UNIVERSITY OF CAPE COAST

PAIN MANAGEMENT AMONG POSTOPERATIVE PATIENTS IN SELECTED HEALTH FACILITIES IN THE CENTRAL REGION

ADWOA OTIWAA EKANEM

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BY

ADWOA OTIWAA EKANEM

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature……Date…….....

Name:……

Supervisor's Declaration

We hereby declare that the thesis was supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature……Date……

Name:…… ……

ABSTRACT

Pain is an imperative component of every surgical procedure, especially, during and after the procedure. Intraoperatively, advances in anaesthesia technology has improved the management of pain for both the patient and the surgeon. The management of postoperative pain, however, remains a challenge for health professionals, especially as it remains highly variable. The purpose of the study was to assess pain experiences of postoperative patient and how they are managed in three hospitals in the Central region. Qualitative research approach was employed for the study. Patients and health workers were interviewed with a semi structured interview guide to solicit responses from the participants from the Cape Coast Teaching Hospital, Trauma and Specialist Hospital, Winneba and the Cape Coast Metro Hospital. Surgery is still viewed as a critical phase in health care and pain continues to be a challenge for all patients who go through surgery. From the study, patients were anxious and mostly ignorant of the surgical processes and its outcomes. Also, the study revealed the clients depended on medication as the major means to manage their pains. The study again showed that clients/patients who had surgery were satisfied with the pains management that the healthcare providers gave them. From the finding, it was recommended that healthcare providers should be more proactive in their treatment of post-operative. Also, it was recommended that, the healthcare centres or facilities should make as a matter of concern make available counsellors who will offer pre-counselling before any surgery is done.

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Finally, I wish to thank my family and friends for their unflinching support throughout this work.

DEDICATION

To my husband: Dr. Evans Ekanem

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LIST OF ACRONYMS

AKUK	Aga Khan University Hospital
APSPOQ	American Pain Society's Patients Outcome Questionnaires
CNS	Central Nervous System
DSU	Day Surgery Unit
IASP	International Association Study Pain
KCMC	Kilimanjaro Christian Medical Centre
PACU	Post Anaesthesia Care Unit
PNS	Peripheral Nervous System
SD	Standard Deviation
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

Background to the Study

Pain is a critical component of every surgical procedure, especially during (intraoperative) and after (postoperative) the procedure. Intraoperatively, advances in anaesthesia technology has refined the management of pain after surgery. Relieving pain after surgical operation, however, is problematic health professionals, because it has uneven phases. Handling pain postoperatively is of essence for patient comfort and enhances swift recovery of the patient after surgery. As such, there are several initiatives being undertaken to promote effective postoperative pain management which is being done for years now. (Mackintosh-Franklin, 2016).

The Joint Commission on Accreditation of Healthcare Organization in 2001 issued the guidelines for managing pain focused on monitoring and handling pain in all hospitals in the USA (Phillips, 2000). The European Federation of the International Association for the Study of Pain (IASP) and the World Health Organization (WHO) sponsored the Global Day against pain in 2004. The main reason for these action from these organisations is that pain management would be widely agreed upon and managed as a as human right issue like all other health issues. (Brennan, Carr & Cousin, 2007). This signifies that pain is gradually gaining momentum in the world policy.

Postoperative pain which is acute in nature is the pain felt immediately following surgery or an injury as a consequence of the trauma to the tissue. Pain is a subjective experience because individuals have different thresh-hold and different

ways of expressing it (Griffiths & Justin, 2006). The outcome of almost all surgeries is pain however, if this pain is not adequately controlled can progress to other complex situations that may have influence the well-being and rehabilitation of patients' quality of life. When pain is not well dealt with after surgery, can progress to other pathological ill health (Griffiths & Justin, 2006), which include atelectasis, pneumonia, nausea and vomiting. There are several reports that have highlighted on postoperative pain management challenges from the 1950s (Papper, Brodie & Rovenstine, 1952), and others also emerging from over the years. For example, researches done in the 1980s reported high pain prevalence after surgery. A 2008 study added that, more than two thirds of patients experience pain after surgery (Wells, Pasero, & McCaffery, 2008). More recently, it was reported that postoperative pain is becoming more worrying and problematic at the post-anaesthesia recovery ward (PACU) (Ho, Ho, Pang Yuen, Lexshimi, & Choy, 2013). As such, effective post-operative discharge pain management is important for patients who have undergone surgical procedures, because earlier discharge is becoming more common (Memtsoudis et al, 2009).

The absence of good pain management after surgery can result in abnormal anatomical and psychological harmful outcomes which may even result in complication (Abdalrahim, Majali, Stomberg, & Bergbom, 2011). Abysmal pain relief immediately after surgery can increase the number of days a patient would be detained at the Post Anesthesia Care Unit (PACU) and therefore increasing cost (Wells, Pasero, & McCaffery, 2008). If postoperative pain is not well managed,

anatomical and emotional consequences such as chronic pain syndrome may occur. (Kehlet, Jensen, & Woolf, 2006) and reduced comfort level.

Despite technological advancement and medication, pain after surgery still remains a challenge for health facilities and patients. For example, elements such accurate measurement of pain, regular documentation, nurses' knowledge and understanding, and regular and effective pain management depends highly on nurses' knowledge and understanding; (Francis & Fitzpatrick, 2013). Interestingly, these calibres of healthcare providers always encounter postoperative pain management as a greater challenge during treating patients after surgery irrespective of the bulk of information available throughout the world (Wells et al., 2008). This could occur from limited knowledge on current information on postoperative pain analgesia (Abdalrahim et al, 2011). To offer exquisite pain relief for patients after surgery, there is the need for good know how on the part of nurses in dealing with pain after surgery (Stanley & Pollard, 2013). A good understanding on the how pain occurs, comprehensive evaluation and the use of both medication and other non-medication strategies assist patients' recovery after surgery (Al-Shaer, Hill & Anderson, 2011).

Factors that contributes to inadequate postoperative pain management among very ill patients includes barriers that are directly from healthcare providers, these are limited knowledge on how pain is assessed and managed systematically, inability to assess pain and lack of acknowledge of the existence of pain, individual and ethnic prejudice, and lack of communication between the health professionals and the post-surgical patient (Pasero, 2009). Interestingly, a Ghana work by Aziato

and Adejumo (2015) on "the Ghanaian Surgical Nurse and Post-Operative Pain Management" discovered that nurses understand and looked at postoperative pain management as an individual experience, and use both pharmacological (administration of analgesics) and non-pharmacological measures to treat patients' pain. Individual factors such as discretion, commitment, fear of addiction and organisational factors like challenge of teamwork and organisational slackness influence the nurse's response to patient's pain.

Statement of the Problem

Drawing from the background information, adequate postoperative pain management can help improve surgical outcomes. Post-surgical pain management soothes pain and allow patients to start movements early. This leads to early discharge, lesser cost and maximizes patients' appreciation of the service provided. Conversely, a reverse of this can lead to several anatomical complications such as collapse of the lungs, clotting in the deep vein of the legs, and prolong the time for wound healing (Francis & Fitzpatrick, 2013). Currently, there is very little information on postoperative pain management in the Central Region, Ghana. A study by Aziato and Adejumo (2014) on postoperative pain management used Ghanaian nurses, the study used qualitative methods in soliciting information from the nurses at the Korle-Bu Teaching Hospital and Ridge Hospital respectively. Murthy, Antwi-Kusi, Jabir and Ofori-Amanfo (2013) also carried out a study using patients and healthcare professionals in assessing their views on postoperative pain control, in the Kumasi Metropolis of Ghana. Murthy et al., (2013) employed quantitative analytical methods in arriving at their findings and conclusions. Thus,

studying postoperative pain management in the Cape Coast Metropolis and Winneba Municipality will provide additional information in understanding the scope of managing pain after surgery in Ghana and specifically, in the Central Region for effective postoperative health care.

Objectives of the Study

The main objective of the study is to explore pain management among post-operative patients at the different levels of health care in the Cape Coast Metropolis and Winneba Municipality. The specific objectives are to:

1. explore the experiences of pain among post-operative patients in selected health facilities;
2. examine the perception of post-operative patients in the selected health facilities towards pain management;
3. explore the strategies used by the health care providers in managing pain;
4. analyse client's level of satisfaction with post-operative pain management;

Research Questions

Based on the objectives of the study, the following research questions were formulated to guide the study;

1. What are the experiences of pain among post-operative patients in the selected health facilities?
2. What are the perceptions of post-operative patients towards pain management?
3. What are the strategies used by the health care providers in managing pain?

4. What is client's level of satisfaction with post-operative pain management?

Significance of the Study

This research will give much information to all calibre of health professionals who directly or indirectly manage patients in health facilities. It will enlighten health professionals on the kind of pain management strategies that are effective in relieving pain. It will also help nurses to be abreast with the best way to handle post-operative patients' pain. The study will help health administrators to also know the perception of post-operative patients towards pain management. This will help them to have more knowledge on innovative ways of caring for post-operative patients

Delimitation of the Study

The research could have been done in all health facilities in the nation; however, this present study was restricted to hospitals in the Cape Coast Metropolis and Winneba Municipality. Also, the study was restricted to pain management among post-operative patients. Particularly the perceptions of post-operative patients, strategies used by the health facilities in managing pain and effectiveness of the strategies used by the selected health facilities in managing pain.

Limitation of the Study

The study encountered some challenges which might have some effects on the results. In the first place, the patients were not in their natural environment. This means that since the researcher had to interview the patients at their respective hospitals, the environment might not be conducive for patients to fully express their

views. The presence of the health care givers during taking the data might affect the patients, feeling that anything negatively expressed was a detriment to the professional integrity of the health care givers. Secondly, the work of the health care givers and others in terms of administering medications to the patients as well as other medical practices interrupted the data collection. Finally, some of the patients interviewed were experiencing some pains at the time of the visit to the health facilities and that affected the flow of information. The researcher tried to ensure that these challenges were reduced to the minimum for the smooth running of the interviews.

Organisation of the Study

The study has been divided into five sections known as chapters. The first has the background of the study, statement of the problem, purpose of the study, research questions, delimitation, limitation and significance of the study. The second is the literature review section then the third looks at the methods of the study with data collection, sample and sampling procedure and descriptions of research instrument used for collecting data and the method of data analysis. The fourth, data analysis and the discussion of the results. The fifth deals with summary of the study, conclusions and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter deals with the review of related literature to the study. The section is divided into three namely conceptual framework, theoretical review and empirical review.

Conceptual Review

Definition of Pain

Pain is a multifaceted topic affected by varying factors such as culture, past pain experience, belief, mood, and capacity to handle it (Eccleston, 2001). Pain can be a sign of tissue injury, but it can also occur when there is no relevant etiology (Macintyre et al., 2010). The accepted definition of pain is by the International Association for the Study of Pain (IASP), which determines the phenomenon as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage (Merskey & Bogduk 1994). Pain, according to the IASP, is both a sensitive physiology and specifically detectable or identifiable process. It is often individual specific, mediated by biological mechanisms and a variety of cognitive and other processes (Macintyre et al. 2010; Renn & Dorsey 2005). Pain is a convoluted system with individual and other factors that also influence how pain is experienced, evaluated and treated.

A traditional definition by McCaffery (1968), stated that pain is defined as whatever the experiencing person says it is, existing whenever he says it does. As a consequence, this definition acknowledges the fact that pain is an individualized experience and cannot be adequately measured or scaled by an observer except the

one solely experiencing it. In this regard the patient is the best individual to express pain. This is the most important way of assessing pain (AGS, 2002). One demerit of this explanation is that, individuals with mental challenges may not be adequately report and so depending too much on patients report can sometimes be misleading in this latter category of patients. (Horgas et al., 2007).

Physiology of Pain

The spinal cord which is part of a complex system is responsible for stimuli transmission from the brain to all part of the body. All the nerves coming from the brain and leading to the other part of the body enter and leave the spinal cord along the entire length of the cord. The spinal cord has 31 pairs of spinal nerves that leave the spinal cord via openings between the vertebrae. Nerve root is the name at the part of the spinal cord where spinal nerve exits and they then branch into smaller nerves. These smaller nerves control the various part of the body and this is called the peripheral nervous system. The peripheral nervous system is made up of sensory and motor nerves. The motor nerves are attached to muscles and responsible for movement and the sensory nerves are recipient of sensory stimulus.

The process by which a noxious stimulus results in the perception of pain by the brain is called nociception. The process of nociception has four components namely transduction, transmission, modulation and perception. The hallmark feature of acute and chronic pain is hyper responsiveness also known as increase sensitivity and this comes about alteration in both the central and peripheral nervous system.

Acute pain

Acute pain is defined by Duarte (1997), as pain caused by an accident that is just transient and this pain resolves after the healing of the injury. Acute pain is well managed with analgesic medications and treatment of the precipitating factor. The following are features of acute pain;

1. Duration of the pain is less than three (3) months;
2. Varying degree of intensity, usually severe at first but the pain reduces over time as healing begins to take place;
3. The nervous system is usually not affected;
4. The reason for the pain can be due to surgical incision, injury to tissue, acute ill condition or anatomical process;
5. Managed appropriately with analgesics like opiates and local anaesthetics;
6. The intensity of the pain reduces or subsides as healing takes place and
7. Psychological problems like depression are usually absent or resolves in the shortest possible time if they occur.

Nociceptive pain which can also be called acute pain has two types namely somatic and visceral pain. Acute pain or nociceptive pain is different from chronic pain but distinctions that separate them are not clearly defined. Individuals who suffer acute pain often have reduction with regards to the intensity but clients with chronic pain more often do not experience any reduction in pain intensity.

Even though acute pain has a predictable end, priority should be attached to its management. This is because acute pain if not treated well and neglected can lead to chronic and persistent pain. With more patients experiencing acute pain (that

is pain that follows the normal pain pathways), others may also experience neuropathic pain.

Dworkin et al., (2007) stated the under listed factors suggest the possibility of neuropathic pain;

1. Clinical procedures with the possibility or risk of injury to nerves. Example includes surgical procedures around the chest and the thoracic cavity, hernia repair or amputation.
2. Spontaneous or sudden onset of the pain. More often with no clear factors precipitating it.
3. The existence of evoked or spontaneous unpleasant abnormal sensation (dysaesthesias)
4. Abnormal responds to a normal painful stimulus (hyperalgesia)
5. Responds to stimulus that normally do not evoke pain (allodynia)
6. Numbness of the affected part or area (hypoaesthesia)
7. Colour or temperatures changes, phantom phenomena and sweating at the affected area.

Chronic Pain

Chronic pain is a key issue for some patients with marginal effect on patients' wellbeing of quality of life. Chronic pain may result from disruption in nociception, disease or injury. It can also be a result of past or current damage to the central nervous system (CNS), peripheral nervous system (PNS), or cannot be associated with any organic cause (Calvini & Grilo, 2006).

