

**FACTORS INFLUENCING IMPLEMENTATION OF FAMILY WITNESSED
RESUSCITATION PRACTICE AMONG NURSES WORKING IN MEDICAL-
SURGICAL UNITS IN SIAYA COUNTY REFERRAL HOSPITAL, KENYA**

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DECLARATION AND APPROVAL



DEDICATION

I dedicate this work to my loving family for their prayers and moral support and to DAAD for the financial support.



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Thanks to the Almighty God for protection, grace, kindness, and guidance in my academics. I thank the MKU School of nursing for providing a favorable environment for learning. I am greatly thankful for Professor Ramani and Mr. Daniel Muya who are my supervisors for their guidance that has shaped my research work. Thanks to my classmates for their academic support throughout the course. My sincere thanks go to my brother, the late James Oduor Okoth who encouraged me to do this course, may his soul rest in eternal peace. Thanks to DAAD for the scholarship and financial support. Lastly, I thank the respondents for their willingness to participate in the study.



ABSTRACT

The family witnessed resuscitation (FWR) is offering a family member an option to be present in the room while a loved one is being resuscitated to sustain life. Despite the recommendation by various professional bodies, FWR is not widely practiced among medical-surgical nurses and its implementation is inconsistent across healthcare settings. This study aimed to investigate nurse-related factors influencing implementation of FWR, identify nurses' perceived benefits and establish their perceived risks of this practice among nurses in medical-surgical units in Siaya county referral hospital (SCRH). The study was cross-sectional analytical survey, quantitative and qualitative approaches of data collection were used. A total of 71 registered nurses participated in the study. A stratified random sampling design was used to obtain study participants from various units within the medical-surgical department of SCRH, Kenya. Quantitative data was collected using Family Presence during resuscitation benefit and risk assessment form and Family presence during resuscitation self-confidence scale designed by Twibel et al, approval to use the tool was granted by the original owner through written permission. Qualitative data was collected using Key Informant Interview. Quantitative data was analyzed using SPSS version 26 and NVIVO version 11 was applied for qualitative analysis. Categorical data were analyzed descriptively using graphs, frequency tables. Continuous variables were described using measures of central tendencies and dispersion. Chi-square and binary logistic regression were used to analyze the association between independent and dependent variables. Significance level of p -value ≤ 0.05 was set, confidence interval was 95%. Qualitative data were transcribed and generated themes were interpreted then triangulated to increase the credibility and validity of the findings. To enhance understanding, themes were validated by inclusion of supporting quotes. The study revealed a significant association between implementation of FWR practice and advanced specialized training ($X^2 = 4.125$, $df = 1$, $p = 0.042$), training on FWR ($X^2 = 6.728$, $df = 1$, $p = 0.009$) and nurse's perceived self-confidence ($X^2 = 8.060$, $df = 2$, $p = 0.010$). The odds ratio value indicated that nurses who had advanced specialized training apart from basic nursing were 3.3 times more likely to implement the practice than those with no other training (OR=3.28, 95% CI 1.10-9.80). Nurses trained on FWR were 4.4 times more likely to implement the practice than those with no such training (OR=4.42, 95% CI 1.35-14.92). Nurses who perceived quite/very confident were 4.9 times more likely to implement FWR than those who were somewhat confident (OR=4.94, 95% CI 1.07-22.71). FWR practice was not significantly associated with years of nursing experience, affiliation to professional organizations, and the number of times one participated in resuscitation process. Regarding perceived benefits, 83.1% of the respondents affirmed that family would accept that everything possible was done to save life of their loved one. However, 38.0 % of the respondents thought that family would disrupt the resuscitation process. Ethical clearance to conduct this research was obtained from Mount Kenya University Institutional of Ethics and Review Committee. The authorizations were obtained from appropriate offices within Siaya County and participating hospitals. Participation was voluntary, and participants signed informed consent.

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LIST OF ABBREVIATIONS AND ACRONYMS

ACLS	Advanced Cardiac Life Support
AHA	American Heart Association
BLS	Basic Life Support
CPR	Cardiopulmonary resuscitation
ED	Emergency department
ENA	Emergency Nurses Association
FCC	Family-Centered Care
FPDR	Family presence during resuscitation
FWR	Family Witnessed Resuscitation
HCW	Health Care Workers
HDU	High Dependency Unit
ICN	International Council of Nurses
KII	Key Informant Interview
KPNA	Kenya Progressive Nurses Association
NCK	Nursing Council of Kenya
NNAK	National Nurses Association of Kenya
PTSD	Post Traumatic Stress Disorder
SCRH	Siaya county referral hospital
SPSS	Statistical package for the social sciences
TPB	Theory of Planned Behavior
WCEA	World Continuing Education Alliance

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Resuscitation is an emergency procedure aimed at restoring the vital signs of a critically ill patient by a means of physical, mechanical, and pharmacological means. This is performed in an event of sudden cessation of cardiac activities. Family members can choose to attend a procedure known as family witnessed resuscitation (FWR) in which their loved one is being revived while they are physically and visually present. (Tomlinson et al., 2010). Family presence during resuscitation (FPDR), family witnessed resuscitation (FWR), and witnessed resuscitation are all used interchangeably. (Porter et al., 2014).

According to American Heart Association publications from 2020, there were over 209,000 cardiac arrests that occurred in hospitals and more than 350,000 that occurred outside of hospitals per year in the United States of America. The survival rates of the patients are 25% for in-hospital resuscitation and 10% for out-of-hospital resuscitation, respectively, despite advances in resuscitation understanding (Go et al., 2013). Therefore, when the family are given an opportunity to be with their member could be the last to see their kin alive.

Approximately 1.2% of hospital admissions in the US are adults who suffered in-hospital cardiac arrest (AHA 2020). In-hospital resuscitation, only 9-11% of all resuscitation events occur within the emergency department (Donoghue et al., 2015). Meaning, most cardiopulmonary resuscitations are done in various units within the hospital setting, medical-surgical unit being among them. An audit in cardiac arrest in the UK between 2011 and 2013 showed that 1.6 per 1000 hospital admission were as a result of cardiac

arrest (Nolan et al., 2014). As a result of this, nurses are more involved in resuscitation procedures during their entire nursing career.

Offering family the opportunity supports this philosophy. The nurses play a major role in providing emotional support to patient and family. (American Association of Critical Care Nurses, 2016). Nurses should provide an environment that promotes the participation of the patient's family to achieve mutually beneficial collaboration and the best possible outcome for the patient.

Research evidence has shown that when FWR practice is practiced routinely, it increases patient safety, satisfaction and patient comfort (Leske, McAndrew, & KJ, 2013)(Leske, McAndrew, & KJ, 2013) (Leske, McAndrew, & Brasel, 2013). It gives the family the option "to say goodbye" to their member in their final hours (Hassankhani et al., 2017), the practice decreases harmful psychological outcomes among family and patients (Erogul et al., 2020). The presence of the patient's family enables them to understand that the resuscitation team is doing everything possible to maintain life, supports the mourning process, and creates a professional setting that upholds the patient's sense of self-worth and respect (Chapman et al., 2012; Jabre et al., 2013; Tudor et al., 2014). In spite of this, a significant proportion of nurses and healthcare workers perceive FWR practice as harmful not healthy to the lifesaving process. It is still a legal, ethical and moral dilemma for HCWs (Bashayreh et al., 2015).

The FWR practice has elicited debate across the globe even though several hospitals have successfully implemented programs to enable the family to be present when their kin is undergoing cardiopulmonary resuscitation. Despite the endorsement by professional organizations, the practice is not being implemented consistently in various healthcare settings across the globe (Omran et al., 2015).The concept of FWR practice has advanced rapidly in the previous three decades changing from the outdated practice where the

family was excluded from patient care during emergency procedures such as resuscitation. The advancement in technologies in medicine has promoted transparency in medical organizations. It has enabled exposure of previously censored medical procedures are done in an emergency and medical-surgical departments

While previously PFCC was described in pediatrics perspective, research studies have shown that in adult care settings it does not only improve patient outcomes but also increase family and patient satisfaction ratings of care (Clay & Parsh, 2016). Therefore, nurses support the provision of care to family holistically and not to undermine this important nursing role. Current research literature shows that medical-surgical nurses and other healthcare professionals have divided opinions on whether to support or resist FWR practice (Abuzeyad et al., 2020). The health care professionals have pointed out lack of adequate dedicated space and family supportive person, fear of interference by family members, post-traumatic stress disorder among family members and health care workers performance anxiety as some of the reasons for the reluctance (Chapman et al., 2012; De Robertis et al., 2017; Jabre et al., 2013; Tudor et al., 2014). Although research evidence to back these claims inadequate.

In a study in Taiwan, it was established that approximately 74.8% of the health professionals had no policy guiding FWR practice (Lai et al., 2017). This was supported by a study in Jordan which revealed that there are inadequate institutional policies and guidelines to support FWR practice was a major hindrance to its implementation by the nurses (Bashayreh et al., 2015).

A study in Kigali Rwanda showed that there was inadequate knowledge regarding FWR practice (Havugitanga & Brysiewicz, 2014). According to the researcher, most health care setting such as accident and emergency and critical care units lacked written policies and regulations to guide the conduct of the members of the family that chose to observe

the process of resuscitation their member. In a female hospital, a study among medical-surgical nurses revealed that only 14% of the study participants had a written policy regarding FWR practice within their health facility or unit (Powers & Reeve, 2020). In the same study, 45% of the nurses were not sure of the existence of such policies within their health facilities.

There are divergent opinions with policies guiding family witnessed resuscitation. The majority, 24% of the participant preferred the implementation of FWR practice with or without written policy (Beer & Moleki, 2012). No significant difference was found in the resuscitation processes and outcomes in studies conducted in hospitals that had established policies on FWR practice compared to those that did not have.

Meaning, unavailability of such policies does not affect resuscitation care negatively (Goldberger et al., 2015). Contrarily, 25% of the nurses preferred a documented formal policy that allows the implementation of FWR resuscitation practice (Beer & Moleki, 2012)

In Kenyatta national hospital and Agha Khan Hospital in Kenya, a study showed that despite the two hospitals having resuscitation protocols and staff debriefing, the two hospitals did not have institutional policies to offer guidance on FWR (Omoding, 2011). Most healthcare organizations lack formal policies that guide how the family should carry out themselves when given a choice to observe the process of resuscitation of their kin (Omran et al., 2015). For instance, in cases where the resuscitation efforts are futile, the duration of resuscitations was reduced upon request by the parent's family (Tudor et al., 2014)

According to Sak-Dankosky et al., (2018) there need for well-developed protocols which not only describe the circumstances during which the family should be present but also guide communication with patient's families for better treatment outcomes. However, a

study (Goldberger et al., 2015) revealed that the lack of FWR practice policies did not adversely affect the quality of resuscitation care. Hospitals that had FWR practice policies had no statistically significant on their performance and outcome on resuscitation.

1.2 Statement of the problem

American Heart Associations and various professional nurse organizations have recommended the adoption of family witnessed resuscitation practice (American Heart Association, 2020). Even though the professional bodies' recommends the practice, is not frequently used by medical-surgical nurses, and its application varies depending on the type of healthcare facility and is inconsistent across various health care settings.

For the optimal implementation of FWR practice, the nurses in medical-surgical units are required to play the leadership role in the implementation (Powers & Reeve, 2020). The nurses play an important role in resuscitation procedures; they are usually the first to arrive at the scene, assemble equipment, initiate resuscitation as well as call members of the resuscitation team. During this time, the patients' families are asked to move to the visitors' waiting bay as the team performs resuscitation procedures only to be informed of the outcome (Omoding, 2011).

In Louisville Kentucky, a study showed the nurses' participation in resuscitation events was 10 or higher. Yet, only 38% ever offered the family an option to be in attendance as their kin undergo resuscitation (Tudor et al., 2014).

