

CENTRAL UNIVERSITY
SCHOOL OF MEDICINE AND HEALTH SCIENCES
DEPARTMENT OF NURSING

**COPING STRATEGIES OF VICTIMS OF ROAD TRAFFIC ACCIDENT FOLLOWING
AMPUTATION AT KORLE-BU TEACHING HOSPITAL**

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DECLARATION

We hereby declare that this submission is our own work towards the BSc. and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the university, except where due acknowledgement has been made in the text.

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DEDICATION

To our Parents, Siblings and Friends

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We are most grateful to the Lord Almighty God for His divine grace and protection that saw us through this study. Our sincere thanks go to our supervisor Mr Amin Jibril for his advice, comments and corrections.

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ABSTRACT

Amputation has a devastating effect on patients and their families. It is a major source of permanent impairment, functional limitation, body image changes and displaces the body's sense of balance (Sebaee and Mohamed, 2011). The purpose of this study is to assess the coping strategies of victims of road traffic accident following amputation at Korle-Bu Teaching Hospital. A descriptive quantitative survey was used to conduct the study. The target population of the research consisted all victims at Korle-Bu teaching hospital who have undergone amputation following road traffic accident. Convenient sampling technique was used to select 80 respondents for the study. The results indicated that, the victims believe that, they can reintegrate into society once they have suffered amputation and live a normal life. The victims have learnt to move on with their life, though they do not get enough support from family, friends and government. In managing the issue of amputation, the victims resort to recreational activities, drugs use, counselling services and prayers.

CHAPTER ONE

BACKGROUND AND LITERATURE REVIEW

1.0 Introduction

This chapter discusses the background of the study, problem statement, purpose of the study, research objectives, research questions, significance of the study, operational definition of terms and literature review.

1.1 Background of Study

Amputation has a devastating effect on patients and their families. It is a major source of permanent impairment, functional limitation, body image changes and displaces the body's sense of balance (Sebaee and Mohamed, 2011)..

El Sebaee and Mohamed (2011) further indicated that, amputation poses challenges on many levels: physical, emotional, social, and financial. How people cope with their amputation depends upon their unique make-up, previous life experiences, support systems, and the meaning they give to their amputation.

Road traffic accidents are an emerging global epidemic. One of the main causes of death and disability is road traffic injuries, with an unequal number of incidences in developing countries. According to the current estimates of the global burden in 2002, road traffic injuries were ranked as the 11th leading cause of death in the world (Khatib, Gaidhane and Quazi (2015).

Every year, more than 20 million people are injured or disabled and 1.17 million are killed because of road traffic accidents. In developing countries, more than 85% of the deaths and nearly 90% of the disabilities are caused by RTAs globally. (Khatib, Gaidhane, Quazi and Khatib, 2015).

Ameratunga, Hajar and Norton (2016) argued that, although the number of lives lost in road accidents in high-income countries indicate a downward trend in recent decades, for most of the world's population, the burden of road-traffic injury in terms of societal and economic costs is rising substantially.

The goals of amputation are to alleviate symptoms, maintain healthy tissue, and increase functional outcomes. However, amputation may result in significant emotional and psychological changes. It may extensively affect a person's self-concept, which may necessitate intensive, long-term rehabilitation both physically and emotionally (Ruth and Constance, 2008).

Many complications are associated with amputations, including hemorrhage, hematoma, necrosis, wound dehiscence, gangrene, contracture, infection and phantom limb pain (Adrienne and Nancy, 2004). Moreover, there are several stressors, such as changes in body image, role reversal, loss of employment, and financial problems. Amputation has significant long term consequences for the patient. The patient will grieve the loss of a body part and must adjust to a new self-image (Karen and Priscilla, 2008).

The study by El Sebaee and Mohamed (2011) indicated three ways of coping amputation which included active, avoidance and minimizing the situation. It was revealed that on discharge the most frequency of the study sample used minimize as a way of coping followed by two fifth not used any way of coping. After two weeks of discharge the majority used minimize the situation as a way of coping, followed by active coping.

Amputation has dire consequences on victims of road traffic accidents. This demands proper coping strategies for victims. However, the coping strategies of road traffic accident victims is not known in the study institution. This has made it necessary to investigate the coping strategies of victims of road traffic accident following amputation at Korle-Bu Teaching Hospital.

1.2 Problem Statement

Road accidents in Ghana is known to be the second major cause of death after malaria and it is reported that there is an average of 1,909 people who are killed through road accidents annually. Ghana is not immune from this public health problem (Coleman, 2014).

Road accidents are endemic, affecting every nation in terms of human suffering and cost to the community. Millions of people are injured or killed each year, and the financial impact is equally staggering, costing the world economy billions of pounds in medical treatment, healthcare and other forms of human suffering. The World Health Organization (WHO) has reported that 1.3 million people lose their lives every year worldwide, with considerably more people being severely injured from accidents (World Health Organization, 2009).

The physical and psychological consequences of amputation are dramatic and lifelong, and this reality can have a profound impact on the amputee's adjustment to their disability. Loss of a limb can have a considerable psychological impact. Many people who have had an amputation report feeling emotions such as grief and bereavement, similar to experiencing the death of a loved one. Coming to terms with the psychological impact of an amputation is often as important as coping with the physical demands.

Amputation resulting from road accidents are common in Ghana as a result of high rate of road accidents in Ghana. The productive workforce are unable to undertake their normal activities after amputation. This affects families emotionally and financially.

The problem is that, despite the negative consequences of amputation resulting out of road traffic accidents, national data on coping strategies is absent. There are no documented studies on coping strategies of amputation resulting from road traffic accidents according to the knowledge of the researcher. This poses a problem hence calling for a study into coping strategies of victims

of road traffic accident following amputation at Korle-Bu Teaching Hospital by finding answers to the research questions.

1.3 Purpose of the Study

The purpose of this study is to assess the coping strategies of victims of road traffic accident following amputation at Korle-Bu Teaching Hospital.

1.4 Research Objectives

The specific research objectives are:

1. To identify the problems that victims of road traffic accidents go through after amputation.
2. To examine the attitudes of victims of road traffic accidents towards their amputation.
3. To assess the coping strategies of victims of road traffic accidents with amputation.

1.5 Research Questions

1. What problems do victims of road traffic accidents go through after amputation?
2. What are the attitudes of victims of road traffic accidents towards their amputation?
3. What are the coping strategies of victims of road traffic accidents with amputation?

1.6 Significance of the Study

This study is significant in the following way

- Health institution can also tap the recommendations of this study to design proper coping strategies for victims who suffer amputation.
- Families can also benefit from this study to know proper coping strategies for their members who suffer amputation after road traffic accidents.
- Non-governmental organizations, donor agencies and the international community will be informed about the extent of amputation resulting from road accidents and the coping strategies adopted by victims. This will ensure intervention by these agencies.
- Academically, the study will contribute to knowledge coping strategies after amputation as a result of road traffic accidents.
- The study will also become a reference document for future students of Central University.

