

#### **DISSERTATION**

# PATIENTS SATISFACTION WITH PERIOPERATIVE CARE AT OSHEN FING FAISAL HOSPITAL

#### $\mathbf{BY}$

#### **INGABIRE** Leóntine

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Supervisor: Mrs. UWAMAHORO.M Claire, PhD©

Co-Supervisor: **Dr. KATENDE Godfrey** 

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## **DECLARATION**

THE FORM FOR SUBMISSION OF THE DISSERTATION
UR-COLLEGE OF MEDICINE AND HEALTH SCIENCES
P.O.BOX 3286 KIGALI
DECLARATION AND AUTHORITY TO SUBMIT THE DISSERTATION
Surname and First Name of the Student
INGABIRELéontine
Title of the project PATIENTS' SATISFACTION AT OSHEN KING FAISAL HOSPITAL
a. <u>Declaration by the Student</u>
I do hereby declare that this <i>dissertation</i> submitted in partial fulfilment of the requirement for the degree of MASTERS OF SCIENCE in NURSING, at the University of Rwanda/College of Medicine and Health Sciences, is my original work and has not previously been submitted elsewhere. Also, I do declare that a complete list of references is provided indicating all the sources of information quoted or cited. Date and Signature of the Student
b. <u>Authority to Submit the dissertation</u>
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In my capacity as a Supervisor, I do hereby authorize the student to submit his/her dissertation.
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#### **DEDICATION**

I dedicate this dissertation to almighty God.

To my late parents NGARAMBE Francois and MUKABAYIRE Beatrice Who have been my constant source of inspiration.

I also dedicate this work to my beloved husband; MUNYANEZA Emmanuel.

To my children; MUNYANEZA ISHIMWE Divin, MUNYANEZA NAISSA Divine and MUNYANEZA GWIZA Davina whose affection, love, support, encouragement and prays of day and night make me able to get such success and honor.

.

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#### **ABSTRACT**

**Background:** Patient satisfaction, a fulfillment or meeting of expectations of a person from a service is one of the most important measurements to assess the quality of health providers within the health settings. It has been suggested and approved that the patient is the best judge and his/her judgment plays a lot on the quality that many people expect from the health facilities. The satisfaction was reported to have an important impact on the clinical outcome of the patients.

**Objective:** The main objective of this study was to assess the patients' satisfaction with perioperative care at Oshen King Faisal Hospital (OKFH).

**Method**: A descriptive Cross Sectional study was conducted from March-April 2017.

Stratification based on specialty was done, a total of 145 patients were given a self-administered questionnaire to fill in study period. All patients aged of 18 years and above of both sexes who spent more than 24 hours after elective surgery, fully conscious who accepted to sign consent were included in the study.

To analyze patients' satisfaction and factors associated with patients' satisfaction, Frequency, percent, mean and standard deviation were calculated for each item. To analyze factors associated with patients satisfaction Chi-square was used.

**Results:** One hundred forty-five consecutive patients over a 6 weeks period were originally enrolled in the study. The overall satisfaction score was 67.43%. Patient characteristics were 53.1% males mean age (36.34 $\pm$ 12.23), 42.1% employed, 60% married, 50.3% urban area, 25.5% were operated in orthopedics. Patients' satisfaction was lowest for the dimension of fear and concern (mean=57.32,  $\pm$ 13.91), while patients' satisfaction score was highest for the dimension of service (mean=82.58,  $\pm$ 19.09). There were no statistically significant of patients' sociodemographic and characteristics with perioperative associated with patients' satisfaction.

**Conclusion:** A half of the patients were satisfied with peri-operative care provided at Oshen King Faisal Hospital. The findings revealed that none of sociodemographic and characteristics with perioperative care considered in the study was significantly associated with patients' satisfaction

#### **KEY WORDS**

Patient satisfaction: Patient satisfaction is meeting someone's expectations hence enjoyment from received services and product (Mishra and Mishra, 2014). In the context of our study, the patient satisfaction with perioperative care is considered as the fulfillment of expectation of preoperative care, intraoperative care and postoperative care. It can also be considered as meeting of expectation of the patient with perioperative care. (Mishra and Mishra, 2014).

A perioperative care: Perioperative care is defined as the provision of what is necessary for the health, wellbeing and protection of the patients before, during and after operation (Spry, 2009).

In the context of the study, perioperative care period begins when the patient is informed of the need for surgery, includes the surgical procedure and recovery, continues with discharge, and ends when the patient achieves his/her optimal level of surgical function.

#### LIST OF SYMBOLS AND ACRONYMS

**IMCHB:** Interaction Model of Client Health Behavior

LOS: Length of stay

LPPSq: Leiden Perioperative Patient Satisfaction questionnaire

**MOH:** Ministry Of Health

**OSHEN KFH:** Oshen King Faisal Hospital

**SPSS:** Statistical Package for Social Sciences

**CHUK:** Centre Hospitalier universitaire de KIGALI

**IRB:** International Review Board

**ACS:** The American College of Surgeon

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#### **CHAPTER 1.INTRODUCTION**

#### 1.1 BACKGROUND INFORMATION

Patient satisfaction is an attitude according to which desired health care and quality have been achieved (Walker *et al.*, 2016). Satisfaction is achieved when the patient/client perception of the quality of care and services that he/she receives in health care setting has been positive, satisfying and meets his/her expectations (Qureshi, 2013).

It is a significant trend in the development of modern healthcare that promotes the involvement of Patient /clients in the management of their care and treatment. This is recognized in current health strategies including Rwanda (Ntirenganya *et al.*, 2015). Traditionally, there were no clear boundaries between patient care and patient cure (Grossweiler, 2012). With the changing patterns of disease, newer therapies and patients' perceptions care and cure are now entirely separate concepts. A patient may never get cure but may feel very well cared (Ortiz *et al.*, 2015). Therefore, patient satisfaction may be a good indicator to assess the features and quality of care of health providers within the health settings.

Perioperative period is critical moment and many patients consider the day of surgery as the last day of their life (Livanainen *et al*, 2012). For this reason the operating room serves as the shop window to any healthcare service provided to the patients (El-nasser *et al.*, 2013). According to (Woldeyohanes *et al.*, 2015), perioperative care includes preoperative care, intraoperative care and postoperative care.

Preoperative care is focusing on teaching of the patient before surgery by health care providers (Ortiz *et al.*, 2015). It involves education of the patient about the surgery and should meet patients' expectations of the surgical procedure, medication and food restrictions before the procedure (Livanainen *et al*, 2012). It is essential moment to give relevant instructions that will help a patient after surgery and when discharged home (Grossweiler, 2012). On the other hand, preoperative education and information was proved to help the patients get satisfied with the care from the health providers (Hatem A. Jlala *et al.*, 2010).

Intraoperative care contributes to the satisfaction of patients (Ortiz et al., 2015).

It is the period occurring during the course of surgical operation and is considered as a stressful moment for the patient and increases the level of anxiety and fear due to complications that may happen (Livanainen *et al*, 2012).

Regarding postoperative care, research has found that it is crucial for the good outcome of the patient in order to prevent complications that could lead to prolonged period of hospital stay, decreased functional and cognitive status and high rate of mortality (Jammer, 2015). This period extends from immediate care after surgical procedure, it last for the duration of hospital stay or after discharge (Livanainen *et al*, 2012).

In many countries globally, the overall patients' satisfaction with perioperative care has been proven to be low in a study done in Gulf region by Al-emadi, 2009 has shown that 62% of patients were not satisfied with service delivered. Similar results with study done on patients' satisfaction in Qatar (Baroudi, 2012).

A study done in Ethiopia by Hamilton et al., 2013 has shown that perioperative patients 'satisfaction in their hospital was high (more than 80%) despite some level of dissatisfaction due to pain control during the invasive procedures, disturbing preoperative noise and postoperative pain control (AbaynehBelihun *et al.*, 2015).

In Sub-Saharan Africa, the figures for patients satisfaction with perioperative are not clear but tend to be higher than expected (Afzal *et al.*, 2014). For long time studies have shown that the perioperative period is for all patients, a critical time and half of all adverse events concerning surgical procedures occur in the operating centers (Ibrahim, 2008). Different factors such as age, gender, type of surgery, residence and length of stay in the hospital have been mentioned to determine the level of satisfaction (El-nasser *et al.*, 2013).

The Rwanda Ministry of Health has valued the patient care satisfaction by putting in place customer care norms in health system (MOH, 2013). The main purpose is to deliver outstanding services to each and every client including the facility of level in order to attenuate the queuing of care delivery, achieve a client centered health care system, ensure a comprehensive diagnostic tool considering cost-effectiveness emphasize on achieving a comprehensive customer related system delivery with offering better services towards health care service improvement therefore better compliance.(MOH, 2013).

The study that has been conducted in Rwanda revealed that in 80 patients that have been recruited and accepted to be part of the study, the overall satisfaction was 94% but majority (96.7%) patients were not included in the treatment plan and decision making (Ntirenganya *et al.*, 2015). However the study recruited the outpatient as population.

Considering patient's satisfaction as a major indicator of perioperative care (Prakash, 2010), it is very importance to assess level of satisfaction of patient regarding the perioperative care that can contribute to the level of satisfaction. This study aims to assess the patient satisfaction with the perioperative care in Oshen King Faisal Hospital.

#### 1.2 PROBLEM STATEMENT

Patient satisfaction involves a multidimensional approach which includes clinical aspects of care, safety, and patients' perception of a satisfactory outcome (Nygren et al., 2012).

A study done at CHUK in 2015, revealed that 96.87% of the patients were not included in the treatment plan decision making (Ntirenganya et al., 2015). This in turn may affect the overall satisfaction of patients in terms of care received at the facility.

Patients are the best source of information about a hospital system's communication, education, and pain-management processes, and they are the only source of information about whether they were treated with dignity and respect. Their experiences often reveal how well a hospital system is operating and can stimulate important insights into the kinds of changes that are needed to close the gap between the cares provided and the care that should be provide.

At Oshen King Faisal Hospital, little or no study has been conducted to determine the satisfaction levels of patients as regard to perioperative care. Being less concerned about patient satisfaction with the preoperative care provided at Oshen King Faisal Hospital could have a great impact on its services since it is a private hospital.

Therefore, this study was intended to assess the level of patients' satisfaction and different factors that may affect the level of satisfaction of patient with perioperative care (pre, intra and post operation).

#### 1. 3 THE AIM OF THE STUDY

The aim of the study is to assess the patient satisfaction with perioperative care and its relationship with patients' characteristics

#### 1.4 OBJECTIVES

#### 1.4.1 Main objective

To assess the level of patient satisfaction with perioperative care among patients undergoing surgery at Oshen KFH.

#### 1.4.2 Specific objectives

- 1. To identify sociodemographic and characteristics of perioperative care satisfaction
- 2. To describe the patients' satisfaction level on 5 dimensions (Information, Discomfort and needs, Fear and concern, Patient-staff relationship and Service) at Oshen KFH
- 3. To identify patient Sociodemographic and characteristics associated with perioperative satisfaction at Oshen KFH (Based on their categories)

#### 1.5 RESEARCH QUESTIONS

- 1. What are sociodemographic and characteristics of perioperative care satisfaction?
- 2. What is the level of patients' satisfaction with perioperative care among patients undergoing surgery at Oshen KFH?
- 3. What are the patients' sociodemographic and characteristics associated with patient 'satisfaction regarding perioperative care?

#### 1.6 SIGNIFICANCE OF THE STUDY

The present study aims to evaluate the level of satisfaction of the patients with perioperative care. The results will contribute to the body of limited knowledge on patient satisfaction with perioperative care in Rwanda and serves as baseline for further research by health professionals. The results will help Oshen King Faisal Hospital to elaborate policy and guidelines for improving quality care. In addition, the study will enrich the field of nursing practice at Oshen KFH by helping nurses, health care providers to become more concerned as far as patient satisfaction is concerned. The results of the present study will also extent the body of literature and serves as a baseline for future research.