In Australia on emergency care nurses established that nurses required patients to provide directives in advance regarding whether the relatives should be allowed to observe the process of resuscitation (Chapman et al., 2012). In Korea, a study revealed that 45.5% of

the nurses had been approached by a family with a request to be allowed to witness the resuscitation of their kin. Yet only 17.2% of the nurses gave the family the option of being in the room during the active process of resuscitation (Kim & Kim, 2016). In Finland, FWR practice was accepted widely among nurses and healthcare workers with previous positive experiences. Nonetheless, there was generally little experience among nurses with family witnessed resuscitation practice which adversely affected its implementation (Sak-Dankosky et al., 2015)

Studies have reported higher self-confidence levels among nurses towards the FWR practice. Even with these higher levels, only 25% of the nurses carried out FWR and 15% of the nurses reported that they had participated in FWR practice that family members suffer a significant level of emotional distress. (Beer & Moleki, 2012; Powers & Reeve, 2020).

Regionally, a research studied in Rwanda showed that most nurses in that country perceived FWR as a new concept even though it was first introduced over thirty years ago. In Rwanda, family are allowed to stay with their member but are sent away during resuscitation only to be called back after the procedure to be revealed for the outcome (Havugitanga & Brysiewicz, 2014).

In Kenyatta National Hospital in Kenya, a study to establish the level of patient's family involvement in patient's care in critical conditions demonstrated family distress worsen when they were not given timely and clear information regarding their loved one's progress and care (Muthoni Maina, 2018). A study in Agha Khan hospital and Kenyatta National Hospital revealed that there were guidelines on witnessed resuscitation, grieving, and family follow-up. The two institutions have procedures in place to allow experienced staff to join during resuscitation, debriefing of the family members, and family support if required. However, there was lower compliance with the guidelines

regarding FWR (Omoding, 2011). The Kenyan government adopted AHA guidelines for training nurses and healthcare professionals on basic life support (BLS) and further training on advanced cardiac life on cardiovascular resuscitation. In spite of the training, about 55% of the nurses in Kenyatta National Hospitals and Aga Khan Hospital had a negative perception towards FWR practice (Omoding, 2011). In Siaya, family witnessed resuscitation is not routinely practiced by registered nurses in SCRH. According to the information available, nurses perform several resuscitations while performing their duties. The hospital's policies also permit family members to see their hospitalized relatives. The family usually asks to be permitted to be with their relatives during critical hours, but despite hospital regulations permitting them to do so, their requests are usually denied.

1.3 Study objectives

1.3.1 Broad objectives

To investigate factors influencing the implementation of family witnessed resuscitation among nurses working in medical and surgical units in Siaya county referral hospital.

1.3.2 Specific objectives

- i. To investigate nurse-related factors influencing implementation of family witnessed resuscitation practice among nurses working in medical-surgical units in SCRH.
- ii. To identify perceived benefits of FWR practice among nurses in medical and surgical units in SCRH.
- iii. To establish perceived risks of FWR practice among nurses in medical and surgical units in SCRH.

1.4 Research questions

- i. Are there nurse-related factors that influence the implementation of family witnessed resuscitation practice among nurses working in medical and surgical units in SCRH?
- ii. What are the perceived benefits of FWR practice among nurses in medical and surgical units in SCRH?
- iii. What are the perceived barriers of FWR practice among nurses in medical and surgical units in SCRH?

1.5 Hypothesis

- There is no statistically significant relationship between years of nursing experience in the current role and the implementation of FWR practice
- There is no statistically significant relationship between advanced specialized training of nursing staff and the implementation of FWR practice.

1.6 Justification of the study

In healthcare settings across many countries, FPCC is fundamental in nursing care. FWR practice offers a means of implementing this model (Ganz & Yoffe, 2012). Giving the members of the family a chance to accompany their as they undergo resuscitation not only shows respect for the family's wishes but also allows them to get information promptly and also to understand the severity of their kin's condition. FWR practice is of major interest, yet specific studies on factors that influence its implementation among medical-surgical nurses are limited (Balogh Mitchell, 2012).

Most of the medical-surgical nurses perform resuscitation. However, relevant research studies involving these category of nurses concerning the implementation of FWR practice are limited. The public is encouraged to acquire skills in cardiopulmonary

resuscitation and more often they initiate this process before the emergency response team arrives (Bouland et al., 2017). Yet, upon arrival at the hospital the family are told to go away and wait for the outcome of resuscitation, the resuscitative process they commenced themselves.

The nurses give their best possible care during resuscitation but when the family is excluded from the resuscitation area, they are left to struggle with a lack of information and may not appreciate the effort of the healthcare professionals in their attempt to restore life to their loved one (Porter et al., 2014).

The FWR practice offers family members psychological benefits regardless of the outcome of the intervention. Furthermore, patients support having family members during resuscitation since they felt supported and comforted, and just like family members they prefer FWR (Twibell et al., 2015).

Siaya County referral hospital is the largest hospital within Siaya County and it receives patients in critical conditions requiring critical care and resuscitation. Several resuscitations are performed by medical-surgical nurses in this hospital, yet there are no records of such a study in this county referral hospital. The FWR practice form a component of the AHA training manual for health professionals, a manual that has been adopted by the Kenyan government and is used for training nurses on BLS and ACLS. Despite the training and the skills, FWR is not widely carried out by medical-surgical nurses. Even with the overwhelming scientific evidence of its benefits, FWR practice is not common among medical-surgical nurses in SCRH. The poor implementation is partly due to low self-confidence levels among medical-surgical nurses and fear among health care workers because of long-term negative consequences for the healthcare worker, family, and the patient.

1.7 Significance of the study

The researcher sought to look into what influences how FWR practice is carried out and determine why the practice is not optimally implemented despite its proven benefits and various recommendations by professional bodies. This study's findings would give scientific evidence on FWR practice that would be used to benchmark the optimal implementation of this practice and use the outcomes improve nursing care service delivery.

The findings will contribute to nursing professional development and generate further research on this practice in medical-surgical settings to identify enablers and barriers of this practice.

1.8 Scope of the study

Researchers' primary interest in this study was to identify nurses' perceived benefits and risks of FWR practice and nursing related factor that influence its implementation among medical-surgical nurses in SCRH. Data was collected for a period of a month, targeted were nurses who were registered in medical-surgical units in all inpatient and outpatient units. Data was collected from eligible participants using self-administered questionnaires and interview of key informants.

1.9 Study limitations

- i. Despite the measures put in place by the researcher to ensure anonymity, response bias could have resulted from the use of self-report tool.
- ii. The findings from this study may not be generalized as a true reflection of the nurses in Kenya since the participants were sampled from one hospital. Therefore, there is need to carry out further studies to identify perceptions of other team members that also take part in resuscitation.

1.10 Study delimitation

- i. The study was limited to registered medical-surgical nurses who were offering nursing care in various medical-surgical units

1.11 Study assumptions

- i. It was assumed that the participant were of sound mind and gave honest information without any fear. The researcher assumed that study population was truly represented in the sample.



1.12 Operational definitions

Cardiopulmonary arrest refers to sudden and complete loss of cardiac function

Critical Care Nurses are specialized nurses registered by the Nursing Council of Kenya working within critical care units

Family is a group of people that the patient shares significant relationship.

Family members refer to those individuals that share with the patient a significant connection whether the bond is biological, legal, or not.

Family presence during resuscitation is the process of trying to restore cardiac activity of a patient following abrupt arrest, this is done in the family presence.

Family support person refers to a social worker, psychologist or health professional with medical knowledge whose role is to support and explain to the family all that take place during resuscitation. They always accompany the family and are not involved directly in inpatient care.

Medical-Surgical unit are medical wards, accident & emergency, surgical wards pediatrics, outpatient, and critical care units

Perceptions refers to how a person understands and interpret an idea or a concept

Resuscitation refers to an effort to bring back the vital signs in case of abrupt cessation of cardiac functions by use of mechanical, physiological, and pharmacological means.

Target population refers to the actual population from which the the researcher obtained the samples and to whom the researcher generalizes the finding of the study. Also known as accessible population.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The concept of FWR practice was introduced over three decades ago in the US (Porter et al., 2014). It was initially practiced when medical staff at Foote Hospital in Michigan gave the family an opportunity to see a relative being resuscitated (American Association of Critical care Nurses, 2016). In the twenty-first century, there have been several changes made to the healthcare environment. The family can observe previously censored procedures, PFCC has been adopted across health organizations in acknowledgment of the important part the family plays in health care which results in the best health outcome (Clay & Parsh, 2016). The family continue to request to be allowed during emergencies (Barreto et al., 2017)

Resuscitation is a lifesaving procedure associated with an increased survival rate, however, it is a demanding procedure whose outcome may be unsuccessful (Nolan et al., 2014). Nonetheless, research studies have shown that 94% to 100% of the patient family who was in attendance during resuscitation if offered another choice they would choose to attend again another time irrespective of the outcome (Guzzetta, 2015). The practice of FWR has generated debate across various healthcare settings and the emergence of PFCC has increased family involvement and participation in healthcare. This has been promoted by relaxation in hospital visitation policies which include allowing patients family at the bedside for the period of resuscitation of their member and during critical procedures (Omran et al., 2015)

The family presence in the course of resuscitation has several benefits to the families, patients, and healthcare facilities.

For instance, it promotes satisfaction with offered care, a strong connection among the family resuscitation team and upholds patients' dignity (Chapman et al., 2014; Goldberger et al., 2015; O'Connell et al., 2017; Twibell et al., 2015). Studies on patients who had survived cardiac arrest revealed that patients felt comfortable with the family during (Twibell et al., 2015). Patients appreciate having their families with them during resuscitation just like family members. (Paplanus et al., 2012). Nevertheless, some patients had a fear that family members could react in a manner that interfered with the resuscitation process partly due to emotional disruption or congestion in the resuscitation room (Tudor et al., 2014; Twibell et al., 2015).

The family witnessed resuscitation practice has elicited different views, the opponents of this practice have cited various reasons which include suffering traumatic memories in case of futile resuscitation (Beer & Moleki, 2012). Studies have demonstrated that family presence enable see how severe the condition of their kin was and appreciate the care offered to the patient (De Stefano et al., 2016). For instance, 80% of the relative whose kin had unsuccessful resuscitation wished they could have been present should they had been offered an option (De Stefano et al., 2016).

Across different regions of the world, there is an active debate across healthcare settings on whether the family should be in attendance for the duration of resuscitation and its advantages and disadvantages. There is evidence to suggest that families are getting more interested to be part of resuscitation, they consider it as their role to support their loved ones during emergencies and care for them during the end of life (De Stefano et al., 2016; Ferrara et al., 2016). Chapman et al (2013) affirmed that several nurses believe that the major advantage of this is that it's the facilitation of better coping by the family following the event irrespective of the outcome.

Medical-surgical nurses have not fully embraced the FWR despite the data that is currently available. Therefore, the nurses' perceptions regarding the risks, the benefits, and the perceived self-confidence need to be understood and how this impacts families' presence during resuscitation.

2.2 Nursing-Related Factors

2.2.1 Years of nursing experience in current role

A study in a university teaching hospital in Louisville, Kentucky revealed that three-quarters of the nurses reported that they had given the family an option to be in attendance when their kin was undergoing resuscitation (Tudor et al., 2014). Regarding evidence-based practice, the presence of the family has a significant role in resuscitation. Studies have shown that nurses with extensive training in cardiopulmonary resuscitation were more likely to ask relatives to witness their loved ones' resuscitation. For instance, in Melbourne Australia, a study revealed that clinically experienced nurses who participated in many resuscitation events and performed more resuscitations with the family present in the room than their less experienced counterparts (Chapman et al., 2013). According to the researcher, more experienced nurses in cardiopulmonary resuscitation demonstrated their abilities with higher self-confidence.

In Finland, a study (Sak-Dankosky et al., 2015) demonstrated that a positive attitude towards FWR practice was higher among the nurses with many years of practice as nurses and experience in CPR. Nurses having practiced for 11 to 20 years had tremendous experience in CPR. Those who had in the past invited family to witness resuscitation reported more advantages of the practice and would prefer family presence (Tudor et al., 2014). Moreover, experienced nurses demonstrated greater levels of self-confidence in their resuscitation skills and capability with family around.

