know* that *Ecclesiastes chapter 9:11 says unexpected events happen to each and every one and it's not everyone that run a race that wins or goes for battle and wins so I have to have faith in God"* **(Sam, 25 years)**

Some participants resort to praying as a coping strategy. They narrated:

> *"I overcome it by praying, I will just tell myself, it has already been happening so what will I do again? so let's pray. then I will stand up and perform ablution then pray to God and tell him, this should be my last, it shouldn't end until my children, He should let only me face it but not my future"* **(Nafiz, 27 years)**

> *"When I wear it (Prosthesis), I pray to God not to fall"* **(Beauty, 23 years)**

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

5.0. Introduction

The aim of this current study was to explore the experiences of persons with lower limb prosthesis accessing care at a selected Orthopedic Training Center in Ghana. This chapter discusses the major findings of the study, using the constructs identified in the Social-Ecological model as a guiding framework. Persons with LLA are given prosthesis as a form of rehabilitative treatment. The aim of this treatment is to replace the missing limb with an artificial limb to aid with physical functionality. However, living as a prosthetic user does not only leave a dent of a physical disability but also lots of emotional and psychological problems. Therefore, it is important to understand the totality of the lived experiences of a prosthetic user in order to provide a comprehensive healthcare for them. The experiences of being a prosthetic user have been identified and discussed subsequently in the present study. The discussion was organized under the demographic characteristics of lower limb prosthetic users and the main themes that emerged from the study. These were: individual level experiences, family and peer level experiences, community level experiences, structural level experiences and coping strategies used by persons with lower limb prosthesis.

5.1. Demographic characteristics of persons with lower limb prosthesis

The findings revealed that most of the prosthetic users were males which is in good agreement with other related research findings in West Africa (Chigblo et al., 2019; Gebreslassie et al., 2018; Nwosu et al., 2017). This could be due to the fact that men are more likely to handle power tools, machinery and motor riding while women indulge in less trauma-related activities (Hassan Al Imam et al., 2020). Participants in the current study were young with an average age

of thirty-two (32) years. This finding is consistent with the discoveries of a study conducted in a middle-income country which revealed lower-limb amputation occurred in much younger people than adults (Baidoo & Debrah, 2016; Norvell et al., 2019; Rankin et al., 2021). The similarities in these findings could be attributed to the fact that the current study was also conducted in a middle-income country and also because majority of the active and working group of these middle-income countries constitute the youthful population–. The findings from this work also revealed transfemoral (above knee) amputation to be the most common type of amputation. This finding is in contrast with previous studies which revealed transtibial (below knee) amputation as the most common type of amputation among young adults (Baidoo and Debrah, 2016; Isaacs-Itua & Sedki, 2018; Maduagwu et al., 2019). This controversy could be ascribed to the fact that participants in the current study delayed in seeking medical intervention after sustaining traumatic injury to the limbs, therefore, due to the severe damage to the soft tissue, blood vessels, nerves and bone tissue in their legs, transfemoral amputation was the best remedy to save their lives. It was also evident that most of the participants in the current study were high school graduates with some attaining tertiary education. This finding is supported by literature which revealed that most LLAs had attained some form of formal education (Amoah et al., 2018). The current study also revealed that majority of participants were singles. This finding is in contrast with a study by Amoah et al., (2018) where majority of lower limb amputates were married. These opposing results can be explained by the evidence of much younger participants in the current study. The current study also revealed that majority of the participants were engaged in some form of employment. This finding is different from studies that revealed that persons with lower limb amputation were mostly unemployed (Ennion & Manig, 2019; Handy Eone et al., 2018; Järnhammer et al., 2018). The conflicting results between this current study and the

previous studies on employment can be explained by the fact that participants in the current study were much younger and were engaged in entrepreneurial activities as compared to their older counterparts in previous studies. Previous studies also revealed that young persons with prosthesis have a higher chance to participate in an active lifestyle (employment) than older (Poonsiri et al., 2019).

5.2. Individual level experiences of persons with lower limb prosthesis

Participant's history of amputation suggests that majority of them suffered traumatic amputations. This is contrary to recent study which reported that peripheral vascular diseases such as diabetic neuropathy is the commonest cause of LLAs, globally and even in low- and middle-income countries (Pran et al., 2021; Sarfo-Kantanka et al., 2019; Zhang et al., 2020). However, the high number of traumatic amputations observed in this work agrees with a recent report by the National Road Safety Commission (NRSC) which suggests a high incidence of road traffic accidents in the country (NRSC, 2016). Furthermore, the mismanagement of limb fractures by Traditional Bone Settlers (TBS) due to the low number of available orthopedic surgeons to manage traumatic fractures could also have contributed to the observed majority of traumatic amputations (Brouillette et al., 2014; Gebreslassie et al., 2018). Also, it was evident that almost all prosthetic users in the current study struggled with walking at some point in their life. This finding is supported by previous studies which revealed that majority of lower limb prosthetic users had difficulties in walking (Järnhammer et al., 2018; Magnusson & Ahlström, 2017). According to the testimonies of the participants in this work, factors causing difficulty in walking are sweat and skin sores caused by the non-sweat absorbing material used for fabricating the prosthetic socket and improper fitting of the prosthetic leg, respectively. In a related work by Williams (2020), it was revealed that sweating and heat created discomforts for the residual limb.

Although lower limb prosthetic users in this study did not mention phantom limb pain, they complained of residual limb pain and lower back pain. Jacobs et al., (2018), states that, this could be due to poorly fitted prosthesis or altered patterns to accommodate the prosthesis. Additionally, the observed difficulty in walking reported in this work can be linked to the fact that majority of the participants were transfemoral prosthetic users. Literature reports that the higher the level of amputation, the more likely it is for the prosthetic user to experience difficulty in walking (Davie-Smith et al., 2017).

Besides the physical mobility challenges, stigmatization was another paramount issue affecting lower limb prosthetic users. Finding from this study suggested that participants suffered from internalized sigma and experienced shame, sadness and worthlessness to being part of the society. They constantly felt they would be noticed and ridiculed or mocked when they stepped out of their houses. These findings are similar to a study which revealed prosthetic users refrained from going to public places because of anticipatory negative reactions from people (Abouammoh et al., 2021). These similarities in the findings can be explained by the common characteristic features of the respondents in both studies. The results in the current study also suggests that participants wallowed in sorrow as they perceived internalized stigma in themselves when society had not yet stigmatized them. Which also corresponds with a study by Bruno and Fangnwi (2019), which revealed that stigmatization has internal and external consequences that impacts on people's quality of life and social and psychological well-being. Also, participants said, the appearance of the prosthetic feet and limping makes them feel shy when people look or stare at them. This finding confirms the study by Vlachaki et al., (2020) which showed that, many participants were dissatisfied with the appearance of their prosthesis and believed it had a negative impact on their body image, according to the study. In the same

study prosthetic users said whenever someone they were interacting with notices that they are using artificial leg, they began to experience self-induced nervousness due to unattractive appearance of the prosthetic leg (Vlachaki et al., 2020). This internalized stigma could lead to signs of depression, hopelessness, body image distress and suicidal ideations which was evident in the current study as some participants contemplated suicide. Comparatively, studies confirmed that psychological issues like depression, sleep disturbance contributed to high incident of suicidal attempt among lower limb amputees (Zaheer et al., 2020). Another study in Mexico, also reported a high incidence of suicide attempts and depression among persons with lower limb amputation (Arias Vázquez et al., 2018).

Internal stigma has a great negative impact on the prosthetic user's ability to cope and live a productive life. Nevertheless, findings showed that, some participants experienced resilience towards life as they began to understand and accept their new normal. Similarly, Jefferies et al., (2018), explained in their study of 'being just normal' that, prosthetic users kept living normally despite the accompanying difficulties. Prosthetic users in the current study explained that, this is how life is going to be for them; their leg will never come back and they will continue to wear prosthesis for the rest of their lives. Therefore, they have learned to accept themselves because worrying will only bring them other comorbid diseases. This finding is supported by a study amongst persons with diabetic foot or lower limb amputation who experienced resilience (Livingstone et al., 2011; Makai et al., 2019). In their study, the authors found that, despite participants sense of grief and loss, they showed an extraordinary ability to endure and remain satisfactorily resilient to perpetuate hope (Livingstone et al., 2011). In the present study it was evident that, resilience is an important factor that facilitated the prosthetic user's recovery from negative treatments and psychological trauma. Likewise, Walsh et al.,

(2016), indicated that, following traumatic disability, resilient individuals are more likely than the non-resilient to maintain or develop personally meaningful goals, activities and experiences that can promote well-being and alleviate distress.