#### 1.7 SUBDIVISION OF THE STUDY

This study is organized into six chapters. The first chapter gives an overview of this research: Background information, problem statement, Research questions, Aim of the study, objectives, significance of the study and lastly definitions of concepts were presented in this section. The second chapter gives a detailed literature of the topic and the findings from other related research were provided.

In chapter three, the methodology helped us to achieve our objectives and answer our research questions were provided. The chapter four and five present the results and discussion. The conclusion and the recommendations were formulated accordingly in chapter six.

#### **CHAPTER 2. LITERATURE REVIEW**

#### 2.0 Introduction

Review of literature serves an important function in the research process. It is the critical summary of research on the topic of interest often prepared to put a research problem in context. Literature review helps to lay the foundation for a study and can also inspire new research ideas. It gives character insight into the problem and help in selecting methodology, developing tool and also analyzing data.

The review of literature relevant to this study is presented in the following sections:

- 2.1 Theoretical framework
- 2.1.1 The original theoretical framework
- 2.1.2 Adopted theoretical framework
- 2. 1.3 Patient Role
- 2.1.4 Patient satisfaction
- 2.1.5 Overview on perioperative care
- 2.1.6 Level of patient satisfaction
- 2.1.7 Factors affecting Patient satisfaction
- 2.2 Empirical literature

#### 2.1 THEORITICAL FRAMEWORK

#### 2.1.1 Original Theoretical Framework

In this study the original Theoretical framework used, was from interaction model of client health behavior (IMCHB) a model for advanced practice nurses done by (Mathews, Secrest and Muirhead, 2008). This model was adopted because it has all variables to base on when assessing patient satisfaction. The original theoretical framework has 3 categories (Client singularity, Client-professional interaction and health outcome). The first category is client singularity, which emphasizes the unique and holistic components of a patient followed with the client–professional interaction. Instead of a one-way direction from client to professional to health care outcome, (Mathews, Secrest and Muirhead, 2008) suggests a reciprocal engagement between client singularity, interaction, and health outcomes. The IMCHB is similar as our study of patient satisfaction in

perioperative care. Patient satisfaction involves relationship between health care providers and patients themselves (El-nasser *et al.*, 2013).

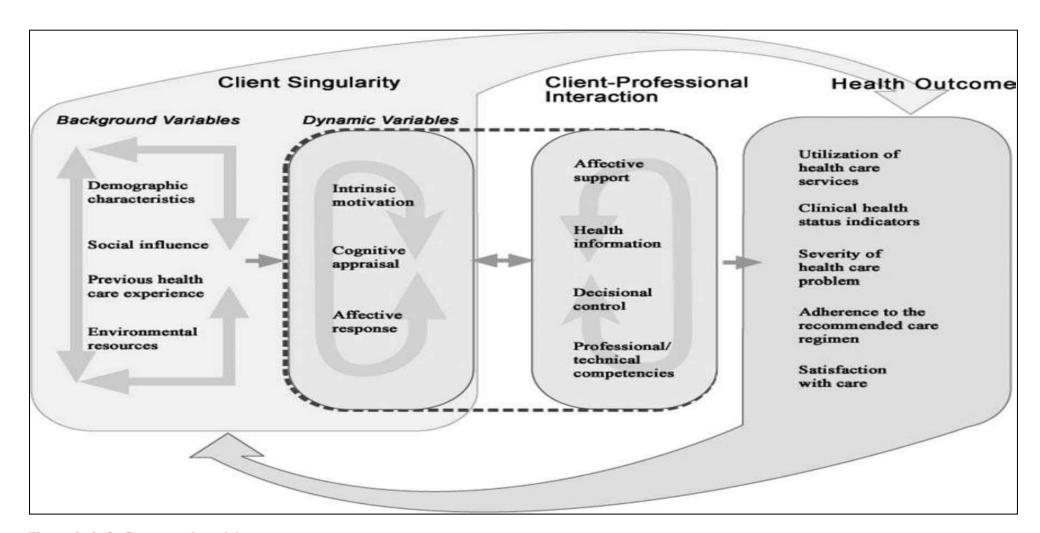


Figure 2: 2. 3: Conceptual model

#### **2.1.2** Adopted Theoretical Framework

Patient satisfaction is meeting someone's expectations hence enjoyment from received services and product (Mishra and Mishra, 2014). Patient satisfaction with perioperative care has 3 categories which are patient's socio-demographics data and characteristics, patient-staff relationship and satisfaction outcome based on 5 dimensions (Information, Discomfort and needs, Fear and concern, Staff –patient relationship and Service).

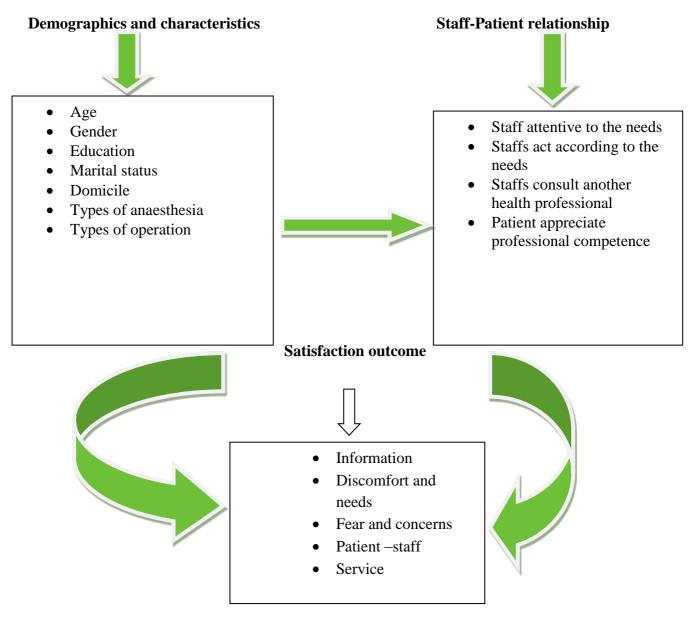


Figure 2: 2.2: Adopted Theoretical framework from interaction model of client health behavior (Mathews, Secrest and Muirhead, 2008).

Regarding the figure above of adopted Theoretical framework, it has 3 categories which will help us to meet our objectives; it has demographics characteristics which are such as

Age, Gender, Education, domicile, marital status, types of operation and type of anesthesia, therefore all factors can influence patients satisfaction.

This category of staff-patient relationship has four items of interaction of both patient staffs; good or greater influence can lead the patients to be satisfied. (Mishra and Mishra, 2014).

#### 2.1.3 Patient Role

Usually, words as patient, user and consumer are indistinctly used as synonyms, even though they differ for the nature of relationships between health professionals and citizens. While the patient is a person who has an illness and comes to doctors and nurses asking for advice and treatment, the user may identify people who used, use or could use health care services. Instead, the consumer reminds us of a person who purchases goods and services for his needs or a person who consumes something (Qureshi, 2013).

#### 2.1.4 Patient satisfaction

Patient satisfaction is meeting someone's expectations hence enjoyment from received services and product (Mishra and Mishra, 2014). It is an important entity for the assessment of the quality in the context of the health care (H A Jlala *et al.*, 2010a).

As reported by Mishra and Mishra, 2014 the patient satisfaction is one of the key measurements to assess the quality of health providers within the health settings. In their study (Qureshi, 2013),they suggested and approved that the patient is the best judge and his/her judgment plays a lot on the quality that many people expect from the health facilities (Qureshi, 2013).

The level of satisfaction is proportional to wellbeing of a patient, Previous studies done clearly exhibit low satisfaction score with poor compliance with management, strenuous visits to their treating doctors and less apprehension of medical information (Hatem A. Jlala *et al.*, 2010) In addition, technical competences of health care providers affect patient satisfaction (Afzal *et al.*, 2014). It is therefore primordial to understand that the patient's expectations and needs will virtue accordingly. Due to the fact that patient satisfaction affects the curative goals , increase in hospital delay,medical-legal involvement, impingement of adequate patient-centered delivery of quality health care.

It is therefore an essential indicator to rationalize the success of the health providers like doctors, nurses and hospitals as well (Hamilton *et al.*, 2013).

Study conducted at university teaching hospital of Kigali in Rwanda by Ntirenganya *et al.*, 2015 shows that (62.5%) of the patients were not satisfied by the information received on their diseases and management, only (58.53%) of the patients were told the indications for surgery. (96.87%) of the patients were not included in the treatment plan decision making.

#### 2.1.5 Perioperative care

#### Overview on Perioperative care

The perioperative care includes preoperative care/teaching, intraoperative care and postoperative care (Spry, 2009). Medical, physical and psychological preparation must be included for this care (El-nasser *et al.*, 2013). The care in theatre is believed to be stressful: Patients are anxious and they are not sure of the outcome of the surgery and fear lifelong complications that it may results in (Spry, 2009), stated that the patients find the day of surgery as the last day in their life and this is the reason why theatre serves as the shop window to any healthcare service provided to the patients. Some details for each of these cares will be provided in the next sections.

#### **Preoperative care**

Preoperative care is considered (Grossweiler, 2012) as mainly focusing on teaching for the outpatient surgical patient. Thus, it involves nursing staff providing education and must include expectations of the surgical procedure, medication and food restrictions before the procedure, as well as providing instructions for after care once a patient is discharged home (Grossweiler, 2012). Patient education is carried out in various situations and within different frameworks therefore, the aim of education is very important.

Some studies showed that Patients who undergo surgery experience acute psychological anxiety in the preoperative and Postoperative period (Marin *et al.*, 2015), found that patient anxiety was the highest before surgery, decreased immediately after surgery, and increased again postoperatively (Marin *et al.*, 2015).

#### **Intraoperative care**

The first entry point being the operating room is where the first intra-operative phase starts (Lyu *et al.*, 2013). The patients scheduled for operation are optimized, given adequate anesthesia, assessed and surgical procedure given (Nygren *et al.*, 2012).

Intraoperative care is a pre-requisite and a tight coordination of all theatre staff is mandatory with doctors, surgeons and nurses working hand in hand for the better patient's outcome (Livanainen *et al*, 2012).

(Sweitzer, 2011) said that when intraoperative is well performed, it may facilitate the procedure and thus promotes patient safety. Prevention of infection and aiding the patient's physiological wellbeing (Norhayati, Masseni and Azlina, 2017).

#### **Post-operative care**

It is defined as immediate care after surgical procedure, it last for the duration of hospital stay or after discharge (Hickson, 2016). More than 230 million surgical procedures were reported to be performed worldwide each year (Aiken, 2014).

# 2.1.6 Level of patient satisfaction based on dimensions of the Leiden Perioperative Patient Satisfaction

Dimensions of the Leiden Perioperative Patient Satisfaction has been modified by Caljouw, Beuzekom and Boer, 2008. This tool is made of five dimensions in which we will assess the information provision offered to the patient, discomfort and needs of the patient, staff patient relationship, fear and concern of the patient then service offered to the patient (Caljouw, Beuzekom and Boer, 2008).

The dimension of **information** assesses the explanation and amount of information provided to patient's regarding surgery, and stay duration in the operating theatre.

Study done by Hatem A. Jlala *et al.*, 2010 indicates that majority 72% of male patients were more satisfied than other groups with the amount and quality of information received (Hatem A. Jlala *et al.*, 2010). This result was similar to the result reported by Prakash, 2010 who found that, empathy at the preoperative visit significantly reduced patient anxiety, while increasing patient satisfaction and perceived quality of information provided (Prakash, 2010).

**Discomfort and needs:** This dimension investigates the adverse out-comes of the anesthesia, which influence patient satisfaction. The Author found that many (28.8%). patients' complaints severe pain in their postoperative

**Fear and concern:** This dimension assesses the degree of fear and concern among patients in respect to some situations, such as awaking during the operation, seeing the operating room and pain level due to administering anesthetics.

The study done by Lyu *at al.*, 2013, found that patients who were received local anesthesia were more satisfied than other groups.