2.2.2 Advanced training in resuscitation

Nurses with professional certification such as BLS and ACLS willingly invited family members more often to witness their loved ones' resuscitation. Tudor et al., (2014) demonstrated that nurses with specialized training invited a significant number of families to witness the active process of resuscitation of their kin. Training on BLS and ACLS influences acceptance of FWR practice (Gordon et al., 2011). The course promotes FWR practice, and nurses and healthcare professionals trained on them would willingly allow family to observe the active process of their kin resuscitation.

In Kentucky, a study showed the nurses who were trained on CPR participated in 10 or higher resuscitation procedures. Yet, just 38% offered the family a chance of being with their loved ones who were being resuscitated. There is scientific evidence to show that certified nurses with specialized training in resuscitation perceived more benefits of FWR practice and willingly invited the family to be in attendance in the course of their kin's resuscitation (Tudor et al., 2014). In Australia, a study showed that highly qualified staff with advanced nursing training demonstrated a higher level of self-confidence in giving the family a chance. Highly trained nurses were not only found to perceive more advantages but also supported FWR practice (Chapman et al., 2012).

2.2.3 Training on Family Witnessed Resuscitation practice

For the safety and acceptance of family witnessed resuscitation practice, studies revealed that there is a need for education for the resuscitation team, and the development of policies to guide the practice (De Robertis et al., 2017). At the same time, there is a need to respect the religious and cultural beliefs and selection for a suitable family member (De Robertis et al., 2017). Research study by Sak-Dankosky et al., (2018) indicated that for successful implementation of FWR practice, the entire staff should be trained and should be professional in front of families. It also established that trained staff carry out cardiopulmonary resuscitation with dignity and handle patients humanely. Furthermore,

nurses believed that the quality of CPR will be improved by having family when resuscitation is being performed (Sak-Dankosky et al., 2018). According to Powers and Reeve (2000), a larger number of nurses were yet to be trained in FWR practice. At the same time, 37% have never had any experience of performing resuscitation with family present in the resuscitation room.

2.2.4 Membership of professional organization

Professional bodies have a mandate of maintaining the standards of nursing care in adherence to set nursing standards. In collaboration with other international bodies such as the International Council of Nurses (ICN), they offer research, education to improve nursing competencies. In Kentucky, nurses who were members of professional bodies reported great self-confidence levels in performance of resuscitation and supported FWR practice (Tudor et al., 2014). The study found that nurses who were members of professional organizations were more receptive to allowing family members access to the room where their loved one was receiving resuscitation in line with the professional standards approved by professional bodies to which they subscribe.

Participation in professional nursing organization activities offers more exposure to evidence-based practice and researches relevant to the family witnessed resuscitation practice. For instance, NNAAP in collaboration with the World Continuing Education Alliance (WCEA) which is a member of the ICN offers its members an online learning platform, journals, newsletters, and webinars on various areas including resuscitation in adherence to AHA guidelines which has strongly recommended FWR practice (National Nurses Association of Kenya, 2021). Nursing professional organization's membership offer opportunities for continuing nursing education, nursing-related competencies, and nursing educational conferences. Evidence-based practice is promoted by the professional organization among its members where certified trained nurses share

research findings that are pertinent to nursing practice (Rose, 2018; Schneide, 2015). The annual nursing conferences usually held by nursing professional organizations bring nurses across the country and the continent to share the latest best practices, policy statements, journals, and newsletters among its members. For instance, Rose (2018) in the Nursing Times journal shared with nurses how to effectively support the family that opt to observe the resuscitation of their member.

2.2.5 Nurses' perceived self-confidence

The practice of FWR is affected by nurses perception of levels of self-confidence as they are observed by the patient's family. There is research evidence to suggest that medical-surgical nurses with previous experience with family witnessed resuscitation were more favorable to implement the practice. According to a study by Tudor et al. (2014), a strong association exist amid nurses' perception of self-confidence and the application of FWR. The perception of greater levels of self-confidence also perceive greater benefits of the practice compared to their counterparts who perceived lower self-confidence levels.

With increased perceived self-confidence in CPR skills among medical-surgical nurses, their CPR performance is also better (Sak-Dankosky et al., 2018). In other studies having previously invited family during resuscitation, experience in resuscitation, and years of experience significantly affected nurses' and health professionals' perception of self-confidence (Gordon et al., 2011; Mclean et al., 2016; Tudor et al., 2014). Current studies have highlighted high levels of perceived self-confidence among nurses towards FWR practice. Despite this, only 25% have reported experience with family presence when performing resuscitation and about 15% had participated in FWR practice (Beer & Moleki, 2012; Powers & Reeve, 2020). A research carried in Korea revealed that nurses who had perception of greater self-confidence were more willing to implement FWR practice (Kim & Kim, 2016).

2.3 Nurses' Perceived Benefits Of Fwr Practice

2.3.1 Acceptance of relatives death

As a sign of respect for family wishes, they should be offered an option to be their relatives when they are being resuscitated and be offered a chance to take part in prompt crucial decisions as well as receive updated information regarding patient care. In a study in Saudi Arabia, nurses supporting FWR suggested that family members be let to observe the resuscitation procedure since it would facilitate grieving and promote healing process and closure (Beer & Moleki, 2012). Numerous arrest survivors claimed that having family members present while being resuscitated gave them support and comfort (Twibell et al., 2015). Patients appreciated having their families there during resuscitation much like family members do (Paplanus et al., 2012).

Studies have shown that when patients' family are allowed to witness resuscitation, it would help them accept their relatives' death and grieve subsequently (Jabre et al., 2013; Tudor et al., 2014; Twibell et al., 2015). However, there are still controversies and a lack of optimal implementation of family witnessed resuscitation practice despite strong research evidence showing that its effect on the family is beneficial (Tudor et al., 2014). In certain instances, Upon the family's request, the length of certain cases' fruitless resuscitation attempts was shortened. This facilitated closure and healing (Porter et al., 2014; Tudor et al., 2014).

2.3.2 Acceptance that everything has been done

When the families of patients are present, they are given comfort in knowing that the medical team has taken all essential precautions to save their loved ones (Tudor et al., 2014). Moreover, the family may intervene and bring to an end a futile resuscitation. The family presence would give them a better understanding of what transpired during the

resuscitation process. They will observe that all available options are exhausted, this enables coping and grieving process (Twibell et al., 2018).

When the family is offered a chance to witness the resuscitation of their member, they can observe and understand the condition of their member and its severity. This enables them to remove any doubt about the condition of the patient by observing the health professionals do everything possible to save their loved ones' life (Elinar, 2012).

2.3.3 Recognize effort of health professionals

In the opinion of the health professional, studies have demonstrated that giving the family members an option to witness the resuscitation process helped them recognize the efforts of nurses and the healthcare team in attempting to save the life of the patient (Porter et al., 2014). This reduces the incidences of litigation since they were able to see that everything possible that could be done had been done. A qualitative study among emergency nurses revealed that families were able to recognize and appreciate the efforts of the healthcare team, this raised the confidence level of the nurses knowing they did everything possible they had to do during resuscitation to restore life (Elinar, 2012).

The family presence has been shown to reduce the fear and anxiety levels about what could happen to their loved ones in their absence and also provide a platform in which they communicate vital information to healthcare professionals about the patient. The family fulfills the informational needs, builds a trustful relationship with healthcare providers, and supports the patient emotionally (Leske, McAndrew, & Brasel, 2013; O'Connell et al., 2017).

2.3.4 Reduce post-traumatic stress disorder (PTSD)

In a study by Massachusetts medical society in the United Kingdom, it was evident that families that were present when their members were being resuscitated revealed a decrease in the frequency of PTSD symptoms (Jabre et al., 2013). According to the study,

when family members watch their loved ones being actively revived, their levels of fear and PTSD are reduced. According to the study, when family members watch their loved ones being actively revived, their levels of fear and PTSD are reduced (Leske, McAndrew, & Brasel, 2013). When given another chance, they would stay with their kin during this critical call time when they are most needed. To assess the psychological effects of observed resuscitation a year after, family members who had the chance to watch their loved ones being revived reported no negative impacts, according to a study. In fact, psychological benefits of FWR continued among family who were at the bedside during the resuscitation of their relative (Jabre et al., 2014).

2.3.5 Improve Grieving Process

Australian study among critical care nurses established that accepting family to be in attendance when their member undergoes resuscitation helped them in the grieving process (Chapman et al., 2012). In a survey among healthcare providers, the majority agreed that giving the family a chance be in attendance when their member undergo resuscitation of a loved significantly helped the family in their process of grieving thereafter (Mclean et al., 2016; Porter et al., 2017). In wales, the Resuscitation Committee(2017) in its guidelines to implementation of FWR practice highlighted that the practice could help bring reality to the situation thus reducing the prolonged denial period during the process of grieving. According to the committee guidelines document, the family can say goodbye and any other that would prevent from feeling guilty for the duration of grieving.

2.4 Nurses' Perceived Risks Of Fwr Practice

The practice of family witnessed resuscitation has resulted in controversy among nurses, healthcare workers, and patients' family members across various healthcare settings worldwide. In a memorial hospital at Indiana University, a study showed that decision to

let the family into the resuscitation room was made jointly by health care depending on the case situation (Twibell et al., 2015). Nevertheless, the family raised the concern of lack of openness during the procedure from the team. The nurses revealed that they would not invite family members with records of disruptive behavior in the past (Twibell et al., 2018). The decision-making on whether one or more members of the family should stay with the patient when resuscitation is in progress should be a joint decision involving the family, primary nurse, and the doctor attending to the patient. This decision needs to be part of advanced directives approved by the patient (Tudor et al., 2014).

2.4.1 Disruption of the process by relatives

In Australia, a study showed that the family presence when the process of resuscitation was in progress was likely to cause an interruption of the resuscitation (Tudor et al., 2014). According to the researcher, this was partly due to a disruptive response to emotion and overcrowding in the resuscitation area. A study done in Saudi Arabia among nurses demonstrated that 90% of the respondents would not offer the family a chance to witness the process of resuscitating their kin since they thought that it would interfere with the process. Nonetheless, the proponents of the practice were convinced that family presence would not disrupt the resuscitation efforts (Beer & Moleki, 2012).

There was a need to assign one of the team members since the resuscitation process could be traumatic, confusing to the patient's relative.

The patient relatives got agitated because they lacked understanding of the process (Tudor et al., 2014). Similarly, some patients had a fear that family members could react in a manner that interferes with the resuscitation process (Twibell et al., 2015).

In another study, nurses were concerned that the distraction of family during resuscitation could alter important medical decisions as well as clinical reasoning. As a result, the

patient care could be compromised and the patient's life could be threatened (Twibell et al., 2018).

When the family is loudly wailing and crying, this would interfere with timely and clear communication among the medical staff (Twibell et al., 2018). The presence of the family could divert the concentration of the nurses far from the patient. This has an adverse effect on this vital procedure of attempting to sustain life, and the therapeutic outcome (Sak-Dankosky et al., 2018). According to the research inadequate working space, family members' emotional behavior could distract the resuscitation team's ability to focus. Again, the nurses feared that the family may experience emotional processes and impede the resuscitation process (Ganz & Yoffe, 2012).

2.4.2 Discomfort by resuscitation team

The resuscitation process is traumatic to the family, this was a result of inadequate knowledge among family members of what to expect in a resuscitation room and during the process of resuscitation (Tudor et al., 2014). Furthermore, the process may be very stressful and visually disturbing to the health professional including most experienced nurses. Current research studies to establish the beliefs of nurses, HCW concerning FWR practice have shown that communication among nurses and other health care professionals was not adversely affected the family presence. The family provided very vital information regarding the health of the patient to the HCW (De Stefano et al., 2016; Tripon et al., 2014).

A study done in Saudi Arabia revealed that 84% of healthcare professionals supported that the fact that performing resuscitation with members of the family in the room would raise the stress levels among both the doctors and nurses (Beer & Moleki, 2012). This is could inhibit the performance of the resuscitation team.