5.3. Family and peer level experiences of persons with lower limb prosthesis

Family and friends support were reported by most of the participants as a motivation to overcoming difficulties in life. The family and friends support to prosthetic users came in the form of assistance with activities of daily living, proving psychological support (advising and encouraging them to forget their condition and live a normal life), provision of food and financial support. This finding is consistent with the reports in previous studies which revealed that, support from family members, spouses, children and friends ranging from advice, support with activities of daily living and financial assistance aided prosthetic use among persons with lower limb amputation (Amoah et al., 2018; Amorelli et al., 2019; Gonçalves Junior et al., 2017). The current study revealed that participants received integrated family and peer support, others indicated receiving support from religious leaders and sometimes from strangers in a form of financial support in acquiring the prosthetic leg, securing accommodation and feeding. Similar studies revealed that prosthetic users received support from individuals and religious leaders in the form of grants to secure or repair the prosthetic feet, enroll in vocational education, purchase foodstuffs and sometimes job opportunities (Bekmansurov et al., 2019; Ennion & Manig, 2019). Some participants mentioned that, at some point they refused to use the prosthesis because of the reactions from people, but the support they received from their family and peers provided a lot of positive reinforcement for them to continue wearing the prosthesis. This equates with other related studies which revealed that, social support from significant family relations induced

satisfaction with prosthetic usage and enhanced positive self-esteem of persons with lower limb prosthesis (Hawkins et al., 2016; Kizilkurt et al., 2020).

Additionally, whilst family and peers play a rather essential role in ensuring better outcomes for lower limb prosthetic users, it will be quite erroneous to assume that their mere presence is enough to induce positive outcomes. Instead, they also could contribute to discrimination that persons with disabilities experience in family life (Milačić-Vidojević et al., 2017). In the current study, some participants felt being shunned by their friends and families. Majority of participants were excluded from partaking in family activities as they were regarded to be the 'sick' one in the family. This is similar to a study in which prosthetic users reported being perceived us outsiders by members of their family and friends (Milačić-Vidojević et al., 2017). In addition to these feelings, prosthetic users experienced empathy and being treated as weaklings by their family and peers. A study by Andregård & Magnusson (2017), found that, majority of prosthetic users were neglected by family members and peers especially in the early stages of their disability. The same study found that, prosthetic users were usually prevented by family members from carrying out some duties that they could perform on their own with the aid of a prosthesis because they (prosthetic users) were regarded as fragile (Andregård & Magnusson, 2017). Although these actions may be coming from a seemingly harmless standpoint, studies revealed that, they make the prosthetic user feel useless which can be a source of great despair for them (Walsh et al., 2016).

Furthermore, although loss of independence was a major challenge for prosthetic users in the current study, literature reveals that, socio-economic burden of amputation and ensuing prosthetic fitting is usually lessened by family and peers who may take up part of the cost (Newcomb et al., 2018). However, participants in the study displayed displeasure in being

dependent upon their families and care givers for support. They said they felt being a burden on their family members. This finding matches the findings of a study which revealed that participants described themselves as a burden and felt sheltered by others (Day et al., 2019). Also, participants in the current study felt sad because they became dependent on their families for support after losing their job. This finding is contrary to a study in South Africa which reported that prosthetic users exhibited independence in activities of daily living and were actively contributing to the maintenance of their respective households (Ennion & Manig, 2019). The contradiction in the study could be ascribed to the fact that majority of participants in the current study had used the prosthesis for a shorter duration. Participants' accounts suggest that, family and friends were afraid to associate with them in public gatherings. They felt neglected by their families. This finding is in accordance with a study which showed that, about 50% of prosthetic users were neglected by family members and peers especially in the early stages of their disability (Andregård & Magnusson, 2017). This neglect could be attributed to the fact that family and peers felt the lower limb prosthetic user had become a burden on them. According to Mitchell et al., (2020), more often than not, partners felt that the prosthetic user had become more of a burden and most of the time abandoned them.

More so, findings revealed that, persons with a lower limb prosthesis seemed to avoid relationships with the opposite sex because they were afraid of being sexually abused or exploited. This finding is comparable to a study by Morales et al., (2016), which revealed that persons with disability experienced difficulty in finding marriage partners and they are usually the object of fetishization by others (only good for sex and fit to be discarded immediately after). In addition, some prosthetic users shut down and avoid starting a family of their own with a life partner. They were afraid of rejection and embarrassment. This finding is supported by a study

which revealed that persons with disability seem to avoid relationships with the opposite sex due to the fear of being rejected and embarrassed (Ward Khan et al., 2021). In addition, the finding is in agreement with a study which indicated that prosthetic users were worried about their partners leaving them and felt hopeless about being able to start a new relationship due to their physical disfigurement (Verschuren et al., 2016). Furthermore, prosthetic users reported changes in sexual intimacy due to difficulty in assuming previously enjoyed sex positions. In previous studies, it was shown that, lack of sexual gratification was a major source of frustration for persons using lower limb prosthesis (Ward Khan et al., 2021). These findings can be explained by the discomfort of being a prosthetic user.

5.4. Community level experiences of persons with lower limb prosthesis

People with lower limb prosthesis experienced many attitudinal obstacles in the community including stigmatization, environmental barriers and discrimination. The findings showed that participants experienced name calling such as the 'cursed one' or a 'sinner' and sometimes they were labeled as armed robbers who got their legs amputated as punishment for their sins. This finding is consistent with a study which revealed that community level stigma comes in the form of name-calling, being treated as an outcast, being mocked, and being looked down upon (Barbareschi et al., 2021; Wegner & Rhoda, 2016). Participants in the current study were either Christians or Muslims, therefore, it is likely that participants lived in a highly religious environment where misfortunes such as amputation were ascribed to wrongful doing punishable by a supreme being. Stigmatization at the community level has been reported in this study as one of the barriers to participation in and integration into the community. This findings are supported by a study in Sierra Leone which emphasized that, participants were mocked and provoked when participating in the community activities (Andregård & Magnusson, 2017).

These findings can be explained by the high sociocultural emphasis placed on body wholeness by the African societies and also because social integration has not received much attention, especially in sub-Saharan Africa due to existing cultural perceptions regarding disability (Aaron et al., 2021). Participants report showed that they had low social status within their communities, therefore, they could not handle the way people continually stared or looked at them whenever they went out to public gatherings. This finding is congruent to the findings from a study in Poland which revealed that disabled people were denied representation in public space which led to social isolation (Borowska-Beszta, 2019). Some participants in the current study said they resigned from their jobs because they could not stand the eyes of people. This finding is similar to a study which revealed that most prosthetic users lost their jobs mainly due to excuses like 'staff reduction, or voluntary resignation because they could not stand the eyes of others and they felt unfit in their workplaces (Handy Eone et al., 2018). The recent study also showed that prosthetic users were denied jobs because of their disability status. This findings are similar to a study by Ennion and Manig (2019), where participants were excluded from being employed because of their disability status. However, this finding could rather be attributed to the fact that most of the lower limb prosthetic users in the current study were high school dropouts and therefore do not have requisite educational qualifications necessary to compete with their abled counterparts for employment opportunities.

Another area where participants experienced discrimination was related to environmental barriers. Participants shared experiences in difficulty in walking on bad roads, stony floors, muddy floors, as well as difficulty in accessing story buildings, tiled shops and tall bridges without disability friendly walk ways. This finding is in accordance with previous studies that revealed environmental challenges experienced by prosthetic users as inability to walk in tiled

floors, muddy roads, stony grounds, climb stairs and story buildings (Batten et al., 2020; Stuckey et al., 2020) . Reports from the current study showed that participants often became frustrated about falling, sustaining injury and being embarrassed in the public places. Similarly, a study by Hafner et al., (2016), revealed that lower limb prosthetic users described walking in public places as 'scary' because they mostly become afraid of falling over stairs. In the same study, it was revealed that prosthetic users expressed difficulty in walking on slippery floors which prevent them from going to the shops and other places where tiles are used for the ground (Hafner et al., 2016).