These results were consistent with Jlala *et al.* who stated that, the fear and concern dimension influenced by age, type of anesthesia, history of surgery (Jlala *et al.*, 2010).

**Staff-patient relationship:** This dimension assesses the relationship between patients and hospital staff, the amount of care shown to patients, and the magnitude of patient expectations of the attitude and behavior of the staff towards them.

As regard to the effect of staff-patient relation-ship and patients' satisfaction, study done by Nygren *et al.*,(2012) indicated that the age above 50 years, retired, and orthopedic patients' were more satisfied with staff-patient relationship (Nygren *et al.*, 2012).

**Service:** This dimension includes of two items, the first assess the patient's perception for the waiting time before surgery and the second discusses the operation time and the date agreed upon.

Study done by Woldeyohanes *et al.*, 2015 showed that 58.7% of patient operated on the planned date and scheduled operation. The study done by Grossweiler, 2012 showed that the majority 94.4% of patients who were admitted and operated upon on the planned date operation scheduled (Grossweiler, 2012).

#### 2.1.7 Factors affecting the patient satisfaction

Different factors can influence or affect the patient satisfaction with the health care (Norhayati, Masseni and Azlina, 2017). The author reported that those factors may be classified as (1) Patient-related factors, (2) Physician-related factor and (3) Health care setting system-related factors.

#### **Patient related factors**

Age, gender, socioeconomic status, education as well as heath status may positively or negatively affect the patient satisfaction.

Age: Some studies have been done to assess the patient satisfaction with the care as related to age. Nevertheless, Thiedke, (2007) identified that the adults showed the high level of satisfaction with the care as compared to the young patients. The explanation here is that the aged patients tend to interact more with the health care providers (Peck,2011). Contrary, study done by (Peck, 2011) reported that elderly patients are more satisfied compared to the youngest.

Gender: Studies have reported contradictory results when considering the gender (Afzal *et al.*, 2014). Another study showed gender disparities with females tendency to be less satisfied (49%) but this is controversial with the study done by (Ganasegeran *et al.*, 2015).

Socioeconomic status and education: Ignorance and low level of education were poor prognostic factors upon satisfaction (Afzal *et al.*, 2014).

However, other studies done by Thiedke, 2007, Davidson, J.E., (2012) shown that poorer satisfaction with care is associated with previous eventful experiences, mental disability, uncomfortability or illicit drug abuse.

Health status: Patients with chronic diseases were found to be less satisfied with health care (Davidson, 2012).

For instance, Patients with poorly controlled diabetes resulted in less satisfaction. When comparing patients with one chronic disease and those with more than one, the results showed that the later were wore dissatisfied (Ortiz *et al.*, 2015).

#### **Physician-related factors**

The literature found that the patient satisfaction may be related to the physician (Baquero, 2015). The high level of satisfaction can be achieved by improving the way the patients and the physician interact.

Expectations: The author (Rich, 2015) documented expectations to be the most important factors. They realized that when physicians acknowledge and guide patient expectations, satisfaction is better for both groups and can help to remember that patients consult desiring further knowledge and desire a specific action.

Communication: Physician-patient communication can also affect patient satisfaction (Report, 2011). The authors suggested that with good communication, the patients think that the physician takes their problem seriously, explains the medical condition clearly, tries to understand the patient need and gives the advice to improve the patient health. Pain, anxiety, worry, recovery were found to be reduced for the patients who received a good communication(Ortiz *et al.*, 2015).

Decision-making and Time spent: Physicians' medical decision making was found to influence patient satisfaction (Thiedke, 2007). Patients expressed a preference for physicians who approached their complaints more holistic with a social and mental care as much as their physical functioning. For the time spent, the author documented that consultation duration brought higher satisfaction scores.

Technical skills: Patients' assessment of their physicians' technical skills and the effect on satisfaction have been evaluated by various studies with dividing thoughts

(Hamilton *et al.*, 2013). In a survey of 236"vulnerable"older patients, adequate communication skills were related to better patient's satisfaction whereby technical expertise was not a significant factor.

However, another study found that when forced to deliberately choose, participants expressed a strong preference for physicians who have high technical skills. A right diagnosis therefore timely and adequate management were vital to a keen satisfaction level.

#### **Health system-related factors**

Not only, patient-related factors and physician-related factors encounter for the patient Satisfaction, but also the team in which the care is provided matters. They include clinical team, referrals and the continuity of the care

Clinical team Despite the fact that the patient first concern is the physician/doctor, the team in which the physician/doctor works has a high value on patient satisfaction (Ortiz *et al.*, 2015). Level of patients 'satisfaction is relatively proportional to farther adequate health care provider better service delivery (Ibrahim, 2008).

The ACS, (2010), classifies surgical specialties into 14 types: cardiothoracic surgery, colon rectal surgery, general surgery, gynecology and obstetrics, gynecologic oncology, neurological surgery, ophthalmic surgery, oral and maxillofacial surgery, orthopedic surgery, and otorhinolaryngology, and pediatric surgery, plastic and maxillofacial surgery. Lastly there is urology, and vascular surgery ACS, (2010), for this study was concerned about 5 surgical specialties which are:

**General Surgery:** Is a specialty which is managing a wide spectrum of surgical conditions. It establishes the diagnosis and provides the preoperative, operative, and post-operative care to patients and is often responsible for the comprehensive management of the trauma patient and the critically ill patient (weeks, 2017).

**Neurological surgery:** Is the specialty of surgery that deals with the diagnosis, evaluation, and treatment of disorders of the central, peripheral, and autonomic nervous systems, including their supporting structures and vascular supply. Neurological surgery involves the evaluation and treatment of pathological processes that modify the function or activity of the nervous system and the pituitary gland (Weeks, 2017).

**Orthopedic surgery:** Is a surgical specialty that is devoted to the care of the musculoskeletal system. This system includes bones, joints, muscles, associated nerves, arteries, and the skin (Van, 2017).

**Plastic Surgery:** Deals with the repair, replacement, and reconstruction of defects of the form and function of the body covering and its underlying musculoskeletal system, with emphasis on the craniofacial structures, the oropharynx, the upper and lower limbs, the breast, and the external genitalia. This surgical specialty also focuses on the aesthetic surgery of structures with undesirable form (Ramesh, 2016). Lastly is **Urology** that managing benign and malignant medical and surgical disorders (Jammes, 2017).

#### 2.2 EMPIRICAL LITERATURE

Numerous studies on assessing patients' satisfaction with perioperative care were reviewed to understand the concept of patient satisfaction. The study done in Germany has revealed that the kindness of nurses, quality of food and accommodation, discharge procedures contribute enormously to patient satisfaction in Germany Schoenfelder *et al.* (2011). The findings suggest that measuring patients 'satisfaction is more important to improve health care delivery services.

On the other hand, Tarus *et al.* (2014) shown that the time a patient spends in the hospital was significantly associated with patients' satisfaction with care given. The findings from the research done by Schoenfelder *et al.* (2011) indicate that some aspects of the hospital do not contribute to the patient satisfaction. It is suggested that patients' perceptions of care are more important determinants of the totality of patient satisfaction with the health care services.

#### **CONCLUSION**

Some aspects of the patient satisfaction with perioperative care were covered by the literature, but the other ones were not. Here are some of the gaps that identified.

- 1. The literature has provided some important information that can be used to discuss and give the conclusions to the study. Nevertheless, we were not able to find the literature that combine the whole periods of the perioperative care. The available literature has taken those periods separately. Therefore, the findings of this study was not able to make conclusions referring to the existing results.
- 2. The literature mentioned that traditionally, there were no boundaries between the patient care and the patient cure (Grossweiler, 2012). Despite this no research has been done to relate the two.

- 3. The literature associate the cure with other factors such as age, length of stay, the type of the surgery among others. Therefore, we did not know if the care can lonely decides the outcome of the patient in terms of the treatment.
- 4. The literature has focused on the patient. A research should combine the patient satisfaction and the challenges faced by the health care providers. This showed where to improve for a better promotion of the health.
- 5. Different factors from the patient like age, gender, type of surgery, residence, health status and length of stay (Thiedke, 2007, Peck, 2011, Davidson, 2012).

  However, the literature did not mention which one is more determinant for the satisfaction. Thus, we can tell which factor that can be more considered to satisfy the

patient.

#### **CHAPTER 3: METHODODOLOGY**

#### 3.0 INTRODUCTION

This chapter provides a clear description on the area where the study was conducted, the design, study population and the sampling technique. The chapter also describes the data collection procedures, and the methods used in the data analysis, the last paragraph of this chapter was focused on the limitations and ethical considerations.

#### 3.1 STUDY AREA

The research was carried out at Oshen King Faisal hospital Kigali. Hospital is a major referral hospital in Rwanda located in Kigali, Gasabo district. Oshen KFH is a private and governmental funded referral hospital. It provides curative, promotive, support services and specialized services to Rwandan patients and from across Rwanda, Congo, Burundi, and parts of Uganda. The hospital has a capacity of 160 beds and 350 staff. The surgery department has 39 beds; operating room has 5 rooms where 5 major surgeries are being performed; (General surgery, Orthopedics, Plastics, Urology, and neurosurgery).

#### 3. 2 STUDY APPROACH

Quantitative descriptive study design approach was used.

#### 3.3 STUDY DESIGN

Cross sectional study was used in this study. This study described how the patients are satisfied in perioperative care within 5 different departments: General surgery, Orthopedics, Plastics, Urology, and neurosurgery.

#### 3.4 STUDY POPULATION

The study population comprised patients who attended the hospital during the period from February 15<sup>th</sup>March 30<sup>th</sup>April, 2017and meet the inclusion criteria. To be enrolled in the study, patients who were spent in the hospital more than 24 hours after the operation as this is the expected time that the patient has fully recovered from anesthesia and are above the age of 18. Personal characteristics of study subjects included items related to age, Gender, professional status, education, marital status, domicile and type of operation and anesthesia.

Purpose of this study, 35 items of Questionnaire were used. These items divided into; to 5 dimensions related to information, discomfort and needs, Fear and concern, Staff-patient

#### 3.5 SELECTION CRITERIA

#### **INCLUSION CRITERIA**

In our study all patients aged of 18 years and above of both sex who undergoing elective surgery were recruited. Also fully conscious patients who accepted to sign a consent form and admitted 24 hours in post-operative were included in this study.

#### **EXCLUSION CRITERIA**

In this study, patients under 18 years, unconscious patients and emergency patients were excluded.

#### 3.6 STUDY SAMPLE AND SAMPLING STRATEGY

In the present study the probability sampling methods was used. Then the probability proportional to size sampling strategy was applied where the number of patients admitted for each surgery among the 5 major surgeries at Oshen KFH was used to get the number of the patients to be included in the sample size From the internal report of KFH, it was observed that the proportion of patients admitted in each room is as follow: General and neurosurgery: 22.2% each; Orthopedic: 33.3%; Plastic and urology: 11.1% each and the proportion of patients who spend more than 24 hours in the hospital rooms after operation is at 90%. Based on the design of this study, the following formulae was used to get a representative sample number of participants for us to be able to infer the results which was obtained to a large population (Charan and Biswas, 2013). Is the standard normal value (at 5% type I error (p<0.05), it is 1.96

P = Expected proportion of patients who spend more than 24 hours in the hospital rooms after surgery in the population based on previous published studies or pilot studies. For the purpose of this study we used 90% this was obtained based on a check in the existing records.

d = Absolute error or precision, for the purpose of this study, the researcher has estimated this number to be 5%. The formulae below show how we calculated our sample size (Charan et al, 2013).

$$Z_{1-\alpha/2}^{2}SD^{2}$$

$$d^{2}$$

Z 1- $\alpha$ /2: is a standard normal variate as mentioned in previous section

SD: Standard deviation of variable. Value of standard deviation can be taken from previously done study or through pilot study.

D: Absolute error or precision as mentioned in previous section.