2.4.3 Scrutinize resuscitation process

According to Powers & Reeve, (2020), lack of concentration from other health care professionals due to a feeling of discomfort was highlighted as a major barrier. The nurses felt that their work was being scrutinized by the family members. The presence of family when resuscitation is in progress makes it difficult for nurses to decide to stop resuscitation

When family members were present, it was challenging for nurses to decide when to terminate resuscitation (Beer & Moleki, 2012). The medical staff prolonged the resuscitation process in the family presence and the resuscitation team did not want to be seen end resuscitation rapidly (Gordon et al., 2011)

According to the researcher as the medical team is observed during the performance of resuscitation, they develop performance anxiety as they were scrutinized as they attend to the patient. The family members who may have medical knowledge analyses the performance of the resuscitation team. In Rwanda, research findings highlighted that when the family were let into the resuscitation room, the stress levels increased among the resuscitation team which is thought to inhibit their performance (Havugitanga & Brysiewicz, 2014). Yet, there is evidence to show that nurses and healthcare workers can back FWR practice without compromising the patients' care.

2.4.4 Traumatic experience to the family members

According to a research by Beer and Moleki (2012), the majority of nurses thought that allowing the family to watch a relative being resuscitated would experience would traumatize them and impair bereavement and coping. Nevertheless, there was no scientific evidence to support their claims. Concerns have been raised about family wellbeing following their presence during resuscitation. A study by Powers and Reeve (2020) demonstrated that family are affected physically and emotionally by the fact that

they witnessed the process of resuscitating the one they loved. They were found to have developed negative emotional effects that were long-term in nature.

Contrarily, the frequency of symptoms related to PTSD was found to be significantly higher among patient families who never had an opportunity to observe the revival process of their kin (Jabre et al., 2013). The coping mechanism was much better among those who were in attendance during resuscitation process, FWR practice neither affected resuscitation procedures nor patient survival.

2.4.5 Legal actions

The nurses need to be enlightened on the FWR practice and they should understand policies so that they are guarded against litigation (Powers & Reeve, 2020). Opponents of family witnessed resuscitation have raised concerns about the likelihood of litigation. There is fear among health professionals that observed actions and remarks may be unpleasant to the patient's relatives and this to complaints and litigation later (Beer & Moleki, 2012), although no evidence was found to support this claim. The possibility of medical errors during resuscitation and the presence of the family may increase self-awareness on the part of the resuscitation team which could give rise to a claim against nurses and other healthcare providers. Contrarily, a study by Sak-Dankosky et al., (2018) established that FWR practice did not increase legal suits against health care workers. In fact, it improves professionalism and patient dignity among the resuscitation team which improved trust in the CPR team. Studies have reported that distressed families locked out of the resuscitation room are more likely to consider a lawsuit (Porter et al., 2017), providing the right family support is believed to reduce this legal risk.

2.4.6 Lack of family support person

It has been noticed that a significant barrier to the implementation of FWR practice is the lack of a dedicated individual to help the family (Powers & Reeve, 2020). According to Sak-Dankosky et al., (2018) majority of the nurses pointed out that they did not have adequate time and attention to provide support to the patient's families during a crisis. Moreover, the nurses highlighted inadequate skills among themselves on how to communicate and interact with the family as a hindrance hence they avoid it.

Nonetheless, a lack of a designated family support person should not mean that the patient family members are excluded from witnessing resuscitation. There should be additional staff to support the family, answer families' questions regarding the procedure and ensure there was no interference (Gordon et al., 2011). The family support person would ensure patient's family who displays inappropriate emotional behavior is removed from the resuscitation room.

2.5 Theoretical framework

In this study, the Theory of Planned Behavior (TPB) by Ajzen (1988) was applied. This theory enables researcher to understand the behavior of people, it predicts that one's behavior can be deliberate or planned. According to Ajzen (1988), subjective norms concerning behavior and attitude are the predictors towards the intention to carry out the behavior. The concept has shown that a person's intention to engage in specific behavior influences their goal to do so. Thus, the intention to perform a practice is predicted by perception towards the practice and the opinion of others about the practice. Attitude in this study refers to nurses' perceived benefits and risks of FWR practice. Subjective norms are the approvals of FWR practice by professional bodies and family perceived benefits of FWR practice. The perceived behavioral control is the extent to which medical-surgical nurses perceive self-confidence to implement the practice; when the

perceived benefits out ways perceived risks of FWR practice. The intention refers to the Intention of the nurses to implement FWR practice, and the behavior is the level of implementation of FWR practice

According to TPB, the willingness of medical-surgical nurses to implement FWR practice (behavior) is influenced by their positive intention to do so (intent), their perception of the practice's advantages over its disadvantages (attitude), and their perceptions of their families and the approval of professional organizations (subjective norms). In relation to this study, the medical-surgical nurses' intentions to implement FWR practice is influenced by their perceived benefits & risks, and nursing-related factors (such as advanced training, perceived self-confidence, etc), as well as approvals by professional bodies and the extent to which the nurses feel they are competent to perform the practice.



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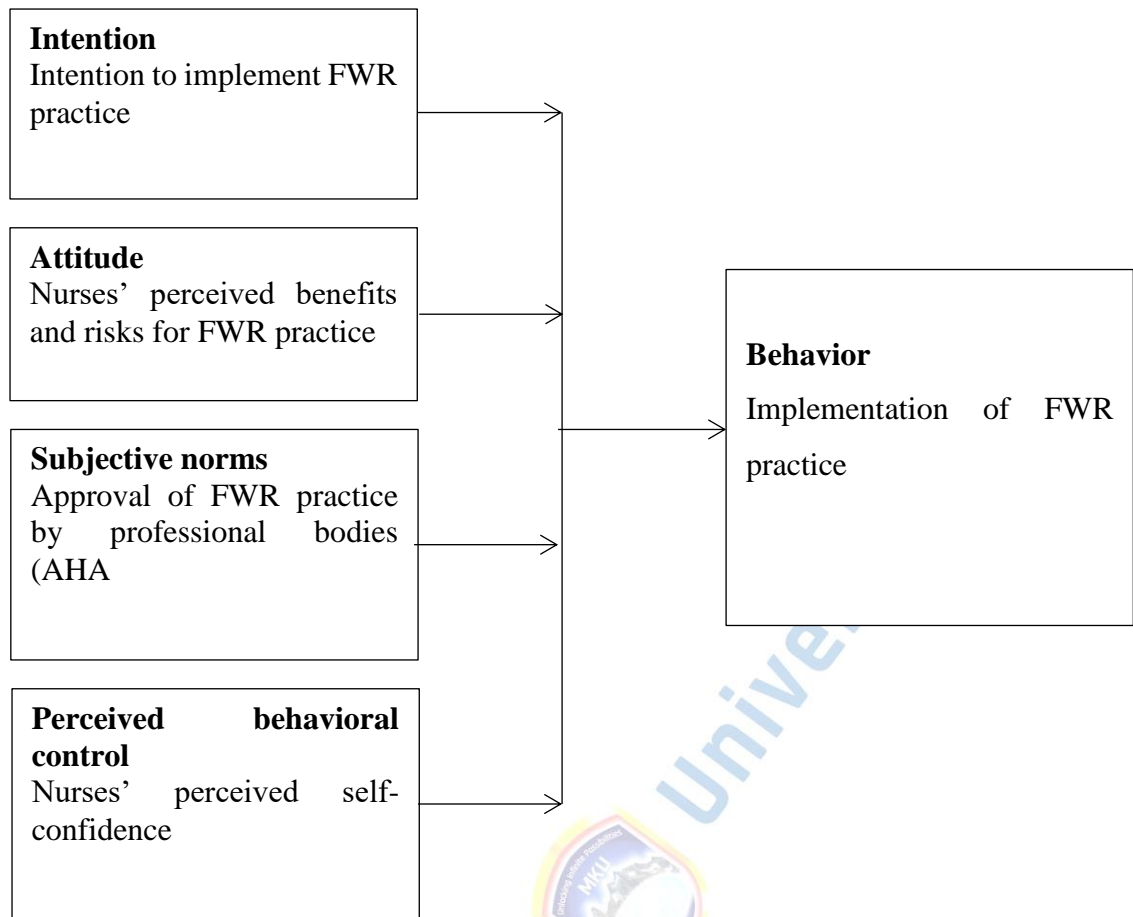


Figure 1: Theoretical Framework

Adapted From the Theory of Planned Behavior (Ajzen, 1991).

2.6 Conceptual framework

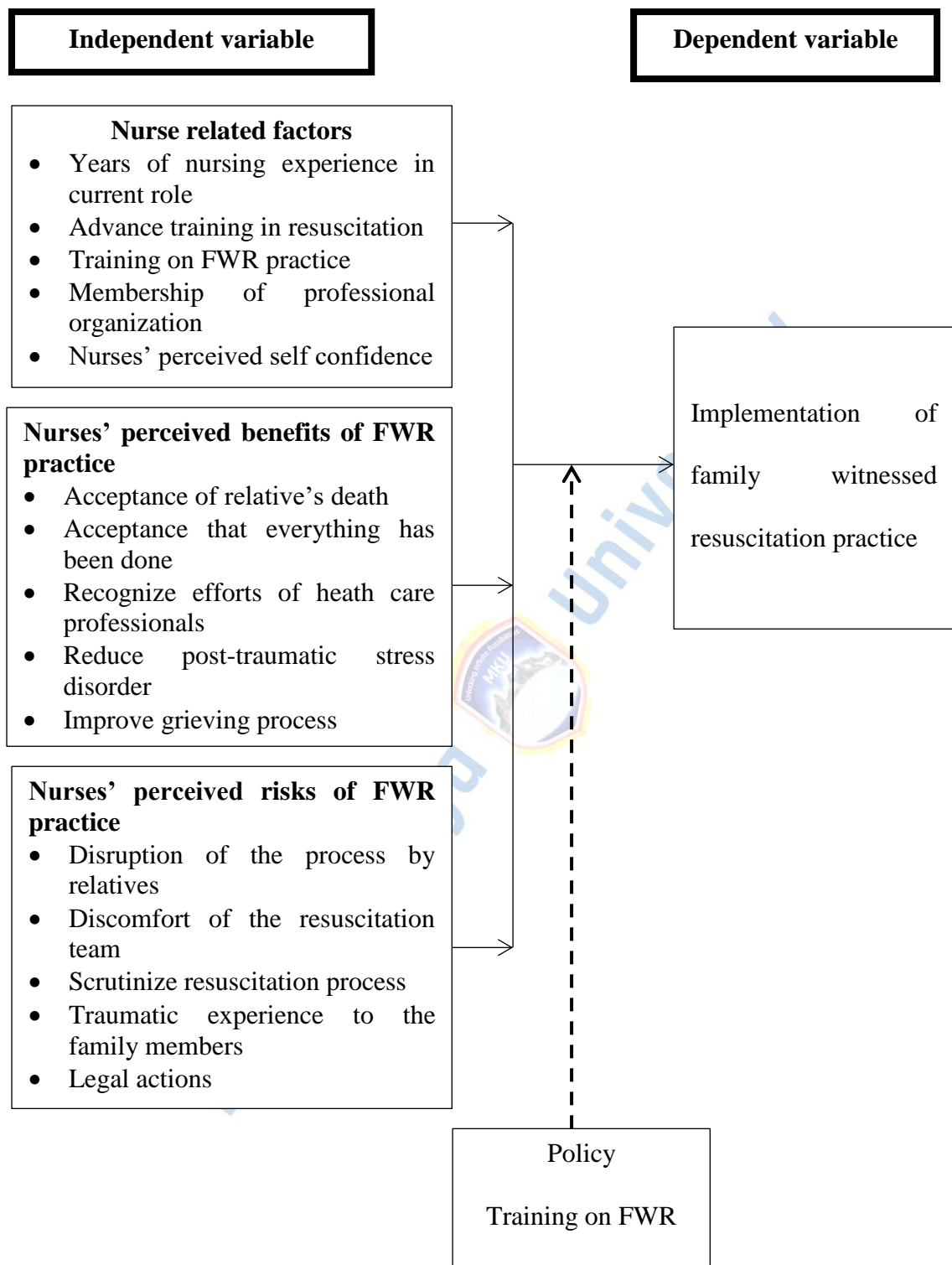


Figure 2: Conceptual framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research design

This research was a cross-sectional analytical study in design. This analysis was cross-sectional in design. The data was collected using qualitative as well as quantitative techniques, and the conclusions were triangulated. The quantitative approach enabled the researcher to quantify the problem, understand its prevalence, and provide numerical data that was statistically analyzed to check for the correlation among independent and dependent variables. The qualitative approach enabled the researcher to understand opinions and experiences in regards to the practice of family witnessed resuscitation. It also enabled the researcher to gather insights as to why FWR practice is not optimally implemented despite its proven benefits.