1.7 Operational Definition of Terms

For the purpose of this study, below terms are defined as follows:

Coping strategies: Efforts adopted to minimize stressful events.

Road traffic accident: An accident which occurs on a way or street open to public traffic.

Amputation: The act of surgically cutting off a limb.

1.8 Literature Review

1.8.1 To identify the problems that victims of road traffic accidents go through after amputation.

Mugo (2010) studied the effects of amputation on body image and well-being. The study was based on life after amputation, focused on psychological, social and economic effects. Systematic literature review was used to analyze the data, twenty recent journals were reviewed and tables were generated to show details of the articles involved such as purpose of the articles, titles of the articles, authors, year of publication and the results. The purpose of the study was to give details of the life after amputation and to provide answers to the following research questions: What are the problems that set in after amputations? How can amputated victims be rehabilitated? Results indicated problems with amputation such as living with a perceived stigma of deformed body image, feeling of emptiness and worthlessness, difficulty in social integration by feelings of being treated differently, lack of effective communication and expression, especially if upper limbs are concerned, psychological problems such as anxiety and depression and economic set back due to loss of job or change of job.

Desmond (2010) examined limb amputation. The aims of rehabilitation following amputation are to restore acceptable levels of functioning that allow individuals to achieve their goals, to facilitate personal health, and to improve participation in society and quality of life either with or without a prosthesis. Individual responses to limb loss are varied and complex; some individuals experience functional, psychological and social dysfunction, many others adjust and function well. The study highlights critical psychological and social issues in amputation, summarizes current knowledge in these domains, and provides a brief overview of psychological interventions designed to address these issues.

Ghous, Gul, Siddiqui, Pervaiz and Bano (2014) aimed to determine prevalence of depression among amputees after major traumas by using Beck Depression Inventory (BDI), in different hospitals of Rawalpindi and Islamabad. Methodology: A descriptive Cross sectional survey was done with a sample of 110 amputees of age between 15-60 years, in different hospitals of Rawalpindi and Islamabad. The study duration was completed from 1st June 2013 to 1st January 2014. Details of data were collected through structured questionnaire. Questionnaire contained causes responsible for this depression and Beck's Inventory Score to measure level of depression. According to the data analyzed results shows that out of 110 amputees 28(25.5%) were having no depression, 35(31.8%) were mildly depressed, 16(14.5%) were borderline depressed, 14(12.7%) were moderately depressed, 8(7.3%) were severely depressed and 9 (8.2%) were extremely depressed according to BDI. The current study suggested that amputees in sample have mostly mild mood disturbance BDI, as they were following rehabilitation and using assistive devices which reduces the impact of disability and dependency and helps coping with depression. Sample selection was from those hospitals of Rawalpindi and Islamabad where a proper Rehabilitation setup was working and a lot of emphasis was laid on the Rehabilitation regime after Amputation. So on the whole mostly patients were mildly depressed according to BDI.

Dadkhah (2013) investigated psychosocial adjustment to lower-limb amputation. The study found that, following the amputation, patient experiences a wide range of conditions such as depression, anxiety, fatigue, long-term changes in recreational activities, economic burdens, medical costs as well as reactions of friends and family members, in addition to a wide range of emotional reactions. This situation, in the absence of adequate support from family and society, could result in non-adaptive responses of the patient. On the other hand, today the new methods of rehabilitation have turned the problem of disability from a personal tragedy to a social problem.

In this attitude, disability is a limitation imposed by the society which prevents these people from participation in social life.

1.8.2 To examine the attitude of victims of road traffic accidents towards their amputation

Sebaee and Mohamed (2011) studied stressors and positive coping strategies among patients with New Limb Amputation. The study was in two folds: firstly, identify the stressors and coping strategies among patients with new limb amputation, secondly, examines the relationship between stressors and coping strategies among patients with new limb amputation. A descriptive correlation research design was selected to fulfill the aim of the study and answer the research questions. Setting was the general surgery, orthopedic and/or vascular disorder departments at El Manial University Hospital. A convenience sample of fifty limb amputated patients were recruited in this study. Data were collected utilizing the following tools: 1) Structured Interviewing Questionnaire, 2) Amputation Related Stressors Questionnaire, and 3) Ways of Coping Questionnaire. Results of the study findings revealed that the new limb amputated patients facing different stressors related to, firstly social life, followed by nature of illness, work situation, body image changes, while hospital stay perceived as the least source of stress. The most common way of positive coping strategies that amputated patients used was minimize the situation followed by active coping strategy. There were statistically significant differences among the study subjects in relation to different coping strategy postoperatively.

A similar study in Ghana by Ohenewa (2017) investigated the correlates of emotional pain and coping strategies among amputees and their caregivers following loss. A sequential mixed-method design incorporating interviews and administration of standardized measures was used to gather data. For the qualitative phase, 20 participants were purposively sampled from the group of

amputees and their caregivers and interviewed using an interview guide. For the quantitative phase, standardized set of questionnaires measuring one's psychological distress, emotional pain, personality and social support was administered to 150 participants who were conveniently sampled from the target population of amputees and their caregivers. Qualitative data was analyzed using thematic analysis. Findings revealed that caregivers and amputees experienced a built up of negative emotions following loss. Quantitative data was analyzed using Pearson Product Moment Correlation (Correlation r), Independent sample t test, Multivariate Analysis of Variance (MANOVA) and Hierarchical Multiple Regression statistical tests and findings revealed that these built up of negative emotions correlated with emotional pain and that there was significant differences in the experience of emotional pain and the coping strategies adopted by amputees and their caregivers.

Godlwana (2009) examined the impact of lower limb amputation on QOL in people in the Johannesburg metropolitan area during their reintegration to their society/community of origin. A longitudinal pre (amputation) test - post (amputation) test study utilized a combination of interviews to collect quantitative data and in-depth semi structured interviews to gather qualitative data. Consecutive sampling was used to draw participants ($n=73$) for the interviews at the study sites pre-operatively. The three study sites were Chris Hani Baragwanath Hospital, Charlotte Maxeke Johannesburg General Hospital and Helen Joseph Hospital. Participants were then followed up three months later for post-operative interviews and key informants were selected for in-depth interviews ($n=12$). A demographic questionnaire, the EQ-5D, the Modified Household Economic and Social Status Index (HESSI), the Barthel Index (BI) and semi-structured in-depth interviews were used. Participants were approached before the operation for their preoperative interviews using the above questionnaires and then followed up postoperatively using the same

questionnaires and some were selected to participate in semi-structured in-depth interviews three months later. Data were analyzed using the SPSS Version 17.0 and STATA 10.0. Twenty-four participants (33%) had died by the time of follow up. At three months, n=9 (12%) had been lost to follow up and 40(55%) was successfully followed up. The preoperative median VAS was 60 (n=40). The postoperative median VAS was 70. The EQ-5D items on mobility and usual activities were reported as having deteriorated significantly postoperatively ($p=0.04$, $p=0.001$ respectively) while pain/discomfort had improved ($p=0.003$). There was no improvement in QOL median VAS from the preoperative status to three months postoperatively. Generally, most participants had come to terms with the amputation and were managing well while some expressed that they were struggling with reintegration to their community of origin three months postoperatively with both functional and psychosocial challenges