Pathophysiology of Chronic Pain

The actual process involved in the mechanism of chronic pain is unclear. The brain and the spinal cord are responsible for transmission and modulation of pain (nociception information). After tissue damage or trauma, there occurs changes in this system which are spontaneous and lasting that alters this normal mechanism of the brain and the spinal cord (Ko & Zhuo, 2004). A mechanism known as "wind-up" mechanism in the spinal cord (also called hypersensitivity or hyperexcitability) may occur. This happens after continuous or repeated and prolong noxious stimulus eliciting the dorsal horn neurons to produce progressively increasing numbers of painful impulses.

This wind-up mechanism in the spinal cord causes the patient to feel intense pain to a stimulus which should not produce the associated pain. An example is exaggeration of pain in responds to touch. This is called allodynia. This unusual pain processing in the brain, spinal cord and the peripheral nervous system may become autonomous of the original painful event. For instance, with amputation, the tissue damage occurs in the peripheral neuron but the physiology of phantom pain arises from both the peripheral and central nervous system.

Neuropathic Pain

This type of pain can be defined as pain that is caused or initiated by a dysfunction or a primary lesion in the central and peripheral nervous system. This can result from:

1. Injury/trauma. For instance, chronic post-surgical pain, regional pain syndrome which is complex in nature

2. Infections and inflammation. Post hepatic neuralgia
3. Cancer
4. Ischeamia. For instance, diabetic neuropathy
5. Chemical irritants such as chemotherapy (Farquhar-Smith, 2007).

Neuropathic pain can also come about from changes to the peripheral nervous system. This causes pain fibers to emit pain signals repeatedly and hence increase sensitivity to stimulus. Neuroplasticity occurs with unusual neuronal sprouting in the peripheral and also within the dorsal horn of the spinal cord. This abnormal neuronal sprouting may cause additional and increase transmission of pain impulses.

Features of Neuropathic Pain

Neuropathic pain is clearly defined and can be distinguished from acute pain as follows;

1. Dull
2. Tingling
3. Burning
4. Aching
5. Shooting
6. Like electric shock

Complications of Pain

Many recent studies have clearly stated that pain has profound impact on the human body. This affects almost every system; endocrine, cardiovascular, immune, nervous and musculo-skeletal systems.

Respiratory System: Rapid respiration leading to hypocapnia and respiratory alkalosis, Hypoventilation and diaphragmatic splinting, hypoxia, atelectasis leading to hypercapnia and infection in the chest- hypostatic pneumonia.

Gastro-intestinal system: Reduced gastric and intestinal mobility which can cause paralytic ileus, delayed gastric emptying and nausea and vomiting.

Cardiovascular system: rapid heartbeat, increase blood pressure, reduction in the flow of blood to the skin and visceral organs leading to delayed wound healing, increase demand of oxygen by the myocardium but reduced oxygen supply to the myocardium and this can lead to myocardial ischemia and increase stroke volume.

Endocrine system: Retention of fluids, reduction in the insulin production, decrease testosterone level, anabolic and catabolic changes and raised blood sugar level.

Homeostasis: Blood becomes mire viscous, immobility and hyper coagulopathy and risk of developing deep vein thrombosis

Nervous system: Insomnia, attention deficit, depression and cognitive decline (Gray 2008).

Conceptual Framework

The framework below shows that postoperative pain is the outcome of all surgeries. This needs prompt pain management which could either be pharmacological strategies which are basically medications prescribed by the surgeon in managing the pain or no pharmacological strategies performed by both patients and healthcare professionals for the relief of pain. These efforts would give patient and practitioners' relief since when patients are comfortable health

professionals can discharge their duties efficiently and enhance patient recovery without complications and satisfaction from postoperative pain as illustrated in Figure 1 below.

Conceptual Framework

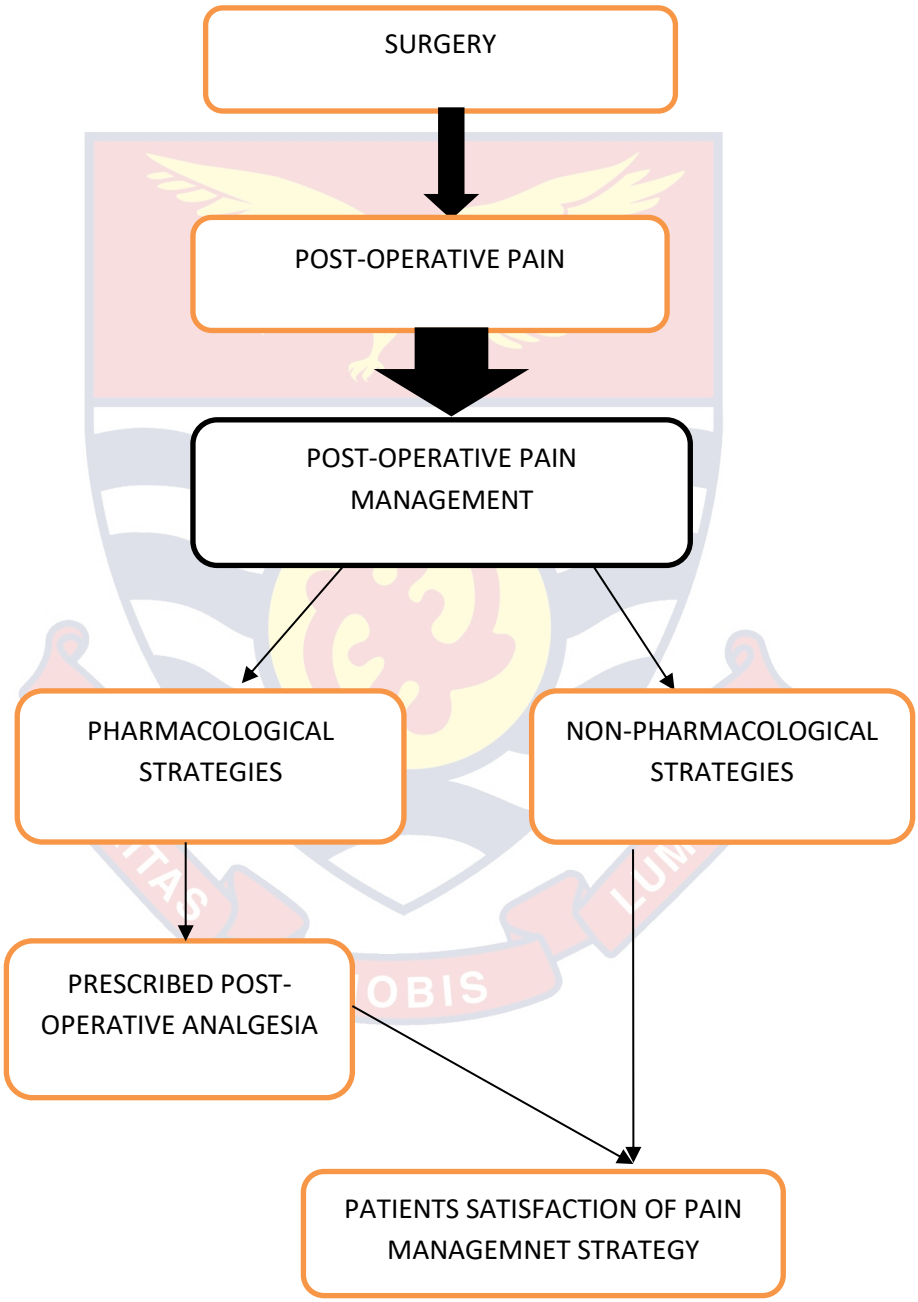

Figure 1: Framework for Postoperative Pain Management

Source: Author's own construct

Management of Post-Operative Pain

The goal for managing pain after surgery is to help the surgical patients to mobilize as soon as possible, enable the patient to eat and drink as appropriate and also to ensure to help the patient to be able to cough and deep breath. All these enhance rapid wound healing and early recovery. Surgical clients who do not receive good and adequate pain management after surgery have a higher chance of developing chest infections, deep vein thrombosis, low oxygen supply to tissues, bed sores, anxiety, depression, anorexia and high rate of wound infection.

Effective pain management postoperatively has emerged solely due to the understanding of how a combination of analgesic drugs works to excellent pain control. The drug potentiates the effects of each other and this help to improve analgesia and at the same time reduce opiates side effects if used. This multimodal analgesia concept started over decades ago and gives room for lower doses of individual drugs when they are combined and therefore reduced the occurrence of negative drug reactions.

Effective management of pain after surgery can be achieved if it is well programmed and administered in a consistent manner emerging from evaluation of pain and this can be done by the nurse. The fact is, pain can best be explained and expressed by the individual, and no two people suffer the same pain even after the same surgery. Healthcare professionals have to be cautious of this and always direct their care towards individual needs. Pain which is the fifth vital sign need robust guideline or protocol, good team work and regular and effective evaluation to underpin its management (White, Rashid & Chakladar, 2007).

The World Health Organization (2003) outlined the following modalities for post-operative pain management for district hospitals. Pain in most cases the patients presenting problem or symptom. Pain is a good tool that gives information on the patients and the healthcare provider needs to use this tool to render the necessary assistance to the patient.

1. Pain management is necessary irrespective of where the patient maybe; either on the ward, emergency room or in the theatre. This is very essential after all surgical procedures and discharge.
2. It is important also not to delay pain treatment unnecessarily; for example, do not send or transport patient from one place to another because the next practitioner should appreciate how much pain the patient is experiencing.

Pain Management and Techniques

There are various ways or techniques of managing pains. Below are a few of them;

1. Good and effective pain management is a critical part of post-operative management.
2. Injectable opiate analgesics are essential drugs for pain management and control. Diclofenac and brufen which are nonsteroidal anti-inflammatory drugs (NSAIDs) can also be given orally and rectally as well as paracetamol.
3. Opiates can be given in three situations;

a. Before surgery

b. During surgery

c. After surgery

4. Opiate premedication was used some years back but rarely use these days. It is common for an injured patient to come into the theatre with opiate already given.
5. Pre-operative and intra operative opiates have significant effect after the surgery period because they retard the reversal of the anaesthetic agent and prolong respiratory depression which may necessitate mechanical ventilation.
6. Opiates with short acting effects like fentanyl is recommended intra operatively to avoid prolong effect of opiate.
7. Opiates antagonist (naloxone) is effective in reversing the action of opiates but its effect quickly wears off.
8. Morphine is more potent and does not easily ware off as compared to how pethidine functions.
9. Post-operative analgesia can be administered as;
    a. Administer a lower dose about one third of the total drug volume to be given for example, 25mg pethidine or 2.5mg morphine bolus intravenously.
    b. Observe and monitor the effect of the drug for about 5-10 minutes. Check for desired analgesia effect with retained consciousness.
    c. Calculate the correct total dose (10mg morphine or 100mg pethidine for an adult) and administer the balance intramuscularly
    d. With this technique, patients are able to receive analgesia quickly and the correct dose is given.
10. In situations where opiates are needed on the ward, it is recommended that it should be administered intramuscularly.

a. Morphine

i. Age one (1) year to adult 0.1-0.2mg/kg

ii. Age three (3) months to one year 0.05-0.1mg/kg

a. Pethedine

i. Adult 1-2mg/kg and 0.5-1mg/kg for children

b. It is important to know that opiates are not recommended for babies less than three months unless monitoring in a neonatal intensive unit is available. Opiates analgesics for children less than one year should be given cautiously.

Theoretical Review

This section of the literature captures information on the theory that underpins the study.

Gate Control Theory

The study is underpinned by the Gate Control Theory by Melzack and Wall in 1965 (ASPMN 2010). They explained the interconnection of functional anatomical and psychological aspects of the occurrence of pain in a single view (Asmundson & Wright 2004). The theory explains the existence of a fencing principle acting as a gate inside the dorsal horn within the spinal cord that closes or opens for the upward transmission of painful sensation from other parts of the body to the brain. (Melzack 1996). Simultaneously, this postulation, acknowledges that impulses returning from the brain can be influenced by feelings and mental processes which may minimize or block the sensation of pain from the spinal cord (Hadjistavropoulos et al., 2009).

However, culture, emotional, environmental all play a key role in how pain is perceived and interpreted. (Hadjistavropoulos et al., 2009; Asmundson & Wright, 2004). Stronger impulses have the potency to unlock the fencing system that is the gate for the painful sensation to be felt as pain (Melzack, 1996). The actual steps in pain transmission using the gate control theory include the following: A pain stimulus from the body periphery is carried by rapid A delta and slow C nerve fibers to the dorsal horn of the spinal cord. If the painful stimulus is of sufficient intensity or persists, the pain is transmitted up through the limbic system to the cerebral cortex. In the cerebral cortex, the stimulus is recognized as pain and the efferent neural path is activated to provide a response to the pain (American Society for Pain Management Nursing, 2010).

Pain is directly influenced by emotion. These include touch, attention and emotional support which have the ability to reduce or increase pain from impulses from the brain (Good et al, 2009). Due to this some other non-medication strategies which affects the psychological state of an individual becomes useful in closing the gate for pain sensation. The sensation of pain can also be reduced by activating thick and rapid A delta fibers with massage or touch (Bonica & Loeser 2001). In such case, non-nociceptive input (such as massage and touch), conducted by large myelinated, thick and rapid A delta fibers can inhibit or reduce the pain sensation. The more extensive the fiber activity relative to thin fiber activity at the inhibitory cell, the less pain is felt. (Grau et al., 2012.)

Empirical Review

This portion, empirical review focuses on similar studies done on this topic.

Experiences of Pain among Post-Operative Patients

Subramanian, Ramasamy, Ng, Chinna and Rosli (2014) conducted a study on pain experience and contentment with pain management after surgery in Malaysia. Those included in this study were patients who had undergone planned or emergency laparotomy but excluded patients without surgeries. Questionnaires were to solicit their views on the topic. The study revealed that post-operative pain continues to be a problem for clients who are surgically treated and that health education and efficient postoperative pain management are needful in this phase after surgery. Also, majority of patients from the research reported varying levels of pain with the first day after the surgery. This necessitates the need for comprehensive pain assessment by all healthcare professionals for post-surgical patients.

Fatma and Serife (2017) undertook a research on determining patients' experiences and pain management after abdominal surgery in Turkey.

The researchers administered questionnaires to 93 patients. Numbers percentages, and means plus standard deviation were used for analysis. Descriptive statistics was initially used for data analysis then the Mann-Whitney U test, Bonferroni,and Kruskall-Wallis test analysed the relationship between the variables used for the study. Patients used the Visual Analogue Scale in determining varying pain levels of 4.40±2.7. Analgesics also contributed 89.3% in relieving pain.

However the study added that, nurses did not use any qualified scale in identifying patients' pain.