3.2 Location of the study

Siaya County Referral Hospital (SCRH), located in Siaya County, served as the site of the research project. SCRH a high-volume hospital serving approximately 842, 304 people. To the north SCRH borders Busia county, Kakamega, and Vihiga counties to the northeast, and to the southeast it borders Kisumu county. The hospital offers both inpatient and outpatient services. The hospital offer general surgery, internal medicine, palliative care, maternal and child health. It has a daily patient turnover of approximately 180. It is also a training facility for diplomas in nursing and clinical medicine. Approximately, the hospital has 92 nurses with varying qualifications working in various sections of the hospital.

3.3 Target population

The population of target were registered nurses who were offering nursing care in both inpatient and outpatient departments of Siaya County Referral Hospital.

3.4 Study population

Registered nurses who provided nursing care in the medical-surgical departments at SCRH made up the study's target population. The departments included; surgical wards, medical wards, pediatric wards, accident & emergency, critical care /HDU, and outpatient unit.

3.5 Inclusion criteria

All registered nurses who were providing nursing services in medical-surgical units; medical wards, surgical wards, pediatric ward, accident & emergency, critical care /HDU and outpatient departments.

3.6 Exclusion criteria

The study excluded student nurses and nurses on leave during period of the study.

3.7 Sampling procedure and techniques

The researcher used a probability sampling method in which each individual eligible for the study was given the same, independent chance of participation in the study (Polit & Beck, 2010). To select study participants, a cluster sampling approach was used. The units were divided into clusters to ensure representativeness by obtaining samples from each unit within the medical-surgical department. Simple random sampling was used to select respondents from the various units. Applying simple random selection, the participants from each unit were chosen. The researcher then selected samples proportionately from various units using the lottery approach.

3.8 Sample size determination

The sample size was determined using the Taro Yamane formula (Yamane, 1967). This is appropriate since the study population is finite (Adam, 2020). The confidence level was set at 95% and the level of precision (sampling error) at 5%. The study population will be 92 nurses offering nursing care in various medical-surgical units.

Yamane formulae to estimate sample size,

$$n = \frac{N}{1 + Ne^2}$$

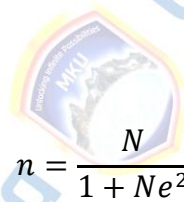
Where,

n = minimum returned sample size

N = the population size

e = level of precision (0.05)

Therefore,


$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{92}{1+92(0.05^2)} = \frac{92}{1.23} = 75$$

$$n = 75 + 9 = 84$$

Table 1: Sampling frame

Setting	Unit	No of nurses	Sample size
Siaya County Referral Hospital	Medical wards	23	$84/92 * 23 = 21$
	Surgical wards	16	$84/92 * 16 = 15$
	Accident & emergency	12	$84/92 * 12 = 11$
	High dependency unit	13	$84/92 * 13 = 12$
	Outpatient departments	15	$84/92 * 15 = 14$
	Pediatric ward	13	$84/92 * 13 = 12$
	Total	92	85

Source: *Siaya County Referral Hospital, 2021.*

3.9 Data collection tool and Methods

3.9.1 Quantitative data collection

An anonymous, self-administered questionnaire was used by the researcher to gather quantitative data. The validated versions of the Family Presence Self-confidence Scale (FPSC Scale) and Family Presence Risk and Benefit Scale (FPR & B Scale) developed by Twibell et al. (2008) were used by the researcher (Twibell et al., 2008). The permission to use the original questionnaire was granted through written permission by the original authors upon request.

The questionnaire had sections; A, B, C, and D. Section A gathered information on sociodemographic characteristics. Section B gathered data on nursing-related factors (eg years of nursing experience in the current role, advanced nursing training, training on FWR practice, membership of professional organization). Section C recorded information on nurses' perception of self-confidence when providing patient care while the patient's family were present (eg drug administration, performing CPR, upholding patients dignity, and communicating with the resuscitation team).

Section D collected data on nurses' perceived benefits of FWR practice (eg better grieving, acceptance of relative's death, reduce PTSD, etc) and risks of FWR practice (family disruption, trauma to the family, lawsuits, etc).

This was a Likert scale with 5 points, respondents had options that ranged from 1 (strongly disagree) to 5 (strongly agree). The responses on this scale had a range from 1 (Not all confident) to 5 (Very confident). An average score was calculated to determine overall self-confidence, a higher score showed higher nurses' self-confidence when carrying out resuscitation in the existence of the family.

To further understand the preferences and opinions of the nurses, additional questions were added to find out whether they would want a member of their family to watch and be present if they were to be resuscitated. They were also asked for their thoughts on who should decide whether family members should watch their relatives receive CPR and whether this directive should be issued in advance.

3.9.2 Qualitative data collection

The researcher collected qualitative data using key informant interview (KII). KII guide was used to collect in-depth opinions of the resuscitation team leaders from medical-surgical units. The key informants were team leaders from medical wards, surgical wards, intensive care/ HDU, pediatric ward, accident & emergency, and outpatient unit. The interview covered three objectives; nursing-related factors that influence the implementation of FWR practice, perceived benefits and risks of the practice. An audio recorder was used to capture the interviews.

3.10 Instrument reliability

The data collection instruments should be able to give similar results if the measurements were to be repeated under similar conditions (Bolarinwa, 2015). 10% of the sample (9 participants) from the Busia County Referral Hospital participated in the pretest of the FPR & B and FPSC scales. The Internal consistency of the tool was obtained by calculating coefficient alpha (Cronbach's alpha). The coefficient alpha of the tool was

0.7. Tavakol and Dennick (2011) recommend that the reliability of a measurement instrument should be 0.70 or higher.

3.11 Instrument validity

The data collection instruments should measure the attributes it is intended to measure (Bolarinwa, 2015). Peers and research supervisors evaluated the questionnaire's face and content validity. Research experts can assess the instrument is a valid measure of the construct of interest only by glancing at the items in the questionnaire. (Bolarinwa, 2015; Sangoseni et al., 2013).

3.12 Data management

3.12.1 Data storage

After data collection, they were keyed in the statistical package for the social sciences (SPSS) version 26. Printed hard copies were kept safely under the key and lock in a drawer accessible only by the researcher. The data in soft copies were stored securely in a computer and protected by a password. Data consistency and completeness were checked. In case of missing data, the corresponding questionnaire was traced after which the value were entered appropriately

3.13 Data analysis

3.13.1 Quantitative Data analysis and presentation

SPSS version 26 was used for the quantitative analysis of the data. Data was scrutinized for completeness, accuracy, and consistency. Categorical data were analyzed descriptively using graphs. Continuous variables were described using mode, mean, median, and range.

The scores from FPR & B scale and that from the FPSC scale were summed, the mean score was calculated. In inferential statistics, the correlation between independent and

dependent variables was evaluated using the t-test for independence and binary logistic regression. The p-value cutoff for level of significance was ≤ 0.05 .

3.13.2 Qualitative Data analysis

Qualitative data from KII was analyzed using NVIVO version 11. Audio recording were transcribed to text and uploaded to NVIVO. The transcribed texts were then categorized to represent perceived benefits, perceived barriers or nursing-related factors to family witnessed resuscitation. Within the three categories, themes and subthemes were identified.

The interpreted and triangulated patterns and themes increased the validity and reliability of the findings (Noble & Heale, 2019). The researcher added supporting quotes to the themes to enhance understanding.

3.14 Ethical considerations

The Institutional Research and Ethics Committee (IREC) of Mount Kenya University gave its approval and ethical clearance for this study. Additionally, approval was received from the Siaya County Referral Hospital research and ethics committee, the county commissioner, the county director of education, and the National Commission for Science, Technology, and Innovation (NACOSTI). Before the study began, the participants signed a consent form. The participation in this study was voluntary and confidentiality of information obtained from respondents was highly maintained.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Response Rate

75 registered nurses were the sample for this investigation. The response rate was 94.7% with 71 respondents completing and returning the questionnaires.

4.2 Sociodemographic characteristics of the respondents

The majority of the respondents (71.8%) were married, female (80.3%), and between the ages of 25 and 39 (64.8%). They worked in the following units: Pediatrics ward (21.1%), Medical ward (19.7%), Intensive care/HDU (18.3%), Accident & emergency (16.9%), Out-patient department (12.7%), Surgical Ward (7.0%). More than three-quarters of them (80.3%) had received a diploma education.

Table 2: Sociodemographic characteristics of the respondents

Variable	Category	Frequency	Valid Percentage %
Gender	Male	14	19.7
	Female	57	80.3
Age	18-24	8	11.3
	25-39	46	64.8
	40-55	16	22.5
	≥ 56	1	1.4
Variable	Category	Frequency	Valid Percentage %
Marital status	Single	18	25.4
	Married	51	71.8
	Divorced	1	1.4
	Widowed	1	1.4
Level of education	Certificate	0	0.0
	Diploma	57	80.3
	Bachelors	13	18.3
	Masters and above	1	1.4
Work unit	Intensive care/ HDU	13	18.3
	Pediatrics ward	15	21.1
	Surgical ward	5	7.0
	Medical ward	14	19.7
	Accident & emergency	12	16.9
	Out-patient department	9	12.7
	Nursing Management	3	4.2

Median Age 30.0 Std. Deviation 8.529 Min. Age 20 Max. Age 58 Range 38.0

4.2 Nursing related factors influencing implementation of FWR practice in SCRH, Kenya.

Objective one was to investigate nursing-related factors influencing the implementation of FWR practice among nurses working in medical and surgical units in SCRH.

4.2.1 Years of nursing experience

Majority of the nurses interviewed (60.6%) had an experience of less than five years of nursing working in their current role. The rest had 6 -10 years (16.9%), 11-20 years (18.3%), and more than 21 years (4.2%) working on their current roles.