1.8.3 To assess the coping strategies of victims of road traffic accidents with amputation

Margalit, Heled, Berger, and Katzir (2013) investigated coping strategies of amputee patients with Phantom Limb Pain: A Longitudinal Study. Thirty one orthopedic inpatients, who had undergone lower-limb amputation, rated their pain levels and mental coping strategies. The Ways of Coping Checklist, Life Orientation Test, and the McGill Pain Questionnaire, 1 - 15 days post-surgery and six months post-surgery were used for evaluation. Denial was found to be negatively correlated with PLP shortly after amputation. In contrast, optimism was found to be negatively correlated with PLP six months after the surgery. Emotion-focused coping mechanisms were found to be positively correlated with PLP. It was concluded that denial during the early stages of recuperation and optimism at later stages of rehabilitation is associated with reduced PLP.

Wilson and Krebs (2016) studied coping with amputation. Interviews were used. The study indicated that surgery of any kind is accompanied by fantasies of helplessness, mutilation, loss of control, body image distortion, castration, rejection and death. All of these fantasies, in or out of awareness, create massive anxiety leading to certain behaviors characteristic of an individual's coping style. For the lower limb amputee, a number of these fantasies become real. The person who has lost a leg needs to depend upon others at least until he has mastered a prosthesis. He must confront not only the physical reality of mutilation, but also the body image changes associated with it and the personal meanings they carry. He must integrate the idea of being "different" so that he may comfortably continue with life. In their work with amputees, both authors have found that some people have greater difficulty than others in accomplishing these tasks.

Andersson and Deighan (2006) examined coping strategies in conjunction with Amputation. Descriptions of Lazarus's and Cullberg's work have been selected to represent a sample of existing theories which have grappled with these psychosocial concepts. The purpose of this study is to describe the various coping strategies utilized by patients who have undergone amputation. The results consist of seventeen coping strategies which are divided up into five theme groups (positive coping, avoidance coping, social support, maladaptive coping, and religion). Evidence is provided which describes how the various coping strategies can actually manifest themselves in reality as witnessed by amputee patients. In conclusion, amputees use various coping strategies at different stages of recovery to deal with the trauma of their loss; these strategies can be observed and identified in both clinical and out-patient settings.

Rachel (2012) aimed to identify variables associated with increased psychological distress after amputation. Particular attention was given to cognitive models of emotion which postulate a key role for self-consciousness and appearance-related beliefs. A cross-sectional correlational

design was employed. Participants were 67 lower limb amputees. Measures gathered information about different types of self-consciousness, appearance-related beliefs, psychological adjustment, and a range of amputation-related factors including activity restriction, prosthesis satisfaction, phantom and residual limb pain and other medical issues. The prevalence of anxiety was 29.9% and the prevalence of depression was 13.4%. Activity restriction, prosthesis satisfaction and appearance-related beliefs were associated with both distress and psychosocial adjustment difficulties. Public self-consciousness was associated with distress and psychosocial adjustment difficulties but this was not the case for private self-consciousness. Psychological distress was more common amongst those who reported amputation-related pain or additional health problems. Distress was not influenced by age, time since amputation, cause of amputation or level of amputation.

CHAPTER TWO

RESEARCH METHOD

2.0 Introduction to the Chapter

This chapter discusses the study design, research setting, target population, sampling method and sample size, data collection tool, data collection procedure, validity and reliability of the study, pre-testing, ethical considerations and limitation of the study.

2.1 Research Design

A descriptive quantitative survey was used to conduct the study. A survey is an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables (Sekaran and Bougie, 2010). A descriptive research is research study with the objective to accurately portray the characteristics of a person, situations, or groups, and/or the frequency with which certain phenomena occur (Sekaran and Bougie, 2010). It can be applied to many populations, it can focus on a wide range of topics, and its information can be used for many purposes.

2.2 Research Setting

Korle-Bu Teaching Hospital was established on October 9, 1923. The Korle Bu Teaching Hospital has grown from an initial 200 bed capacity to over 1,500. It is currently the third largest Hospital in Africa and the leading national referral centre in Ghana. Korle Bu, which means the valley of the Korle lagoon, was established as a General Hospital to address the health needs of the indigenous people under Sir Gordon Guggisberg's administration, the then Governor of the Gold Coast. Population growth and the proven efficacy of hospital-based treatment caused a rise

in hospital attendance in Korle Bu. By 1953, demand for the Hospital's services had escalated so high that the government was compelled to set up a task force to study the situation and make recommendations for the expansion of the Hospital.

The government accepted and implemented the recommendations of the task force which resulted in the construction of new structures, such as the Maternity, Medical, Surgical and Child Health Blocks. This increased the Hospital's bed capacity to 1,200. Korle Bu gained teaching hospital status in 1962, when the University of Ghana Medical School (UGMS) was established for the training of medical doctors. At the moment, the Hospital has 2,000 beds and 17 clinical and diagnostic Departments/Units. It has an average daily attendance of 1,500 patients and about 250 patient admissions. Clinical and diagnostic departments of the Hospital include Medicine, Child Health, Obstetrics and Gynaecology, Pathology, Laboratories, Radiology, Anaesthesia, Surgery, Polyclinic, Accident Centre and the Surgical/Medical Emergency as well as Pharmacy. Other Departments includes, Pharmacy, Finance, Engineering, General Administration.

The Hospital also provides sophisticated and scientific investigative procedures and specialisation in various fields such as Neurosurgery, Cardiothoracic surgery, Paediatric Surgery Dentistry, Ophthalmology, ENT, Renal, Orthopaedics, Oncology, Dermatology, Radiotherapy, Radio diagnosis and Reconstructive Plastic Surgery and Burns (Source: Korle-Bu Teaching Hospital website).

2.3 Target Population

The target population of the research consisted of all victims at Korle-Bu teaching hospital who have undergone amputation following road traffic accident.

Inclusion Criteria

- All victims who have undergone amputation and have stable health condition
- All victims who were willing to participate in the study.

Exclusion Criteria

- All victims without stable condition at the time of data collection.
- All victims who were not willing to participate in the study.