About 75.7% of patients responded the environment was serene, 78.6% were frequently turned in bed to assume comfortable position in relieving pain, 47.6% had warm and cold compresses applied around the incisional site with other several non-medicinal therapies (non- pharmacological) that distracted their attention from pain while no other non-pharmalogical procedures such as massage, listening to music or distraction were performed. In this regard, continuous professional training on pain was recommended for nurses.

Apfelbaum, Chen, Mehta and Gan (2015), conducted a study on post-operative pain experience. The study investigated how health care professionals could enhance post-operative care. About 80% of the 250 patients had acute postoperative pain. Approximately, 90% of them were content with the analgesics they received. However, several pragmatic actions need to be enforced to reduce the pain most patient encounter after surgery and better the outcomes after surgery.

A study was conducted by Mwaka, Thikra and Mung'ay (2013) to investigate the prevalence of pain after patient undergo surgery and return home same day at Aga Khan University Hospital (AKUH), Nairobi. Patients were allowed to go home after the anaesthesia effects wares off. The study concluded that, 58% of patients experienced pain within 30mins after surgery, 55.3% after 24 hours, and 34.7% after 48 after surgery. The study showed lower prevalence of pain after surgery which would likely increase with larger number of patients and the surgeries getting very complicated.

Post-Operative Pain Management Strategies in Hospital

Rantala, Kankkunen, Kvist and Hartikainen (2012) undertook a research in Finland on pain management practices after surgery among dementia patients. The patients were elderly people with hip fractures. These patients due to their age and other pathological challenges struggle with pain. Questionnaires were used to obtain information from a cross section of the patients. This category of patients was mostly treated by University and City-Centre hospitals.

Nursing staff totalling 333 were recruited and investigated for their views on postoperative pain practices. A five-point Likert scale was employed. The individual opinions were interpreted so that number 4 and 5 indicated agreement and numbers 1 and 2 disagreement.

The outputs from the questionnaire were displayed in percentages of opinion for each statement. The two open-ended questions (other non-pharmacological pain management practices, and use of pain scales) were analysed by the qualitative data analysis. Methods such as, repositioning (100%), helping with daily activities (97%) and other non-pharmacological strategies (93%). The most common analgesic administration practices (mean 4.1±0.55) were providing pain medication prior to painful events (96%), prior to physical activity (94%) and regularly (96%). The agreement of opinion that the effects of analgesic were assessed and documented was 73%. Pain was seldom assessed by means of pain scales (31%). Quieting and consoling (85%) was the most popular method among "emotional practices" and presence when the patient seemed to be in pain (42%) was the least common practice. "Physical methods" including music therapy (6%)

and heat therapy (17%) were not preferred pain-relieving methods (mean 2.3±0.85), although organising a peaceful and comfort environment scored more highly (38%).

Chatchumni (2016) conducted a study on nursing practices within a Thai setting. The study used a qualitative ethnographic exploratory methodology. Participants were from a public hospital in Bangkok in a surgical ward employing 59 nurses whose work was organized into three different units. In all, 100 hours of observations, 39 interviews and 69 descriptions of critical incidents relation to nurse's pain management were gathered from the wards.

Participants were purposively selected with 18 fulltime nurses from two wards participating in the study. The participants were put into three groups with six members making each group. Group 1 (G1) included nurses having novice competency, while Groups 2 (G2) and 3 (G3) comprised nurses with the competency of advanced beginners, proficient and expert healthcare providers. A semi-structured interview guide in Thai, the local dialect of the people was used. The interviews lasted approximately 45–60 minutes, and all interviewees were given enough time to express themselves.

The findings primarily showed that nurses used communication to assess and mange pain after surgery. Culture was identified as a barrier in managing pain. Nurses did not use patients' pain expression but heavily relied on their instincts. The nurses obtained adequate information from their patients but could not however, render the needed care for their patients. This influenced the care patients received after surgery and directed patient care more to nurse centred than the

patient experiencing the pain. Importantly, it was concluded that, culture was a critical factor in managing pain after surgery from the nurses' view.

Level of Patients' Satisfaction with Post-Operative Pain Management

Tocher, Rodgers, Smith, Watt and Dickson (2012) examined the relationship between patient satisfaction and pain in England and Scotland. The study recruited and administered questionnaires to respondents two weeks after their surgery, 5934 patients were mailed with questionnaires following discharge from hospital. Individuals who were below 17 years were not qualified for the study. Descriptive analysis was used in presenting the findings from the study.

Two-thirds responded experiencing varying levels of pain after their surgeries on the hospital. Patients who complained of severe pain were mostly younger women who were admitted on emergency basis however women outside this bracket had different opinions from the first group.

Lovatsis, Jose, Tufman, Drutz and Murphy (2014) conducted a study to determine ambulatory gynaecological laparoscopic patients' satisfaction on the pain management in the United States of America. Clients who underwent surgeries like oophorectomy, tubal ligation with cautery, diagnostic laparoscopy, Burch procedures and ovarian cystectomy were used. Questionnaire was used to collect data from clients either by mail or telephone on each post-operative day. The researchers used a prospective cohort from a tertiary care centre on postoperative analgesia by telephone or a mailed questionnaire. Patients were to categorize their satisfaction on a scale of 1 to 5 and 60% responded satisfied with the pain modalities after surgery.

Chung and Lui (2011) conducted a study in a Hong Kong hospital to understand the level of patient's pain and satisfaction with responsiveness of health professionals to their pain report. The study examined patients' post-operative pain management satisfaction levels. The study solely used adult clients who were admitted for surgery in a Hong Kong hospital but exempted clients who had their surgeries done under local anaesthesia. The researchers administered questionnaire and 87% of the patients' complained of various degrees of pain twenty-four hours (24 hrs.) earlier prior to their pain evaluation. Most patients complained of mild to severe pain. Participants of about 80% reported that the health care professionals prompted them to report their pain each time they had such experience. It was discovered that 48.6% of the respondents supported the view that health professional always highlighted the significance of pain remedy after surgery. The study also revealed that, the respondents who received pain relief treatment from the anaesthestist reported lower level of current pain intensity. In all 60% of the respondents were content with all the services they received regarding managing their pain after surgery.

A study was conducted by Karabulut, Gürçayır, Aktaş, Yılmaz and Gökmen (2011) to determine patient satisfaction with pain management and comfort levels after a cardiac surgery. A convenience sample of 52 patients who had heart surgeries with 20 females and 32 males were used.

Patients were asked to report their pain every eight hours after the surgery. Non opioid analgesic was administered to patient with other medical conditions

aside the cardiac surgery they had undertaken. Nonpharmacological interventions were also used in meeting patients comfort needs.

Postoperative pain level was assessed on a scale of 0 to 10 immediate after surgery, when patient begins walking and before discharging. Additional questions on nonpharmacological interventions were also asked from the patients. From this work, patients' pains reduced before discharge and were content with the care they were given. The study recommended nurses' should constantly assess pain and intervene appropriately.

Perception of Post-Operative Patients towards Pain Management

Mędrzycka-Dąbrowska, Dąbrowski, Basiński, and Pilch (2016) conducted a study to look at barriers that impede optimum pain management after surgery among elderly patients from nurses' perception in Poland. The study used both quantitative and qualitative methods in soliciting views from participants.

Two thousand nurses from three hospitals working on post-surgical were recruited. They were however categorized into levels to depict their job description. The researchers employed the use of questionnaires. Two questions were modified after obtaining permission to suit the study.

The investigators concluded that barriers to pain assessment and management related to the health-care system were statistically significantly more frequent in clinical hospitals. A major observation from this study was a huge gap in communicating with physicians on pain management modalities for patients, varying modalities in managing pain, evaluating pain and finally lack of protocols for managing postoperative pain among the elderly.

Ramia, Nasser, Salameh and Saad (2017) conducted a research on the topic "Patient perception of acute pain management. Respondents from three tertiary care hospitals were recruited. The study was a cross-sectional study in three educational hospitals in Beirut, Lebanon. Two groups of patients who did not have cancer pain but had undergone surgeries such as orthopaedic or had birth related surgeries were used. In view of this, each of these groups had different questionnaire tailored to the kind of surgery they did. Third year pharmacy students administered the questionnaire to patients. Patients who qualified for this study were those who have had surgery 24 hours previously.

It was revealed that patients were not given the utmost treatment deserved. They expected better alternatives in post-surgical pain management which should have been comprehensive evaluation, patient centred care and adequate medication. All challenges in managing patient's pain postoperatively must be addressed by actively involving patients in their postoperative pain management was a way out from this work.

A study was conducted by Woldehaimanot, Eshetie and Kerie (2014) "Postoperative pain management among surgically treated patients in an Ethiopian hospital". The study recruited 252 patients who had undergone surgery between 24 to 72hours and above 18years.This facility does not any recognized formality for recording preoperative analgesia protocols and totally excludes anaesthetics from managing patient pain after surgery. Questionnaire was the main instrument for data collection.

Diclofenac and tramadol was mostly the drug of choice but was administered in lower dose of about 57%. The study concluded most patient received minimal pain relief and several studies have to done to rectify this problem.

Masigati and Chilonga (2014) carried out as study to evaluate pain management after surgery at Kilimanjaro Christian Medical Centre (KCMC). Factors such as availability of drug in the health facility and the analgesic preference of the surgeon determine the analgesic to be administered after surgery. The most widely used pain reliefs were tramadol, pethidine, diclofenac and paracetamol in the form of intramuscular, intravenous and tablet. The patient analgesia were changed or added after review by attending doctor normally 24 hours postoperative.

The study was carried out for an eight months period with 124 postoperative patients above 18years purposively sampled. Data was collected using a Kiswahili translated and tested structured questionnaire. Variables such as postoperative pain and satisfaction with postoperative pain management were the outcome variables for the study. The data was obtained with numerical pain scale between 24 to 48hours after surgery (Fletcher et al., 2008; Mitera et al., 2010).

The results of the study identified that patients had pain in after surgery to 48hours.

Chapter Summary

The third chapter was devoted to methodology. It comprised areas such as; study area, research design, target population, sample and sampling technique, data

collection instrument, data collection procedure, data analysis procedure and ethical considerations. All these sub-areas of the chapter contributed significantly to the completeness of the methodology.

CHAPTER THREE

METHODOLOGY

This chapter delineate the methods for this research. It describes the design, population, sample and sampling techniques and the instrument used for data collection. This session also expounds how data was collected and analysed.

Study Area

The study used three hospitals as the study area. These were the Cape Coast Teaching hospital, Trauma and Specialists hospital, Winneba and Cape Coast Metropolitan hospital. All these hospitals are in the Central region of Ghana. These hospitals were selected because they had resident surgeons and undertake surgical procedures. The Cape Coast teaching hospital is a tertiary health facility, the Trauma and Specialist hospital is a secondary facility and the Cape Coast Metropolitan hospital currently offers primary health care.

Cape Coast Teaching Hospital

The Central Regional Hospital, now Cape Coast Teaching Hospital is currently a 400-bed capacity referral Hospital situated at the Northern part of Cape Coast. It is bounded on the north by Abura Township, on the south by Pedu Estate / 4th Ridge, Nkanfua on the East and Abura / Pedu Estate on the West. The Hospital, which was the first of a series of ultra-modern Regional Hospitals established by the Ministry of Health, started full operations on 12th August, 1998 and was adjudged the best Regional Hospital in the year 2003 (Abu et al., 2016).

The Hospital has been transformed into Cape Coast Teaching Hospital with the inception of School of Medical Sciences in the University of Cape Coast. The

hospital's vision is to be a world-class leader in tertiary health care, medical education and research (Cape Coast Teaching Hospital, 2016). The mission of the hospital is to provide advanced clinical health service to support primary and secondary health care, serve as training ground for undergraduate and postgraduate training for medical and other health professionals and undertake research for the purpose of improving the condition of people's health.

Cape Coast Teaching Hospital provides Outpatient and In-patient services in general, specialized diagnostic and rehabilitation. The following are the services currently available: General clinical care services, specialized clinical care services, public health services, rehabilitation services, surgical services, DEENT (Dental, Eye, Ear Nose and Throat) services, Obstetrics and Gynecological services, Pediatric services, Imaging services, Laboratory services and other services like Mortuary and Pharmaceutical services.

Trauma and Specialist Hospital, Winneba

The Trauma and Specialist Hospital, Winneba, is a specialized secondary referral health facility which is now upgraded as the Central Regional Hospital and it is located at Winneba in the Effutu Municipality. It serves as the referral point for the other Hospitals, Health Centres and Clinics in the municipality and beyond. The catchment area is Effutu and surrounding districts. The hospital also receives patients from Ga South municipality (Adatara et al., 2018). The project was originally designed as a new District Hospital for Winneba but upon completion converted to that of a secondary referral facility. The Trauma and Specialist

Hospital, Winneba is located at Winneba, the Municipal capital of Effutu which doubles as the administrative and commercial capital of Effutu Municipality.

Winneba is strategically located on the Ghana portion of the major Trans-Ecowas highway from Aflao through Accra to Elubo corridor, the potential that exists for the transformation of the facility into a centre of excellence for Trauma and Emergency care which form the basis for the designation of the facility to a secondary referral or specialist hospital to cater for the emergency health needs of the people of Winneba and its catchment area to manage Trauma and Road Accident victims.

The hospital's vision is to become a well-resourced secondary referral hospital and centre of excellence, capable of providing comprehensive health care with facilities for medical training and research. The mission of the hospital is to contribute to the socio-economic development and wealth creation of the people by providing quality and accessible restorative, promotive and rehabilitative health care services by skilled, highly motivated and client focused staff in collaboration with all stakeholders (Trauma and Specialist Hospital, 2020).

The hospital has a bed capacity of 150 which operates 24-Hour emergency services. It also has specialists for Obstetrics and Gynecology and Trauma and Orthopaedic services. Other clinical units are generally run by Medical Officers. The hospital runs services in Anesthesia, Physiotherapy, Ophthalmology, Dental, Ear Nose and Throat(ENT), Diagnostic (Medical Laboratory and Blood Transfusion, X-ray, Electrocardiogram ECG, Ultra Sound Scan), Pharmaceutical, Diabetic Clinic, Biostatistics (Patient Information), Administration and Support

Services (General Administration, Finance, Supply Chain, Laundry, Catering, CSSD, Estate, Security, Transport, Social Welfare, Mortuary, Environmental Sanitation).

Cape Coast Metropolitan Hospital

Cape Coast Metropolitan hospital used to be the second largest hospital in Central Region and is the second largest hospital in the Cape Coast Metropolis. It was the main referral hospital for clinics and health centres in the Cape Coast metropolis. It is one of the three hospitals (Cape Coast Teaching Hospital and University of Cape Coast Hospital) in the metropolis which offers both in-patients, out-patient and emergency services. It is located at Bakaano- a suburb of Cape Coast. It is observed that Cape Coast Metropolitan Hospital has a location advantages which makes it attract numbers of clients from the nearby districts. The facility offers an appreciable number of services with adequate number of doctors, nurses and state of the art facilities as compared to other health facilities.