In addition, the study revealed that persons with disability were limited to enjoy equal opportunities as the abled people as they experienced difficulty in accessing public toilets in their community. They said they would prefer renting rooms with water closet but land lords often refuse to rent such building by increasing the rent which makes affordability difficult. Hence, they were forced to use KVIP in the community which is difficult with the prosthesis. This finding is similar to a study by Milačić-Vidojević et al., (2017) which revealed that persons with disability experienced difficulties associated with limited life opportunities such as access to work, housing, health care, education, shopping, leisure and recreational activities. This finding can be attributed to the poor status of persons with lower limb prosthesis in African societies.

Also, findings from this study indicate that participants withdrew from social events because the prosthesis limited their movements. This finding is consistent with a secondary data analysis done to determine the influence of environmental barriers on the lives of lower limb amputees which revealed that, despite rehabilitation, these amputees encounter challenges in participation restriction in sporting and other leisure activities, cultural activities as well as certain job opportunities that require prolonged standing (Gallagher et al., 2011). Also, participants in the

recent study were excluded from community activities because of the fear of being stigmatized. This study is comparative to the study that showed that barriers in the environment predictably worsen the feeling of self-disgust among lower limb prosthesis users over time (Burden, 2016). This can be explained by the socio-cultural disparity that exists in African countries concerning re-integration following rehabilitation (Aaron et al., 2021).

Despite the challenges regarding stigmatization and discrimination, participants also received some support from government, church leaders and individuals within the community. The study showed that participants support came be in the provision of jobs, financial assistance to secure or repair the prosthetic feet, to further their education and provision of food stuffs. This finding is similar to study which discovered that community support from church leaders, individuals' government and Non-Governmental Organizations (NGOs) usually comes in the form of grants to secure or repair the prosthetic feet, vocational education, foodstuffs and sometimes job opportunities (Bekmansurov et al., 2019; Ennion & Manig, 2019). Results from the study revealed that the support participants received improved their lives positively. This finding is consistent with a study by Xiuqun & Yuru (2019), which revealed that community support promoted positive outcomes.

5.5 Structural level factors that persons with lower limb prosthesis experience.

From the study, it was revealed that most of the prosthetic users attended various healthcare facilities for the treatment of comorbid conditions. While some participants experienced ill treatment from healthcare workers, others were treated fairly. Literature reveals that in the healthcare setting, stigma originates from the healthcare providers who have the power to stigmatize and exclude others (Major et al., 2018). This stigmatization can stem from the providers assumptions about attributes such as race, class, gender, illness and disability status

of the patient (Rai et al., 2020). In this study, findings revealed that few participants experienced embarrassments in a form of denied privacy. A participant mentioned that, he was asked to remove the prosthetic feet in the midst of other patients for his weight to be checked which he found very humiliating. This corresponds with a study by Badu et al., (2016) which revealed that, persons with disability often experience stigma and discriminatory attitudes from healthcare providers in a form of being denied privacy, use of derogatory remarks, frustration and unavailable services required. This concern was however shared by one participant, which may indicate that people with negative experiences were underrepresented in the current study. Report from the current study also indicate that participants were treated fairly by healthcare professionals. This is in contrast with a study conducted in Ghana which indicated that healthcare providers were rude, insensitive and appeared ill-prepared to address the healthcare needs of people living with disability (Ganle et al., 2016; Badu et al., 2017; Hashemi et al., 2020).

With regard to findings on satisfaction with healthcare services, participants shared negative experiences concerning the organized care and services they received in the healthcare facilities. For example, most of the participants said in the hospital they were made you walk up and down too much in other to access services. Comparatively, a study on healthcare providers showed that they were unprepared to address the healthcare needs of persons with disability (Ganle et al., 2016). However few participants were satisfied with the treatment they received at the healthcare facilities they visited. Participants reported they were being allowed to jump queues at the hospital. This finding contradicts the fundings of a study where disabled people reported that due to the nature of their disability, they needed an additional assistance but some

healthcare providers were unwilling to offer the extra help needed which made them feel disempowered (Kabia et al., 2018).

Concerning healthcare policy majority of participants expressed their worries for not being aware of available healthcare policies purposely meant to assist them. A report by Australian Human Rights Commission, (2016) indicated that is important for persons with disability to know their rights. Majority of participants in the current study were not highly educated and therefore were not abreast with existing disability laws for protection against discrimination. Participants also mentioned that acquiring the prosthetic leg is very expensive yet, they do not receive any form of financial support from anyone. This finding is supported by a study in Ghana which revealed high cost incurred in accessing prosthesis services yet the National Health Insurance Scheme (NHIS) does not entirely cater for treatment of rehabilitation through prosthetic care (Moibi, 2018). Findings in the study also showed distance in accessing healthcare as a health policy concern. Most participants said, the distance from their house to the prosthetic center is far and the cost of transportation is also very high. This agrees with study by Stewart et al., (2016), which reports that only half of Ghanaians can reach a facility capable of providing basic orthopedic care within an hour form their homes (Stewart et al., 2016). This result can be explained by the fact the participants travelled from different regions within Ghana to have access to have orthopedic services at Nsawam. Decentralizing prosthetic healthcare services can help promote easy access.

5.6 Coping mechanisms of persons with lower limb prosthesis.

Findings in the current study revealed various forms of coping mechanisms used by persons with lower limb prosthesis. Participants used music, social media, playing video games, reading books and sometimes talking about their feelings with someone else. This is similar to a

study by Pereira et al., (2018) where individuals with prosthesis used more self-distracted strategies to overcome unfavorable problems in life, such as watching television, jogging, reading, or participating in pleasure activities. This finding depicts the likelihood that younger persons enjoy video games, music and social media and therefore easily resort to such platforms. Findings also showed that, participants separated or disconnect themselves form the community which was helpful to them. Meanwhile a study by Simpson (2016), revealed that participants detaching from social support and avoiding crowd was a dysfunctional means of coping. However, it can be explained that participants in this study wanted to get away from public discrimination and humiliation because they were disables. According to the findings, prosthetic users adopted a variety of mobility adjustment methods to manage walking difficulties. This finding supports a recent study that found that, prosthetic users may see dependency as a problem, necessitating the development of coping strategies to go around, since walking with a prosthesis necessitates close attention (Couture et al., 2012). This can be attributed to the fact that participants in the current study were active and had used the prosthesis for at least more than a year. Participants also had faith in God, they read the Bible or Quran anytime they were experiencing any form of challenges. This is similar to a study by previous studies which states that participants coped by believing that their situation was willed by God (Amoah et al., 2018; Burley & Thurman, 2019). However, the study found that, not all prosthetic users cope well with life as some resorted to using drugs and other harmful substances to cope. This finding is similar a study which revealed high level of substance use among persons with limb amputation (Kearns et al., 2019). This finding can be attributed to the higher representation of males in the current study as male participants have a higher chance to resort to substance abuse as a form of comping. Notwithstanding, coping may have serious effects on the satisfaction with life amongst

prosthetic users if the problem-solving abilities of a prosthetic user is not effective (Rodriquez et al., 2017).

5.7 Evaluation of the Social-Ecological Model

The study explored the experiences of persons with lower limb prosthesis in a selected Orthopedic Center in Ghana. The study's findings were in line with the Social-Ecological model that served as the study's guiding framework.

Findings of the study showed that those who have a lower limb prosthesis experience internal stigma, sadness, and suicidal ideation without even realizing it. Internal stigma, sadness, and suicide ideation all had a negative influence on them since they were unable to carry out daily duties. They resorted to crying, overthinking, and self-pity, leading to major physical health problems such as hypertension and heart failure. Despite their psychological difficulties, they attempted to be resilient and modified their lifestyle to suit their new situation by accepting themselves. This finding is consistent with the first part of the Social-Ecological model, which focuses on individual experiences with internal stigma and resilience as the main constructs.

Again, findings revealed that participants were stigmatized by their closed relatives. Some participants suffered discrimination from family and friends in a form of being excluded from activities and being called names like ‘the sinned one’ or the ‘sick’ person. This brought much psychological and emotional problems to participants. Participants were not comfortable disclosing their amputation status since it reminded them about the traumatic past events. Participants also suffered relationship avoidance where they refused to start relationship with the opposite sex due to fear of being rejected. In addition, participants loss their sense of independence where they have become burdens to their families. Others encountered problems with their sex life since they could not engage in different sex positions with their partners. This

also drained them psychologically as they felt disappointed in themselves. However, participants received support from their family and friends in a form of words of encouragement, provision of food stuffs, educational support, employment and financial support. This finding relates with the second level of the Social-Ecological model which is family/peer level experiences in which stigma, personal relationships and disclosure as the main constructs.