Table 3:Frequency table for years of nursing experience current role

Variable	Category	Frequency	Percentage (%)
Years of nursing experience in current role	≤5	43	60.6
	6-10	12	16.9
	11-20	13	18.3
	≥21	3	4.2

4.2.2 Specialized training apart from basic nursing

More than half of them (53.5%) had specialized training, while the rest (46.5%) had only completed the basic nursing training. Most of the respondents interviewed explained that having a specialized training in resuscitation improve self –confidence in performing resuscitation family presence. Some participants complained that such training are very expensive for most of health care professionals;...*It would improve quality of services for instance training nurses on BLS and ACLS, although those training are very expensive (KII #2)...BLS and ACLS training are very expensive, the county should do something about it (KII #1)*

Table 4:Frequency table for specialized training apart from basic nursing (BLS, ACLS)

Do you have specialized training apart from basic nursing (BLS, ACLS)		
	Frequency (n)	Valid Percent (%)
Yes	38	53.5
No	33	46.5
Total	71	100

4.2.3 Training on FWR practice

Majority (66.2%) of the respondents had not received training on FWR practice. 33.8% of them had received training on how to support family members who choose to see a loved one resuscitated. Lack of this training was due to its high cost and most health care professionals could not afford, for instance a participant said;...*It would improve quality of resuscitation although those training are very expensive (KII #2)Some of us just do their own things in the name of resuscitation, they should be trained on the right resuscitation procedures. (KII 1). BLS and ACLS training are very expensive, the county should do something about it (KII #1)*

Table 5:Frequency table showing training on FWR practice

Do you have training on how to support family who opt to witness loved ones resuscitation		
	Frequency (n)	Valid Percent (%)
Yes	24	33.8
No	47	66.2
Total	71	100

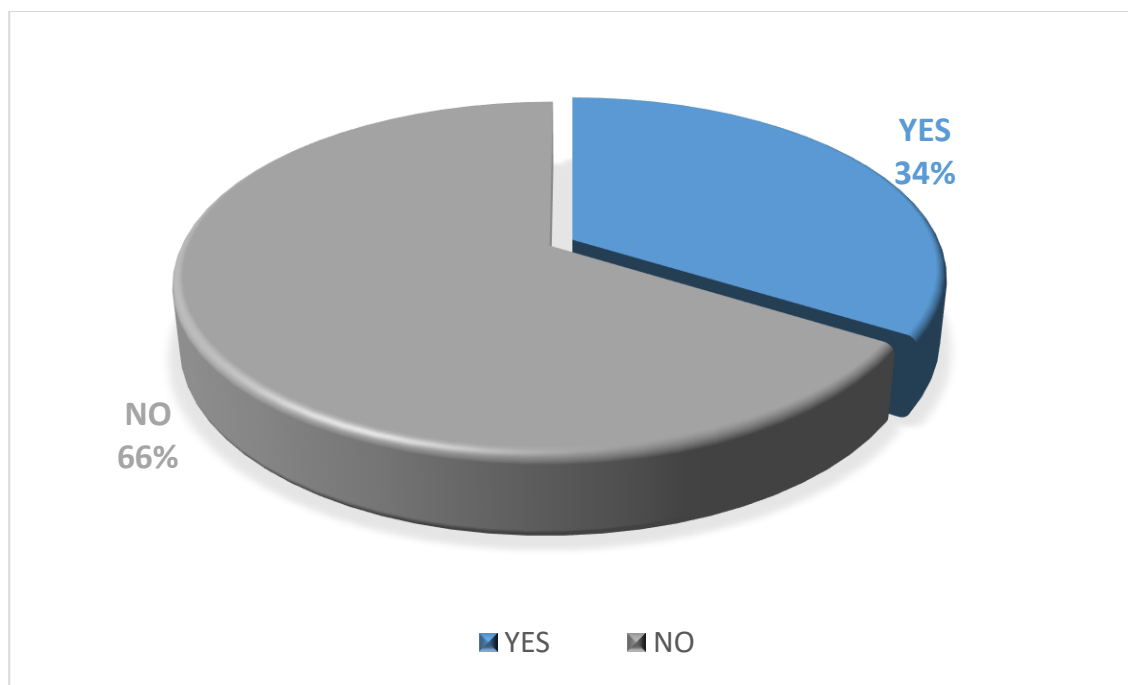


Figure 3: Pie chart table showing training on FWR practice

4.2.4 Affiliation with professional organization

Almost half of the participants (47.9%) declared membership in a professional association (NNAK or KPNA). The rest (52.1%) had no professional affiliation with any organization. This was supported during KII a participant who noted that; .. *Majority of the newly employed nurses are not sensitized on professional organization and do not attend scientific conferences, NNAK leadership should sensitize nurses on its activities*

Table 6: Frequency table showing affiliation with professional organization (NNAK, KPNA)

Are you affiliated with any professional organization (NNAK, KPNA)		
	Frequency (n)	Valid Percent (%)
Yes	34	47.9
No	37	52.1
Total	71	100

4.2.5 Number of times nurses participated in resuscitation in entire nursing career

Most of the nurses (78.9%) had participated in more than ten resuscitations in their entire careers. About 11.3% have participated in 1 to 3 resuscitations while 9.9% have participated in 4 to 6 resuscitation in their entire nursing career.

Table 7:Frequency table showing number of resuscitations nurses have taken in during their careers

Variable	Category	Frequency	Valid percentage (%)
Number of resuscitations nurses have taken in during their careers	1-3	8	11.3
	4-6	7	9.9
	7-9	0	0
	> 10	56	78.9

4.2.6 Nurses' perceived self-confidence in carrying out nursing tasks in the family presence

According to the Family Presence Self-confidence (FPSC) Scale, which was used to assess nurses' perceived self-confidence, more than seven out of ten (77.5%) of them rated themselves as Quite or very confident. The remainder expressed modest levels of confidence (16.9%) and Not very confidence (5.6%).

Table 8:Frequency table showing nurses' perceived self-confidence in carrying out nursing tasks in the family presence

Variable	Category	Frequency	Valid percentage (%)
Perceived self-confidence	Not at all/ not very confident	4	5.6
	Somewhat confident	12	16.9
	Quite/very Confident	55	77.5

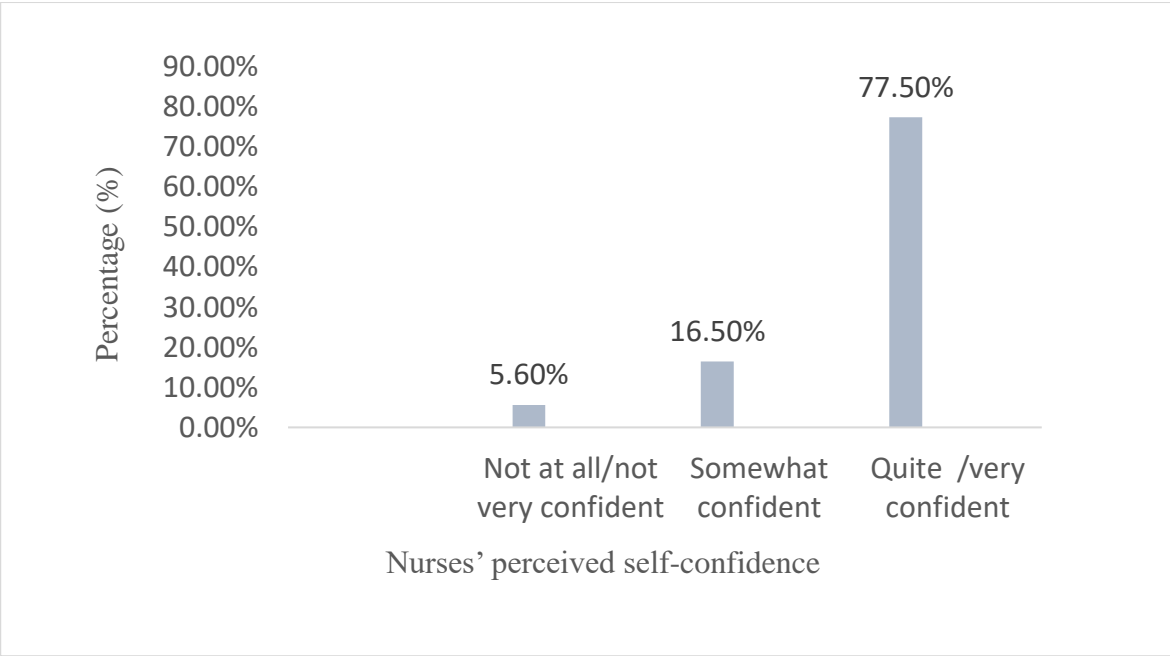


Figure 4: Nurses' perceived self-confidence in carrying out nursing tasks in family presence

Table 9: Frequency table showing participants' responses on family presence risk & benefit scale

Self- Confidence Scale	Not at all/ not very confident	Somewhat confident	Quite/ Very confident
I could comfortably notify the family members present on the progress of resuscitation efforts.	11 (15.5%)	10 (14.1%)	50 (70.4%)
I could administer medication during resuscitation efforts in the presence of family.	10 (14.1%)	6 (8.5%)	55 (77.5%)
I could perform effective chest compressions in the presence of the family.	7 (9.9%)	6 (8.5%)	55 (77.5%)
I could communicate clearly with resuscitation team members in presence of family	10 (14.1%)	7 (9.9%)	54 (76.1%)
I could uphold patients' dignity when they are undergoing resuscitation efforts in the family member's presence	7 (9.9%)	2 (2.8%)	62 (87.3%)
I could recognize family members of the patient who behaved appropriately enough to be admitted to the resuscitation chamber.	9 (12.7%)	9 (12.7%)	53 (74.6%)
I could prepare members of the patient's family to go into the room where their loved one is being resuscitation	12 (16.9%)	12 (16.9%)	47 (66.2%)
I could accompany the family into the resuscitation area where their loved one is being resuscitated	14 (19.7%)	11 (15.7%)	46 (64.8%)
I could announce to the resuscitation team that there were family members present in the resuscitation room..	9 (12.7%)	5 (7.0%)	57 (80.3%)
I could make the patient's family feel at ease as they see their loved one being resuscitation.	16 (22.5%)	14 (19.7%)	41 (57.7%)
I could recognize the emotional & spiritual requests of the family who choose to witness efforts of resuscitation of their kin	7 (9.9%)	17 (23.9%)	47 (66.2%)
I could encourage communication between patient's family and their kin being resuscitated	16 (22.5%)	8 (11.3%)	47 (66.2%)
I could delegate responsibilities among the resuscitation team members to care for the family whose member is being resuscitated	9 (12.7%)	12 (16.9%)	50 (70.4%)
I could debrief members of the patient's family following resuscitation of their kin	5 (7.0%)	11 (15.5%)	55 (77.5%)
I could coordinate grief follow-up with the members of the patient's family following resuscitation of their loved one, if necessary	9 (12.7%)	13 (18.3%)	49 (69.0%)

4. 3 Association between Nursing Related Factors and Implementation of FWR Practice

4.3.2 Multivariate Analysis

Multivariate analysis was conducted on the variables that showed a significant association with the dependent variable. To create a prediction model for using the Family Witnessed Resuscitation process, binary logistic regression was used. Binary logistic regression was run using the enter method. The Omnibus Tests were statistically significant, showing that the model's three predictor variables collectively influenced the dependent variable - implementation of Family Witnessed Resuscitation ($X^2 = 21.360$, $df = 4$, $p < .001$).

Nagelkerke's R^2 showed that the modeled variables contributed 34.6% of the variance in the implementation of Family Witnessed Resuscitation. The Hosmer and Lemeshow Tests were statistically insignificant ($X^2 = 1.795$, $df = 5$, $p = .877$). This demonstrated that the model is indeed matched the the data. The model has a sensitivity of 77.1% and a specificity of 69.4%. It correctly predicted 77.1% of cases for having implemented Family Witnessed Resuscitation and correctly classified 69.4% cases for not implementing. This translates into an overall prediction score of 73.2%. The Wald criterion demonstrated that two of the three variables: specialized training ($p = .033$) and training on Family Witnessed Resuscitation ($p = .017$), contributed significantly to the model. According to the odds ratio value, nurses with advanced specialized training in nursing other than nursing were 3.3 times more likely to practice FWR than those without any further training. Those trained on Family Witnessed Resuscitation were 4.4 times more likely to implement than those with no training on the same. It is worth noting that advanced specialized training and Family Witnessed Resuscitation training were not correlated.

Perceived self-confidence did not significantly contribute to the model as a whole, but there was a significant difference between groups. When compared to those who were somewhat confident, those who were Quite/Very confident were 4.6 times more likely to perform FWR.

Table 10: Omnibus Tests of Model Coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	21.360	4	.000
	Block	21.360	4	.000
	Model	21.360	4	.000

Table 11: Model Summary

Model Summary				
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	
1	77.053 ^a	.260	.346	

Estimation terminated at iteration number 20 because maximum iterations have been reached. Final solution cannot be found.