- **2.4 Sampling method and Sample size**

Sampling method enables the researcher to select respondents for the study. Convenient sampling technique was used to select respondents for the study. This method enabled the researcher to select respondents who have undergone amputation for the study. A sample size of 80, was determined based on a 95% confidence level with a 5% allowable margin of error, and with the proportion of coping strategies of victims who have undergone amputation put at 10% (Sample size, $n = z^2 pq/d^2$, where z is the reliability co-efficient (1.96) at 95% confidence level, d is the allowable error margin. The sample size was therefore determined as $n = 0.10(0.90)(1.96^2)/.05^2 = 69.14$. This figure was adjusted to 80 to cater for non-response.

2.5 Data Collection Tool

For effective data collection, there was a need to design appropriate documents to solicit the required information from respondents. The study utilized primary data to find answers to the research questions. The instrument for data collection was semi-structured questionnaire which

had both closed and open-ended questions. The questionnaire technique was preferred because it enabled the researchers to obtain standardised answers from the respondents in order to achieve the purpose of the study. The questionnaires was divided into sections in order to meet the research objectives.

2.6 Data Collection Procedure

A letter of introduction from Central University Nursing Department was sent to the Head of Administration of Korle-Bu teaching Hospital to inform them and to seek consent to collect data. Informed consents was sought from participants for the study and no person was forced to participate in the study. Questionnaire were distributed to participants and they were allowed to fill the questionnaire. Participants were thanked for participating in the study with refreshment.

2.7 Validity and Reliability of the study

Validity of the study ensures that data collected is of value (Creswell and Clark, 2011). For the sake of validity, the questionnaire was peer reviewed by other colleagues before it will be sent to the supervisor. It was a proof read by the supervisor. All corrections were done before it will be administered.

A research instrument is reliable when it can measure a variable accurately and constantly and obtain the same results under the same conditions of a period of time (Creswell and Clark, 2011). To ensure reliability the researchers designed a research instruments that solicited straight forward answers and easy to understand questions. The questions were designed in a way to avoid bias.

Pre testing: The questionnaire were pretested on 10 victims of similar hospital who have undergone amputation. This allowed for errors and omissions in the questionnaire to be dealt with in order to attain a higher reliability of instrument.

2.8 Ethical Considerations

A letter of introduction from Central University Nursing Department was sent to the Head of Korle-Bu teaching hospital to inform them and to seek consent to collect data. Informed consents was sought from participants of the study and no person was forced to participate in the study. Every participant of the study were assured of the confidentiality and privacy of the information that was given. All the completed questionnaire were put in a sealed envelope after data collection to ensure confidentiality. Furthermore, names of respondents was not recorded on the questionnaires in order to ensure anonymity. The participants were also informed that they were free to drop out of the study any time they wish to stop.

2.9 Limitations of the study

The researchers anticipated financial constraints to be a major limiting factor. Time allotted for the study was also short which had an effect on the scope of the study. Not all participants were able to complete the questionnaire due to their state of health even though they were persuaded to do so.

CHAPTER THREE
STUDY FINDINGS AND DISCUSSIONS

3.1 Introduction

This chapter is devoted to the presentation of the study findings and discussions. The data are presented in response to the research questions as presented in chapter one. However, the findings are presented and analyzed in the light of the research objectives.

3.2 Approach to Data Analysis

Questionnaires were collected and coded for easy identification. Data was analyzed with both Microsoft Excel and SPSS (Statistical Package for Social Sciences version 21) applications. Data were presented in frequency counts, percentages, pie charts and bar charts.

3.3 Findings

3.3.1 Background Information

Table 1: Age of Respondent

Response	Frequency	Percent
Below 20 years	12	15.0
20 – 39 years	43	54.0
Above 39 years	26	31.0
Total	80	100.0

Source: Field Data (2019)

From the results presented in Table 1 above, majority 43 (54%) of the victims of road traffic accident who have had amputation were between the ages of 20 to 39 years. Twenty-six (31%) were above 39 years of age whiles 12 (15%) were below 20 years of age.

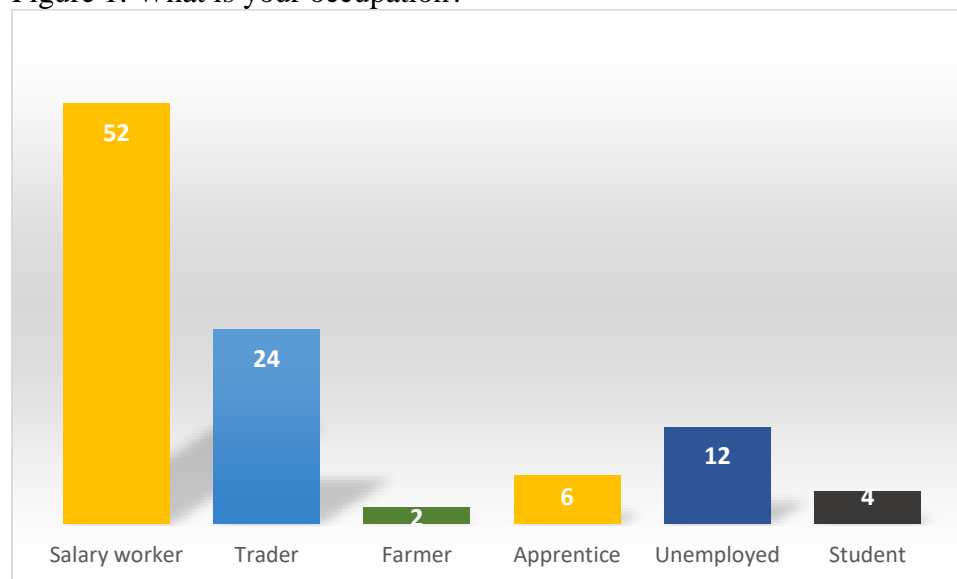
Table 2: Educational Status of Respondent

Response	Frequency	Percent
Basic Education	9	11.0
SHS	20	25.0
Tertiary	47	59.0
No Education	4	5.0
Total	80	100.0

Source: Field Data (2019)

Analysis from table 2 indicate that, 47 (59%) of the respondents have tertiary level education as their highest education. Twenty (25%) of them have Senior High School education as their highest educational level. Nine (11%) of them have basic education while 4 (5%) have no formal Education.