Also, the study revealed that persons with lower limb prosthesis suffered stigmatization and discriminated in their communities. Participants suffered abuses by being exempted from school, church and community activities. They were discriminated against during community games, fun fairs and picknicks. Participants reported being isolated from such events or being mocked. Children were mimicking their walking which made them uncomfortable. They experienced numerous environmental barriers where the floor was slippery, the roads were bad, and high story buildings with stair cases which they couldn't climb. Participants experienced discrimination in seeking for good accommodations. They were refused rent because of their disability status. Some had challenges with toilet facilities within the community. However, despite the many challenges, they received some community support frothier municipal assemblies, religious leaders, friends and strangers. This boosts their confidence and made them felt accepted within the community. These findings were consistent with the third level of the Social-Ecological model which is the community level experiences with discrimination, stigma, acceptance and outreach as the main constructs. However, acceptance and outreach were excluded from the study because it did not have any link with the topic understudy.

Finally, satisfaction with health services is paramount to the lower limb prosthetic users. Some were satisfied with the services provided in the healthcare setting as they indicated being treated with respect and not allowed to join queues. They also commended the nurses on their

positive attitudes exhibited towards them. However, few of participants felt humiliated in the form of denied privacy. Participants expressed their displeasure in the high cost of prosthetic services and the unavailability of structural support. Findings suggest that participants had no knowledge on existing disability rights which prevented them from seeking legal pursuit against discrimination and equal right. This directly relates with the final segment of the Social-Ecological model which is structural level with the construct healthcare system. However, the construct "healthcare policy" under the structural level was excluded from the study because it did not have a direct link with the topic understudy.

Using the Social-Ecological model as the framework for the study was helpful. However, it was observed that at the family and peer level, the model does not sufficiently deal with the total experiences of people. Therefore, an additional sub-construct of discrimination, loss of independence and problems with sex life which was identified in the current study can be considered. These findings are culturally significant and a sensitive aspect for persons with disability which could inform decision making regarding provision of equal opportunities. Two community-level sub-constructs were left out since they were unrelated to the research topic. Acceptance and outreach services were the sub-constructs.

5.8 Summary of Discussion

The chapter discussed significant findings of the current study in relation to the objectives of the study, the conceptual model that guided the study and related relevant literature. Although findings of the recent study were consistent with several discoveries of previous studies in Africa and the western world, they also provided new insights about the cultural differences in the experience of persons with prosthesis in Ghana. This new information could provide insight for policy developers in decision making regarding persons with lower limb prosthesis.

CHAPTER SIX

6.0 SUMMARY, CONCLUSION, IMPLICATION, LIMITATIONS, AND RECOMMENDATIONS

This chapter presents the summary of the study and its implications to nursing education and practice. Conclusions are also drawn based on the major findings made, while recommendations are made for policy. In addition to these, suggestions are also offered for further research into persons with lower limb prosthesis.

6.1 Summary of the study

The study explored the experiences of persons using lower limb prosthesis at a selected Orthopedic Training Center (OTC) within the Eastern Region of Ghana. The study was guided by the Social-Ecological model by CDC, (2013). Exploratory descriptive qualitative approach and purposive sampling technique was adopted in the recruitment of the participants. The study involved seventeen (17) participants aged nineteen (19) to forty-seven (47) who received prosthetic treatment from the OTC in Nsawam-Adoagyiri, Eastern Region and were at least 9 months post-discharge from the center. Face to face in-depth interviews were conducted using semi-structured guide with the help of two research assistants. A psychologist was contacted to offer psychological support to participant who experienced intense emotional breakdown in the course of data collection. The interviews were audiotaped, transcribed and analyzed concurrently. Through thematic content analysis, data collected was analyzed taking into in consideration the constructs of the Social-Ecological model. The main themes that emerged were, individual level experiences of lower limb prosthetic users, family and peer level experiences of lower limb prosthetic users, community level experiences of lower limb

prosthetic users, structural level experience of lower limb prosthetic users and coping mechanisms of lower limb prosthetic users.

Exploring the individual level experiences of lower limb prosthetic users uncovered many narratives from participants. Initially, participants explained their personal histories. While few participants could not identify the exact cause of their amputations. Most participants suffered traumatic amputation resulting from RTA and subsequent mismanagement by bone settlers. Participant's narrative suggested that, they suffered depression, post-traumatic stress disorder and other forms of psychological and emotional consequences. Therefore, they resorted to prosthetic usage as a form of rehabilitative treatment with the hope of regaining their self-worth, independence and overall quality of life. However, despite the prosthetic usage, participants continued to experience shame and stigmatization due to the appearance of the prosthetic feet, limping and negative reactions from people. Participants explained how they could not stand the eyes of people staring at them always. They continually returned to their homes without achieving their purposes. This form of stigmatization experienced at the individual level was described as internal stigma where participants internalized all negative reactions from people, and as a result, they suffered depression and suicidal ideation. Some participants attempted suicide while others were still considering it. Despite all of the psychological and emotional challenges they faced on an individual level, participants still built resilience to safeguard their self-worth. Most of them became optimistic and accepted their new normal. Participants understood that, this was how life was generally going to be for them and therefore came to terms with their new life and lived independently. However, despite knowing that resilience could boost the prosthetic user's self-esteem, comfort is the main determinant to the efficiency and use of lower-limb prosthesis. Participants complained of discomfort from the

prostheses including, sweating, feeling hot and the prothesis becoming slippery thereby subjecting them to falls. Also, participants suffer residual limb tissue breakdown, pain, and pressure sores. These uncomfortable occurrences often led to prosthesis abandonment.

Participants explained that, only their family and friends were aware about their prosthetic feet. Participants found it difficult disclosing their disability status to people other than their family and peers because of the negative reactions they receive from the public. Some participants experienced shame and name calling by their neighbors, working colleagues and strangers. There were discriminatory attitudes like fear of associations, avoidance, pity and gossip by family and peers. Positive experiences from family and friends manifested in the form of financial assistance, material support, giving out foodstuff, giving reassurance and encouragement after losing their jobs. Meanwhile, some participants saw this form of support as being dependent on their family and friends which was not pleasant for them. They expressed how hurtful it was for them to be a burden on their families. Although participants understood that choosing a life partner and having someone to share love and intimacy with was an important aspect of life, they preferred to avoid intimate relationships because of the fear of being rejected, embarrassed and called names. Others expressed their concern for sexual activity in a form of loss of self confidence in sexual proficiency and difficulties in assuming certain sexual positions.

At the community level, stigma was paramount. Being a prosthetic user triggered a lot of discriminatory attitudes from their employers and colleagues. Some battled with securing a conducive apartment within their communities, others were denied jobs and excluded from social events. Some also, were bullied by their class mates or treated unfairly. As a result, some participants began to withdraw from social gatherings. Community structures like bad roads,

story buildings with stair cases, tarred shops, big gutters and tall bridges without disability friendly walk ways were very challenging for the prosthetic users. Participants lamented about how they felt pain and even fall over the stairs while using community structures. However, the government, religious institutions, and individuals in the community, lent their support. The support came in provision of food, clothing, educational and financial support for securing or repairing the prosthetic leg.

With regards to structural experiences, most of the prosthetic users narrated being treated fairly by healthcare professionals. They appreciated the special treatment they received from the healthcare facilities and the positive attitudes exhibited by healthcare providers. Participants reported being allowed to jump the queue at the hospital to facilitate easy access to items. Some participants also noted that healthcare workers should have solid interpersonal relationships and communication skills. Participants' worries about policy were limited. Prosthetic users were unaware of health policies affecting disabled people. They, however, mentioned the high cost of prosthetic services as an important factor that should be included in the National Health Insurance Scheme (NHIS). Participants also mentioned inaccessibility of prosthetic services within their communities as they had to travel long distances across the country to receive prosthetic services. They would be happy if the prosthetic centers could be decentralized in every region in Ghana to promote easy access.

Participants devised various strategies in order to cope with the problems they faced. These coping mechanisms came in a form of isolation, exploring social media, listening to music, talking to someone and playing video games. Others devised prosthesis mobility adjustments methods to cope. Some also chose to disregard negative comments from people and to just carry on with their life and having faith in God.