Research Design

A qualitative approach was employed to assess pain management among post-operative patient in three hospitals in the Central Region. The study used a qualitative research design underpinned by phenomenology paradigm. In health-related studies, qualitative research design is widely used to depict everyday happenings of individuals or groups in terms of the participant's perspectives or personal understanding. Colorafi and Evans, (2016) opines that this is appropriate when trying to get an explicit understanding of an event. This design gives a pictorial view of an incident and aids in making judgement, hence its suitability for

this study. Again, Vicket, Lamber, Clinton, Lambert, (2012) also said qualitative descriptive approach draws from the naturalistic inquiry and as such is committed to investigating a phenomenon in an original setting making it ideal for this study. The approach is not committed to a specific theory base and variables are not manipulated.

Target Population

The target population included all planned patients who have undergone surgery on the Surgical Wards and health professionals who directly manage post-operative patients of Cape Coast Teaching Hospital, Cape Coast Metropolitan Hospital and Trauma and Specialist Hospital, Winneba. The study used 21 participants purposively selected from the various healthcare facilities.

Sample and Sampling Technique

Registered nurses and doctors who meet the criteria of managing patient before and after surgery and were present at work during the period of data collection were interviewed. Although the total numbers of 30 participants were targeted, the saturation point of data collection determined the exact number of participants to be employed for the study.

Inclusion and Exclusion Criteria

Student nurses were excluded from this research because of their inexperience and lower level of skills in managing patients after surgery. Again, Doctors on house-manship and post caesarean section patient were not included in

the study but rather Doctors who had passed out and have practised for at least one year and more.

Data Collection Instrument

A semi-structured interviews schedule was utilized in eliciting data from the participants. This instrument was used because it allows the participants to provide in-depth information whiles being guided by the interviewer.

A semi-structured interview guide (see Appendix A and B) was designed based on empirical literature review on the research questions for the collection of data on the pain management of post-operative patients in the selected hospitals. The semi-structured interview guide was structured around five main themes; demographic characteristics of participants, the experiences of pain among post-operative patients, the perception of post-operative patients towards pain management, the strategies used by the health facilities in managing pain, and the level of client's satisfaction with pain management. The data collection instrument was pre-tested in a similar healthcare facility (UCC Hospital) to ascertain its effectiveness in collecting the necessary data and changes made where necessary.

Data Collection Procedure

The Head of Department of Population and Health, University of Cape Coast issued an introductory letter prior to data collection for identification at the three respective health facilities. This was given to the healthcare facilities authorities to seek permission and the appropriate days and time to conduct the interviews. Upon the receipt of permission by the participating Hospitals (See

Appendix F and G) and the appropriate time and days given. The data collection for the study commenced on 27th of June to the 12th of July, 2019 solely by the researcher. All the interviews were held at the premises of the respective Hospital selected for the study. Participants who had undergone surgery two to three days afterwards and were willing to take part in the study were recruited. The researcher read and explained the nature of the research to the participant to seek their informed consent before commencing all interviews. The data collection instrument, semi-structured interview guide was used as guide for a one on one interview to obtain information on pain management among post-operative patients in the selected hospitals. Permission was sought from the participant to record each session which they all willingly agreed to.

Data Analysis Procedure

Data collected from participants was analysed using thematic analysis approach. The data was analysed based on the themes that came up as it deals with naturally occurring events and it provides vivid descriptions and information that leads to answers (Miles & Huberman, 1994). Thematic analysis helps produce categories from the data, unlike quantitative strategies which predetermines categories. To this effect, Braun and Clarke, (2006) thematic analysis was employed. According to Braun and Clarke (2006), the process has six stages which collectively try to spot, examine and describe patterns in the collected information.

1. *Familiarisation with the data*

The recorded audio from the interviews was severally played to get the opinions of each respondent (Gay, Mills & Airasian, 2009). The respondents were assigned unique numbers for easy identification (Sommers & Sommers, 2002). These numbers were assigned according to the order in which the participants (Patients and Health Workers) were interviewed. The participants were given codes as (1-21). Verbatim transcriptions of the audio interview were done and dithering and interruptions were also taken into consideration (McLellan, Macqueen & Neidig, 2003). This was done to keep the information original and prevent it from being misconstrued or lost. To verify there were no omissions, the written data was read out while listening to the audio tape. This made it easier to understand what the interviewers were saying and to spot similarities and variances in their statements.

This was done to preserve originality and ensure that no information was misinterpreted or lost. The transcribed data was read through while listening to the audio tape in order to ensure there were no omissions. This helped to conceptualise what the interviewees said and identified similitudes and dissimilarities in their statements (Vanderpuye, 2013).

2. ***Generating Initial Codes***

Coding is the process of reviewing data for themes, concepts, and categories, and then labelling similar chunks of text with a code label so that they can be easily accessed for further comparison and analysis at a later time. (Taylor & Gibbs, 2010). Braun and Clarke (2006) opine that procedure for coding entails

assigning terms to phrases, quotations, and portions of text information, which aids in the sorting, reduction, and distillation of interview content. Participants' phrases during the interview were utilized to generate the first codes. The codes make it easier to find data later on in the process. Inductively, a coding frame with codes and sub-codes was created from the interview transcripts.

3. Searching for themes

Braun and Clarke (2006), elucidate that finding themes entails classifying the various codes into viable themes and compiling all applicable coded extracts inside the chosen topic. Essentially, this is the start of code analysis, as well as thinking about how different codes might be combined to make a larger subject. Themes are expressions that describe the meaning of the data. They describe an outcome of coding for analytic reflection. I developed a list of themes and begin to concentrate on the data's broader patterns, merging coded data with projected themes (Braun & Clarke, 2006).

4. Reviewing themes

This stage entails determining if the themes work with the coded extracts (phase 1) and the whole set of data (phase 2), as well as creating a thematic ‘map' of the investigation. (Braun & Clarke, 2006). I went over the key topics and sub-themes again to make sure that those that couldn't be presented separately were merged into the one that was related. Through this process the data was made clear and identifiable distinctions were made between themes.

5. Defining and naming themes

The purpose of this phase of the analysis is to fine-tune the details of each topic as well as the overall story the analysis tells, resulting in clear definitions and titles for each topic. (Braun & Clarke, 2006). I made sure that the names of the sub-themes were recognizable and gave the reader a good idea of what the subject was about right away.

Producing the report

Writing the report, according to Braun and Clarke (2006), is an important aspect of the analytic process. At this point, the researcher must interpret the raw data and present it in a form that others can understand. Furthermore, it is critical that the analysis provides a succinct, consistent, logical, non-repetitive, and engaging description of the story the data tells – both within and between themes. I wrote the final report after I have reviewed themes that made meaningful contributions to answering the research questions. To my highest strength, I wrote the report devoid of any personal sentiment and observer expectancy effect. I basically depended on the response that participants gave and I discussed the issues as they were. In order to identify and refer to participant's interviews, participants were given special labels. For instance, Participant 1 was given the label Nurse 1.

Ethical Considerations

Ethical concerns are extremely important and should be given careful thought. According to Babbie and Mouton (2006), ethical standards urge researchers to avoid placing participants in situations where they might be harmed as a result of their participation. The reliability of a qualitative study is determined by whether the researcher adheres to appropriate and competent techniques as well as ethical conduct guidelines (Rossman & Rallis, 2003). As a result, I needed to think about ethical problems as I prepared the study to ensure that it followed acceptable ethical guidelines (Neuman, 2007). Kara (2015) emphasized that it is critical to guarantee that the research is designed in a methodologically sound and morally defensible manner for all individuals engaged.

Questions about how to conceive and clarify a study topic, design a research and get access, collect data, process and store data, analyze data, and write up research findings in a moral and responsible manner are all covered by research ethics (Saunders, Lewis & Thornhill, 2012). An ethical consideration in the field is inevitable when the work involves others, whether they are colleagues, respondents, assistants, or people in positions of authority (Perecman, & Curran, 2006).

Authorization for the study was also sought from the appropriate departments. First of all, the research ethics committee provided ethical approval with identification UCCIRB/CHLS/2019/24 number before commencement. The Department of Population and Health, University of Cape Coast provided an introductory letter to be sent to the selected hospital authorities for the study. The

Ghana Health Service and the Cape Coast Teaching Hospital ethical boards were also contacted for permission to utilize their facilities, with the following identifications: GHS-ERC064/05/19 and CCTHERC/EC/2019/067, respectively. Permission was sought from the Administration of the selected Hospital. Such permission was also sought for from the heads of the various wards within the facility to be able to assess the needed information from the health professionals who were participating in this research work.

In view of this, respect for participants was ensured by seeking permission to conduct interview and consent from respondents. Detailed information on the purpose of the research was also made available to them. Again, participants had the free will to participate in the study or decline whenever they wish in the course of the study.

Protections from physical and psychological harm were ensured by assisting participant to assume comfortable position either by sitting on a chair or lying-in bed based on their preferred choices. Participants were assured of confidentiality of their responses and any form of participant identification such as name and identification numbers were omitted. In line with this, the names on the folder as well as the in-patient identification number were not captured in the data.

Researcher's Positionality

I identify as a female professional nurse with three years training and a qualified general nurse. I have had the opportunity work in a ward where I mostly managed post-caesarean section women and other female-related gynecological health issues for three years. Currently, I work as a tutor in a health training

institution where I take students in surgical nursing. I take my students through the details of pre-operative and post-operative practices from nurses' point of view. I stand for strong moral values which puts me in a position to be empathetic with others and judicious in all that I do to the best of my knowledge and ability. I believe in pain being an individualized experience which can best be explained by the afflicted irrespective of what an observer may identify or know.

My aim was to explore pain management among post-operative patients from the three health facilities from patients' and health staff perspectives. The work reflects the responses from my participant. Throughout the period of access, data gathering, and analysis, my experiences were really beneficial.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results and discussion of the study. The study was to explore the experiences of post-operative pain management among patients of some selected health facilities in the Central Region. The analysis of the data was influenced by the research questions. The presentation in this chapter is based on the following thematic areas:

1. Experiences encountered by patients after surgery
2. Perception of patients on pain management
3. Strategies in managing postoperative pain
4. Patient's satisfaction of pain management.

Analysis of the main findings

Background Information of Participants

In all twenty-one (21) participants participated in the study, comprising twelve (12) patients who had undergone various surgical operations in three selected hospitals in the Central Region of Ghana. The remaining nine (9) participants are made up health professionals in the various surgical wards. They constituted one Surgeon, one Anaesthetist, two Senior Staff Nurses, one Staff Nurse and four Nursing Officers. The health professionals had between two (2) and five (10) years working experiences in their profession. All the interviews pertaining to the patients were carried out in the respective wards of the selected hospitals. For the interview with the health professionals, it was done in a designated room in the

selected hospitals. All the patients interviewed had undergone planned surgeries ranging from herniorrhaphy, appendicectomy, incision and drainage, open reduction and internal fixation (ORIF) external fixations and Pyloplasty. The analysis of the data gathered from the participant was done according to the various themes that arose from the organised data.

Theme One: Experiences Encountered by Patients Before and After Surgery

How people manage pain is a product of their perception, personal experiences and knowledge about pain. In this regard I was interested in finding out from the patients who had undergone surgery, the experience they have had with reference to pain. Various views and experiences were shared by the participants.

Patients shared their experiences, and it was noticed from the interview that almost all of them experienced some form of pains. Below are excerpts from the participants.

> *Well for me the pain wasn't that severe because the anaesthetist told me that there is a drug that will ease the pain if I can afford so I bought the medicine. When I came out of the sleep it was a bit hard for me* (**ORIF of the clavicle Female Patient**).

Another patient added that the pains were so severe

> *After the surgery, I was feeling pains in my head because when they brought me, I wasn't feeling anything. Seems the medication was still there. So around 7pm that way by then*

> *there was metal in my leg so I started feeling the pain, I couldn't turn. When there was no metal, I could turn myself a little bit and I could turn the leg too but now I couldn't so the nurses were standing by my side consoling me that it is okay this one is very painful* (**External Fixation Female Patient**).

Still on the issue of pain experience as shared by the patients, another added that: *After the surgery, I was not feeling it up to some time; I started developing pains in my lower abdomen. I don't know how to put it. It's like you been stretched* (**Appendicectomy Female Patient**).

In finding out from patients how they felt before the surgery the patients were afraid and anxious about the surgery.

> *Before going into the theatre, I was afraid. So, the next day I was wondering within me if I will come back or not, if I didn't, I can't sue the hospital because I have signed. So, when I was taken into the theatre, and they moved me to the theatre bed the bed was vibrating seriously- all that was anxiety.*

It is evident from the responses of the participants that the experiences they had greatly have to do with mild to excessive pains. Pains experienced by patients were related to abdomen, headache and other body pains. Also, most of the patients were scared prior to the surgery because they really didn't understand what the whole process entailed. This has implications on the psychological and emotional stress that patients go through.

Theme Two: Perception of Patients about Postoperative Pain Management

I asked the patients who had undergone surgery how they perceived their pain would be managed. I wanted to know from them how they understood postoperative pain management, what should constitute their pain management and who is responsible for their postoperative pain management. Various views were expressed by the participants in this regard. Excerpts from participants are presented below:

> *What I perceived was that I will go through so much pain but it didn't go that way I just experienced the pain for a few hours and that was it.* **(Incision and Drainage, Male Patient**.)

Another participant said that both medication and good staff attitude eased the pain and helped her cope better.

> *Many factors influence how the pains would be curbed. One is the person who is actually looking after you; how the person is taking good care of you. This would help to reduce the pain you are experiencing and the medicine they give also helps in managing the pain. Because my situation, for instance, I'm suffering and you the individual actually looking after me is talking to me anyhow and not caring so it makes everything worse when you have a caring person and proper medication it helps.* **(Herniorrhaphy, Female Patient***)*

In finding out from patients who they thought was responsible for managing their pain, they had diverse views. A patient was of the view that nurses were solely responsible.

> *It's the nurses because they are the ones monitoring the patients. They assist us; in case of anything the patients will call them and explain to them so that they can help the patient.*

Another participant included that her relative played a pivotal role in managing her pain.

> *The nurses and maybe my mum. When my mum is here with me and maybe right now, I am in pain and no one is around she can just quickly go and call the nurses to come around and if some of the nurses are just here with us in the evening and somebody is shouting in need of help because my mum is here, she can call for help for us. Yes. Here is different from my hometown because where I was the nurses and patients are at one place so if you shout, they come there quickly but here it is a different place so if you shout, they cannot hear you* **(External Fixation, Female Patient)**

A different patient responded that both health workers and patient were responsible for managing postoperative pain.