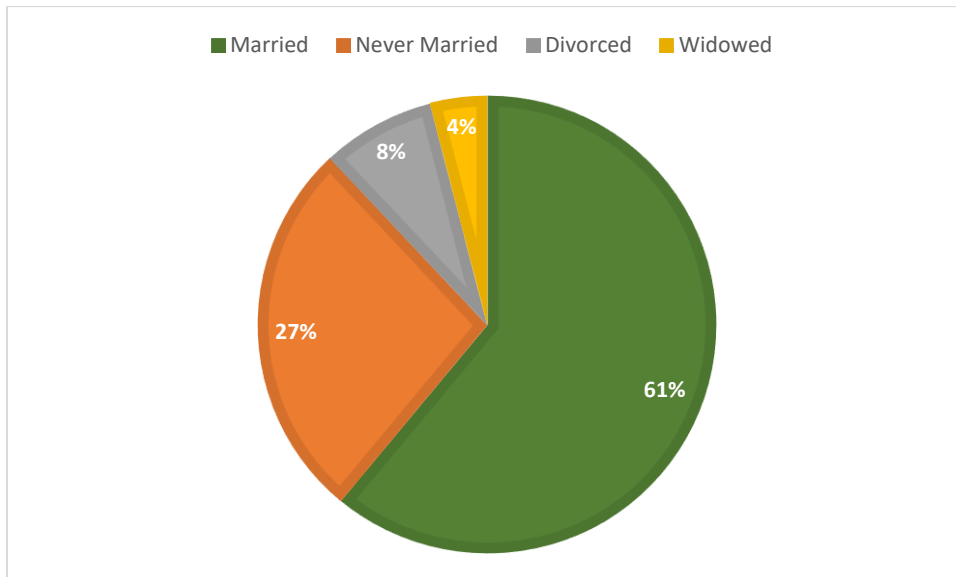
Figure 1: What is your occupation?



Source: Field Data (2019)

In obtaining the occupation, of the respondents, majority (52%) of them indicated they are salary workers. Twenty-four percent of them showed they were traders while 12% indicated they were unemployed. Four percent were students with 2% being farmers.

Figure 2: What is your marital status?



Source: Field Data (2019)

According to figure 2 above, 61% of the respondents were married while 27% were never married. Eight percent had divorced while 4% were widowed.

3.3.2 Problems that victims of road traffic accidents go through after amputation.

The respondents were asked several questions to reveal the problems they go through following amputation. The responses obtained is as tabulated below:

Table 3: Problems victims of road traffic accidents go through after amputation.

Statement	4 (SA)	3 (A)	2 (D)	1 (SD)
I suffer stigmatization as a result of amputation from road traffic accident.	33(41.0)	41(51.0)	5(6.0)	0(0.0)
I have lost friends and relatives as a result of amputation from road traffic accident.	41(51.0)	31(39.0)	3(4.0)	5(6.0)
I face difficulty in social integration by feelings of being treated differently.	25(31.0)	36(45.0)	12(15.0)	7(9.0)
I feel empty and worthlessness as a result of amputation resulting from road traffic accident.	12(15.0)	15(19.0)	40(50.0)	13(16.0)
I go through anxiety and depression as a result of amputation from road traffic accident.	48(60.0)	24(30.0)	7(9.0)	1(1.0)
I face financial challenges in meeting medical bills	62(78.0)	13(16.0)	5(6.0)	0(0.0)

Source: Field Data (2019)

Analysis from table 3 shows that, majority 41(51.0) of the respondents agreed that, they suffer stigmatization as a result of amputation from road traffic accident. Thirty-three (41.0) of the respondents strongly agreed whiles 5(6.0) disagreed to the statement.

When asked if the respondents have lost friends and relatives as a result of amputation from road traffic accident, majority 41(51.0) of them strongly agreed. Thirty-one (39.0) agreed while 3(4.0) disagreed. Five (6.0) of the respondents strongly disagreed to the statement.

In trying to know if the respondents face difficulty in social integration by feelings of being treated differently, 36(45.0) of them agreed. Twenty-five (31.0) strongly agreed to the statement while 12(15.0) disagreed. Twelve (15.0) of the respondents disagreed while 7(9.0) strongly disagreed.

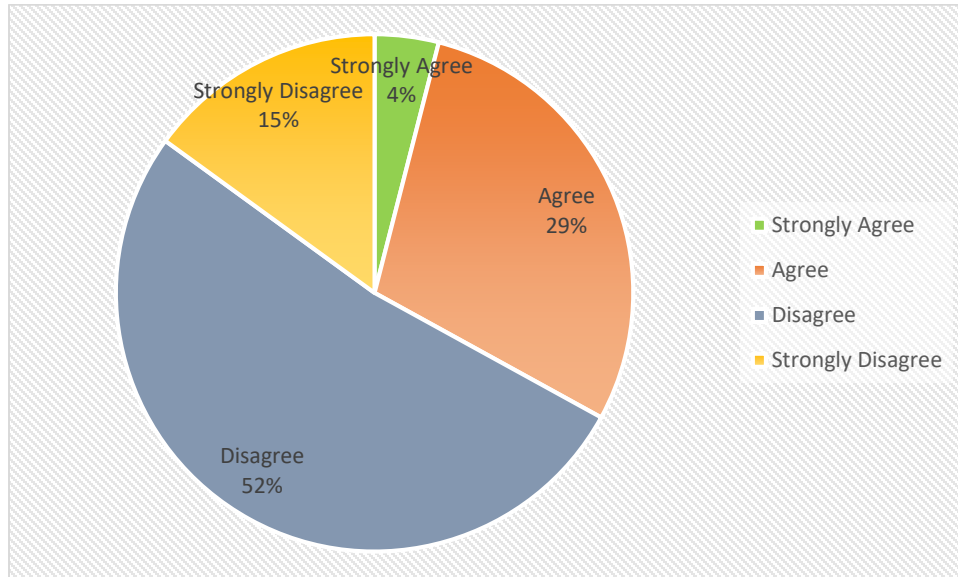
Moreover, in an attempt to identify if the respondents feel empty and worthlessness as a result of amputation resulting from road traffic accident, half of them disagreed. Fifteen (19.0) of them feel empty and worthlessness as a result of amputation resulting from road traffic accident. Thirteen (16.0) of the respondents strongly agreed while 13(16.0) of them strongly disagreed.

Further responses obtained from the victims indicates that, most of them 48(60.0) strongly agreed that, they go through anxiety and depression as a result of amputation from road traffic accident. Twenty-four (30.0) of them agreed to the same statement while 7(9.0) disagreed. Only one percent of the respondents strongly disagreed to the statement.

When asked if the victims face financial challenges in meeting medical bills, 62(78.0) of them strongly agreed. Thirteen (16.0) agreed to the statement while 5(6.0) disagreed to the same statement.