6.2. Reflexivity and field experiences

A researcher's personal experiences and associations shapes how the meaning of a phenomenon is understood. The purpose of reflexivity is to ensure that the researcher does not perpetuate oppressive structures inside the research study and toward the participants. The researcher is a registered general nurse with nine (9) years of working experience in the public sector. The researcher currently has three (3) years working experience as a health tutor at an Orthopedic Training College situated on the compound of the Orthopedic Training Center where persons with lower limb amputation receive prosthetic rehabilitation. The researcher had several encounters with the lower limb prosthetic users in the past and has personally provided support for some of them. The researcher's reflexivity on the experiences of people who use lower limb prosthetics has been shaped by this. The researcher admitted that doing this study was instructive and enlightening. This is because, the study exposed the researcher to culturally specific realities of living as an amputee/lower limb prosthetic user and offered the researcher the opportunity to learn what persons with lower limb prostheses go through on daily basis. During the data collection, the researcher empathized with the plight of the participants. The emotional reaction of the researcher was in a form of sympathy and greater appreciation of everyday life. There were times where the researcher had goose pimples all over the body as participants shed their experiences. Some of the participants were emotionally touched when they saw the researcher's empathy towards them. This made them open up and shared their experiences freely. The researcher was concise and precise in identifying the themes and subthemes during coding and presentation of the data. During the data processing stages, the researcher also separated herself from her own interpretation. In order to give due significance to the information provided by participants, the researcher was discriminatory in picking core information from irrelevant data.

In general, the study was very emotional and elicited sadness as the participants shared some painful experiences about stigmatization. However, the study offered them an opportunity to open up and voice out their experiences to someone who was ready to listen without being judgmental. The researcher observed that participants looked relaxed and cheerful after sharing their experiences. It looked to them like someone actually "cared" about them.

Finally, while completing this research was tough and time-consuming, it was also extremely rewarding. The researcher was filled with so much worry and anxiety that she thought it was impossible, but encouragement from his supervisors, as well as family and friends, kept her going. Being able to understand the research process, conducting interviews, and analyzing data on one's own provided the researcher with the opportunity to gain skills and knowledge for future studies, as well as the confidence to pursue higher education.

6.3. Implication

Findings of this study has some implication in relation to education, rehabilitation and research and policy.

6.3.1. Implications for rehabilitation

This study advances knowledge by providing valuable information for evidence-based factors affecting lower limb prostheses users through the stories they told. Also, understanding the concerns of lower limb prosthetic users can help the rehabilitative team to provide more holistic interventions necessary for patient recovery. This will help increase their functionality and psychological therapy to decrease suicidal behavior and depression. Finally, rehabilitation specialist should consider adding or integrating evidenced-based treatment for prosthetic users into patient's long term rehabilitation plan to reduce the prosthetic mobility issues.

6.3.2. Implication for education

Rehabilitation is a long process and usually begins the first day patients are admitted into the hospital. Therefore, it is necessary to introduce disability and rehabilitation subjects in the Ghanaian health training curriculum to help provide fundamental rehabilitation knowledge to caregivers. Also, continuous educational program and short courses like counseling techniques and cultural competency should be developed for personnel involved in the rehabilitation process of lower limb amputees to give accurate psychological support needed. This will enable rehabilitative care professionals to provide a focused care. Sexual education should be emphasized and inculcated in the rehabilitation process of prosthetic users.

6.3.3 Implication for research

Based on the findings of the current investigation, several potential studies can be developed. the major themes (individual level experiences, family/peer level experiences, community level experiences and structural level experiences) that emerged for example, can be further investigated to acquire a better understanding of the experiences of lower limb prosthetic users. Furthermore, a ground-breaking study could be a quantitative method to measure the relationship between demographic characteristics (age, years of prosthetic use, marital status, and employment status) and the Social-Ecological model constructs (individual level, family/peer level, community level, and structural level). This will aid in determining the effects of these variables on the life of the prosthetic user. It is also possible to investigate the relationship between the appearance of the prosthetic limb and the psychological experiences of prosthetic users. A study might be done to develop and validate a simple measure to help prosthetists and rehabilitation specialists better assess the psychological experiences of lower limb prosthesis users.

6.3.4 Implication for policy formulation

The state should engage qualified persons who work directly with persons with lower limb disability when formulating policies to improve the lives of persons with LLA. Clinical psychologists should be included in the rehabilitative process of lower limb amputees. Provision of the prosthetic feet should be included in the National Health Insurance Scheme. Policy decision makers in collaboration with rehabilitation specialist should provide worker-oriented vocational training programs for lower limb prosthetic users as a form of societal reintegration. Reproductive health service units should be set up at the prosthetic rehabilitative centers across the country to support prosthetic users with sexual issues.

6.3.5 Limitations of the study

The study design as with all qualitative designs does not allow for a conclusive outcome. Therefore, the study cannot be considered a representation of the population of lower limb prosthetic users in Ghana. The data was collected from a small sample, hence, only those who were willing to share their experiences were allowed to participate in the study which may have limited the chances of having varied responses. However, generalizability was not the outmost aim of the study. What can be transferred from the study was the actual cultural differences in experiences as expressed by participants. Participants were all young adults who suffered traumatic amputation, therefore, experiences of children, the elderly and those who suffered amputation as a result of other causes was not explored. One of the challenges faced was difficulty in meeting participants in person due to the national lock down during the COVID-19 pandemic era. As a result, the meeting was rescheduled, delaying data gathering. The interviews conducted at the orthopedic center were interrupted by some rehabilitative team members which affected the flow of the narratives.

6.4. Conclusion

Persons with lower limb prosthesis go through numerous psychological and emotional experiences. These experiences range from individual level experience, family/peer level experience, community level experience and structural level experiences. The equilibrium interactions between these variety of experiences affect all aspects of their lives. Therefore, understanding these experiences is paramount in proving care and support to these prosthetic users in the society. Furthermore, it is necessary for collaborative and integrative approach in the rehabilitation of persons with amputation and prostheses. Hence, a clinical psychologist should be included in the rehabilitation of amputees in order to prepare them for prosthetic use.

6.5. Recommendations

1. The Ministry of Health (MOH) should introduce and implement integrated health approach in Ghanaian's health facilities. The Orthopedic Training Center should have a clinical psychologist, a physician, nurses, a social worker, a reproductive health provider among others. This will help tackle all problems of lower limb prosthetic users from all aspects.
2. Anti-stigma campaign should be designed and implemented throughout the country to reduce the magnitude of discrimination and stigmatization experienced by lower limb prosthetic users.
3. Prosthetic users should be included in stakeholder decision making policies within their communities in order to help address issues of concern for LLAs
4. Policy decision makers in collaboration with rehabilitation specialists should provide worker-oriented vocational training programs for high functioning prosthetic users in order to promote independence.

5. Persons with LLA who are young, qualified and interested in pursuing education in prostheses technology should be encouraged by scholarship opportunities from the disability common fund by the local government.
6. Community-based rehabilitation approach should be introduced as a form of decentralizing rehabilitation services in the community to relieve the burden of traveling long distances to access prosthetic rehabilitation.
7. To alleviate the financial burden of obtaining or repairing prostheses, the provision of the prosthetic leg should be incorporated in the National Health Insurance Scheme.