Based on the above formulae, the sample size used for this study was estimated to be 138 patients; this sample was increase by 5% to cut for possible non response, therefore the total sample included in the study was 145 patients.

Table 3. 2: Distribution of the sample size across different major surgeries.

Surgery	Proportion in the population	Sample size
General	33.4%	49
Orthopedic	22.2%	32
Neurology	22.2%	32
Plastic	11.1%	16
Urology	11.1%	16
Total	100%	145

Source: Primary data

#### 3.7 DATA COLLECTION METHOD AND PROCEDURES

Data was collected using self-administered questionnaire. The Questionnaire was filled by the patients who fitted in the inclusion criteria in postoperative period when the patient was fully recovered from anesthesia and back in surgical ward. The selection process did not involve randomization. The end-point of the study was collecting 145 questionnaires. The purpose of this study was to assess patient satisfaction with perioperative care using a satisfaction questionnaire. Following explanation of the aims and content of the study to the participants, verbal consent was obtained from those willing to participate. Questionnaires were then provided and the participants were instructed to read the questionnaire carefully, answer it and return their completed questionnaire to the researcher.

#### 3.8 DATA COLLECTION TOOL

In the present study the Leiden Perioperative Patient Satisfaction questionnaire tool (REF in appendix 2) modified by Caljouw et al., 2008, was used. Before data collection, the research obtained permission to use the tool from original author (REF in appendix 3), questionnaire was used. These items are divided into to 5 dimensions related to patients' satisfaction with perioperative care (Caljouw et al., 2008).

The dimension one looks at the patient satisfaction with information provision.

This dimension assesses the explanation and amount of information provided to patients regarding surgery, and stay duration in the operating theatre. It includes four questions.

**Discomfort and needs** investigates the adverse out-comes of the anesthesia, which influences patient satisfaction. It is shown through seven questions.

**Staff-patient relationship** assesses the relationship between patients and hospital staff, the amount of care shown to patients, and the magnitude of patient expectations of the attitude and behavior of the staff towards them. It includes thirteen items.

**Fear and concern dimension:** This dimension assesses the degree of fear and concern among patients in respect to some situations, such as awaking during the operation, seeing the operating room and pain level due to administering anesthetics. It includes four items. **Service:** This dimension includes perception for the waiting time before surgery; the scale used was (too long, long, just right and short). For, discomfort and need, fear and concern, the scale ranged from; (5= extremely; 4= quite a bit; 3= moderately; 2= a little bit; and 1= not at all). Staff-patient relationship, information, the scale ranged from one up to five using likert scale (5=completely satisfied; 4= satisfied; 3 =not satisfied; 2=dissatisfied; 1=completely dissatisfied .Service is ranged from; 4= Too short; 3= just right; 2= long, and Too long=1

The Questionnaire was in three acceptable languages in Rwanda: English, French and Kinyarwanda. The original tool was in English language and it has been translated into French and Kinyarwanda. All three languages were used because Oshen King Faisal hospital receives different patients from different countries.

To meet the objectives of the present study personal characteristics section was added and it includes: Gender, age, domicile, Professional status, Education, Marital status, type of operation, Type of anesthesia.

#### 3.9 DATA ANALYSIS

Data were entered and analyzed using SPSS 21.0. The data analysis was focused on two different parts, including descriptive statistics, independent samples t-test or one-way ANOVA and Chi square were used. Descriptive data analysis consisted of data analysis using frequency table and the calculation of the mean and standard deviation were appropriate.

For each dimension of patients' satisfaction, the mean and standard deviation were calculated for each item and dimension of satisfaction.

To obtain the satisfaction score for each dimension, patient's scores for each item were added up and a mean and standard deviation calculated. The total score for each dimension was then calculated percent and a mean percent score as well as the corresponding standard deviation calculated. To obtain patients total satisfaction, all dimensions' percent scores were added up and a final mean and standard deviation calculated.

To analyze the total satisfaction by sociodemographic and other clinical variable, independent samples t-test, one way ANOVA and Chi square were used as appropriate because our objectives were looking on factors associated with patients 'satisfaction.

The overall patient satisfaction score (LPPSq score) were compared with patient characteristics (gender, age, and work situation) and clinical features (surgical procedure, specialty, earlier operated, and type of anaesthesia). A p-value of  $\leq 0.05$  was considered as significant.

#### 3.10. VALIDITY AND RELIABILITY OF THE TOOL

#### **Validity**

The validity refers to the degree to which an instrument measures what it is supposed to measure (Basson, 2000). Both face validity from the researcher and content validity With this regard tools was pretested on the field in KFH before the beginning of the study .A Pilot study was implemented on a group of 10% patients in selecting setting, which is not being included in the study to test the feasibility and clarity of the study tool. The Questionnaire was in three acceptable languages in Rwanda, English, French and Kinyarwanda and the saved final information was in English.

#### Reliability

A Pilot study was implemented on a group of 10% patients in their postoperative period at Oshen King Faisal hospital, which is not being included in the study to test the feasibility and clarity of the study tool. Reliability was estimates by Cronbach's- $\alpha$ , inter correlation for the all dimensions. The dimensions of information, fear and concern, staff-patient relationship, service and the total LPPSq (range from 0.68 to 0.93).

#### 3.11. ETHICAL CONSIDERATIONS

This study proposal was submitted to the University of Rwanda College of Medicine and Health Sciences Institutional Review Board for approval and ethical clearance. The researcher also was getting the permission from the Oshen KFH administration.

**Autonomy:** Autonomy of the patients was respected and granted with right of withdraw in the study at any time.

**Anonymity:** All identification of the participants was kept anonymous, no names or any other relevant information which was mentioned on the data collection forms.

**Confidentiality:** All collected data was kept in a secure place to which only the researcher was having access. Data will be kept for five years and then burnt.

**Right of the patient**: Each patient was free to sign the consent and participate in the study and can withdraw from the study at any time.

**Beneficence:** It involves need to reduce harm and maximize benefits of the patient (Polit and Beck, 2008). This study was beneficial for the patients by identifying the gap of satisfaction and improves services delivered in perioperative care. For the health care providers; this study was showing the area of improvement in the perioperative care of the patients.

**Non-maleficience:** For the patient as this is a based survey study, non-intervention was used .There were no procedure to the patient during the study and no social or physical harm to them.

#### 3.12. DATA MANAGEMENT

After data collection and analysis, the soft and hard copies of filled questionnaires were kepted in confidentiality for the participants. Confidentiality was maintained by excluding the name of participants from questionnaire. In this study there were no remuneration and data will be kept for 5 years.

#### 3.13.DISSEMINATION OF RESULTS

The findings will be published at the end of research in local or international journal and our work will be presented in conferences for further dissemination of the results. The results and recommendations will also be communicated in form of a report to oshen KFH to the department of nursing and Midwifery and library of university of Rwanda.

#### **CHAPTER 4: PRESENTATION AND ANALYSIS OF RESULTS**

#### 4.0 INTRODUCTION

This is chapter presents the main results on the patients' satisfaction with perioperative care. First, the patients' socio-demographic characteristics are presented. Second, patients' satisfaction is analyzed by dimensions of the Leiden Perioperative patient Satisfaction questionnaire tool (LPPSq) as modified by (Caljouw *et al*, 2008). Finally, an analysis of factors associated with patients perioperative care is presented. One hundred forty five consecutive patients over a 6 weeks period were originally enrolled in the study. All the attended patients agreed to participate in the study.

For purposes of interpretation of patient satisfaction and for each subscale the study used bench marks from Asiri, Bawazir and Jradi, 2013 Where 1% -33% shows Low satisfaction 33% - 66% shows Moderate satisfaction and above 66% shows high satisfaction (Asiri, Bawazir and Jradi, 2013).

#### 4.1 SOCIO-DEMOGRAPHIC AND CHARACTERISTICS OF PARTICIPANTS

This study collected data on socio-demographic and characteristics variables which included age, gender, professional status, educational attainment marital status and domicile, type of anesthesia and type of operation.

Table 4.1: Patients socio demographic characteristics

Variables		Frequency	Percent
Age Mean :	36.34 years (± 12.23)		
	20-29	49	33.8
	30-39	49	33.8
	40-49	25	17.2
	50+	22	15.2
Gender			
	Male	77	53.1
D C 1 1	Female	68	46.9
Professional status	E1	<i>C</i> 1	40.1
	Employed	61	42.1
	Unemployed	46	31.7
	Student	31	21.4
Education	Retired	7	8.4
Education	Duimoury	26	17.0
	Primary Secondary	26 51	17.9 35.2
	University	68	46.9
Marital status	Oniversity	06	40.9
Maritar status	Single	47	32.4
	Married	87	60
	Widow/ widower	9	6.2
	Divorced	2	1.4
Domicile	D1101000	-	1
	Urban	73	50.3
	Rural	72	49.7
Type of anesthesia	Local	8	5.5
• •			
	Regional	60	41.4
	General	77	53.1
Types of operation	General surgery	29	20.0
	Orthopedics	37	25.5
	Neurosurgery	31	21.4
	Plastic surgery	32	22.1
	Urology surgery	16	11.0

Source: Primary data

**Table 4.1** shows that more than a half (53.1%) of our participants were operated under general anesthesia. 25.5% of the participants were admitted for Orthopedics operation. Slightly more than a half (53.1%) of participants were males. The highest proportion (33.8%) of our participants were in both the age group 20-29 years and 30-39 years.

Slightly less than a half (46.1%) of the participants were employed.

Regarding the level of education, the highest proportion of our participants (46.9%) had attained university level of education. Sixty percent (60%) of our participants were married. Slightly more than a half (53.3%) of our participants were from urban settings.

#### 4.2 PATIENTS' SATISFACTION LEVEL ON 5 DIMENSIONS

#### 4.2.1 Information

This dimension consisted of four items. The subscale of information was reliable (Cronbach  $\alpha = 0.649$ ). For this subscale, each item was measured using a Likert scale five levels: completely dissatisfied (1), dissatisfied (2), not dissatisfied (3), satisfied (4) and completely satisfied (5).

#### **Information**

	Comple dissatis		Dissat	tisfied		Not isfied	Sati	Satisfied		oletely sfied
	N	<b>%</b>	N	%	N	%	N	<b>%</b>	N	%
Explanation about operation	7	4.8	17	11.7	25	17.2	83	57.2	13	9.0
Amount of information about operation	8	5.5	14	9.7	30	20.7	80	55.2	13	9.0
Explanation about stay in operating room	26	17.9	47	32.4	29	20.0	35	24.1	8	5.5
Amount of information about stay in operating room	23	15.9	48	33.1	34	23.4	32	22.1	8	5.5

**Table 4.2a** Shows that higher scores were obtained on explanation about the operation (57.2%).

**Table 4. 2b Satisfaction with information** 

Item N = 145	Mean	Std. Deviation
Explanation about operation	3.54	.979
Amount of information about	3.52	.980
operation		
Explanation about stay in operating	2.67	1.185
room		
Amount of information about staying	2.68	1.147
operating room		
subscale mean	3.10	

Source: Primary data

**Table 4.2b** provides the mean score for each item related to patients' satisfaction with information. There was a statistically significant differences between the items mean scores (p<0.001). Higher scores (mean= $3.54\pm0.97$ ) were obtained on explanation on about the operation and Patients scored lower on the satisfaction with explanation about staying in operating room (mean= $2.67\pm1.18$ ), and amount of information (mean= $2.68\pm1.14$ ).

#### 4.2.2 Discomfort and needs experience satisfaction

Discomfort and needs were measured using a Likert scale consisting of seven items. The reliability coefficient (Cronbach  $\alpha$ = 0.745). Patients had to state to which degree they experienced each of the attribute stated in each item after operation. Five levels of measurements were used: not at all (1), a little bit (2), moderately (3), quite a bit (4) and extremely (5).