> *I believe it is both the patient and the health worker. It is a combined effort. The health worker may be willing to give you the medication but if you the patient do not allow it to be given to you,*

you make the health workers' work difficult. The same way if you do not allow yourself to engage in diversional therapies, they put up for you; equally you make your pain worse and make their work also difficult. (**Pyloplasty, Female Patient**)

I asked patients what should constitute postoperative pain management below are excerpt from participants:

The comfort of the patient plus medication and other non- medical activities that will take the patients thought away from the pain **(Appendicectomy, Male patient)**

A male ORIF patient also said nurses should respond promptly to their calls.

If I call out, auntie nurse my leg hurts a bit and she doesn't tell me to wait or tell me to manage bit by bit but she immediately looks after me but when I call her to complain and she keeps giving me the excuse to continuously wait no it shouldn't be so. Immediately a complaint is made the nurse is supposed to stop everything and look after you by getting your medication (**ORIF, Male patient**).

It may be concluded from the comments of the participants that they were aware they would have some level of pain after the surgery. The participants saw nurses, doctors, relatives and themselves as key team players in managing postoperative pain. However, distances from their wards and nurses' stations were a challenge for them in calling for help. They expected health professionals to respond promptly to their call for attention. They also added that both medication and good nursing attitude gives them comfort to cope better with pain. Furthermore, patients struggled to go through the postoperative phase as they were not much

informed about what they were to go through and the possible outcomes. This made them anxious and could be attributed to inadequate precounselling services offered by the health facilities to the patients who go for surgery.

Theme 3: Strategies in Managing Postoperative Pains

In this regard I wanted to know how or what strategies are used by the participants who had gone through surgery to manage the pains. And also explore the strategies used in managing the pains.

Some of the participants said they mostly took medicine or were given medication by the health care providers to reduce or minimise the pains. Some patients, for example said:

> *They gave me medication and a nurse was here throughout the night though she didn't sit in here. She comes here every hour to check up on me. The nurses and doctors and how they treated me helped to ease the pain. They weren't harsh on me and they really took good care of me* (**A Male Appendicectomy Patient**).

A patient echoed that when the pains were severe, he took medication and that made him sleep in order to forget the pains.

> *If the pain is strong the medicine makes you sleepy. When you wake up it is already done. When I had the accident and the bone was out, I was given medicine to sleep any time they had to tie the wound so when I woke up, they had already tied the wound up* (**External Fixation Patient**).

A patient was of the view that when she was going through those pains, she applied some olive oil and started to pray for God's intervention to ease the pains.

> *When I was in pain and everyone slept, I was all alone so sometimes I just have olive oil that I use to pray or water. I will just use some to rub my leg and I will pray to God to let the pains come down because there's no one here to help me even if my mother just goes, I will be the one just lying here so he should help me to sleep by the time I finish praying I will be feeling dizzy and sleepy till the next morning then I will thank God for reducing the pain. I have been doing this severally and I can see God is really listening to my prayers* (**External Fixation Female Patient**).

Furthermore, a patient said that he was allowed to bring books so he could read for the pains he was going through… *they also allowed me to bring in books that I could read to relax and take my mind off the pains. Having conversations with them, and others- my friends and family* (**Pyloplasty Female Patient**).

Health workers that were interviewed also agreed to the assertions made by the patients who were interviewed from the various hospitals. They agreed that medications were mostly given to the patients to subdue the pains. For instance, a five-year working experienced Nursing Officer said:

> *For patients, we give Injection Pethidine or Tramadol, then if the patient is not known to be asthmatic or an ulcer patient we offer IM Diclofenac and in exceptional cases whereby if*

> *the surgery is done around the lungs or chest we go in for Morphine, but the commonest one we use in this particular ward is IM Tramadol, Pethidine or Diclofenac, and when it comes to the orals Diclofenac 75mg or maybe sometimes 100mg and sometimes we give the oral Tramadol depending on the intensity of the pain if it is not that throbbing, we give 50mg but if it is throbbing we give twice daily 50mg* (**Nursing Officer 1**).

Another health worker also reiterated that they sometimes gave diversional therapy to patients who are in pains in order to ease the pains.

> *We have our own initiatives like the diversional therapy. I talked about like erm…we have a television here and if the person enjoys watching television the person can come here. We even talk to the person like we chat with the person by the bedside and the person would be okay* (**Staff Nurse 2**).

Again, a health worker said they sometimes reassure the patients that the pains will reduce after sometime. For instance, **a Male Nursing Officer 3** said:

> *Reassurance or we call the doctor to see if he can do something about it. Sometimes we help especially if the patient is not due for medication, we call the doctor.*
>
> An Anaethetist had this to say; *we work with the doctors with regard to patients' pain and postoperative management commences as soon as the last suture is done.*

It could be deduced from the responses of the participants with regards to strategies that were used by patients to manage the pains after they have undergone the surgery that, majority of the participants used medications to reduce the pains. The health workers also corroborated what the patients had said by adding that they mostly gave medications to patients who were going through pains. On a few instances the health workers offered non-pharmacological means such as diversional therapy to help patients to minimise their pains. A patient also reiterated that he applied oil and prayed to God to help her manage the pains. Reading of books was also another strategy some patients used to minimise pains.

Patients' Satisfaction/Benefits of Pain Management

In this regard I was interested in finding out from patients and health workers the satisfaction and benefits that they derived or get when pain is well managed.

The participants mentioned that they were satisfied with the pain management that the hospital or health facilities offered to them. From patients comment below, the patient was of the view that when pain is well managed it makes the patient gain a better life.

> *The patient gains a better life. It helps you get a new life because before you couldn't do a lot of things like eating, sleeping etc. but if the nurses can help you manage the pain, it is good news* (**ORIF of the clavicle Female Patient**).

A participant also rated the satisfaction of pain management on a scale of 10. This is what he had to say: *I will say I am satisfied, on a scale of 1 to 10, I will rate it at 8* (**Heniorrhaphy Male Patient**).

One patient said the treatment she obtained from the health facility was good and was satisfied with the pain management given to her and would therefore recommend the place to others

> *I will and I will recommend it to others. Because myself someone recommended this place to me and I have been given good treatment so I will also recommend the same hospital to the person with a similar issue* (**Female Appendicectomy Patient**).

A Male ORIF Patient was of the view that he is okay with the pain management and was hundred percent satisfied with the service:

> *I am okay but when it gets to certain seasons it's as if the wound and the raining season are not all that good when the cold comes it has been affecting the leg. The leg just becomes heavy and I start feeling some pains in it. I am 100% happy. I am praying to God that I walk normally.*

Health workers were also asked about the effectiveness of the strategies used in managing postoperative pain. **A Senior Staff Nurse** had this to say: …*it prevents certain complications like if the person is in pain, the person can't sleep right and then the pain alone can increase the person's blood pressure. So, it prevents certain*

complications like the person getting an increased blood pressure and then having enough sleep and all that.

From the above it can be seen that the patients and health workers mentioned their level of satisfaction with the pain management procedure that they obtained from the hospitals. Patients were satisfied because when pains are managed well it will make one's life better. Health workers also mentioned that when pain is well managed it helps to avoid certain complications that patients suffer from.

Discussion of Findings

Experiences of pain among post-operative patients

The findings of the study indicate that patients experienced excessive pains after they have had the surgery. The pain made patients experienced abdominal pains and some even hallucinate. This could be attributed to the differences in biological make-up of each patient since their body's respond to pains differently (Apfelbaum, et al., 2015). These post-operative pains that patients experienced led to psychological and emotional stress on the patients. This development is in sync with Subramanian et al., (2014); Apfelbaum, et al., (2015); and Masigati et al., (2014) studies. In these studies, patients affirmed the severity of pains that they went through some hours after the surgery. This clearly demonstrates how postoperative pains continue to be a problem for clients who are surgically treated. Therefore, health education is required to help manage pains more effectively after surgery. Even though health workers provided explanation to the possible reasons that could have accounted for the pains they experienced after the surgery, it

appears postoperative pains was by far the commonest issues that was a matter of concern to the participants of the study.

Perception of post-operative patients towards pain management

One of the issues that emerged from the study is that patients knew themselves and health workers were responsible for managing their pain after surgery with both drugs and other therapies. However, their pain experiences made them anxious. The anxiety on the part of the patients was as a result of the inadequate pre-counselling services by the healthcare professionals and the healthcare facility in general. Pre-counselling would have offered the patients an opportunity to be abreast with the process of the surgery, possible outcome and effective coping skills that would have helped to reduce the anxiety levels of the patients. The anxiety on the part of the patients could also be attributed to the preconceived ideas that the patients had before going for the surgery. This finding corroborates those of Ramia et al, (2017) who revealed that patients were not given the utmost treatment deserved. Patients expected to be given high quality pain management. All these would result in overall patient satisfaction. Mezdrzycka-Daz et al. (2016) found difficulties in communicating with doctors to address a patient's pain therapy, a poorly organized system of care, a lack of a uniform standard of pain evaluation, and the absence of guidance promoting awareness of appropriate best practices in the assessment and management of pain in elderly adults. This presupposes that if the healthcare facilitates counselling for those who go for surgery it will help erase the erroneous impression and also calm patients when going for the surgical operation.

Strategies in managing pains

The issue of medication emerged as the major means of managing their pains. This revelation was affirmed by both the patients and the healthcare providers. Both patients and healthcare providers affirmed this. This could be said to be the pharmacological aspect of pain management that is the process by which medication is used in the management of pains. There were instances where non-pharmacological strategies were used to manage pains. These included the application of "anointing oil" on the wound of the surgery and seeking divine intervention through prayers to reduce the pains. Even though this was a good intervention for relieving a patient's pain, it is unethically accepted in the health profession as these practices could lead to wound infection and other complications. Another non-pharmacological means of pain management as revealed by the study was by reading of books. Sometimes patients were advised to read series of books to forget or take off their minds from the pains. This suggests that, to some extent pains is more psychological. This revelation is clearly in line with the theory of Gate Control by Melzack and Wall, (1995). The physiological and psychological underpinnings of pain transmission are described and integrated in this theory. The Gate Control Theory explains how psychological and cognitive factors play a role in pain. This theory further attributes the nonpharmacological strategy of pain management as being influenced by emotional state. This finding further goes with the works of Rantala et al, (2012) and Chatchumni (2016). These studies concluded that strategies such repositioning, helping with daily activities and cold application could be said to be non-pharmacological strategies used by the healthcare

providers. In the Ghanaian society, some health professionals employ non-pharmacological strategies in managing patients' pain.

Level of satisfaction for managing postoperative pain

The study again showed that patients who had surgery had varying views on the satisfaction with the pain management that the healthcare professionals gave them. It was revealed by the patients that as a result of the strategies used in managing their pain after surgery, they could cope with the pains associated with the surgery they had undergone and also speed the healing process of their pains. This pain management helped to avoid complications that could have developed as such. Stress was also reduced as a result of better pain management. The study by Tocher et al., (2018); Lovastsis, (2014), Woldehaimanot et al, (2014); Chung and Lui, (2011), and Karabulut et al, (2011), these studies geared towards patient satisfaction with their pain management and comfort level after surgery. The outcomes of these studies showed that majority of the patients who underwent surgery were to a larger extent satisfied with post-operative pain control. Patients were satisfied with health workers concern for their pains and provided the needed pain relief therapy and medication when the need arose. The above studies further concluded that despite patient's high satisfaction with pain control, the majority of patients were treated ineffectively and improperly which is in line with this study which concluded that though patients were satisfied with the pain management received however, they were confronted with some challenges which include lack of pre counseling services for patients before undergoing surgical operation.

Concluding Remarks

In conclusion, it could be said that to a lager extent the patients were satisfied with the pain management processes given them by the various healthcare facilities. Based on the themes that emerged that is experiences of pain among post-operative patients, perception of post-operative patients towards pain management, strategies of managing pains, level of satisfaction. Participants narrated their side of the story as the researcher also analysed accordingly. It could however be deduced from their responses that there were both good and bad experiences witnessed by these patients who underwent the various forms of surgical operations. Patients perceptions about pain associated with surgical operation, satisfaction of the treatment received from the various healthcare facilities were also narrated. Healthcare providers' views were also not left out. The analysis and discussions of the findings were backed by existing empirical evidence which either corroborated the findings or refuted it.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents a summary of the study as well as the key findings from the study. This chapter also has the conclusions and recommendations based on the findings of the study.

Summary

The study basically focused on exploring pain management among post-operative patients among some selected health facilities in the Cape Coast Teaching Hospital Cape Coast Metropolitan and Winneba Municipality. The study explored the experiences of pain among post-operative patients in selected health facilities; to examine the perception of post-operative patients in the selected health facilities towards pain management, explore the strategies used by the health care providers in managing pain and to explore client's level of satisfaction with post-operative pain management. The research employed qualitative research design dwelling on phenomenology as an approach. The population of the study was patients, nurses and doctors selected from Cape Coast Teaching Hospital, Trauma and Specialist Hospital, Winneba and Cape Coast Metropolitan Hospital. Semi structured interview guide was used to collect data form participants. The interview data were transcribed, coded and analysed thematically. The results were addressed in light of the study questions.

Key Findings

1. The finding of the study indicates that patients experienced varying level of pains after they have had the surgery. The pain made patients experienced abdominal pains and some even hallucinated. This could be attributed to the differences in biological make up each patient since their body's respond to pains differently.
2. The finding of the study revealed that many health care workers used medication as the major means to manage post-operative patients' pains. This revelation was affirmed by both the patients and the healthcare providers. This could be said to be the pharmacological aspect of pains management.
3. Non-pharmacological strategies such as prayers and reading of books were also means through which patient used to manage their pains.
4. The study again showed that clients/patients who had surgery were satisfied with the pain management that the healthcare providers gave them. It was revealed by the patients that this resulted from the pain management strategies used by the healthcare providers. These pain management strategies helped to avoid complications.

Conclusion

Pre-and post-operative pains remain a widespread and serious issue that necessitates greater consensus and collaborative efforts to improve. Despite the effort put in by the health workers and the health facilities in general to minimise and care for post-operative pains, there are still challenges confronting both health workers and patients in managing post-operative pains effectively. Challenges such as inadequate pre counselling for the clients who go for surgery at the healthcare

centres, and inadequate medication and other therapy for the management of pains. As a result of these challenges and many more, many patients go through unbearable pains which affect them psychologically and socially.

Recommendations

The following recommendations have been made based on the findings of the study.

1. Healthcare providers should be more proactive in their treatment of post-operative. Better mechanisms and therapy should be put in place to minimise post-operative.
2. The healthcare centres or facilities should make it as a matter of concern to make available counsellors who will offer pre counselling services before any surgery is done. This will help minimise the anxiety on the part of the patients.
3. More advance medication for the treatment and management of post-operative should be made available in healthcare facilities so that patients who undergo surgery can easily have access to them.
4. Even though patients were satisfied with the post-operative management, nevertheless, there were still some challenges pertaining to inadequate and inappropriate treatment, I therefore suggest that healthcare providers should be more proactive in the management of post-operative pains as well as general healthcare services.