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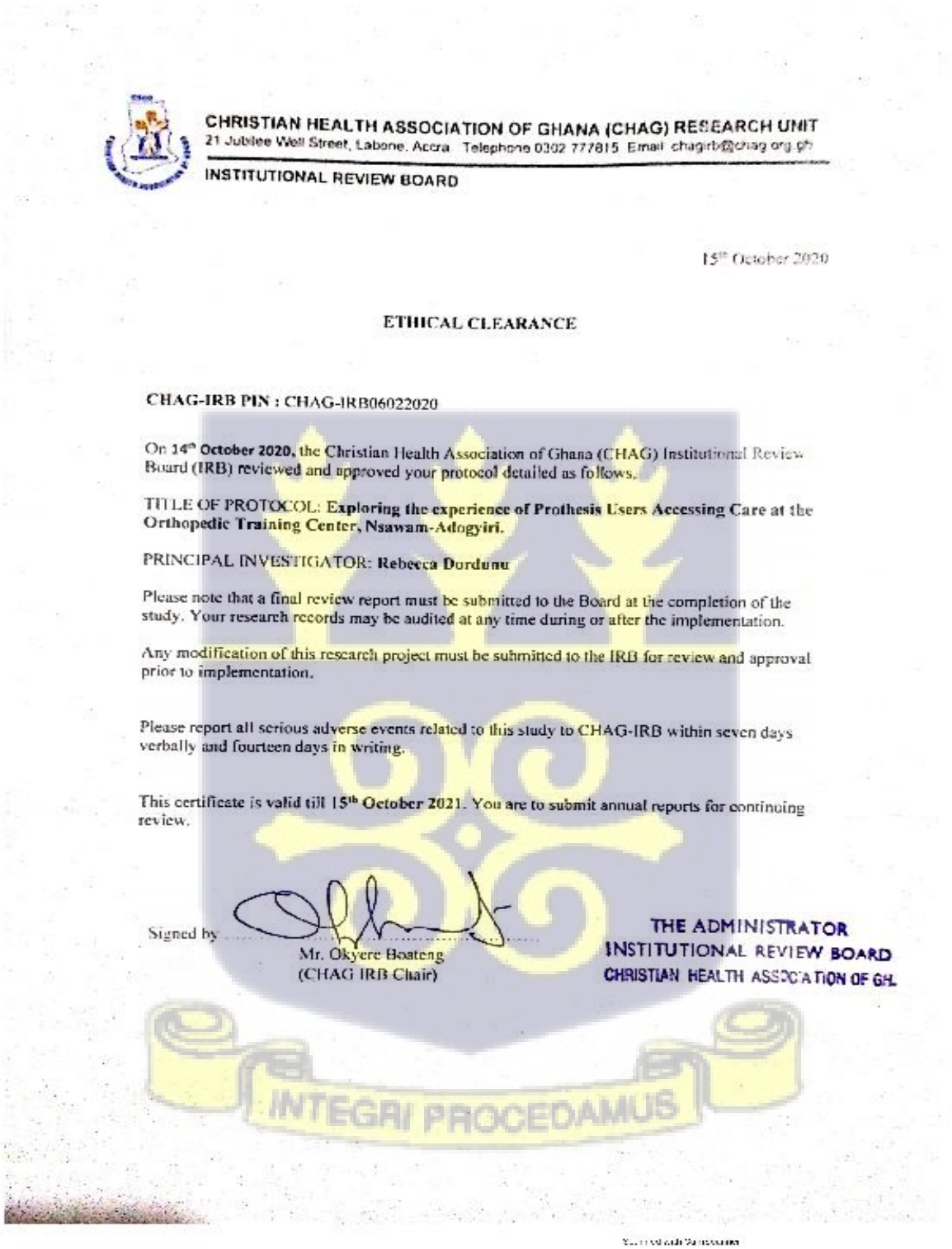
APPENDICES

Appendix A: Ethical Clearance



CHRISTIAN HEALTH ASSOCIATION OF GHANA (CHAG) RESEARCH UNIT
21 Jubilee Well Street, Labone, Accra Telephone 0302 777815 Email chagirb@chag.org.gh
INSTITUTIONAL REVIEW BOARD

15th October 2020

ETHICAL CLEARANCE

CHAG-IRB PIN : CHAG-IRB06022020

On 14th **October 2020,** the Christian Health Association of Ghana (CHAG) Institutional Review Board (IRB) reviewed and approved your protocol detailed as follows.

TITLE OF PROTOCOL: **Exploring the experience of Prothesis Users Accessing Care at the Orthopedic Training Center, Nsawam-Adogyiri.**

PRINCIPAL INVESTIGATOR: **Rebecca Dordunu**

Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to CHAG-IRB within seven days verbally and fourteen days in writing.

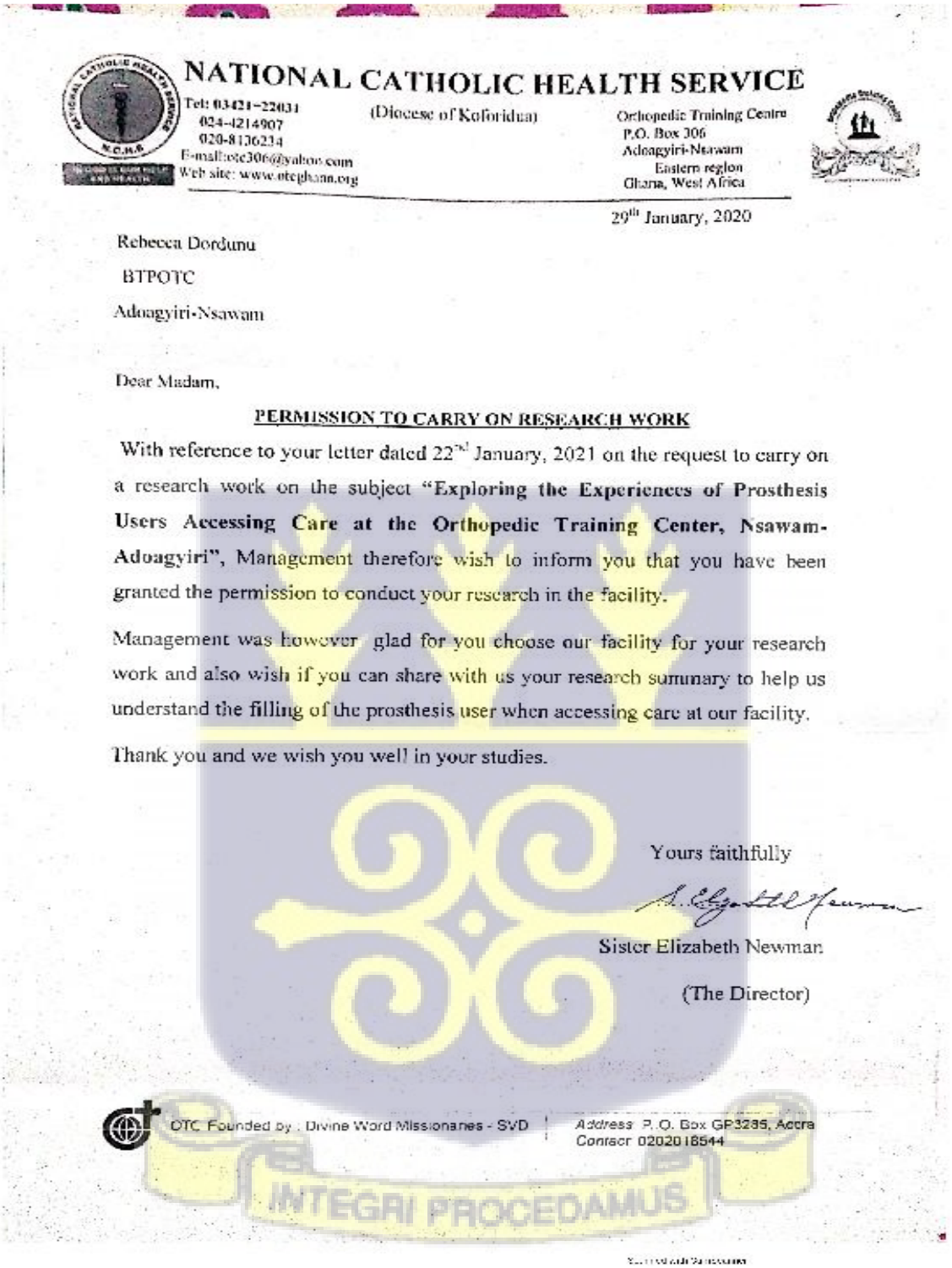
This certificate is valid till 15th **October 2021.** You are to submit annual reports for continuing review.

Signed by .....
Mr. Okyere Boateng
(CHAG IRB Chair)

THE ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
CHRISTIAN HEALTH ASSOCIATION OF GH.

INTEGRI PROCEDAMUS

Appendix B: Approval Letter



NATIONAL CATHOLIC HEALTH SERVICE

Tel: 03421-22031
024-4214907
020-8136234
E-mail:otc306@yahoo.com
Web site: www.otcghana.org

(Diocese of Koforidua)

Orthopedic Training Centre
P.O. Box 306
Adoagyiri-Nsawam
Eastern region
Ghana, West Africa

29th January, 2020

Rebecca Dordunu
BTPOTC
Adoagyiri-Nsawam

Dear Madam,

PERMISSION TO CARRY ON RESEARCH WORK

With reference to your letter dated 22nd January, 2021 on the request to carry on a research work on the subject **"Exploring the Experiences of Prosthesis Users Accessing Care at the Orthopedic Training Center, Nsawam-Adoagyiri"**, Management therefore wish to inform you that you have been granted the permission to conduct your research in the facility.