Table 4.3a Discomfort and needs

Discomfort and	No	t all	A litt	A little bit   Mod		Moderately		Quite a		Extremely	
Needs							b	it			
	N	%	N	%	N	%	N	<b>%</b>	N	%	
Postoperative pain	13	9.0	15	10.3	42	29.0	43	29.7	32	22.1	
A sore throat	33	2 3	23	15.9	39	26.9	30	20.7	20	13.8	
Back pain	43	29.7	30	20.7	28	19.3	34	23.4	10	6.9	
Vomiting	50	34.5	21	14.5	40	27.6	26	17.9	8	5.5	
Cold	24	16.6	16	11.0	34	23.4	53	36.6	18	12.4	
Hunger	5	3.4	13	9.0	31	21.4	65	44.8	31	21.4	
Thirst	6	4.1	11	7.6	25	17.2	65	44.8	38	26.2	

**Table 4.3a** Revealed that patients in postoperative period were having extremely thirst (26.2%).

Table 4.3b Discomfort and needs

Items <b>N= 145</b>	Mean	Std. Deviation	
Postoperative pain	3.46	1.202	
A sore throat	2.87	1.350	
Back pain	2.57	1.316	
Vomiting	2.46	1.280	
Cold	3.17	1.271	
Hunger	3.72	1.012	
Thirst	3.81	1.041	
Subscale mean	3.15		

Source: Primary data

**Table 4.3b** Shows that thirst scored higher (mean=3.81±1.04), Vomiting scored the least mean (mean=2.46±1.28).

#### 4.2.3 Fear and concern

For this subscale, seven (7) items were used. Patient had to state which degree he/she was afraid of the attribute stated in each item. This was done using the following five levels of measurement: not at all (1), a little bit (2), moderately (3), quite a bit (4) and extremely (5). The scale had a Cronbach  $\alpha$  of 0.762.

**Table 4.4a Fear and Concern** 

Fear and Concern	No	Not all		le bit	Moderately		Quite a bit		Extremely	
	N	%	N	%	N	<b>%</b>	N	<b>%</b>	N	%
Not awaking after operation	10	6.9	14	9.7	59	40.7	50	34.5	12	8.3
Awaking during operation	10	6.9	26	17.9	57	39.3	39	26.9	13	9.0
Seeing the operating room	17	11.7	40	27.6	50	34.5	29	20.0	9	6.2
Pain due to surgeon	14	9.7	49	33.8	41	28.3	28	19.3	13	9.0
Mistakes by surgeon	18	12.4	52	35.9	37	25.5	25	17.2	13	9.0
Fear anesthetist	11	7.6	64	44.1	36	24.8	24	16.6	10	6.9
Pain due to anesthetist	28	19.3	49	33.8	38	26.2	21	14.5	9	6.2

Table 4.4a Shows that majority (34.5%) were having fear of not awaking after operation

Table 4.4b Fear and concern

Item	N=145	Mean	Std. Deviation	
Not awa	aking after operation	3.28	.989	
Awakin	g during operation	3.13	1.036	
Seeing	the operating room	2.81	1.080	
Pain du	e to surgeon	2.84	1.122	
Mistake	es by surgeon	2.74	1.153	
Fear and	aesthetist	2.71	1.054	
Pain du	e to anaesthetist	2.54	1.142	
Subscal	e mean	2.86		

Source: Primary data

**Table 4.4b** shows that the biggest concerns were not awaking after operation (mean= $3.28\pm0.98$ . 98) and awaking during operation. Patients were least concerned about pain due to anaesthetist (mean=2.54,  $\pm1.14$ ).

Four additional items allowed participants to state whether the staffs were attentive and acted according to their needs, if they consulted other health professionals and if patients appreciated professional competence.

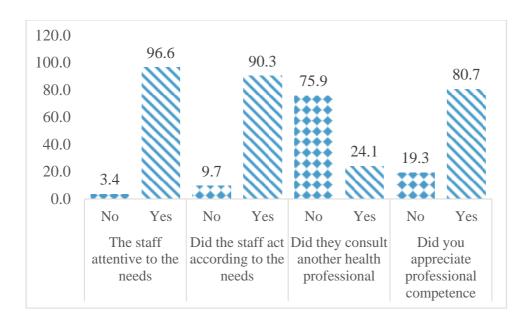


Figure 4. 1: Percentage of participants (n=145)

**Figure 3: 4.1** shows that the staffs were attentive to the patient needs (96.6).

#### **4.2.4 Staff-patient relationship**

In assessing the patients' satisfaction with relationships with staff, fourteen (14) items were used. Patients had to state whether they were completely dissatisfied (1), dissatisfied (2), nor dissatisfied (3), satisfied (4) and completely satisfied (5). The scale yielded a reliability coefficient (Cronbach  $\alpha$ ) of 0.66. The patients' mean score for each of the 14 items is reported.

Table 4.5a Staff-patient relationship

Staff -patient relationship		oletely tisfied	Dissat	isfied		ot tisfied	Satis	sfied	Comp satis	oletely ofied
	N	%	N	%	N	%	N	%	N	%
Did the staff of the operating theatre center take into account your privacy?	14	9.7	18	12.4	15	10.3	83	57.2	15	10.3
Did you have confidence in staff of the operating theatre center	11	7.6	12	8.3	44	30.3	60	41.4	18	12.4
Had the staff of the operating theatre center an open attitude	9	6.2	10	6.9	53	36.6	58	40.0	15	10.3
Were staff of the operating theatre center respectful?	12	8.3	7	4.8	42	29.0	72	49.7	12	8.3
Did staff of the operating theatre center show understanding for your situation?	7	4.8	9	6.2	65	44.8	53	36.6	11	7.6
Were staff of the operating theatre center polite?	3	2.1	7	4.8	27	18.6	96	66.2	12	8.3
Did you find the staff of the operating theatre center professional?	3	2.1	9	6.2	42	29.0	79	54.5	12	8.3
Did staff of the operating theatre center pay attention to your questions?	3	2.1	8	5.5	37	25.5	74	51.0	23	15.9
Did staff of the operating theatre center pay attention to complaints like pain and nausea?	2	1.4	12	8.3	25	17.2	91	62.8	15	10.3
Did staff of the operating theatre center take into account personal preferences?	5	3.4	6	4.1	30	20.7	72	49.7	32	22.1
Did staff of the operating theatre center take into account your cultural background?	4	2.8	6	4.1	39	26.9	78	53.8	18	12.4
Did staff of the operating theatre center Knowledgeable?	2	1.4	3	2.1	37	25.5	87	60.0	16	11.0
Did staff of the operating theatre center pay attention to you as an individual?	2	1.4	5	3.4	27	18.6	100	69.0	11	7.6
Were you treated kindly by the staff of the operating theatre center? <b>Table 4 5a</b> Revealed a house of the content of the con	4	2.8	4	2.8	51	35.2	79	54.5	7	4.8

**Table 4.5a** Revealed a higher scores were obtained on the staff of the operating theatre center take into account patients' personal preferences

**Table 4.5b Staff-patient relationship** 

tem <b>N=145</b>	Mean	SD
Did the staff of the operating theatre centre	3.46	1.137
ake into account your privacy		
Did you have confidence in staff of the	3.43	1.059
operating theatre centre		
Had the staff of the operating theatre centre	3.41	.983
an open attitude		
Were staff of the operating theatre centre	3.45	1.006
respectful		
Did staff of the operating theatre centre	3.36	.895
show understanding for your situation		
Were staff of the operating theatre centre	3.74	.764
polite		
Did you find the staff of the operating	3.61	.810
theatre centre professional		
Did staff of the operating theatre centre pay	3.73	.868
attention to your questions		
Did staff of the operating theatre centre pay	3.72	.812
attention to complaints like pain and nausea		
Did staff of the operating theatre centre	3.83	.938
take into account personal preferences?		
Did staff of the operating theatre centre	3.69	.846
take into account your cultural background		
Did staff of the operating theatre centre	3.77	.724
Knowledgeable		
Did staff of the operating theatre centre	3.78	.692
pay attention to you as an individual		
Were you treated kindly by the staff of the	3.56	.753
perating theatre centre		
ubscale mean	3.61	

Source: Primary data

**Table 4.5b** Revealed that patients had lower scores on the operating theatre center showing understanding for of patients' situation (mean=3.36,  $\pm 0.895 \pm 0.983$ )

Higher scores were obtained on the staff of the operating theatre center take into account patients' personal preferences (mean= $3.83, \pm 0.938$ ).

#### **4.2.4 Satisfaction with service**

Patients' satisfaction with service was the last dimension in assessing patients' satisfaction with perioperative care. This dimension consisted of three items. Each item was assessed using yes too long (1), no long (2), just right (3) and too short (4). The scale yielded a reliability measure (Cronbach  $\alpha$ ) of 0.727.

Table 4.6a Satisfaction with service

Service	Yes to	oo long	No long		Just	right	Too short	
	N	%	N	%	N	%	N	%
Were you operated on the agreed date and time?	9	6.2	9	6.2	60	41.4	67	46.2
How did you experience the waiting time between your arrival at the operating theatre center and the operation?	14	9.7	10	6.9	35	24.1	86	59.3
How did you experience the waiting time between your time spent in the recovery room and your leaving of the operating theatre center?	17	11.7	10	6.9	30	20.7	88	60.7

**Table 4.6a** Revealed that Patients had less satisfaction with experience for waiting time between the time spent in the recovery room and leaving in the operating theatre center.

Table 4.6b: Patients' satisfaction with service

Item N=145	Mean	SD
Were you operated on the agreed date and time?	3.28	.837
How did you experience the waiting time between	3.33	.972
your arrival at the operating theatre centre and the		
operation?		
How did you experience the waiting time between	3.30	1.030
your time spent in the recovery room and your		
leaving of the operating theatre centre?		
Subscale mean	3.30	

Source: Primary data

**Table 4.6b** Revealed that patients expressed less satisfaction on being operated on the agreed date (mean=3.28,  $\pm$  0.83). Patients had more satisfaction with the waiting time between arrival at the operating theatre and the operation (mean=3.33,  $\pm$  0.97).

#### 4.2.5 Overall patients' satisfaction with perioperative care

The overall scale, a measure of reliability (Cronbach  $\alpha$ ) was 0.650. To obtain patients' total satisfaction; a mean percent score was calculated. This was done by adding up all five dimensions' percent scores and divide by five. The mean total percent score was 67.43 ( $\pm$  6.71); the minimum score was 48.14, while the maximum score was 86.10 per cent

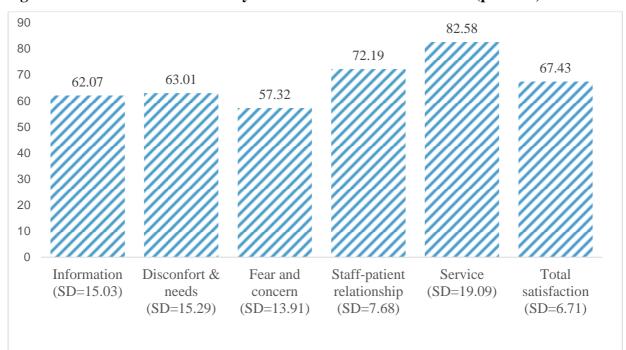


Figure 4: 4.2 Patients satisfaction by dimension and total satisfaction (per cent)

**Figure 4.2** Shows that patients' satisfaction was lowest for the dimension of fear and concern (mean= $57.32, \pm 13.91$ ), while patients' satisfaction score was highest for the dimension of service (mean= $82.58, \pm 19.09$ 

The total satisfaction score was recorded into three levels of satisfaction: low level of satisfaction (score <33%), moderate level of satisfaction (33-66%), and high satisfaction level (>66%).