Areas for Further Research

Future researchers should concentrate on the availability of counsellors and counselling services for surgical patients prior to surgical operations in healthcare facilities in Ghana.

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APPENDIX A

UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF POPULATION AND HEALTH

INFORMED CONSENT FORM (PATIENTS)

Title: Pain Management among Post-Operative Patient in Selected Health Facilities in the Central Region.

Principal Investigator: Adwoa Otiwaa Ekanem

Address: Department of Population and Health, University of Cape Coast, Cape Coast, Ghana.

General Information about Research

The purpose of this study is to explore pain management among post-operative patients in the selected health facilities in the Central Region of Ghana. The study provides useful information that would add to the available research in this area. Also, it will aid health workers understand how patients perceive the pain management they receive in their facilities. In addition, the study will help health workers know the level of satisfaction patients get from the pain management they receive from their facilities.

Procedures

For this purpose, I invite you to be one among other patients who have gone through surgery in either Cape Coast Teaching hospital, Cape Metro hospital or Trauma and Specialist hospital in Winneba. I am trying to learn more about your pain experience after surgery and how it was managed. Some of the questions that will be asked may concern your experience on pain after surgery, perception on pain management, strategies for managing the pain, and your satisfaction with the pain management you received. The interview will take place by your bedside. The information recorded is considered confidential, and no one else except the researcher will have access to the information documented during your interview. All digital

audio tapes will be transcribed. Within a 6-month period it will be destroyed. My records may be reviewed to make sure I am doing the research correctly.

Possible Risks and Discomforts

There is no health risk to you from your participation in this interview. However, when there is any form of psychological or emotional outburst, the interview will be paused and the needed emotional support will be given you to help you recover from such experience.

Possible Benefits

There is no direct benefit in participating in this study but the information you provide will be useful in understanding the pain experiences you went through after surgery and how it was managed.

Confidentiality

The information that you share with me will not be given to anyone; it will be used strictly for research only. The report will use the collective responses and will not reveal names or any identifiers that may be linked back to the person who gave the information. Nor will anyone who is not directly involved in this research be allowed to access the information that I obtain from you. This consent form will be destroyed in one year.

The audio will be kept under lock and key and will not be accessed except by myself. I will have the key to the locked cabinet. The audios will be deleted permanently from the computer after 6months. I would like to reassure you that the information you provide will not be given to anyone except the I (Adwoa Otiwaa Ekanem).

Additional Cost

It will not cost you anything to be in the study, except for your time.

Voluntary Participation and Right to Leave the Research

You can choose to be in the study or not be in the study, it is up to you. If you choose not to be in the study, there will be no problem for you now or in the future. You can leave the study at any time without any problem to you now or in the future. You can skip any question at any time and answer later in the course of the interview.

Termination of Participation by the Researcher

We will not ask you to leave the study unless you are too upset to continue.

Contacts for Additional Information

In case you have further questions regarding this study, please contact:

Adwoa Otiwaa Ekanem (Mrs.): +233 (0)244477734.

Dr Samuel Agblorti: +233 (0)244978166

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of University of Cape Coast (UCCIRB). If you have any questions about your rights as a research participant you can contact the Administrator at the IRB Office between the hours of 8:00 am and 4:30 p.m. through the phones lines 0558093143/0508878309/0244207814 or email address: irb@ucc.edu.gh.

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title:

Pain Management among Post-Operative Patient in Selected Health Facilities in the Central Region has been read and explained to me. I have been given an opportunity to have any question about the research answered to my satisfaction.

I agree to participate as volunteer.

_____ _____

Date Name and signature or mark of volunteer

APPENDIX B
UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF POPULATION AND HEALTH

INFORMED CONSENT FORM (HEALTH WORKERS)

Title: Pain Management among Post-Operative Patient in Selected Health Facilities in the Central Region

Principal Investigator: Adwoa Otiwaa Ekanem

Address: Department of Population and Health, University of Cape Coast, Cape Coast, Ghana.

General Information about the Research

The purpose of this study is to explore pain management among post-operative patients in the selected health facilities in the central region of Ghana. The study provides useful information that would add to the available research in this area. Also it will aid health worker understand how patients perceive the pain management they receive in your facility. In addition, the study will help know the level of satisfaction patients get from the pain management they receive from your facilities.

Procedures

For this purpose, I invite you to be one among other health professionals who attend to patients after surgery in the Cape Coast Teaching hospital, Cape Metro hospital or Trauma and Specialist hospital in Winneba. I am trying to learn more about pain management strategies, patients' pain experiences after surgery and how it is managed. Some of the questions that will be asked may concern patient's experience on pain after surgery, perception on pain management, strategies for managing the pain, and patients' satisfaction with the pain management they received from their care givers. The information recorded is considered

confidential, and no one else except my Supervisor and I will have access to the information documented during your interview. The interview will be recorded and transcribed. All digital audio tapes and the transcribed data will be destroyed within a 6-month period. The interview will last for about 40minutes.

Possible Risks and Discomforts

There is no risk to you for your participation in this interview. However, there may be some questions that will demand responses reflecting your daily activities on the ward such as strategies used in managing post-operative pain in your facility.

Possible Benefits

There is no direct benefit in participating in this study but the information you provide will be useful in understanding the pain experiences patient's go through after surgery and how it is managed.

Confidentiality

The information that you share with me will not be given to anyone; it will be used strictly for this research only. The report will use the collective responses and will not reveal names or any identifiers that may be linked back to you the person who gave the information. Nor will anyone who is not directly involved in this research be allowed to access the information that I obtain from you. This consent form will be destroyed in one year.

The audio will be kept under lock and key and will not be accessed except by myself. I will have the key to the locked cabinet. The audios will be deleted permanently from the computer after a period of 6months. I would like to reassure you that the information you provide will not be given to anyone except my Supervisor and I (Adwoa Otiwaa Ekanem).

Voluntary Participation and Right to Leave the Research

You can choose to be in the study or not be in the study. If you choose not to be in the study, there will be no problem for you now or in the future. You can leave the study at any time without any problem to you now or in the future. You can skip any question at any time and response to it later.

Contacts for Additional Information

In case you have further questions regarding this study, please contact:

Adwoa Otiwaa Ekanem (Mrs.): +233 (0)244477734.

Dr Samuel Agblorti: +233 (0)244978166

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of

University of Cape Coast (UCCIRB). If you have any questions about your rights as a research participant you can contact the Administrator at the IRB Office between the hours of 8:00 am and 4:30 p.m. through the phones lines 0558093143/0508878309/0244207814 or email address: irb@ucc.edu.gh.

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title:

Pain Management among Post-Operative Patient in Selected Health Facilities in the Central 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 volunteer.

_____ _____

Date Name and signature or mark of volunteer

APPENDIX C
UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF POPULATION AND HEALTH

RESEARCH TOPIC: PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENTS IN SELECTED HEALTH FACILITIES IN THE CENTRAL REGION

I would be grateful if you would participate in my study on pain management. The aim is to improve pain management after going through a successful surgery in the hospital. You are being invited to respond to some questions in order to know your views on the issues. The study is purely for academic purposes and that all the information that you provide will be confidential. For more information and details about the study, **please contact Adwoa Ekanem (+2330244477734, adwoaekanem@gmail.com**

Section A: Socio-demographic characteristics

1. Sex
2. Age

Section B: Medical History

3. Past
4. Present

Section C: Experiences of pain among post-operative patients

1. Can you tell me about your pain while you were in the hospital after your surgery?

2. Prior to your surgery, what were your expectations of postoperative pain?

   Probe whether preoperative counselling was done. Who did it?

   Did you read about your diagnosis?

3. How did your experience with pain compare to your expectations prior to the surgery?
4. What was done to help manage your pain?

   What did you do to help ease your pain from your view, did it work as expected. What did they do for you? Did they respond to your call for help?

5. What information were you given about your pain medication(s) before leaving the hospital? (Probe: who spoke to you about your medication(s), what information were you told about your pain medication(s),what information were you given about the possible side effects of the medication(s)? what advice were you given if your pain medication(s) were not effectively reducing your pain?
6. What concerns did you have about managing pain after your surgery?

Section D: Perception of post-operative patients towards pain management (the way in which something is regarded, understood, or interpreted.)

1. How do you understand pain management among post-operative patients?
2. From your point of view, what constitute pain management?
3. Who is responsible for pain management among post-operative patients? (Probe for doctor, nurse, patient)

4. What are the benefits of pain management among post-operative patients? (Probe for reduces the effect of *pain* on patient function, improves patients' quality of life)

Section E: Strategies used by post-operative patients in managing pain

1. What pharmacological strategies do you use in managing pain? (Probe for paracetamol, ibuprofen, morphine, opioid).
2. What non-pharmacological techniques do you use in managing pain? (Probe for positioning, distraction, relaxation, eating/drinking, breathing, imagery, music and meditation)
3. How effective are the strategies you use in managing pain? (Probe for pharmacological strategies, non-pharmacological strategies)
4. Have the strategies helped to reduce your pain?
5. To what extent has your pain reduced as a result of the use of the strategies?

Section F: Level of client's satisfaction of pain management

1. How satisfied are you with pain treatment given to you by the healthcare providers with regards to the pains you had after the surgery?

   Probe
2. Did you receive any information about your pain treatment options?
3. How satisfied are you with the kind of medication or therapy given you**? the care given.**
4. Recommendation if any.

APPENDIX D
UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

DEPARTEMENT OF POPULATION AND HEALTH

INTERVIEW GUIDE FOR HEALTH PROFFESSSIONALS

Dear Sir \ Madam,

I would be grateful if you would participate in my study on how patients feel after surgery. The aim of the survey is to investigate pain management among post-operative patient. Your participation is voluntary and the information you provide will be made anonymous. The study is purely for academic purposes and that all the information that you provide will be confidential. This means that your name or other form of identification will be deleted and will not be included in any records I will have. Your answers in these questions will not be shared with your medical or nursing team.

Many thanks for considering taking part in this survey.

Section A: Background of respondents

Profession:

Years of service:

Section B: Strategies used by health facilities in managing pain

1. What is pain management among post-operative patients?
2. Who is responsible for pain management among post-operative patients? (Probe for doctor, nurse, patient)

3. What are the benefits of pain management among post-operative patients? (Probe for reduces the effect of *pain* on patient function, improves patients' quality of life)
4. What pharmacological strategies do you use in managing pain? (Probe for paracetamol, ibuprofen, morphine, opioid).
5. What non-pharmacological techniques do you use in managing pain? (Probe for positioning, distraction, relaxation, eating/drinking, breathing, imagery, music and meditation)

Section C: Effectiveness of strategies used by post-operative patients in managing pain

1. How effective are the strategies you use in managing pain? (Probe for pharmacological strategies, non-pharmacological strategies)
2. Have the strategies helped to reduce patients' pain?
3. How did you know the strategy has helped to reduce pain?
4. To what extent has patient pain reduced as a result of the use of the strategies?

APPENDIX

Appendix 1: Participants Information Sheet for Post-Operative Patients In Cape Coast Metro Hospital.

Title: PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENT IN SELECTED HEALTH FACILITIES IN THE CENTRAL REGION.

Introduction: My name is Adwoa Otiwaa Ekanem,a student of university of Cape Coast, Department of Population and Health. I am conducting a study on Pain Management among Post-Operative in the central region

I would like to invite you to be one among other patients who have gone through surgery in the Metro Hospital, Cape Coast. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. You can ask me on
+233244477734.

Background and Purpose of Research: Pain is a very imperative component of the surgical procedure. Intraoperative, advances in anaesthesia have improved the conditions of intervention for both the patient and the surgeon. As for the postoperative period, we must focus on postoperative pain, especially as it remains highly variable. In 2004, the European Federation of the International Association for the study of Pain (IASP) and the World Health Organization (WHO) sponsored the Global Day against pain. These organisations hoped to gain wide acceptance that, in addition to overall health, explicit pain treatment would become a human right (Carr & Cousin, 2007). The management of postoperative pain is important for the well-being of the patient because it contributes to faster and better recovery after surgery. Efforts to improve postoperative pain management have been on-going for many years. (Mackintosh-

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Franklin, 2013). The purpose of this study is to explore pain management among post-operative patients in the selected health facilities in the Central Region of Ghana and learn more about your pain experience after surgery and how it was managed.

Nature of Research

The research is a qualitative study that seeks to conduct interviews among post-operative patients who have had surgeries to share their pain experiences and how it was managed.no names will be used, you will be given a unique number for identification. The recordings will be stored in my room and the keys will be kept by me.

Duration

I will need about thirty minutes of your time for the interview.

Potential Risk

`There is no health risk to you from your participation in this interview. However, when there is any form of psychological or emotional outburst, the interview will be paused to allow you express all your emotions. The needed reassurance will be given before the interview will continue to help you recover from such experience.

Benefits

There is no direct benefit in participating in this study but the information you provide will be useful in understanding the pain experiences you went through after surgery and how it was managed.

Privacy: The interview will be conducted by tour bedside for convenience sake.

Confidentiality

The information that you share with me will not be given to anyone; it will be used strictly for research only. This consent form will be destroyed in one year. The audio will be kept under lock

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and key and will not be accessed except by myself. The audios will be deleted permanently from the computer after 6months. A copy of the consent form will be given to you.

Voluntary Participation and Right to Leave the Research

You can choose to be in the study or not be in the study, it is up to you. If you choose not to be in the study, there will be no problem for you now or in the future. You can leave the study at any time without any problem to you now or in the future.

Cost: It will not cost you money to be in the study, except for your time.

Compensation: You will not be given any incentive to take part in the study.

Outcome and feedback: Outcome will be available at the University of Cape Coast Website which will be available for the general public. The feedback will be given to the hospital. The result of the study will also be shared with the Ethic committee.

Funding: I am the one funding the study and will bear all the cost of transportation to and from the venue. There will be no remuneration for participating in this study but you have contributed immensely to knowledge contribution.

Conflict of interest: I declare that I have no conflict of interest in the study.

Sharing of participant information: The information gained from the study will be owned by the principal investigator and the Department Of Population and Health, University Of Cape Coast.

For further clarification or questions on the study

In case you have further question on the research later please contact Adwoa Otiwaa Ekanem, Department Of Population And Health, University Of Cape Coast.
(Tel 0244477734).Email:adwoaekanem@gmail.com

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 26/6/2019 To 26/6/2020
Signed ... Date 24/06/2019
Name ... GHS- ERC Administrator

Also if you need further clarification on ethical issues and your right as a participant, please contact Ms Hannah Frimpong, the Administrator of the Ghana Health Service Ethics Review Committee-Research and Development Division, Ghana Health Service, Accra. (0507041223)

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period ~~23/6/2019~~ To: 26/6/2020
Signed ..... Date 27/06/2019
Name ..... GHS- ERC Administrator

Appendix

Appendix 4: Participants Information Sheet for Health Workers Attending To Surgical Patients in the Cape Coast Metro Hospital

Title: PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENT IN SELECTED HEALTH FACILITIES IN THE CENTRAL REGION.