3.3.3 Attitudes of victims of road traffic accidents towards their amputation

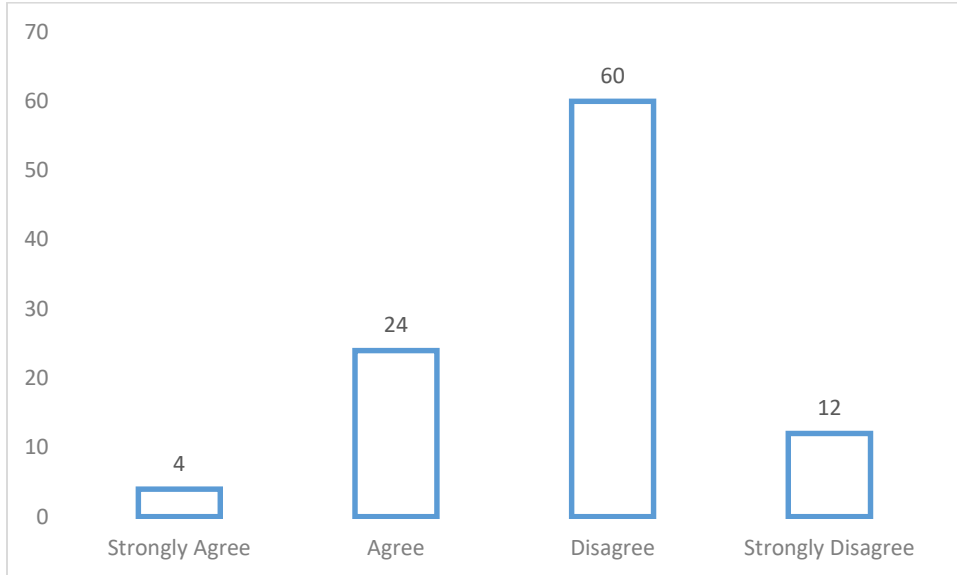
Figure 3: I cannot reintegrate into society once I have suffered amputation.



Source: Field Data (2019)

Figure 3 depicts that, more than half (52%) of the respondents disagreed that, they cannot reintegrate into society once I have suffered amputation. Twenty-nine percent agreed while 15% strongly disagreed to the statement. Only 4% of the respondents strongly agreed.

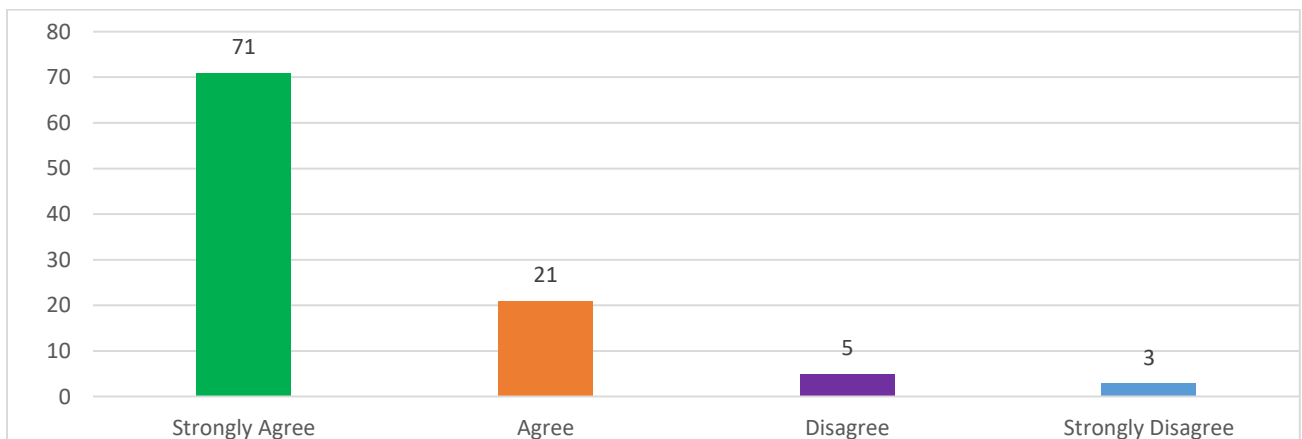
Figure 4: I cannot live a normal life once I have suffered amputation.



Source: Field Data (2019)

Analysis from figure 4 shows that, 60% of the respondents disagree that, they cannot live a normal life once they have suffered amputation. However, 24% agreed to the assertion while 12% strongly disagreed. Four percent of the respondents strongly agreed to the statement.

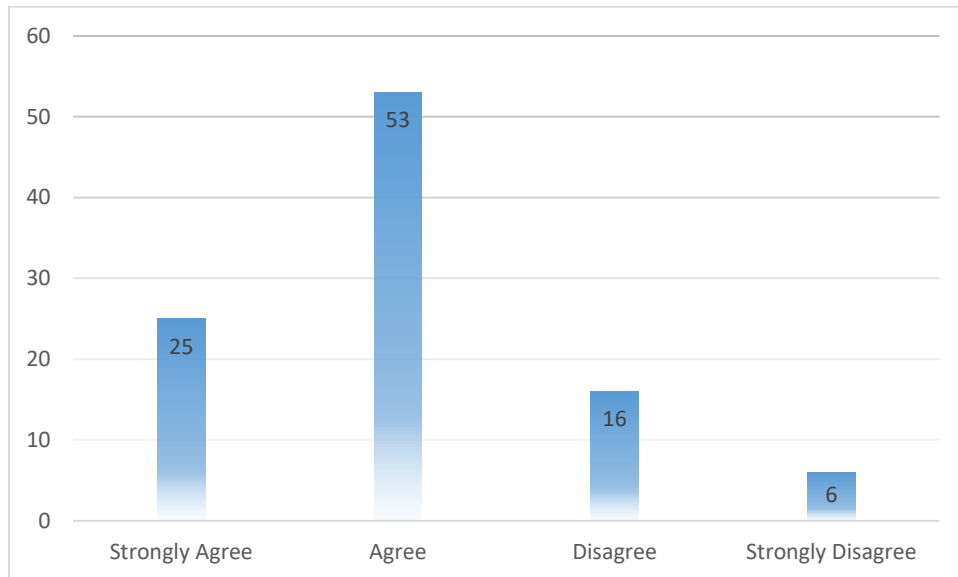
Figure 5: Everyone can have amputation, so I have learnt to move on with my life.



Source: Field Data (2019)

Analysis from figure 5 shows that, 71% of the respondents strongly agreed that, everyone can have amputation, so they have learnt to move on with their life. Twenty-one percent agreed while 5% disagreed to the statement. Only three percent strongly disagreed to the statement.

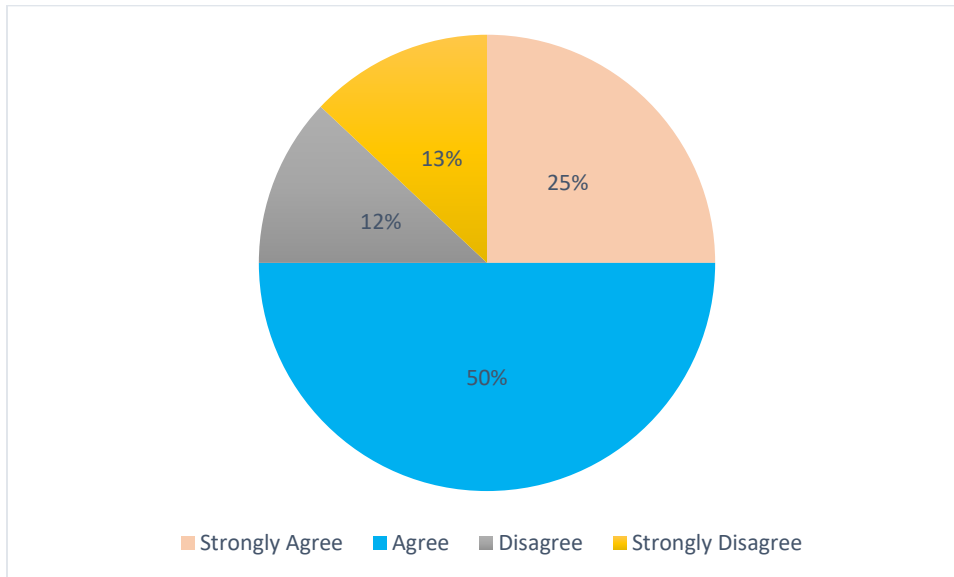
Figure 6: When you suffer amputation and you have money, you can live a normal life.