## 4.3 Association of sociodemographic and characteristics satisfaction with perioperative care

Table 4. 7 Association of sociodemographic and characteristics satisfaction with perioperative care (Based on their categories)

		Moderate sa (33-66%)	ntisfaction	High satisfact (>66%)	ion	To	tal	χ2	P
		N	%	N	%	N	%		
Age group	20-29	16	29.6	33	36.3	49	33.8	2.191	0.533
	30-39	17	31.5	32	35.2	49	33.8		
	40-49	10	18.5	15	16.5	25	17.2		
	50+	11	20.4	11	12.1	22	15.2		
	Total	54	100.0	91	100.0	145	100.0		
Gender	Male	29	53.7	47	51.6	76	52.4	0.057	0.810
	Female	25	46.3	44	48.4	69	47.6		
	Total	54	100.0	91	100.0	145	100.0		
Professional Status	Employed	22	40.7	39	42.9	61	42.1	5.596	0.133
	Unemployed	19	35.2	27	29.7	46	31.7		
	Student	8	14.8	23	25.3	31	21.4		
	Retired	5	9.3	2	2.2	7	4.8		
	Total	54	100.0	91	100.0	145	100.0		
Education	Primary	10	18.5	16	17.6	26	17.9	0.212	0.899
	Secondary	20	37.0	31	34.1	51	35.2		
	University	24	44.4	44	48.4	68	46.9		
	Total	54	100.0	91	100.0	145	100.0		
Marital status <sup>a</sup>	Single	15	27.8	32	35.2	47	32.4	1.036	0.706
	Married	34	63.0	53	58.2	87	60.0		
	Widow/Widower	4	7.4	5	5.5	9	6.2		
	Divorced	1	1.9	1	1.1	2	1.4		
	Total	54	100.0	91	100.0	145	100.0		
Domicile	Urban	27	50.0	44	48.4	71	49.0	0.037	0.847
	Rural	27	50.0	47	51.6	74			
	Total	54	100.0	91	100.0	145	100.0		
Types of anaesthesia	Local	3	5.6	5	5.5	8	5.5	0.056	0.972
	Regional	23	42.6	37	40.7	60	41.4		
	General	28	51.9	49	53.8	77	53.1		
	Total	54	100.0	91	100.0	145	100.0		
Types of operation	General surgery	11	20.4	18	19.8	29	20.0	1.471	0.831
	Orthopaedic Surgery	16	29.6	21	23.1	37	25.5		
	Neurosurgery	9	16.7	22	24.2	31	21.4		
	Plastic Surgery	12	22.2	20	22.0	32	22.1		
	Urology Surgery	6	11.1	10	11.0	16	11.0		
	Total	54	100.0	91	100.0	145	100.0		

**Table 4.7** The analysis of patients' sociodemographic and characteristics—with perioperative care revealed that none of the sociodemographic (age group, gender, professional status, education, marital status, and domicile) and clinical variables (type of anesthesia and type of operation undergone) considered in the study was significantly associated with patients' satisfaction (see Table 4.7).

#### **CHAPTER 5: DISCUSSION**

#### 5.0 INTRODUCTION

The overall objective of this study was to assess the level of patient satisfaction with perioperative care among patients undergoing surgery at Oshen KFH.

This chapter discusses the key findings of this study in the light with different results from other studies done previously. The discussion will flow based on objectives.

#### 5.1. DEMOGRAPHICS AND CHARACTERISTICS

#### **5.1.0 Introduction**

The following subsection discusses the descriptive features of demographic characteristics of our study participants including age, gender, marital status, education, employment, domicile, type of anesthesia and type of operation.

The mean age of our participants were 36.34±12.23 years with the oldest patient having 78years and the youngest 20 years old. The study shows that more than half of patients were males. Contrarily, to the study done by Ganasegeran *et al.*, 2015, who found that female were more than male participants. The majority of our participants was employed which is different from findings of other studies conducted in Saudi Arabia and Ethiopia where the majority were unemployed (Afzal *et al.*, 2014). It is also not surprising that half of our participants had attained university level of education because Oshen king Faisal Hospital is the first hospital that offered high quality care with knowledgeable and skilled health care providers.

This finding is also different from findings from El-nasser *et al.*, 2013 who reported that the majority of their participants was illiterate. Similar findings were also reported by studies conducted by Ghona Abd El-Nasser and Nadia Mohamed, 2013.

Our study revealed that more than a half of our participants were married. The findings are consistent with findings from others studies done in different settings (Norhayati, Masseni and Azlina, 2017). Surprisingly, our results showed no difference the proportion of the participants from both urban and rural settings. The finding is in line with a study conducted by Hamilton *et al.*, 2013that found equal numbers of participants living in Urban and rural areas.

The majority of our participants had surgeries conducted under general anesthesia. Our study findings are contrary to the studies conducted by Jlala *et al.*, 2010b and Wahidi, 2016 that found that more than a half of their participants were operated under local regional

This can be inferred that most of the surgeries conducted at Oshen King Faisal hospital are conducted by general anesthesia due to the severity, complexity and outcomes. No wonder, almost of a half of the participants were admitted for Orthopedics operations and plastic surgery, these figures can be explained by a high number of trauma patients received in this hospital. Our findings are not consistent with finding from other studies by Ahmad, Nawaz and Din, 2011and Asiri, Bawazir and Jradi, 2013 that demonstrated that general surgery operations were predominant.

#### 5.2. OVERALL SATISFACTION OF PATIENTS WITH PERIOPERATIVE CARE

#### 5.2.0Introduction

The most important findings regarding the 5 dimensions of satisfaction levels (Information, Discomfort and needs, Fear and concern, Patient-staff relationship and Service) considered in this study was that the overall patient satisfaction was 67.43%.

#### **5.2.1 Patient satisfaction with information**

Our study findings showed that the patients were moderately satisfied with the information provided before surgery. This is not surprising as routinely at Oshen King Faisal hospital Patients are provided information about surgery by the concerned health care team before surgery is conducted. Also, the health care team provides adequate information by explaining further the outcomes of the surgery. This may be the reason why participants in our study reported that they were highly satisfied with the information provided about the operation. Our study findings are consistent or contrary with finding by El-Nasser *et al.*, 2013 and study done by Ntirenganya et al., 2015.

For this dimension, it is important for the health care team to provide adequate information about the surgery to be undertaken. For instance, in our study, orthopedic surgeries and plastic surgeries were more commonly done at Oshen KFH and because of their well-documented outcomes, adequate explanation of such surgeries is important to prepare the patients for any outcomes that may arise.

#### 5.2.2 Patient satisfaction with discomfort and needs

The present study found that participants were also moderately satisfied with the discomfort and needs dimension or subscale.

In this dimension, patients reported a lot of discomfort and needs that included thirst, hunger and post operative pain that seemed to be the most discomforting needs. This is not surprising as it is documented that patients to undergo surgery must fast six hours before the surgery is conducted to avoid complication such as paralytic ileus (Wahidi, 2016). On the hand, this is quite discomforting to the patients and therefore an explanation of the benefits of fasting before surgery must be provided for better outcomes. No wonder, if patients are not given the benefit of this information, they may continue to take food of drinks while set for surgery and causing delays or complications due to surgery. (H A Jlala *et al.*, 2010b).

#### 5.2.3 Fear and concern Patients satisfaction

Our study participants reported moderate satisfaction on the fear and concern subscale. Our study participants were more concerned about not waking up after operation and awaking during operation. This is not surprising because our study also revealed that general anesthesia were routinely done at King Faisal hospital. It is general principle that individuals will also fear about general anesthesia since it involved getting an individual to sleep or go unconscious. The fear is normally related to not waking up after operation or awaking up during operation if inadequate anesthesia is not given (El-nasser *et al.*, 2013).

#### 5.2.4 Staff-patient relationship

Our study findings revealed moderate satisfaction on the staff-patient relationship. Patients had lower scores on the operating theatre center showing understanding for of patients' situation and open attitude but higher scores were obtained on the staff of the operating theatre center take into account patients' personal preferences. This is similar to both the study done by GhonaAbd El-Nasser and Nadia Mohamed, 2013 and (Ortiz et al., 2015).

## 5.3. PATIENT SOCIODEMOGRAPHIC AND CHARACTERISTICS ASSOCIATED WITH PERIOPERATIVE SATISFACTION

In this study patients' sociodemographic and characteristics with perioperative care revealed that none of the sociodemographic (age group, gender, professional status, education, marital status, and domicile) and clinical variables (type of anesthesia and type of operation

undergone) considered in the study was significantly associated with patients' satisfaction, surprisingly to the other studies done by with what Ahmad I., *et al.* have found in their study where the age has proved to be a significant factor to determine the satisfaction level. (Afzal *et al.*, 2014) reported that, modest negative correlation was found between patients' years of education and satisfaction, higher level of education was associated with lower level of patient satisfaction. El-nasser et al., (2013) reported that, several significant correlations were found between patient satisfaction and preoperative factors such as married patients.

Jlala*et al.*, (2010b) stated that, the fear and concern dimension influenced by age, type of anesthesia, history of surgery, and amount of discomfort complaints.

#### **CHAPTER 6: CONCLUSION AND RECOMMENDATIONS**

#### 6.1. CONCLUSION

According to our study results, more than a half of the patients' had satisfied with perioperative care. The majority of our participants were satisfied about the service delivered to them. Lack of enough preoperative surgical information, fear from undesirable outcomes, and Discomfort and needs were an important factor in overall patient satisfaction for a given care and contributed to patient satisfaction impairment.

#### 6.2. RECOMMENDATIONS

Considering the results of our study, we would like to recommend the following to the concerned institution:

**To Ministry of Health:** Regularly service evaluation via satisfaction survey to provide feedback for continuous quality of care improvement.

**To Ministry of education:** Offers training opportunities to Health care providers to enhance basic skills on patient satisfaction

**To Heath facilities:** More effort and endeavors should be done to achieve maximum results to patient satisfaction and provide comfort for patient during the peri-operative phase.

Certain areas need to be improved such as preoperative surgical information for decreasing the fear from undesirable outcomes and discomfort, reducing waiting time before operation with more emphasis on patients-staff relationship skill.

**To Oshen King Faisal Hospital:** Address the study results and findings to hospital managers and other related members of the hospital for quality improvement.

**For future research:** Further study should be conducted systematically in each unit of services in order to get the real picture of service system

Patient satisfaction survey should be carried out in the community and where a health service provides.

#### **6.3 LIMITATIONS**

The Results may not be generalized to whole country of Rwanda because the sample of the study was only limited to patients in the Oshen KFH. Therefore, a replication of the study is recommended in order to justify statistical connection. Study design was cross sectional quantitative, some bias my arise.

#### REFERENCES

Afzal, M., Rizvi, F., Azad, A. H., Rajput, A. M., Khan, A. and Tariq, N. (2014) 'Effect of demographic characteristics on patient's satisfaction with health care facility', *Journal of Postgraduate Medical Institute*, 28(2), pp. 154–160.

Agosta, L. J. (2005) 'Patient Satisfaction with Nurse Practitioner Delivered'.

Ahmad, I., Nawaz, A. and Din, S. (2011) 'Dynamics of patient satisfaction from health care services', *Gomal Journal of Medical Sciences*, 9(1), pp. 37–42.

Asiri, N., Bawazir, A. A. A. and Jradi, H. (2013) 'Community Medicine & Health Education Patients' Satisfaction with Health Education Services at Primary Health Care Centers in Riyadh, KSA', 4(1), pp. 1–5.

Baroudi, J.J., Olson, M.H. and Ives, B., 2012. An empirical study of the impact of user involvement on system usage and information satisfaction. Communications of the ACM, 29(3), pp.232-238.

Caljouw, M. A. A., Van Beuzekom, M. and Boer, F. (2008) 'Patient's satisfaction with perioperative care: Development, validation, and application of a questionnaire', *British Journal of Anaesthesia*, 100(5), pp. 637–644. doi: 10.1093/bja/aen034.

Caljouw, M. A. A., Beuzekom, M. Van and Boer, F. (2008) 'Patient' s satisfaction with perioperative care: development, validation, and application of a questionnaire', 100(5), pp. 637–644. doi: 10.1093/bja/aen034.