Introduction: My name is Adwoa Otiwaa Ekanem,a student of University of Cape Coast, Department of Population and Health. I am conducting a study on Pain Management among Post-Operative in the central region

I would like to invite you to be among Health Professionals who attend to patients after surgery in the Metro Hospital, Cape Coast. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. You can ask me on
+233244477734.

Background and Purpose of Research: Pain is a very imperative component of the surgical procedure. Intraoperative, advances in anaesthesia have improved the conditions of intervention for both the patient and the surgeon. As for the postoperative period, we must focus on postoperative pain, especially as it remains highly variable. In 2004, the European Federation of the International Association for the study of Pain (IASP) and the World Health Organization (WHO) sponsored the Global Day against pain. These organisations hoped to gain wide acceptance that, in addition to overall health, explicit pain treatment would become a human right (Carr & Cousin, 2007). The management of postoperative pain is important for the well-being of the patient because it contributes to faster and better recovery after surgery. Efforts to improve postoperative pain management have been on-going for many years. (Mackintosh-Franklin, 2013). The purpose of this study is to explore pain management among post-operative

patients in the selected health facilities in the Central Region of Ghana and learn more about your pain experience after surgery and how it was managed.

Nature of Research

The research is a qualitative study that seeks to conduct interviews among post-operative patients who have had surgeries to share their pain experiences and how it was managed.no names will be used, you will be given a unique number for identification. The recordings will be stored in my room and the keys will be kept by me.

Duration

I will need about thirty minutes of your time for the interview.

Potential Risk

There is no risk to you for your participation in this interview. However, there may be some questions that will demand responses reflecting your daily activities on the ward such as strategies used in managing post-operative pain in your facility.

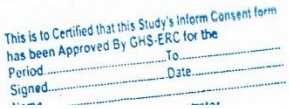
Benefits

There is no direct benefit in participating in this study but the information you provide will be useful in understanding the pain experiences you went through after surgery and how it was managed.

Privacy: The interview will be conducted by tour bedside for convenience sake.

Confidentiality

The information that you share with me will not be given to anyone; it will be used strictly for research only. This consent form will be destroyed in one year. The audio will be kept under lock and key and will not be accessed except by myself. The audios will be deleted permanently from the computer after 6months. A copy of the consent form will be given to you.



Voluntary Participation and Right to Leave the Research

You can choose to be in the study or not be in the study, it is up to you. If you choose not to be in the study, there will be no problem for you now or in the future. You can leave the study at any time without any problem to you now or in the future.

Cost: It will not cost you money to be in the study, except for your time.

Compensation: You will not be given any incentive to take part in the study.

Outcome and feedback: Outcome will be available at the University of Cape Coast Website which will be available for the general public. The feedback will be given to the hospital. The result of the study will also be shared with the Ethic committee.

Funding: I am the one funding the study and will bear all the cost of transportation to and from the venue. There will be no remuneration for participating in this study but you have contributed immensely to knowledge contribution.

Conflict of interest: I declare that I have no conflict of interest in the study.

Sharing of participant information: The information gained from the study will be owned by the principal investigator and the Department Of Population and Health, University Of Cape Coast.

For further clarification or questions on the study

In case you have further question on the research later please contact Adwoa Otiwaa Ekanem, Department Of Population And Health, University Of Cape Coast.
(Tel 0244477734).Email:adwoaekanem@gmail.com

Also if you need further clarification on ethical issues and your right as a participant, please contact Ms Hannah Frimpong, the Administrator of the Ghana Health Service Ethics Review Committee-Research and Development Division, Ghana Health Service, Accra. (0507041223)

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Date 27/06/2019
Name
GHS- ERC Administrator

Appendix

Appendix 5: Participants Information Sheet for Health Workers Attending To Surgical Patients at the Cape Coast Teaching Hospital

Title: PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENT IN SELECTED HEALTH FACILITIES IN THE CENTRAL REGION.

Introduction: My name is Adwoa Otiwaa Ekanem,a student of University of Cape Coast, Department of Population and Health. I am conducting a study on Pain Management among Post-Operative in the central region

I would like to invite you to be among Health Professionals who attend to patients after surgery in the Cape Coast Teaching Hospital. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. You can ask me on
+233244477734.

Background and Purpose of Research: Pain is a very imperative component of the surgical procedure. Intraoperative, advances in anaesthesia have improved the conditions of intervention for both the patient and the surgeon. As for the postoperative period, we must focus on postoperative pain, especially as it remains highly variable. In 2004, the European Federation of the International Association for the study of Pain (IASP) and the World Health Organization (WHO) sponsored the Global Day against pain. These organisations hoped to gain wide acceptance that, in addition to overall health, explicit pain treatment would become a human right (Carr & Cousin, 2007). The management of postoperative pain is important for the well-being of the patient because it contributes to faster and better recovery after surgery. Efforts to improve postoperative pain management have been on-going for many years. (Mackintosh-Franklin, 2013). The purpose of this study is to explore pain management among post-operative

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patients in the selected health facilities in the Central Region of Ghana and learn more about your pain experience after surgery and how it was managed.

Nature of Research

The research is a qualitative study that seeks to conduct interviews among post-operative patients who have had surgeries to share their pain experiences and how it was managed.no names will be used, you will be given a unique number for identification. The recordings will be stored in my room and the keys will be kept by me.

Duration

I will need about thirty minutes of your time for the interview.

Potential Risk

There is no risk to you for your participation in this interview. However, there may be some questions that will demand responses reflecting your daily activities on the ward such as strategies used in managing post-operative pain in your facility.

Benefits

There is no direct benefit in participating in this study but the information you provide will be useful in understanding the pain experiences you went through after surgery and how it was managed.

Privacy: The interview will be conducted by tour bedside for convenience sake.

Confidentiality

The information that you share with me will not be given to anyone; it will be used strictly for research only. This consent form will be destroyed in one year. The audio will be kept under lock and key and will not be accessed except by myself. The audios will be deleted permanently from the computer after 6months. A copy of the consent form will be given to you.

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Signed ..... Date .....

Voluntary Participation and Right to Leave the Research

You can choose to be in the study or not be in the study, it is up to you. If you choose not to be in the study, there will be no problem for you now or in the future. You can leave the study at any time without any problem to you now or in the future.

Cost: It will not cost you money to be in the study, except for your time.

Compensation: You will not be given any incentive to take part in the study.

Outcome and feedback: Outcome will be available at the University of Cape Coast Website which will be available for the general public. The feedback will be given to the hospital. The result of the study will also be shared with the Ethic committee.

Funding: I am the one funding the study and will bear all the cost of transportation to and from the venue. There will be no remuneration for participating in this study but you have contributed immensely to knowledge contribution.

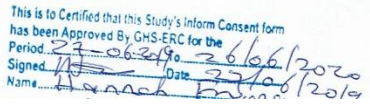
Conflict of interest: I declare that I have no conflict of interest in the study.

Sharing of participant information: The information gained from the study will be owned by the principal investigator and the Department Of Population and Health, University Of Cape Coast.

For further clarification or questions on the study

In case you have further question on the research later please contact Adwoa Otiwaa Ekanem, Department Of Population And Health, University Of Cape Coast.
(Tel 0244477734).Email:adwoaekanem@gmail.com

Also if you need further clarification on ethical issues and your right as a participant, please contact Ms Hannah Frimpong, the Administrator of the Ghana Health Service Ethics Review Committee-Research and Development Division, Ghana Health Service, Accra. (0507041223)



Appendix

Appendix 6: Participants Information Sheet for Health Workers Attending To Surgical Patients at the Trauma and Specialist Hospital, Winneba.

Title: PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENT IN SELECTED HEALTH FACILITIES IN THE CENTRAL REGION.

Introduction: My name is Adwoa Otiwaa Ekanem,a student of University of Cape Coast, Department of Population and Health. I am conducting a study on Pain Management among Post-Operative in the central region

I would like to invite you to be among Health Professionals who attend to patients after surgery in the Trauma and Specialist Hospital. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. You can ask me on
+233244477734.

Background and Purpose of Research: Pain is a very imperative component of the surgical procedure. Intraoperative, advances in anaesthesia have improved the conditions of intervention for both the patient and the surgeon. As for the postoperative period, we must focus on postoperative pain, especially as it remains highly variable. In 2004, the European Federation of the International Association for the study of Pain (IASP) and the World Health Organization (WHO) sponsored the Global Day against pain. These organisations hoped to gain wide acceptance that, in addition to overall health, explicit pain treatment would become a human right (Carr & Cousin, 2007). The management of postoperative pain is important for the well-being of the patient because it contributes to faster and better recovery after surgery. Efforts to improve postoperative pain management have been on-going for many years. (Mackintosh-Franklin, 2013). The purpose of this study is to explore pain management among post-operative

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Signed Date 27/6/2019

patients in the selected health facilities in the Central Region of Ghana and learn more about your pain experience after surgery and how it was managed.

Nature of Research

The research is a qualitative study that seeks to conduct interviews among post-operative patients who have had surgeries to share their pain experiences and how it was managed.no names will be used, you will be given a unique number for identification. The recordings will be stored in my room and the keys will be kept by me.

Duration

I will need about thirty minutes of your time for the interview.

Potential Risk

There is no risk to you for your participation in this interview. However, there may be some questions that will demand responses reflecting your daily activities on the ward such as strategies used in managing post-operative pain in your facility.

Benefits

There is no direct benefit in participating in this study but the information you provide will be useful in understanding the pain experiences you went through after surgery and how it was managed.

Privacy: The interview will be conducted by tour bedside for convenience sake.

Confidentiality

The information that you share with me will not be given to anyone; it will be used strictly for research only. This consent form will be destroyed in one year. The audio will be kept under lock and key and will not be accessed except by myself. The audios will be deleted permanently from the computer after 6months. A copy of the consent form will be given to you.

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has been Approved By GHS-ERC for the
Period 27/06/2019 To 26/06/2020
Signed ..... Date 27/06/2019
Name .....

Voluntary Participation and Right to Leave the Research

You can choose to be in the study or not be in the study, it is up to you. If you choose not to be in the study, there will be no problem for you now or in the future. You can leave the study at any time without any problem to you now or in the future.

Cost: It will not cost you money to be in the study, except for your time.

Compensation: You will not be given any incentive to take part in the study.

Outcome and feedback: Outcome will be available at the University of Cape Coast Website which will be available for the general public. The feedback will be given to the hospital. The result of the study will also be shared with the Ethic committee.

Funding: I am the one funding the study and will bear all the cost of transportation to and from the venue. There will be no remuneration for participating in this study but you have contributed immensely to knowledge contribution.

Conflict of interest: I declare that I have no conflict of interest in the study.

Sharing of participant information: The information gained from the study will be owned by the principal investigator and the Department Of Population and Health, University Of Cape Coast.

For further clarification or questions on the study

In case you have further question on the research later please contact Adwoa Otiwaa Ekanem, Department Of Population And Health, University Of Cape Coast.
(Tel 0244477734).Email:adwoaekanem@gmail.com

Also if you need further clarification on ethical issues and your right as a participant, please contact Ms Hannah Frimpong, the Administrator of the Ghana Health Service Ethics Review Committee-Research and Development Division, Ghana Health Service, Accra. (0507041223)

This is to Certified that this Study's Inform Consent form
has been Approved By GHS-ERC for the
Period 29-06-2019 To 26/06/2020
Signed ... Date 29/06/2019
Name Hannah Frimpong

APPENDIX

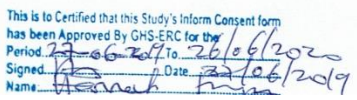
Appendix 2: Participants Information Sheet for Post-Operative Patients in Teaching Hospital.

Title: PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENT IN SELECTED HEALTH FACILITIES IN THE CENTRAL REGION.

Introduction: My name is Adwoa Otiwaa Ekanem,a student of university of Cape Coast, Department of Population and Health. I am conducting a study on Pain Management among Post-Operative in the central region

I would like to invite you to be one among other patients who have gone through surgery in the Metro Hospital, Cape Coast. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. You can ask me on
+233244477734.

Background and Purpose of Research: Pain is a very imperative component of the surgical procedure. Intraoperative, advances in anaesthesia have improved the conditions of intervention for both the patient and the surgeon. As for the postoperative period, we must focus on postoperative pain, especially as it remains highly variable. In 2004, the European Federation of the International Association for the study of Pain (IASP) and the World Health Organization (WHO) sponsored the Global Day against pain. These organisations hoped to gain wide acceptance that, in addition to overall health, explicit pain treatment would become a human right (Carr & Cousin, 2007). The management of postoperative pain is important for the well-being of the patient because it contributes to faster and better recovery after surgery. Efforts to improve postoperative pain management have been on-going for many years. (Mackintosh-



Franklin, 2013). The purpose of this study is to explore pain management among post-operative patients in the selected health facilities in the Central Region of Ghana and learn more about your pain experience after surgery and how it was managed.

Nature of Research

The research is a qualitative study that seeks to conduct interviews among post-operative patients who have had surgeries to share their pain experiences and how it was managed.no names will be used, you will be given a unique number for identification. The recordings will be stored in my room and the keys will be kept by me.

Duration

I will need about thirty minutes of your time for the interview.

Potential Risk

`There is no health risk to you from your participation in this interview. However, when there is any form of psychological or emotional outburst, the interview will be paused to allow you express all your emotions. The needed reassurance will be given before the interview will continue to help you recover from such experience.

Benefits

There is no direct benefit in participating in this study but the information you provide will be useful in understanding the pain experiences you went through after surgery and how it was managed.

Privacy: The interview will be conducted by tour bedside for convenience sake.

Confidentiality

The information that you share with me will not be given to anyone; it will be used strictly for research only. This consent form will be destroyed in one year. The audio will be kept under lock

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period...To...26/06/2020
Signed.....Date.....

and key and will not be accessed except by myself. The audios will be deleted permanently from the computer after 6months. A copy of the consent form will be given to you.

Voluntary Participation and Right to Leave the Research

You can choose to be in the study or not be in the study, it is up to you. If you choose not to be in the study, there will be no problem for you now or in the future. You can leave the study at any time without any problem to you now or in the future.

Cost: It will not cost you money to be in the study, except for your time.

Compensation: You will not be given any incentive to take part in the study.

Outcome and feedback: Outcome will be available at the University of Cape Coast Website which will be available for the general public. The feedback will be given to the hospital. The result of the study will also be shared with the Ethic committee.

Funding: I am the one funding the study and will bear all the cost of transportation to and from the venue. There will be no remuneration for participating in this study but you have contributed immensely to knowledge contribution.