Source: Field Data (2019)

Figure 6 shows that, most of the respondents (53%) agreed that, when you suffer amputation and you have money, you can live a normal life. To the same assertion, 25% of the respondents strongly agreed. Sixteen percent of the respondents disagreed while 6% strongly disagreed.

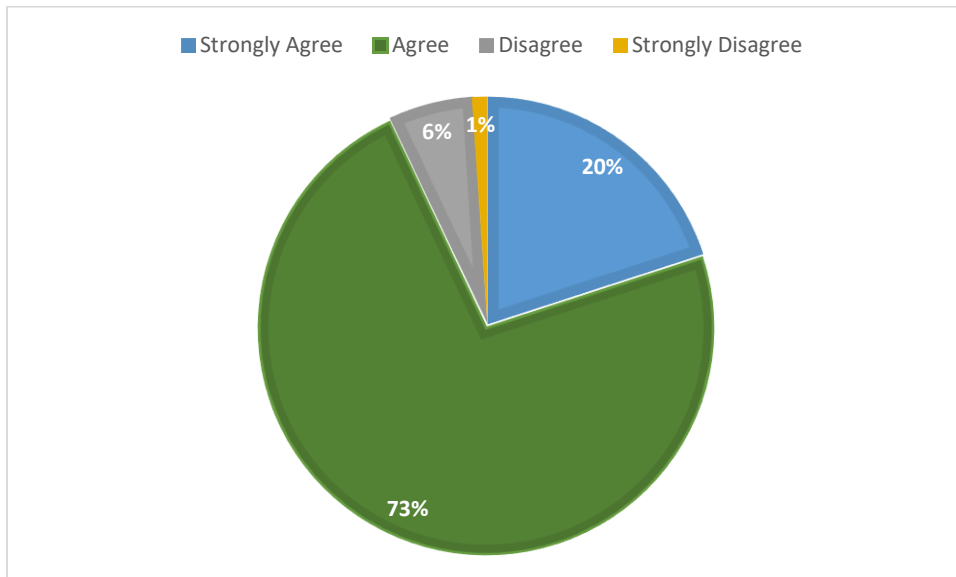
Figure 7: I don't get support from family, friends and government that is why I have emotional pains.



Source: Field Data (2019)

From the responses obtained, half of the respondents strongly agreed that, they don't get support from family, friends and government that is why they have emotional pains. Twenty-five percent of them strongly agreed whiles 13% strongly disagreed. Only twelve percent of the respondents disagreed to the statement.

Figure 8: I believe I can overcome stress, pains, anxiety when I receive proper counselling.



Source: Field Data (2019)

Analysis from figure 8 shows that, majority of the victims (73%) agreed that, they can overcome stress, pains, anxiety when they receive proper counselling. Twenty percent strongly agreed whiles 6% disagreed to the statement. Only one percent strongly disagreed to the statement.

3.3.4 Coping strategies of victims of road traffic accidents with amputation

Statement	Always	Sometimes	Rarely	Never
I engage in recreational activities to keep me active, fit and strong.	15(19.0)	45(56.0)	11(14.0)	9(11.0)
I take drugs to reduce the pain from the amputation.	5(6.0)	26(32.0)	41(51.0)	8(10.0)
I go for counselling services to help me cope with my situation.	19(24.0)	51(64.0)	7(9.0)	3(4.0)
I go for prayers and religious activities to help me cope with the amputation.	40(50.0)	31(39.0)	9(11.0)	0(0.0)
I disassociate myself from people as a way of coping with the amputation from road traffic accident.	20(25.0)	45(56.0)	9(11.0)	6(8.0)

In determining the coping strategies of the respondents after amputation, majority of them 45(56%) sometimes engage in recreational activities to keep them active, fit and strong. Fifteen (19%) of them always do whiles 11(14%) sometimes do. Nine (11%) never engage in recreational activities to keep them active, fit and strong.

Forty-one (51%) of the respondents rarely take drugs to reduce the pain from the amputation. Twenty-six (32%) of the respondents sometimes take drugs to reduce the pain from the amputation. Eight (10%) of the respondents never do whiles 5(6%) always do.

Counselling services are sometimes patronized by 51(64%) to help them cope with their situation. Nineteen (24%) of the respondents always do while 7(9%) sometimes do. Three (4%) of the respondents never patronize counselling services.

Half (50%) of the respondents always go for prayers and religious activities to help me cope with the amputation. Thirty-one (39%) of the respondents sometimes do while 9(11%) of the respondents rarely go for prayers and religious activities.

Forty-five (56%) of the respondents always disassociate themselves from people as a way of coping with amputation from road traffic accident. Twenty (25%) of the respondents always do while 9(11%) rarely do. Six (8%) of the respondents never disassociate themselves from people as a way of coping with amputation from road traffic accident.

3.4 Discussions

3.4.1 Problems that victims of road traffic accidents go through after amputation.

From the study, majority 75(94%) of the respondents agreed that, they face financial challenges in meeting medical bills as a result of amputation resulting from road traffic accident. More than half of the respondents suffer stigmatization 74(92%) as a result of amputation. Most of the respondents 72(90%) strongly agreed they have lost friends and relatives and also they go through anxiety and depression as a result of amputation from road traffic accident. 62(76%) face difficulty in social integration by feelings of being treated differently. Findings further show that, a fair percentage of the respondent 27(34%) have a feeling emptiness and worthlessness as a result of amputation resulting from road traffic accident. This means that the victims encounter several problems which include financial difficulties, stigmatization, and difficulty in social integration, anxiety and depression. The findings of this study agreed with the observation of Mugo (2010) when it was identified in his study that problems with amputation included living with a perceived stigma of deformed body image, feeling of emptiness and worthlessness, difficulty in social integration by feelings of being treated differently, lack of effective communication and expression, especially if upper limbs are concerned, psychological problems such as anxiety and depression and economic set back due to loss of job or change of job. The study by Desmond (2010) also highlighted critical psychological and social issues in amputation. However the study by Ghous, Gul, Siddiqui, Pervaiz and Bano (2014) found no depression among most amputees as against the findings of this study.