El-nasser, G. A. B. D., Sc, D. N., Mohamed, N. and Sc, D. N. (2013) 'Patient Satisfaction with Preoperative Care and Its Relationship with Patient Characteristics', *Med. J. Cairo Univ.*, 81(2), pp. 1–10.

Findik, U. Y., Unsar, S. and Sut, N. (2010) 'Patient satisfaction with nursing care and its relationship with patient characteristics', *Nursing & Health Sciences*, 12(2), pp. 162–169. doi: 10.1111/j.1442-2018.2009.00511.x.

Ganasegeran, K., Perianayagam, W., Manaf, R. A., Ahmed, S., Jadoo, A. and Al-dubai, S. A. R. (2015) 'Patient Satisfaction in Malaysia' s Busiest Outpatient Medical Care', *The Scientific World Journal*, 2015, p. 6. doi: 10.1155/2015/714754.

Grossweiler, H. (2012) 'Preoperative Education: How Effective Teaching Impacts Knowledge with the Surgical Patients satisfaction

Hamilton, D. F., Lane, J. V, Gaston, P., Patton, J. T., MacDonald, D., Simpson, A. H. R. W. and Howie, C. R. (2013) 'What determines patient satisfaction with surgery? A prospective cohort study of 4709 patients following total joint replacement', *BMJ Open*, 3(4), p. e002525. doi: 10.1136/bmjopen-2012-002525.

Hickson, G.B., Clayton, E.W., Entman, S.S., Miller, C.S., Githens, P.B., Whetten-Goldstein, K. and Sloan, F.A., 2016. Obstetricians' prior malpractice experience and patients' satisfaction with care. *Jama*, 272(20), pp.1583-1587.

Ibrahim, A. (2008) 'Patient Satisfaction With Health Services At the Outpatient Department of Indira Gandhi Memeorial Hospital, Male' Maldives.', *PLoS Medicine*, 8, pp. 233–341.

Jlala, H. A., Caljouw, M. A., Bedforth, N. M. and Hardman, J. G. (2010) 'Patient satisfaction with perioperative care among patients having orthopedic surgery in a university hospital', *Local and Regional Anesthesia*, 3(1), pp. 49–55.

Jlala, H. A., Caljouw, M. A., Bedforth, N. M. and Hardman, J. G. (2010a) 'Patient satisfaction with perioperative care among patients having orthopedic surgery in a university hospital', *Local Reg Anesth*, 3, pp. 49–55. Available at: http://www.ncbi.nlm.nih.gov/pubmed/22915869.

Jlala, H. A., Caljouw, M. A., Bedforth, N. M. and Hardman, J. G. (2010b) 'Patient satisfaction with perioperative care among patients having orthopedic surgery in a university hospital', *Local Reg Anesth*, 3, pp. 49–55. Available at: http://www.ncbi.nlm.nih.gov/pubmed/22915869.

Marin, D. B., Sharma, V., Sosunov, E., Egorova, N., Goldstein, R. and Handzo, G. F. (2015) 'Relationship Between Chaplain Visits and Patient Satisfaction', *Journal of Health Care Chaplaincy*, 21(1), pp. 14–24. doi: 10.1080/08854726.2014.981417.

Mathews, S. K., Secrest, J. and Muirhead, L. (2008) 'The interaction model of client health behavior: A model for advanced practice nurses', *Journal of the American Academy of Nurse Practitioners*, 20(8), pp. 415–422. doi: 10.1111/j.1745-7599.2008.00343.x.

Kigali, Rwanda Attention: General Manager Eric R Nydegger', (28), pp. 1–11.

Mishra, P. H. and Mishra, T. (2014) 'Study of Patient Satisfaction at a Super Specialty Tertiary Care Hospital', *Indian Journal of Clinical Practice*, 25(7).

MOH (2013) 'Customer care norms in Rwanda', *Quality*, 0, p. 1.

Norhayati, M. N., Masseni, A. A. and Azlina, I. (2017) 'Patient satisfaction with doctorpatient interaction and its association with modifiable cardiovascular risk factors among moderately-high risk patients in primary healthcare', *PeerJ*, 5, p. e2983. doi: 10.7717/peerj.2983.

Ntirenganya, F., Mirimo, E. N., Mugenzi, D. S., Nyundo, M. and Ntakiyiruta, G. (2015) 'Original Article Surgical Care Delivery at University Teaching Hospital of Kigali: "A Patient Satisfaction Survey", 72(March), pp. 11–15.

Nyirenda, M. and Mukwato, P. (2016) 'Job satisfaction and attitudes towards nursing care among nurses working at Mzuzu Central Hospital in', 28(December).

Ortiz, J., Wang, S., Elayda, M. A. and Tolpin, D. A. (2015) 'Preoperative patient education: can we improve satisfaction and reduce anxiety?', *Brazilian Journal of Anesthesiology* (*English Edition*). Sociedade Brasileira de Anestesiologia, 65(1), pp. 7–13. doi: 10.1016/j.bjane.2013.07.009.

Peck, B. M. (2011) 'Age-related differences in doctor-patient interaction and patient satisfaction', *Current Gerontology and Geriatrics Research*, 2011. doi: 10.1155/2011/137492.

Report, P. (2011) 'A STUDY TO ASSESS THE PATIENT SATISFACTION WITH NURSING CARE IN NEURO MEDICAL UNITS, SCTIMST. Submitted in partial fulfillment of the requirements For the Submitted by', (October).

Service, A. (2015) 'A Prospective Study on Surgical Inpatient Satisfaction with Perioperative', 6(3). doi: 10.4172/2155-6148.1000514.

Spry, C., 2009. Essentials of perioperative nursing. Jones & Bartlett Learning.

Schoenfelder, T., Klewer, J. and Kugler, J., 2011. Determinants of patient satisfaction: a study among 39 hospitals in an in-patient setting in Germany. *International journal for quality in health care*, 23(5), pp.503-509.

Tang, W. M., Soong, C. and Lim, W. C. (2013) 'Patient Satisfaction with Nursing Care: A Descriptive Study Using Interaction Model of Client Health Behavior', *International Journal of Nursing Science*, 3(2), pp. 51–56. doi: 10.5923/j.nursing.20130302.04.

Tarus, T.K., Mangeni, J.N., Nyariki, J.C., Simiyu, K.N., Obel, M.C., Gitonga, M.M. and Albright, A., 2014. Assessment of Patient Satisfaction with Nursing Care at a Large Public Referral Hospital in Kenya. Assessment, 4(26).

WAHIDI, A. M. (2016) 'Assessment of Patient Satisfaction With Preoperative Anesthetic Evaluation and Assosated Factors At Addis Ababauniversity College of Health'.

Weeks, J.C., Catalano, P.J., Cronin, A., Finkelman, M.D., Mack, J.W., Keating, N.L. and Schrag, D., 2012. Patients' expectations about effects of chemotherapy for advanced cancer. *New England Journal of Medicine*, *367*(17), pp.1616-1625.

Woldeyohanes, T. R., Woldehaimanot, T. E., Kerie, M. W., Mengistie, M. A. and Yesuf, E. A. (2015) 'Perceived patient satisfaction with in-patient services at Jimma University Specialized Hospital, Southwest Ethiopia', *BMC Research Notes*. BioMed Central, 8(1), p. 285. doi: 10.1186/s13104-015-1179-8.

#### **APPENDICES**

APPENDIX 1. PARTICIPANT CONSENT FORM

APPENDIX 2. QUESTIONNAIRE

APPENDIX 3. TOOL PERMISSION

APPENDIX 4. LETTER FROM SCHOOL TO CONDUCT RESEARCH

APPENDIX 5. LETTER TO KING FAISAL HOSPITAL

APPENDIX 6. LETTER FROM KING FAISAL HOSPITAL

APPENDIX 7. LETTER TO IRB

APPENDIX 8. ETHICAL CLEARANCE

1. Information document

Dear,

Re: Participation in a study on "Patient satisfaction with perioperative care received at

KING FAISAL HOSPITAL: A Prospective study".

I, Leontine INGABIRE am a Masters student in Medical surgical nursing at University of

Rwanda, College of Medicine and Health Sciences, Department of Nursing. As part of the

qualification for my program, I am required to do a research project on an area of interest.

My study is titled "Patient satisfaction with perioperative care: A Prospective ....". This

information document aims to invite you to participate in this study. Although the study will

not benefit you directly, but it will help us to take corrective measures on your comments in

the required areas to improve the services up to your expectation. The study will be done by

completing the questionnaire. You are free to ask any question about the study and the

researcher will be available to answer and explain as necessary. Your participation in this

study is voluntary; and you are under no obligation to participate. You have right to withdraw

any time if you feel uncomfortable to continue. The questionnaire is anonymous; the

anonymity will be maintained by not writing anywhere the name on the questionnaire, in

such way that it will not be possible to connect a participant's responses to a name or a

person. Below is the researcher's and supervisor's address that you may contact if there is a

need to do so.

Thank you

Signature:

Student:

Leontine INGABIRE

Supervisor:

UWAMAHORO Claire M.

Contact: +250788875090

contact: +250788402547

### 2. Consent form in English

I,	(Full names of	of participant),
In signing this document I am	giving my consent to take part in the stud	ly titled "Patient
satisfaction with perioperativ	e care received at KFH ".I have read	the information
document, and I understood its	contents, the nature of the research proje	ct was explained
clearly to me. The permission i	s granted to me and I was made aware that	nt participation is
voluntary. I also understood tha	t I can withdraw at any time of the projec	t if I do not feel
comfortable, and my personnel i	dentification will not be linked to the study	data, so that the
anonymity will be maintained.		
		//
		//
Name of the participant	Signature of participant	Dates
		//
Name of the researcher	Signature of the researcher	Dates
INGARIRE Leontine		

E-mail: ingaleontine@gmail.com

Phone number: + 250 788 875090

#### 3. Consent form in Kinyarwanda

#### AMASEZERANO YO KWEMERA KUJYA MU BUSHAKASHATSI

UBUSHAKASHATSI: "patient satisfaction with perioperative care, prospective study"

Jyewe,	nemeye kujya mu ub	oushakashatsi
bwitwa "patient satisfaction with periopera	ative care, prospective study ".N	lasobanuriwe
ko kujya muri ubu bushakashatsi ari ubushak	ce bwanjye, ko ntagihembo ntegere	eje guhabwa,
kandi ko nzagirirwa ibanga ku giti cyanjye r	ndetse n'amakuru yose nzatanga.N	lasobanuriwe
ko ibizava muri ubu bushakashatsi bizatanga	zwa ariko ko ntazerekanwa nk'un	nuntu ku giti
cye.		
Mfite uburenganzira bwo kuva muri ubu bush		
Amazina n'umukono by'uwasobanuriwe	Icyo apfana n'umurwayi	taliki
Amazina y'umushakashatsi	Umukono w'umushakashatsi	Italiki
INGABIRE Léontine		

Ukeneye ibindi bisobanuro wahamagara: Telefone: + 250 788 8750

### The Leiden Perioperative care Patient Satisfaction questionnaire (LPPSq)

No.	Item		Degre	ee of satisfacti	ion	
1.	Information					
	To what degree were you satisfied about	Completely dissatisfied	Dissatisfied	Nor dissatisfied	Satisfied	Completely satisfied
	1. The explanation about the operation?					
	<ul><li>2. The amount of information about the operation?</li><li>3. The explanation</li></ul>					
	about your stay at the operating theatre center?  4. The amount of					
	information about your stay at the operating theatre center?					
2.	Discomfort and needs					
	To what degree did you after the operation have	Not all	A little bit	Moderately	Quite a bit	Extremely
	1. Postoperative pain?					
	2. A sore throat?					
	3. Back pain?					
	4. Vomiting?					
	5. Cold?					
	6. Hunger?					
	7. Thirst?					