Conflict of interest: I declare that I have no conflict of interest in the study.

Sharing of participant information: The information gained from the study will be owned by the principal investigator and the Department Of Population and Health, University Of Cape Coast.

For further clarification or questions on the study

In case you have further question on the research later please contact Adwoa Otiwaa Ekanem, Department Of Population And Health, University Of Cape Coast.

(Tel 0244477734).Email:adwoaekanem@gmail.com

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 27/06/2019 To 26/06/2020
Signed ..... Date 27/06/2019
Name ..... GHS- ERC Administrator

Also if you need further clarification on ethical issues and your right as a participant, please contact Ms Hannah Frimpong, the Administrator of the Ghana Health Service Ethics Review Committee-Research and Development Division, Ghana Health Service, Accra. (0507041223)

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 27-06-2019 to 26/06/2020
Signed ..... Date 27/06/2019
Name Hannah Frimpong
GHS- ERC Administrator

APPENDIX

Appendix 3: Participants Information Sheet for Post-Operative Patients in the Trauma and Specialist Hospital.

Title: PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENT IN SELECTED HEALTH FACILITIES IN THE CENTRAL REGION.

Introduction: My name is Adwoa Otiwaa Ekanem,a student of university of Cape Coast, Department of Population and Health. I am conducting a study on Pain Management among Post-Operative in the central region

I would like to invite you to be one among other patients who have gone through surgery in the Metro Hospital, Cape Coast. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. You can ask me on
+233244477734.

Background and Purpose of Research: Pain is a very imperative component of the surgical procedure. Intraoperative, advances in anaesthesia have improved the conditions of intervention for both the patient and the surgeon. As for the postoperative period, we must focus on postoperative pain, especially as it remains highly variable. In 2004, the European Federation of the International Association for the study of Pain (IASP) and the World Health Organization (WHO) sponsored the Global Day against pain. These organisations hoped to gain wide acceptance that, in addition to overall health, explicit pain treatment would become a human right (Carr & Cousin, 2007). The management of postoperative pain is important for the well-being of the patient because it contributes to faster and better recovery after surgery. Efforts to improve postoperative pain management have been on-going for many years. (Mackintosh-

Franklin, 2013). The purpose of this study is to explore pain management among post-operative patients in the selected health facilities in the Central Region of Ghana and learn more about your pain experience after surgery and how it was managed.

Nature of Research

The research is a qualitative study that seeks to conduct interviews among post-operative patients who have had surgeries to share their pain experiences and how it was managed.no names will be used, you will be given a unique number for identification. The recordings will be stored in my room and the keys will be kept by me.

Duration

I will need about thirty minutes of your time for the interview.

Potential Risk

'There is no health risk to you from your participation in this interview. However, when there is any form of psychological or emotional outburst, the interview will be paused to allow you express all your emotions. The needed reassurance will be given before the interview will continue to help you recover from such experience.

Benefits

There is no direct benefit in participating in this study but the information you provide will be useful in understanding the pain experiences you went through after surgery and how it was managed.

Privacy: The interview will be conducted by tour bedside for convenience sake.

Confidentiality

The information that you share with me will not be given to anyone; it will be used strictly for research only. This consent form will be destroyed in one year. The audio will be kept under lock

This is to Certified that this Study's Inform Consent form has been Approved By OHS-ERC for the Period...

and key and will not be accessed except by myself. The audios will be deleted permanently from the computer after 6months. A copy of the consent form will be given to you.

Voluntary Participation and Right to Leave the Research

You can choose to be in the study or not be in the study, it is up to you. If you choose not to be in the study, there will be no problem for you now or in the future. You can leave the study at any time without any problem to you now or in the future.

Cost: It will not cost you money to be in the study, except for your time.

Compensation: You will not be given any incentive to take part in the study.

Outcome and feedback: Outcome will be available at the University of Cape Coast Website which will be available for the general public. The feedback will be given to the hospital. The result of the study will also be shared with the Ethic committee.

Funding: I am the one funding the study and will bear all the cost of transportation to and from the venue. There will be no remuneration for participating in this study but you have contributed immensely to knowledge contribution.

Conflict of interest: I declare that I have no conflict of interest in the study.

Sharing of participant information: The information gained from the study will be owned by the principal investigator and the Department Of Population and Health, University Of Cape Coast.

For further clarification or questions on the study

In case you have further question on the research later please contact Adwoa Otiwaa Ekanem, Department Of Population And Health, University Of Cape Coast.

(Tel 0244477734).Email:adwoaekanem@gmail.com

This is to Certified that this Study's Inform Consent form has been Approved by GHS-ERC for the Period 27/06/2019 To 26/06/2020
Signed ..... Date 27/06/2019
Name Hannah Enyan

Also if you need further clarification on ethical issues and your right as a participant, please contact Ms Hannah Frimpong, the Administrator of the Ghana Health Service Ethics Review Committee-Research and Development Division, Ghana Health Service, Accra. (0507041223)

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 27-06-2019 To 26/06/2020
Signed ..... Date 27.06.2019
Name ..... GHS-ERC Administrator

CONSENT FORM FOR PATIENTS AT THE CAPE COAST METRO HOSPITAL

PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENTS IN SELECTED HEALTH FACILITES IN THE CENTRAL REGION.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and satisfactorily explained to me in a language I understand (English □ /Fante □). I fully understand the contents and any potential implications as well as my right to change my mind (ie withdraw from the research) even after I have signed this form.
I voluntarily agree to be part of this research.

Name or Initials of Participant…….. ID Code ……..
Participants' Signature ……OR Thumb Print…… OR Mark (Please specify)……
Date:……

INTERPRETERS' STATEMENT

I interpreted the purpose and contents of the Participants' Information Sheet to the afore named participant to the best of my ability in the (Fante) language to his proper understanding.
All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.
Name of Interpreter……
Signature of Interpreter…….. Date:……
Contact Details

STATEMENT OF WITNESS

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (English□ /Fante □)*language*.
I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:……
Signature…… OR Thumb Print ……..... OR Mark (please specify)……..

INVESTIGATOR STATEMENT AND SIGNATURE: I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.

Researcher's name……

Signature ……

Date……

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 27/06/2019 To 26/06/2020
Signed ..... Date 27/06/2019
Name Hannah Fenyi
GHS- ERC Administrator

CONSENT FORM HEALTH PROFESSIONALS AT METRO HOSPITAL,CAPE COAST

PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENTS IN SELECTED HEALTH FACILITES IN THE CENTRAL REGION.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and satisfactorily explained to me in a language I understand (English □ /Fante □). I fully understand the contents and any potential implications as well as my right to change my mind (ie withdraw from the research) even after I have signed this form.
I voluntarily agree to be part of this research.

Name or Initials of Participant…….. ID Code ……..
Participants' Signature ……OR Thumb Print…… OR Mark (Please specify)…….
Date:…….

INTERPRETERS' STATEMENT

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All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of Interpreter……
Signature of Interpreter…….. Date:……
Contact Details

STATEMENT OF WITNESS

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (English□ /Fante □)*language*.
I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:……
Signature……. OR Thumb Print ……... OR Mark (please specify)……..

INVESTIGATOR STATEMENT AND SIGNATURE: I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.

Researcher's name…….

Signature ……

Date……

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 27/06/2019 To 26/06/2020
Signed ... Date 27/06/2019
Name ... GHS. ERC Administrator

CONSENT FORM HEALTH PROFESSIONALS AT THE CAPE COAST TEACHING HOSPITAL

PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENTS IN SELECTED HEALTH FACILITES IN THE CENTRAL REGION.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and satisfactorily explained to me in a language I understand (English □ /Fante □). I fully understand the contents and any potential implications as well as my right to change my mind (ie withdraw from the research) even after I have signed this form.
I voluntarily agree to be part of this research.

Name or Initials of Participant…….. ID Code ……..
Participants' Signature ……OR Thumb Print…… OR Mark (Please specify)……
Date:……

INTERPRETERS' STATEMENT

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Name of Interpreter……
Signature of Interpreter…….. Date:……
Contact Details

STATEMENT OF WITNESS

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I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.
Name:……
Signature…… OR Thumb Print ……... OR Mark (please specify)……..

INVESTIGATOR STATEMENT AND SIGNATURE: I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.

Researcher's name……
Signature ……
Date……

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 7-06-2019 To 7/6/2020
Signed Date 27.06.2019
Name Hannah
GHS- ERC Administrator

CONSENT FORM FOR PATIENTS AT THE CAPE COAST TEACHING HOSPITAL

PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENTS IN SELECTED HEALTH FACILITES IN THE CENTRAL REGION.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and satisfactorily explained to me in a language I understand (English □ /Fante □). I fully understand the contents and any potential implications as well as my right to change my mind (ie withdraw from the research) even after I have signed this form.
I voluntarily agree to be part of this research.

Name or Initials of Participant…….. ID Code ……..
Participants' Signature ……OR Thumb Print…… OR Mark (Please specify)……
Date:……

INTERPRETERS' STATEMENT
I interpreted the purpose and contents of the Participants' Information Sheet to the afore named participant to the best of my ability in the (Fante) language to his proper understanding.
All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of Interpreter……
Signature of Interpreter…….. Date:……
Contact Details
STATEMENT OF WITNESS

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I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:……
Signature…… OR Thumb Print ……... OR Mark (please specify)……..
INVESTIGATOR STATEMENT AND SIGNATURE: I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.

Researcher's name……

Signature ……

Date……

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 27/06/2019 To 26/06/2020
Signed ……… Date 27/06/2019
Name Theresa

CONSENT FORM HEALTH PROFESSIONALS TRAUMA AND SPECIALIST HOSPITAL

PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENTS IN SELECTED HEALTH FACILITES IN THE CENTRAL REGION.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and satisfactorily explained to me in a language I understand (English □ /Fante □). I fully understand the contents and any potential implications as well as my right to change my mind (ie withdraw from the research) even after I have signed this form.
I voluntarily agree to be part of this research.

Name or Initials of Participant…….. ID Code ……..
Participants' Signature ……OR Thumb Print…… OR Mark (Please specify)…….
Date:……

INTERPRETERS' STATEMENT

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All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of Interpreter……
Signature of Interpreter…….. Date:……
Contact Details

STATEMENT OF WITNESS

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (English□ /Fante □)*language*.
I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:……
Signature……. OR Thumb Print ……..... OR Mark (please specify)……..

INVESTIGATOR STATEMENT AND SIGNATURE: I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.

Researcher's name……

Signature ……

Date……

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 27-06-2019 To 26/06/2020
Signed ..... Date 27/06/2019
Name .....

CONSENT FORM FOR PATIENTS AT THE TRAUMA AND SPECIALIST HOSPITAL

PAIN MANAGEMENT AMONG POST-OPERATIVE PATIENTS IN SELECTED HEALTH FACILITES IN THE CENTRAL REGION.

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and satisfactorily explained to me in a language I understand (English □ /Fante □). I fully understand the contents and any potential implications as well as my right to change my mind (ie withdraw from the research) even after I have signed this form.
I voluntarily agree to be part of this research.

Name or Initials of Participant…….. ID Code ……..
Participants' Signature ……OR Thumb Print…… OR Mark (Please specify)……
Date:……

INTERPRETERS' STATEMENT

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All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of Interpreter……

Signature of Interpreter…….. Date:……

Contact Details

STATEMENT OF WITNESS

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (English□ /Fante □)*language*.

I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:……
Signature…… OR Thumb Print ……... OR Mark (please specify)……..

INVESTIGATOR STATEMENT AND SIGNATURE: I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.

Researcher's name……
Signature ……
Date……

This is to Certified that this Study's Inform Consent form has been Approved By GHS-ERC for the Period 27/06/19 To 26/06/20
Signed Date

APPENDIX E

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST

INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: 0558093143 / 0508878309/ 0244207814
E-MAIL: irb@ucc.edu.gh
OUR REF: UCC/IRB/A/2016/452
YOUR REF:
OMB NO: 0990-0279
IORG #: IORG0009096

C/O Directorate of Research, Innovation and Consultancy

12TH JUNE, 2019

Ms. Adwoa Ekanem
Department of Population and Health
University of Cape Coast

Dear Ms. Ekanem,

ETHICAL CLEARANCE – ID: (UCCIRB/CHLS/2019/24)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted **Provisional Approval** for the implementation of your research protocol titled **Pain Management among Post-Operative Patients in Selected Health Facilities in Central Region**. This approval requires that you submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

Please note that any modification of the project must be submitted to the UCCIRB for review and approval before its implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Samuel Asiedu Owusu, PhD
UCCIRB Administrator

ADMINISTRATOR
ITUTIONAL REVIEW BOARD
JNIVERSITY OF CAPE COAST
Date: 12/06/19

APPENDIX F

ETHICAL CLEARANCE

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

Our Ref.: CCTH

Your Ref.:

P. O. Box CT.1363
Cape Coast
CC-071-9967
Tel: 03321-34010-14
Fax: 03321-34016
Website: www.ccthghana.org
email: info@ccthghana.com

3rd June, 2020

Adwoa Otiwaa Ekanem
Department of Population and Health
UCC
Cape Coast

Dear Madam,

ETHICAL CLEARANCE – REF: CCTHERC/EC/2019/067

The Cape Coast Teaching Hospital Ethical Review Committee (CCTHERC) have reviewed your research protocol titled, "***Pain Management Among Post-Operative Patients In Selected Health Facilities In The Central Region***" which was submitted for Ethical Clearance. The ERC is glad to inform you that you have been granted provisional approval for implementation of your research protocol.

The CCTHERC requires that you submit periodic review of the protocol and a final full review to the ERC on completion of the research. The CCTHERC may observe or cause to be observed procedures and records of the research during and after implementation.

Please note that any modification of the project must be submitted to the CCTHERC for review and approval before its implementation.

You are required to report all serious adverse events related to this study to the CCTHERC within ten (10) days in writing. Also note that you are to submit a copy of your final report to the CCTHERC Office.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours sincerely

Prof. Ganiyu Rahman
Chairman, ERC

APPENDIX G

GHANAHEALTH SERVICE ETHICS REVIEW COMMITTEE

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

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

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Tel: +233-302-681109
Fax + 233-302-685424
Email: ghserc@gmail.com

MyRef. GHS/RDD/ERC/Admin/App
Your Ref. No. 119/259

27th June, 2019

Adwoa Ekanem Otiwaa
University of Cape Coast
P.O. Box AL 1058
Cape Coast

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

GHS-ERC Number	**GHS-ERC064/05/19**
Project Title	Pain Management among Post-Operative Patients in Selected Health Facilities in the Central Region.
Approval Date	27th June,2019
Expiry Date	26th June,2020
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report **after completion** of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

Please note that any modification of the study without ERC approval of the amendment is invalid.

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

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

SIGNED.....
DR. CYNTHIA BANNERMAN
(GHS-ERC CHAIRPERSON)

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