Management was however glad for you choose our facility for your research work and also wish if you can share with us your research summary to help us understand the filling of the prosthesis user when accessing care at our facility.

Thank you and we wish you well in your studies.

Yours faithfully

Sister Elizabeth Newman

(The Director)

OTC Founded by : Divine Word Missionaries - SVD

Address P. O. Box GP3285, Accra
Contact 0202018544

Appendix C: Introductory Letter

UNIVERSITY OF GHANA
DEPARTMENT OF COMMUNITY HEALTH NURSING
SCHOOL OF NURSING

ID: 10754098 August 24, 2020

Ref. No.:.....

The Administrator
Christian Health Association of Ghana (CHAG)
Research Unit
21 Jubilee Wel. Street
Labone - Accra

Dear Sir/Madam,

LETTER OF INTRODUCTION- ETHICAL CLEARANCE

I write to introduce to you **Rebecca Dordunu**, a Sandwich MPhil Nursing student in the department of Community Health at the School of Nursing and Midwifery, University of Ghana, Legon.

The Scientific Review Committee of the School has approved the thesis topic: **"Exploring the experiences of Prosthetic Users accessing care at the Orthopedic Training Center, Nsawam-Adoagyiri".**

I hope that the ethics review committee will consider the proposal to enable her collect data.

Counting on your kind co-operation

Thank you.

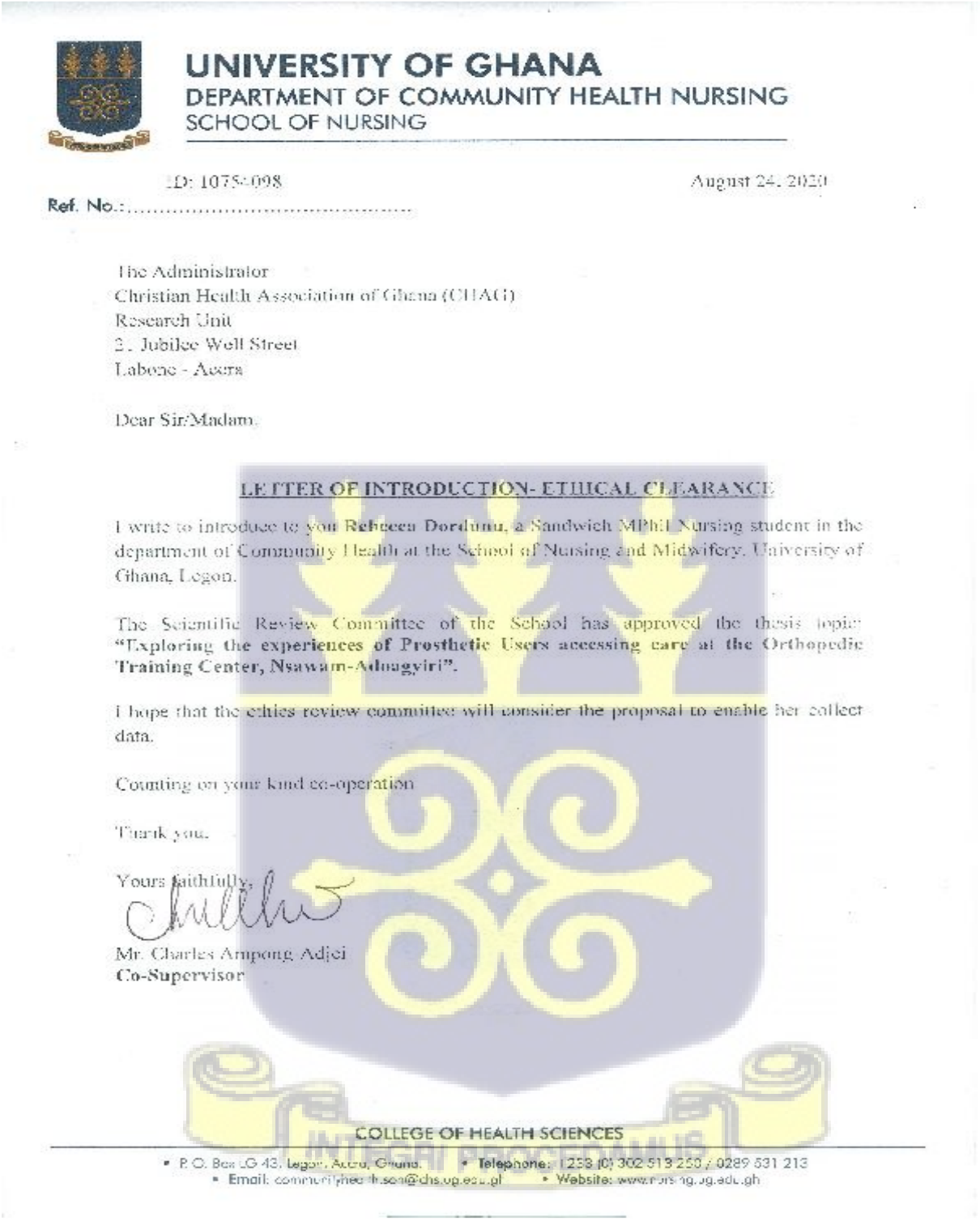
Yours faithfully,

for

Dr. Josephine Kyei
Principal Supervisor

INTEGRI PROCEDAMUS
COLLEGE OF HEALTH SCIENCES
• P. O. Box LG 43, Legon, Accra, Ghana. • Telephone: +233 (0) 302 513 250 / 0289 531 213
• Email: communityhealth.son@chs.ug.edu.gh • Website: www.nursing.ug.edu.gh

Appendix D: Introductory Letter



UNIVERSITY OF GHANA
DEPARTMENT OF COMMUNITY HEALTH NURSING
SCHOOL OF NURSING

ID: 10754098 August 24, 2020

Ref. No.:.....

The Administrator
Christian Health Association of Ghana (CHAG)
Research Unit
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Labone - Accra

Dear Sir/Madam,

LETTER OF INTRODUCTION- ETHICAL CLEARANCE

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The Scientific Review Committee of the School has approved the thesis topic: **"Exploring the experiences of Prosthetic Users accessing care at the Orthopedic Training Center, Nsawam-Adoagyiri".**

I hope that the ethics review committee will consider the proposal to enable her collect data.

Counting on your kind co-operation

Thank you.

Yours faithfully,

Mr. Charles Ampong Adjei
Co-Supervisor

COLLEGE OF HEALTH SCIENCES
• P.O. Box LG 43, Legon, Accra, Ghana. • Telephone: (233 (0) 302 513 250 / 0289 531 213
• Email: [illegible] • Website: www.nursing.ug.edu.gh

Appendix E: Consent form

Title: Experiences of Person's with Lower Limb Prosthesis in a selected Orthopedic Training Center, Eastern Region

Principal Investigator: Rebecca Dordunu
Address: School of Nursing and Midwifery
University of Ghana, Legon
P. O. Box 43, Legon
Telephone: O24 3019351/050 3955142
Email: ladybecks09@gmail.com

General information about the study

The objectives of the study are to explore the individual, family and peers', community and structural related factors that influence the experiences of persons with lower limb prosthesis. This study is qualitative research and it entails the use of an interview guide to collect data from the participants who voluntarily agree to participate in the research. The information will be audio-recorded with permission from participants; audios will be transcribed verbatim and interpreted to disclose the experiences of persons with lower limb prosthesis. You have been invited to participate in this study because you had a prosthetic treatment in the selected Orthopedic Training Center in the Eastern Region of Ghana. If you agree to participate, you will be required to sign a consent form and attend an interview. The interview will last about 30-40 minutes and it will be held at the outpatient department of the Orthopedic Training Center. But if you are not comfortable with the venue, you can suggest where you think is more comfortable to you. The time of the interview will be decided by you. There is no wrong or correct answer to all questions asked; you are therefore encouraged to express yourself freely in whatever manner you so wish.

Possible Risks and Discomforts

Some of the questions to be asked may remind you of some unpleasant circumstances. In that case if you feel like continuing with the interview that will be ok, but if not, the interview will be stopped base on your request. The interview can be scheduled another time appropriate if necessary. You will be provided with psychological or counseling support from the institution you are seeking care if the need arises.

Possible benefits

Participation in this study will help the researcher to understand the challenging experiences of persons with lower limb prosthesis. The outcome of the study will also generate relevant information to inform national policy decision making bodies to provide support for persons with lower limb prostheses.