Table 12: Hosmer and Lemeshow Test

Hosmer and Lemeshow Test				
Step	Chi-square	df	Sig.	
1	1.795	5	.877	

Table 13: Classification Table a

Classification Table ^a						
Observed			Predicted			Percentage Correct
			Ever asked relatives to witness resuscitations			
			Yes	No		
Step	Ever invited	Yes	27	8	77.1	
1	Family to be Present During Resuscitation	No	11	25	69.4	
Overall Percentage					73.2	

a. The cut value is .500

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step	Advanced specialized training apart from basic nursing(1)	-1.189	.557	4.557	1	.033	.304	.102	.907
1 ^a	Training on FWR(1)	-1.486	.622	5.703	1	.017	.226	.067	.766
	FPSC Summary Group			4.216	2	.121			
	FPSC Summary Group(1)	21.415	19664.927	.000	1	.999	1996340153.613	.000	.
	FPSC Summary Group(2)	1.598	.778	4.216	1	.040	4.942	1.075	22.713
	Constant	.743	.456	2.658	1	.103	2.103		

a. Variable(s) entered on step 1: Specialized training apart from basic nursing, Training on FWR, FPSC Summary Group.

4.3.1 Bivariate Analysis

The first study objective was to investigate nurse-related factors that influence the carrying out of FWR among nurses working in medical and surgical units. When nurse-related factors were run on chi-square test of independence, it revealed a significant

association between implementation of FWR Practice and the following independent factors: advanced specialized training ($X^2 = 4.125$, $df = 1$, $p = .042$), training on Family Witnessed Resuscitation ($X^2 = 6.728$, $df = 1$, $p = .009$), and nurse's perceived self-confidence ($X^2 = 8.060$, $df = 2$, $p^* = .010$). Years of nursing experience, membership in professional organizations, and the number of times respondents took part in the resuscitation process were found to be independent of FWR Practice.

The study had two hypotheses; (i) there is no statistically significant relationship between years of nursing experience in the current role and the implementation of FWR practice. (ii) there is no statistically significant relationship between training of nursing staff and the implementation of FWR practice. The researcher rejected the first null hypothesis because there was no significant association between years of nursing experience and implementation of implementation of FWR practice ($X^2 = 2.401$, $df = 3$, $p^* = .540$). The researcher failed to reject the second null hypothesis because there was significant association between specialized training and implementation of family witnessed resuscitation ($X^2 = 4.125$, $df = 1$, $p = .042$).

Table 14: Cross tabulation and chi square showing association between nursing related factors and implementation of FWR practice

Variable	Category	Implementation of FWR		p-value
		Yes	No	
Years of nursing experience in current role	≤5	21 (48.8%)	22 (51.2%)	X ² =2.401 df =3 p* =.540
	6-10	8(66.7%)	4(33.3%)	
	11-20	5(38.5%)	8(61.5%)	
	≥21	1(33.3%)	2(66.7%)	
Advanced specialized training apart from basic nursing (BLS, ACLS, etc.)	Yes	23 (60.5%)	15(39.5%)	X ² =4.125 df =1 p =. 042
	No	12(36.4%)	21(63.6%)	
Training on Family Witnessed Resuscitation	Yes	17(70.8%)	7(29.2%)	X ² = 6.728 df =1 p =.009
	No	18(38.3%)	29(61.7%)	
Affiliation to professional organization (NNAK, KPNA)	Yes	19(55.9%)	15(44.1%)	X ² =1.132 df =1 p =.287
	No	16(43.2%)	21(56.8%)	
Number of times participated in resuscitation in entire career	1-3	3(37.5%)	5(62.5%)	X ² =4.544 df =2 p* =.103
	4-6	1(14.3%)	6(85.7%)	
	7-9			
	>= 10	31(55.4%)	25(44.6%)	
Perceived self confidence	Not at all/ Not very confident	0 (0.0%)	4(100.0%)	X ² =8.060 df =2 p* =.010
	Somewhat confident	3 (25.0%)	9(75.0%)	
	Quite/ Very confident	32 (58.2%)	23(41.8%)	
Perceived Risks and Benefits (FPR & B Scale)	Strongly Disagree & Disagree (Perception of more risk & fewer benefits)	0(0.0%)	2(100.0%)	X ² =3.171 df =2 p* =.205
	Neutral	20(57.1%)	15(42.9%)	
	Agree & Strongly Agree (Perception of	15(44.1%)	19(55.9%)	

more benefits &
fewer risks)

*Denotes Fishers Exact Test

4.4. Perceived Benefits of Family Witnessed Resuscitation Practice

Objective two of the study was to identify the perceived benefits of FWR practice among the licensed nurses in medical and surgical units. To accomplish this goal, the respondents were asked to answer questions regarding the perceived risks and benefits of FWR using a Likert scale. According to this study, the majority of nurses (83.1%) stated that families should be given the option of being there while a loved one is being resuscitated. 70.4% believed that by performing the resuscitation in the family's presence, the resuscitation team would forge a strong bond with those who witnessed the procedure.

Most of the respondents (81.7%) felt that family members that observe the process of resuscitation would recognize the efforts of healthcare professionals. At the same time, 73.2% of the study's participants said that having family members around would help them accept the loss of a relative. This was affirmed during KII where a participant noted that: ... *If you have been with the family throughout the journey, it would be a little easier to communicate death.*

Majority (83.1%) of the respondents believed that the family would accept that everything possible was done to save the life of their loved ones. This was affirmed during key informant interview where respondents reported; ... *in our hospital the rooms are so small that cannot accommodate so many people, but mother is always present to see whatever you are doing (KIII). Some patient are usually in critical conditions and for you to know information about them you will call the relatives to be able to give you more history about the illness.*

71.8% of the respondents believed that family would have a better process of grieving when they witness the resuscitation of their kin. At the same time, less than half (49.3%) of the nurses interviewed thought that the family presence would reduce post-traumatic stress disorder. This finding was affirmed during interview when a respondent noted that: *...If you have been with the care giver throughout the journey, it would be a little easier to communicate death, ... the mother was always present to see what you were doing (KII 1)*

Most of the respondents (81.7%) believed that family presence during resuscitation should constitute patient and family-centered care. Slightly more than half (52.1%) agreed that family members of the patients from the unit they work prefer being present during the process of resuscitation.

The majority of respondents concurred that having family present during resuscitation will increase patient and family satisfaction with nursing care (73.2%) and nurse satisfaction with providing the best possible patient and family-centered care (77.5%). Overall, 47.9% of the respondents had a perception of more benefits and fewer risks of FWR practice.

4.5 Perceived Risks of Family Witnessed Resuscitation Practice

Objective three was to establish perceived risks of FWR practice among nurses in medical-surgical units. Additionally, data on the perceived risks and advantages of the FWR practice were collected using Likert scale questions. The scale had 9-point questions designed to give the perceived risks among nurses.

The majority of respondents (78.9%) thought that families would get frightened out if they were given the chance to watch their loved ones be resuscitated. At the same time, more than half (57.7%) of the respondents agreed that watching the resuscitation procedure would have a negative emotional impact on the family. More than half of the

respondents (63.4%) agreed that that the process of resuscitation could be traumatic to the family. About half of them (50.7%) affirmed that the unit where they work usually lacks a designated person to support the family whose members who opt to witness their kin's resuscitation. This was affirmed during key informant interview where respondents highlighted that the departments where they work were not adequately staffed and did not have a designated individual to guide the family through the resuscitation procedure and provide assistance to those family members who decided to watch the procedure. One respondent noted: *...We don't have that extra person to explain the resuscitation to the family, they are not medics to understanding medical procedures (KII4). With this shortage of nurses where will you get that extra person to care for the family? Imagine you are one nurse on duty, the priority is the patient*

Some sections (43.7%) thought that family members present would scrutinize the resuscitation process, disrupt the resuscitation process (38.0%). This was supported by one participants who noted that; *...So relatives could be medics and would even want to instruct you on what to do. (KIII). Some relatives will not understand whatever you are doing for example performing cardiopulmonary resuscitation (KIII)*

A section of the respondents (31.0%) had opinion that the practice would make the resuscitation team uncomfortable and not function optimally. 26.8% respondents thought that the family present during resuscitation could file lawsuit against healthcare professionals. For instance one key informant said; *when family are kept away they would think that the healthcare professionals did not do their job well and sue them. Some patient are usually in critical conditions and for you to know information about them you will call the relatives to be able to give you more history about the illness. Sometimes the healthcare workers take the blame that they do not do much to help the client (KII2).*

Additionally, close to a third of them (28.2%) felt that patients would not prefer that their family be present for the period of resuscitation. Overall, 2.8% of them had a perception of more risks and fewer benefits of FWR practice.

Table 15: Frequency table showing participants' responses on family presence risk & benefit scale

Risk-Benefit Scale	Disagree/ disagree	Strongly Neutral	Strongly agree/Agree
Family members ought to be offered a choice to be present during the resuscitation of their loved one.	4 (5.6%)	8 (11.3%)	59 (83.1%)
Family members will panic when they are present when their member is being resuscitated.	3 (4.2%)	12 (16.9%)	56 (78.9%)
Family members will suffer long term emotional effects when they witness resuscitation.	12 (16.9%)	18 (25.4%)	41 (57.7%)
The resuscitation team would form a stronger bond with family members who chose to see the procedure than with those who do not.	9 (12.7%)	12 (16.9%)	50 (70.4%)
Family members who witness the resuscitation process would recognize the efforts of healthcare professionals	5 (7%)	8 (11.3%)	58 (81.7%)
Family members who are present would scrutinize the resuscitation process	14 (19.7%)	26 (36.6%)	31 (43.7%)
Patients wouldn't want family members around while they were being resuscitated	22 (31%)	29 (40.8%)	20 (28.2)
The death of their loved one would be accepted by the family members who attend during resuscitation.	2 (2.8%)	17 (23.9%)	52 (73.2%)
Family members who observe futile resuscitation attempt would have a better process of grieving	9 (12.7%)	11 (15.5%)	51 (71.8%)
Members of the family experience trauma when their loved ones are around during resuscitation.	10 (14.1%)	16 (22.5%)	45 (63.4%)
When present, family members would interfere with resuscitation efforts.	17 (23.9%)	27 (38%)	27 (38%)
Family members' presence in resuscitation lowers the risk of developing post-traumatic stress disorder.	15 (21.1%)	21 (29.6%)	35 (49.3%)

Family members who observe the resuscitation process are likely to file a lawsuit.	28 (39.4%)	24 (33.8%)	19 (26.8%)
The likelihood of getting post-traumatic stress disorder is reduced when family members participate in resuscitation.	24 (33.8%)	25 (35.2%)	22 (31%)
Family members who see their loved one resuscitated accept that all efforts were made to preserve their lives.	2 (2.8%)	10 (14.1%)	59 (83.1%)
Family members of the patients from the unit I work with prefer being present during the process of resuscitation.	8 (11.3%)	26 (36.6%)	37 (52.1%)
The presence of family when a loved one is undergoing resuscitation is beneficial to patients.	18 (25.4%)	23 (32.4%)	37 (2.1%)
The unit where I work usually lacks a designated person to offer support to the family during their loved ones resuscitation.	8 (11.3%)	26 (36.6%)	37 (52.1%)
FWR should constitute patient and family-centered care	4 (5.6%)	9 (12.7%)	58 (81.7%)
FWR would raise ratings of patient satisfaction with nursing care	6 (8.5%)	13 (18.3%)	52 (73.2%)
FWR would raise ratings of family satisfaction with nursing care.	2 (2.8%)	14 (19.7%)	55 (77.5%)
Practicing FWR would increase ratings of nurse satisfaction with patient- and family-centered care.	4 (5.6%)	12 (16.9%)	55 (77.5%)

4.6 Implementation of Family Witnessed Resuscitation Per Department

Overall, the implementation of FWR among medical-surgical nurses was 49.3%, 35 out of 71 nurses reported that they had implemented the practice. Of the 35 nurses who had ever implemented FWR, the highest practice was in the pediatric Ward (28.6%) and Medical Ward (22.9%). Accident & Emergency (20%), and Intensive Care/HDU (17.1%). The outpatient department (5.7%) and Surgical Ward (5.7%) reported the lowest adoption rates.