3.4.2 Attitudes of victims of road traffic accidents towards their amputation

Findings from the study indicates that, (93%) agreed that, they can overcome stress, pains, anxiety when they receive proper counselling. Findings further shows that, (92%) of the respondents strongly agreed that, everyone can have amputation, so they have learnt to move on with their life, Most of the respondents (78%) agreed that, when you suffer amputation and you have money, you can live a normal life. More than half of the respondents (75%) strongly agreed that, they don't get support from family, friends and government that is why they have emotional pains. However, (72%) of the respondents disagree that, they cannot live a normal life once they have suffered amputation. Majority of the victims (67%) of the respondents disagreed that, they cannot reintegrate into society once they have suffered amputation. The findings shows that, a fair percentage of the victims have positive attitude towards their situation. The findings of this study brought out similar findings on stressors and positive coping strategies among patients with New Limb Amputation by Sebaee and Mohamed (2011) that, the most common way of positive coping strategies that amputated patients used was minimize the situation followed by active coping strategy. Ohenewa (2017) also identified that, caregivers and amputees experienced a built up of negative emotions following loss. Godlwana (2009) also found that some participants of their study had come to terms with the amputation and were managing well while some expressed that they were struggling with reintegration to their community of origin three months postoperatively with both functional and psychosocial challenges.

3.4.3 Coping Strategies of victims of road traffic accidents with amputation

Findings from the study show that 45(56%) of the victims sometimes engage in recreational activities to keep them active, fit and strong. Forty-one (51%) of the respondents rarely take drugs to reduce the pain from the amputation. Counselling services are sometimes patronized by 51(64%) to help them cope with their situation. Moreover, half (50%) of the respondents always go for prayers and religious activities to help me cope with the amputation. Forty-five (56%) of the respondents always disassociate themselves from people as a way of coping with amputation from road traffic accident. The findings show that, coping practices of the victims include physical activities, religious activities and the use of medication. Wilson and Krebs (2016) observed that, persons who have lost a leg needs to depend upon others at least until he has mastered a prosthesis. He must confront not only the physical reality of mutilation, but also the body image changes associated with it and the personal meanings they carry. He must integrate the idea of being "different" so that he may comfortably continue with life. Andersson and Deighan (2006) found that, amputees use various coping strategies at different stages of recovery to deal with the trauma of their loss; these strategies can be observed and identified in both clinical and out-patient settings.

3.5 Conclusion

The study has enlightened us about the coping strategies of victims of road traffic accident following amputation. We have known that, victims of road traffic accidents encounter several problems paramount among which is stigmatization, loss of friends and relatives, difficulty in social integration by feelings of being treated differently, emptiness, anxiety and depression. We observed that, their attitude towards the problems determines how they are able to cope. The victims believe that, they can reintegrate into society once they have suffered amputation and live

a normal life. The victims have learnt to move on with their life, though they do not get enough support from family, friends and government. In managing the issue of amputation, the victims resort to recreational activities, drugs use, counselling services and prayers.

3.6 Recommendations

Based on the findings of the research, the study makes the following recommendations:

1. Health workers should take it upon themselves to educate the general public on the need to socialize with amputees rather than stigmatize them
2. Counselling centres should be set up and equipped to counsel victims who undergo amputation.
3. The National Health Insurance should cover major costs related to amputation to reduce the burden on care-givers.
4. Recreational facilities should be provided at public places for victims to undertake exercises and keep them fit.
5. Equipment should be made assessable and affordable for victims of Road traffic accidents following amputation.
6. Alternative jobs should be given by the government to victims who have undergone amputation.

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Section B: Problems that victims of road traffic accidents go through after amputation.

Please indicate to the extent to which you agree/ disagree with the following statements relating problems you encounter as a result of your amputation caused by road traffic accident. Codes: 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Agree (A), 4 = Strongly Agree (SA).

Statement	4 (SA)	3 (A)	2 (D)	1 (SD)
5. I suffer stigmatization as a result of amputation from road traffic accident.				
6. I have lost friends and relatives as a result of amputation from road traffic accident.				
7. I face difficulty in social integration by feelings of being treated differently.				
8. I feel empty and worthlessness as a result of amputation resulting from road traffic accident.				
9. I go through anxiety and depression as a result of amputation from road traffic accident.				
10. I face financial challenges in meeting medical bills				

Section C: Attitudes of victims of road traffic accidents towards their amputation

Please indicate to the extent to which you agree/ disagree with the following statements relating attitude of victims of road traffic accident following amputation Codes: 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Agree (A), 4 = Strongly Agree (SA).

Statement	4 (SA)	3 (A)	2 (D)	1 (SD)
11. I cannot reintegrate into society once I have suffered amputation.				
12. I cannot live a normal life once I have suffered amputation.				
13. Everyone can have amputation, so I have learnt to move on with my life.				
14. When you suffer amputation and you have money, you can live a normal life.				
15. I don't get support from family, friends and government that is why I have emotional pains.				
16. I believe I can overcome stress, pains, anxiety when I receive proper counselling.				

Section D: Coping strategies of victims of road traffic accidents with amputation

Please indicate to the extent to which you carry-out these practices with the following statements relating coping strategies of victims of road traffic accidents with amputation. Codes: Always, Sometimes, Rarely and Never.

Statement	Always	Sometimes	Rarely	Never
17. I engage in recreational activities to keep me active, fit and strong.				
18. I take drugs to reduce the pain from the amputation.				
19. I go for counselling services to help me cope with my situation.				
20. I go for prayers and religious activities to help me cope with the amputation.				
21. I disassociate myself from people as a way of coping with the amputation from road traffic accident.				

End of Questionnaire

Thank you

RESEARCH TIMELINE

Activity/ Month	Jan. 2019	Feb. 2018	Mar ch. 2018	April. 2019	May 2019	June 2019	July 2019
Authorization to begin work. Literature search. Presentation of chap. 1							
Review of chap 1. Presentation of chap 2							
Review of chap 2 & Preparation of questionnaire							
Data collection and Analysis							
Preparation of chap. 3.							
Printing & Binding PowerPoint slides							
Project defence							

BUDGET AND BUDGET JUSTIFICATION

Item Description	Quantity	Unit cost GH	TOTAL GH	JUSTIFICATION
Printing papers and photocopies	2 packs	20.00	40.00	For making copies of proposals.
Binding of final work	1	50.00	50.00	Binding of final work
Internet data cost	-	50.00	50.00	To search for related literatures online.
Refreshment (Canned Malt)	100	3	300.00	Refreshing for the participants after answering the questionnaire.
Transportation to and from site.	-	100.00	100.00	To answer questionnaires
Miscellaneous	-	100.00	100.00	To cover any contingency cost.
Total			640.00	