Privacy and Confidentiality:

Your name, signature or other information that will make you known will not be included. Instead, false name will be used for identification purpose. Information that you provide will be labeled with a protected number and locked by me. Only the researcher and her supervisors will have access to the information, and your name will not be mention in any of the research report. All study information will be destroyed five years after the study. Also any University of Ghana publication from this study will not include any identifiable information, only group data (themes) will be use.

Compensation

You will receive some snacks and an amount of GH¢ 20. 00 as a form of compensation. Findings of this study will go a long way to provide information that will assist prosthetist and other rehabilitative service providers to understand the challenges of prosthesis use in Ghana. The

study findings will also provide information to the general society at large on experiences of prosthetic users which will in turn inform national policy decision making bodies to provide appropriate strategies aimed at improving vocational, psychosocial and physical rehabilitation services for persons with lower limb amputation and prostheses

Voluntary Participation/Withdraw from the Study

Your participation in this study is purely voluntary and if at any point in time you decide not to continue with the study, you are at liberty to do so. You will not lose anything if you decide not to be part of the study anymore. You will not participate in the study if you do not sign the consent form and or you are found at the Orthopedic Training Center for other reasons rather than seeking prostheses treatment.

Outcome and Feedback: the outcome of the research is to gain insight into the experiences of persons with lower limb prosthesis on the individual level, family and peers' level, community and structural level. The outcome of the study will be communicated to you, other participants and stakeholders using several platforms including community workshops, conference presentations and publications.

Recording of interview: The interview process would be recorded to aid in data transcription and analysis. Your responses and participation in the study will be anonymous. To do this, your name and other identifying information such as the facility where you were recruited will not be mentioned in the interview. Kindly indicate your agreement to recording the interview by checking one of the boxes below;

( ) YES, I agree to the recording of the interview

( ) NO, I do not agree to the recording of the interview

Contacts for Additional Information

If you need more clarification about this study, you can contact my supervisors through the following:

Dr. Josephine Kyei (Supervisor), Department of Community Health, School of Nursing and Midwifery, University of Ghana, Legon, P. O. Box 43, Legon, Telephone: 020 8154212, Email: jmkyei@ug.edu.gh and Mr. Charles Adjei Ampong (Supervisor), Department of Community Health, School of Nursing and Midwifery, University of Ghana, Legon, P. O. Box 43, Legon, Telephone: 024 4712071, Email: chadjei@ug.edu.gh

Rights as a Participant

This research has been reviewed and approved by the Christian Health Association of Ghana Institutional Review Board (CHAG-IRB). If you have any questions about your rights as a research participant you can contact the CHAG-IRB administrator, Mrs. Sarah Sackey Martei-Olletey between the hours of 8am-5pm on 0277866516 or 0202904777, or email addresses: chagirb@chag.org.gh.

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research titled **Experiences of persons with Lower Limb Prosthesis in a selected Orthopedic Training Center, Eastern Region** has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer

_____ _____

Date Name and signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the risks, benefits and procedures read to volunteer. All questions were answered and the volunteer has agreed to take part in the research.

_____ _____

Date Name and signature or mark of witness

I certify that the nature and purpose, potential benefits and possible risks associated with participating in this research have been explained to the above individual.

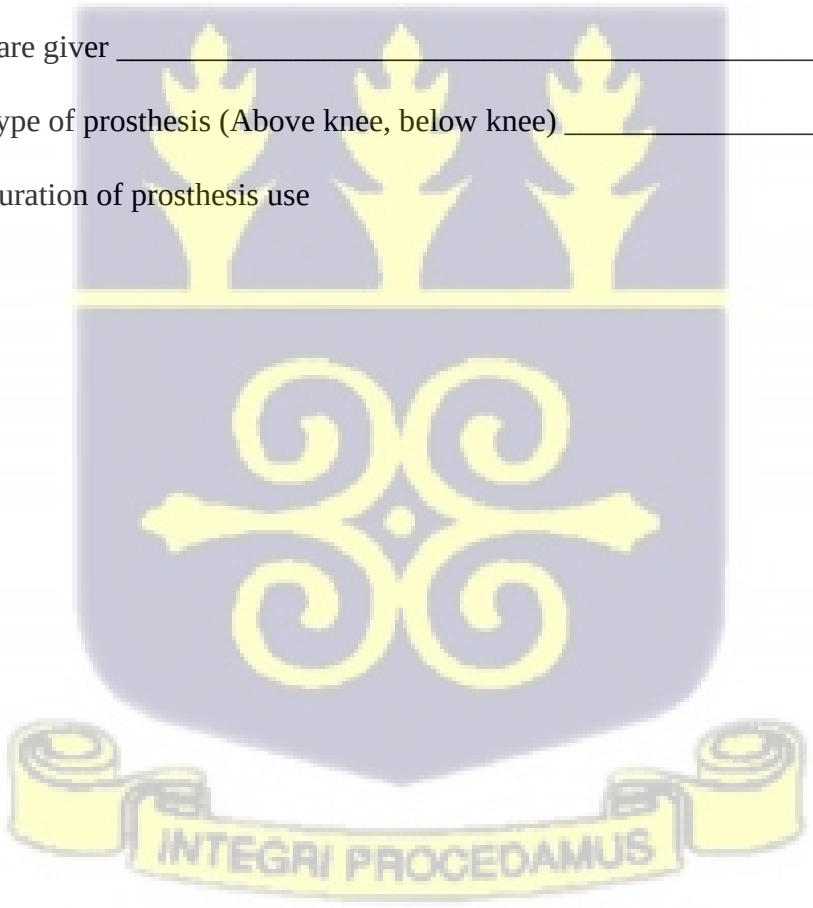
_____ _____

Date Name and signature of person who obtained consent

Appendix F: Demographic Information

Pseudonym……

1. Age_____
2. Gender_____
3. Religion_____
4. Level of education_____
5. Marital Status_____
6. Occupation_____
7. Care giver _____
8. Type of prosthesis (Above knee, below knee) _____
9. Duration of prosthesis use



Appendix G: Data Collection Instrument (Interview Guide)

1. What are your individual level experiences with using a lower limb prosthesis?

   Probe:

   - How did you receive the prosthesis?
   - Tell me about your experiences using prosthesis?
     - Probe1. Mobility, 2. Finances, 3. Access, 4. Ease of use etc
   - Tell me about your experience with stigma when you wear the prosthesis.
     - How differently are you treated by people because you are using a prosthesis?
       - How does the treatment you receive make you feel?
     - How do you feel when people make certain remarks in your presence?
       - What kind of remarks?
       - How do these remarks make you feel?
   - What do think about yourself anytime you wear prosthesis? And how does that make you feel?

2. Please tell me how your relationship with family and peers have bearing on your lived experiences as a prosthetic user.

   Probe:

   - How would you describe your relationship with (1) family members and (2) peers in view of the prosthesis you wear?

- What positive experience do you have to share about your (1) family and (2) peers concerning you wearing the prosthesis?
- What negative experiences do you have to share about your (1) family and (2) peers concerning you wearing the prosthesis?
- How would you describe the support you received from (1) family members and (2) peers in using the prosthesis?
- Emotionally, what are your experiences with entering into an intimate relationship or being in an intimate relationship?
    - How can you describe your sex life?

3. Please tell me how your community has influenced your lived experiences as a prosthetic user.

    Probe:

    - How are you treated differently in your community?
    - Describe how community structures facilitate/impede your movement.
        - Tell me about your experience with the transport system in the community.
        - What is your experience in accessing entry and exit with community buildings (church, school, hospital)?
    - What are your experiences with being part of community activities? (Games, cleanup exercise, funfair, picnic etc.)
    - What has your community done to support you?

4. Tell me your experiences in accessing services in the hospital environment as a prosthetic user

   Probe:

   - How is the hospital environment structurally accessible to you?
   - What is the attitude of the healthcare professionals toward you as a prosthetic user?
     - How are you treated differently in the hospital than other people?
   - How organized are the services you receive from the hospital?
   - How do you finance your prosthesis?

5. How do you cope as a lower limb prosthetic user?

   Probe:

   - How do you handle negative experiences you have had because of the prosthesis?
   - How do you handle the mobility limitations that comes along with using a lower limb prosthesis?
   - How are you able to manage the emotions that comes with being a prosthesis user?