3.	Fear and concern					
	To what degree were you afraid of	Not all	A little bit	Moderately	Quite a bit	Extremely
	1. Not awaking after the operation?					
	2. Awaking during the operation?					
	3. Seeing the operating room?					
	4. Pain due to the surgeon?					
	5. Mistakes by the surgeon?					
	6. Pain due to the anesthetist?					
	7. Mistakes by the anesthetist?					
	1. Was the staff attentive to your needs?	Yes		No	[	
	2. Did they act according to your needs?	Yes		No	[	
	3. Did they consult another health professional?	Yes		No	[	
	4. To what degree did you experience professional competence?	Yes		No	[	
4.	Staff-patient	Completely	Dissatisfied	Nor	Satisfied	Completely
	relationship	dissatisfied		dissatisfied		satisfied
	1. Did the staff of					
	the operating theatre center take into account your privacy?					
	2. Did you have confidence in the staff of the operating theatre center?					

3. Had the staff of the operating theatre center an open attitude?			
4. Were staff of the operating theatre center respectful?			
5. Did staff of the operating theatre center show understanding for your situation?			
6. Were staff of the operating theatre center polite?			
7. Did you find the staff of the operating theatre center			
professional? 8. Did staff of the operating theatre center pay attention to your questions?			
9. Did staff of the operating theatre center pay attention to complaints like pain and nausea?			
10. Did staff of the operating theatre center take into account your personnel preferences?			
11. Did staff of the operating theatre center take into account your cultural background?			
12. Did you find the			

	staff of the operating theatre center knowledgeable? 13. Did staff of the operating theatre center pay attention to you as an individual 14. Were you treated kindly by the					
	staff of the operating theatre center?					
5.	Service	Yes	too long	No long	Just right	Too short
	1. Were you operated on the agreed date and time?					
	2. How did you experience the waiting time between your arrival at the operating theatre center and the operation?					
	3. How did you experience the waiting time between your time spent in the recovery room and your leaving of the operating theatre center?					

Table (2): Fiche Leiden de satisfaction pour les soinsperioperatifs(lppsq+)

No.	Objet		Degré de satisfaction							
1.	Information									
	Combien suis-je satisfait par:	Nullement satisfait	Pas satisfait	Ni satisfait	Satisfait	Pleinementsatisfait				
	1. Les explication s sur l'opération ?									
	2. La quantité d'informati on sur l'opération ?									
	3. Les explication s sur le séjour dans le bloc opératoire?									
	4. La quantité d'informati on sur le séjour dans le bloc opératoire?									
2.	Inconfort et									
	besoins									
	A quel degré avez-vous ressenti:	Pas du tout	Juste un peu	Modérément	Beaucoup	Тгор				
	1. De la douleur postopérato									
	ire? 2. Irritation à la gorge?									
	3. De la douleur									

	dorsale?						
4.	Des vomisseme nts?						
5.	Du froid?						
6.	De la faim?						
7.	De la soif?	Γ					

3.	Peur et inquiétude					
	A quel dégrée avez-vous eu peur:	Pas du tout	Juste un peu	Modérément	Beaucoup	Trop
	1. De ne pas vous réveiller après l'opération?					
	2. De vous réveiller pendant l'opération?					
	3. De voir la salle d'opérations?					
	4. Que le chirurgien vous fasse mal?					
	5. Des erreurs du chirurgien?					
	6. Que l'anesthésiste te fasse mal?					
	7. Des erreurs de l'anesthésiste?					
	1. Les employés ont-ils pris en compte vos besoins?	Oui		Noi	n	
	2. Ont-ils agi en conséquence?	Oui		Noi	n	
	3. Ont-ils fait appels à un autre professionnel de santé?	Oui		Noi	n	
	4. Ont-ils été professionnels et compétents?	Oui		Noi	n	

4.	A quel degré avez-vous fait expérience des compétences professionnelles?					
	Relations patient- personnel					
	A quel degré :	Nullement satisfait	Pas satisfait	Ni satisfait	Satisfait	Pleinementsatisfait
	1. L'équipe de la salle d'opérations a pris en compte votre vie privée?					
	2. Aviez-vous confiance en eux?					
	3. Faisaient-ils attention à ton avis?					
	<ul><li>4. Ont-ils été respectueux?</li><li>5. Se montraient-</li></ul>					
	ils compréhensifs par rapport à ton état?					
	6. Ont-ils été polis?					
	7. Ont-ils été professionnels?					
	8. Ont-ils été attentifs à vos questions?					
	9. Ont-ils fait attention à vos plaintes, comme la peine ou la nausée?					
	10. Ont-ils pris en compte vos préférences					

	personnelles?				
	11. Ont-ils respecté vos valeurs culturelles?				
	12. Etaient-ils informés?				
	13. Ont-ils pris soin de vous en tant qu'une personne particulier ?				
	14. Vous ont-ils traité avec gentillesse?				
5.	Les services	Trop longs	Plutôt longs	Assez longs	Trop vite
	Avez-vous été     opéré au temps     indiqué?				
	2. Comment avez-vous vécu votre temps d'attente depuis votre arrivée et votre entrée dans le bloc opératoire?				
	3. Comment avez-vous vécu votre attente depuis votre entrée dans la salle de réveil jusqu'à votre sortie du bloc opératoire?				

# Imbonerahamweya Leiden yerekanaukoumurwayiyakiriyeukubagwakwe(lppsq+)

No.	Ikibazo		Ul	konabyakiri	iye	
1.	Amakuru			•		
	Wanyuzwekuruherwego:	Sinanyuzwenamba	Sinanyuzwe	Biriaho	Naranyuzwe	Nara
	1. Amakurunahawekugikorwa					
	2. Esearahagije?			]		
	3. Ibisobanurokubikorerwa mu ibagiro?					
	4. Kumenyeshwaigihendamara mu ibagiro?			]		
2.	Kumererwanabi:					
	Ese nyumayokubagwawigezewumva: 1. ubabaraahowabazwe? 2. ubabara mu muhogo? 3. ubabaraumugongo? 4. esewashatsekuruka? 5. wigezeugiraimbeho? 6. wagizeinzara?	Oya	buhoro	Bisanzwe	cyane	
	7 wagizeinyota?					

3	ubwoban'impungenge					
	ese wigezeutinya:		Buhorocyan	n Bisanzw	Cyan	Bikabij
	1. koutakangukanyumayokubagwa?		e	e	e	e
	2. koukangukautararangizakubagwa?					
	3. kurebaibagiro?					
	4. koukubagaakubabaza?					
	5. kouteraikinyayakubabaza?					
	6. koukubagayakwibeshya?					
	7. kouteraikinyayakwibeshya?					
	1. eseabakozibumviseibyifuzobyawe	? Yego	)	Oya		
	2. esebabihayeagaciro?	Yego		Oya		
	3. esebitabajeindimpuguke?	Yego	· _	Oya		
	4. esebitwayekinyamwuga?	Yego	)	Oya		

4.	IMIBANIRE Y'UMURWAYI N'ABAMUVURA ?					
	wakiriyeuteukowa fashwe	Sinanyuzw enamba	Sinanyuzw e	Biriaho	Naranyuzw e	Naranyuzw ecyane
	1. eseabakwitayeh obubashyeubuzi mabwawebwite ?					
	2. esewumvagaubi zeye?					
	3. esebaribiteguye kumvaibyoubab wira?					
	4. esebarakubashy e?					
	5. esebahayeagacir oumubabarowa we?					
	6. esebaranzwen'i kinyabupfura?					
	<ul><li>7. esebitwarakinya mwuga?</li><li>8. esebafasheumw</li></ul>					
	anya wo gusubizaibibazo byawe?					
	9. esebahagaagacir oibikubabaza, nk'igiheubabay ecyangwaubab wiyekoufiteises eme?					
	10. esebahagaagacir oibyowoweuhis emo?					
	11. esebubahirijeu mucowawe??					
	12. esebaribafiteam akuruahagije?					
	13. esebakwitayeho kuburyobwihari ye?					

	14. esebakugiriyei mpuhwe?				
5.	Kwakiraababagan	Byarambiranye	Byaratinz	Byabayekugi	Byarihusecya
	a		e	he	ne
	<ol> <li>Esewabazweku gihecyarigitega nyijwe?</li> </ol>				
	2. Habayehoguteg erezakuvawakir iwekugezaigihe cyokubagwa?				
	3. Wamazeigiheki nganaikikuvaug				
	eze mu ikangukirokuge zausohotse mu bitaro?				



#### COLLEGE OF MEDICINE AND HEALTH SCIENCES

#### SCHOOL OF NURSING AND MIDWIFERY

Kigali, on 30 / 01 /2017

Ref. No: 21.../ UR-CMHS/SoNM/17

#### TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Re: Request to collect data

Referring to the above subject, I am requesting for permission for INGABIRE LEONTINE, a final year student in the Masters of Science in nursing at the University of Rwanda/College of Medicine and Health Science to collect data for his/her research dissertation entitled: PATIENT SATISFACTION WITH PERIOPERATIVE CARE RECEIVED AT KING FAISAL HOSPITAL.

This exercise that is going to take a period of 2 months starting from 13<sup>th</sup> February 2017 to 12<sup>th</sup> April 2017 will be done at KING FAISAL HOSPITAL.

We are looking forward for your usual cooperation.

Sincerely,

Dr. Donatilla MUKAMANA, RN, PhD

Dean, School of Nursing and Midwifery

College of Medicine and Health Sciences

Ag chief Executive officer

**INGABIRE** Leontine

**KFH** 

phone number: 0788875090

PO Box: 2534 KIGALI-RWANDA

Email:ingaleontine@gmail.com

Dear Sir

10<sup>th</sup> December 2016

RE: REQUEST TO CONDUCT RESEARCH AT KFH: PATIENT SATISFACTION

WITH PERIOPERATIVE CARE.

I am nurse with Bachelor in Nursing Education, currently undertaking a Masters Degree At

college of Medicine and health sciences University of RWANDA track of MEDICAL-

SURGICAL NURSING.

As a fulfilment to this course Iam required to submit a research dissertation.

The research topic is: PATIENT SATISFACTION WITH PERIOPERATIVE CARE

RECEIVED AT KFH.

The purpose of this study is to assess the level of patient satisfaction with perioperative care

among patients undergoing surgery.

The study participants are the patients scheduled for elective surgery. The findings will

contribute to the body of knowledge on quality of care from patients' perspective and serve

as baseline for further research.

I appreciate the consideration of my request.

Yours.

**INGABIRE** Leontine

From: M.A.A.Caljouw@lumc.nl
Date: Wed, May 31, 2017 at 1:33 PM
Subject: RE: Requesting permission to use the tool
To: clairuwa073@gmail.com

Dear mrs.Claire,

Of course you may use my questionnaire. I give permission to use my questionnaire free of charge. I only ask you to refer to my original paper when you use it for your research and publications.

Attached you will find a translated version in English.

A lot of success with your study

Kind regards,

Dr. Monique Caljouw

Senior researcher

Dept. Public Health and Primary Care

Leiden University Medical Center



#### COLLEGE OF MEDICINE AND HEALTH SCIENCES

#### CMHS INSTITUTIONAL REVIEW BOARD (IRB)

Kigali, 22/02/2017 Ref: CMHS/IRB/160/2017

INGABIRE Léontine School of Nursing and Midwifery, CMHS, UR

Dear INGABIRE Léontine

#### RE: ETHICAL CLEARANCE

Reference is made to your application for ethical clearance for the study entitled "Patient Satisfaction With Perioperative Care Received At King Faisal Hospital.".

Having reviewed your protocol and found it satisfying the ethical requirements, your study is hereby granted ethical clearance. The ethical clearance is valid for one year starting from the date it is issued and shall be renewed on request. You will be required to submit the progress report and any major changes made in the proposal during the implementation stage. In addition, at the end, the IRB shall need to be given the final report of your study.

We wish you success in this important study.

Professor Kato J. NJUNWA

Chairperson Institutional Review Board, College of Medicine and Health Sciences, UR

Cc:

Principal College of Medicine and Health Sciences, UR

University Director of Research and Postgraduate studies, UR