Table 16: Implementation of Family Witnessed Resuscitation per Department

Work Unit	Ever Invited Family to be Present During Resuscitation		Total
	Yes	No	
Intensive Care/ HDU	6(17.1%)	7(19.4%)	13(18.3%)
Surgical Ward	2(5.7%)	3(8.3%)	5(7.0%)
Medical Ward	8(22.9%)	6(16.7%)	14(19.7%)
Pediatric Ward	10(28.6%)	5(13.9%)	15(21.1%)
Accident & Emergency	7(20%)	8(22.2%)	15(21.1%)
Out-patient Department	2(5.7%)	7(19.4%)	9(12.7%)
Total	35(100.0%)	36(100.0%)	71(100.0%)

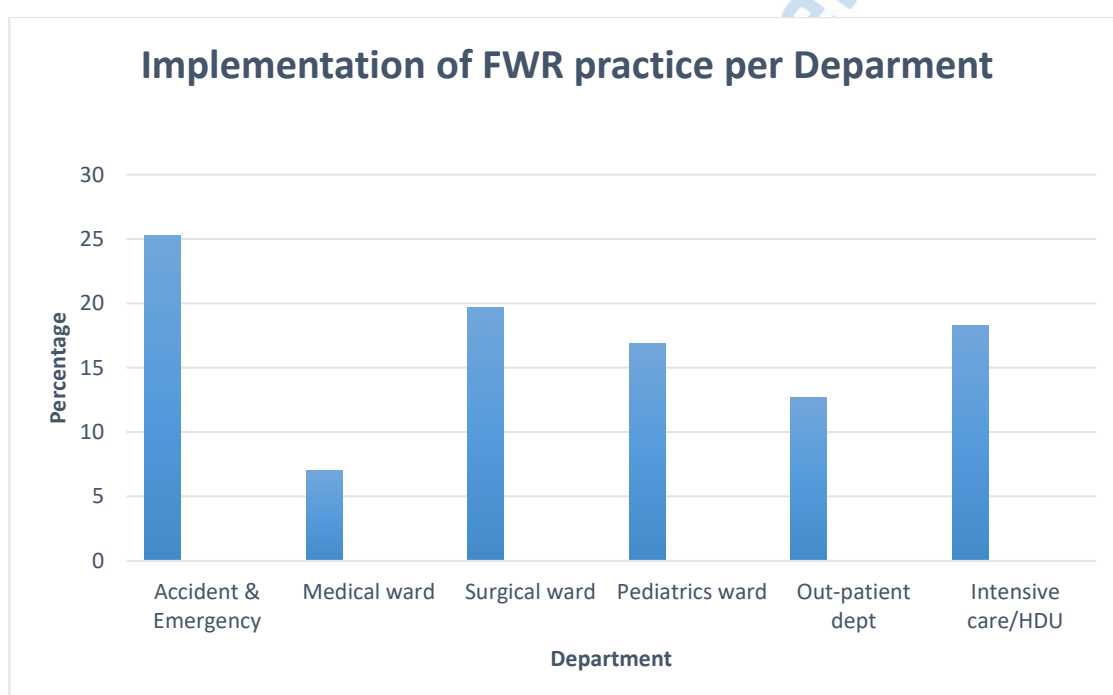


Figure 5: Implementation of Family Witness Resuscitation per department

4.7 Nurses Preferences

When questioned about their preferences, the majority of nurses (69.0%) said they preferred family members to be present during resuscitation. Furthermore, 38.0% of the respondents confirmed that they had ever been in the room while a family member was being revived. Almost eight out of ten respondents (78.1%) agreed that advance directives should include a decision about family presence. When asked who, in their

opinion, ought to be making that choice, 60.6% of respondents said the resuscitation team as a whole. The rest affirmed that it should be decided by the patient's family (11.3%), the nurse (9.9%), or the doctor (4.2%), and thought that the patient should make the decision before resuscitation (14.1%).

Table 17: Frequency table showing nurses preferences on family witnessed resuscitation

Variable	Category	Frequency	Percentage (%)
Would like member of your family to be there if you were to be resuscitated	Yes	49	69.0
	No	22	31.0
Have you ever been in the room when a loved one was being revived	Yes	27	38.0
	No	44	62.0
The attendance of a family member during resuscitation should be decided beforehand.	Yes	56	78.9
	No	15	21.1
Who gets to decide if the family should be there when the patient is being resuscitated.	Patient (in advance)	10	14.1
	Nurse	7	9.9
	Doctor	3	4.2
	Patient's Family	8	11.3
	Jointly by resuscitation team	43	60.6

When respondents' perceived risks and benefits were computed from Family Presence Risk and Benefit Scale, it revealed that 47.9% of them had a perception of more benefits & fewer risks (Agree & Strongly Agree). Nearly half (49.3%) had a neutral perception, and 2.8% of them had a perception of more risks & fewer benefits (Disagree & Strongly Disagree).

In overall, the perception of self-confidence in performing resuscitation in family presence revealed that 77.5% of the respondents are quite/very confident, 16.9% were somewhat confident and 5.6% were not at all/ not very confident.

Family witnessed resuscitation practice was introduced over two decades ago. However, the concept appeared new among many participants in this study. This practice has been

recommended by various professional bodies, the respondents in this study are yet to optimally implement the concept.

This study has demonstrated that nurses participate in most of the resuscitations procedures. Majority of the nurses (78.9%) had participated in more than ten resuscitations in their entire careers. Meaning, medical-surgical nurses have perfect opportunity to implement FWR practice. However, the study found no statistical relationship in number of times respondent participated resuscitation attempts and the implementation of FWR practice. This differs from a study by Chapman (2013) in Melbourne Australia, which revealed that clinically experienced nurses that had previously participated in more resuscitation events in family presence favored the practice than their less experienced counterparts.

In their current roles, the majority (60.6%) of the medical-surgical nurses who were interviewed had less than five years of nursing experience. The rest had 6 -10 years (16.9%), 11-20 years (18.3%), and more than 21 years (4.2%) working on their current roles. The study found no correlation between the use of FWR practice and the number of years of nursing experience. This finding conflicts with that of research done in Kentucky by Tudor et al., (2014) which showed that nurses that had 11 to 20 years of nursing experience in resuscitation performed resuscitation with confidence with patient's family members around.

This study has shown that about half (53.5%) of the respondents had specialized training, while the rest (46.5%) had only completed the basic nursing training. This variable showed a correlation with FWR when it was run in chi square ($p = .042$). FWR practice was performed 3.3 times more frequently by nurses who had additional training than those who did not. This result resembles that of Kentucky's Tudor et al. (2014) which showed that nurses with specialized training voluntarily gave family a

chance to observe resuscitation of their kin. Similar findings were also demonstrated by Gordon et al., (2011) which revealed in a study that specialized training on resuscitation influences the acceptance of FWR practice.

One-third (33.8%) of the respondents reported that they had received training on how to support family who opt to watch the resuscitation of their kin. According to the study, that attribute and the use of the family-witnessed resuscitation procedure are related. According to the study, this variable and the performance of the FWR were related. Compared to nurses who had not received any training, those who had it were 4.4 times more likely to put the practice into practice.. According to De Robertis et al., (2017), there is need for training of nurses on FWR for the practice to accepted.

The participants' affiliation with professional groups like NNAK and KPNA was confirmed by nearly half of them (47.9%). The rest (52.1%) had no professional affiliation with any organization. It was determined that professional affiliation had no bearing on how FWR was applied. This finding contradicts Tudor et al.'s (2014) finding that nurses who were members of professional organizations were more likely to permit family members to be present in the room where their loved ones were receiving resuscitation. This could be as a result of majority of the respondents in the study are not being members of professional organizations and do not attend scientific conferences in which research findings, journals and evidence based practices are shared among members.

When their perceived self-confidence was assessed it revealed that more than three-quarters (77.5%) of them were Quite/very Confident in carrying out resuscitation in the family presence. When this variable was run in X^2 , the perception of quite/ very confident was found to be associated with the carrying out of FWR practice ($p = 0.010$). Family-watched resuscitation was used 4.9 times more frequently by nurses who were quite/very

confident than by nurses who were somewhat confident. A study in Korea by Kim and Kim (2016) demonstrated that a greater levels of perception self-confidence among nurse was strongly with the willingness to offer family a chance to observe resuscitation of their kins. The acceptance of FWR practice is strongly related with capability to confidently carry out resuscitation when the relatives are in attendance (Gordon et al., 2011; Mclean et al., 2016; Tudor et al., 2014)

When respondents' perceived risks and benefits were computed from Family Presence Risk and Benefit Scale, it revealed that 47.9% of them had a perception of more benefits & fewer risks (Agree & Strongly Agree) and 2.8% of them had a perception of more risks & fewer benefits (Disagree & Strongly Disagree). This study established that most of the nurses (81.7%) believed that family members who witness the resuscitation would recognize the efforts of healthcare professionals. This is similar with other studies which have shown that the family presence reduces the fear and anxiety levels about what could happen to a loved ones in their absence and also provide a platform in which they communicate vital information to healthcare professionals about the patient. (Leske, McAndrew, & Brasel, 2013; O'Connell et al., 2017).

Majority (73.2%) of the respondents believed that offering the family a chance to observe a loved one's resuscitation would make them accept the demise of their member. This is similar to results of a study by Beer and Moleki (2012) which showed that witnessed resuscitation facilitates grieving, promote healing process and closure. In certain instances, the family presence facilitated closure in case of a futile resuscitation attempt (Porter et al., 2014; Tudor et al., 2014).

71.8% of those took part in this study asserted that when family watch resuscitation, they have a better process of grieving. This is similar to the findings documented by Mclean et al., (2016) and Porter et al., (2017) which established that giving the family a chance

to be in attendance during a loved one's resuscitation significantly helped the family in their process of grieving thereafter. This could be because it brings reality to the situation thus reducing prolonged denial period.

Most (83.1%) of the respondents reported that when the family is allowed to witness their loved one, it would give them an opportunity to see that all that was possible was done in attempt to save their kin's ones. Tudor et al., (2014) found similar outcome in a study in which it was demonstrated that the presence of patient family reassures them that the healthcare teams have done everything possible to save their loved one. The presence of the family gives them a better understanding of what transpired during the resuscitation process.

Less than half (49.3%) of the nurses interviewed believed that family members observing a kin's resuscitation reduces post-traumatic stress disorder. Similar findings were found in UK where a research study showed a reduction in the occurrence of PTSD symptoms (Jabre et al., 2013). This is due to the fact that it lessens tension because they felt like they were there when they were most needed.

Regarding the risks of FWR practice, 43.7% of those who took part in the study thought that family would scrutinize the resuscitation process. This could be due to the feeling by the resuscitation team that their work was being scrutinized. The family member may also be knowledgeable of the process hence analyses the resuscitations teams performance.

Nearly half (57.7%) of the respondent believed that family may suffer long-term emotional effects when they witness the resuscitation process. 63.4% of the respondents reported that the witnessed resuscitation could be traumatic to the family. Similar finding were reported by Beer and Moleki (2012) which showed that witnessed resuscitation could traumatize the family. Physical and emotional concerns among family have been

raised following their attendance of the resuscitation. On the other hand, a study by Jabre et al. (2013) found that family members who were not present during the loved one's resuscitation had a considerably greater frequency of PTSD symptoms. Compared to those who did not, families who watched resuscitation fared better. Regarding disruption of the resuscitation process, 38.0% of those who took part in believed that family would interfere with resuscitation procedure. This is lower than what Beer and Moleki (2012) found in a study in Kingdom of Saudi Arabia in which 90% of the respondents felt that family would hamper the resuscitation process. This difference could be due higher number of participants in this study who perceived more benefits than risks regarding FWR practice.

About a quarter (26.8%) of the respondent believed that the family presence could lead to law lawsuit. When the respondents were asked whether the family presence would make the resuscitation team uncomfortable, 31% of them reported that the resuscitation team would be uncomfortable and not function optimally. This is lower than the finding by Beer and Moleki (2012) which reported that 84.2% of the participant indicated that FWR practice would increase levels of among the resuscitation team.

Half (50.7%) of the respondents affirmed that the unit where they work usually lacks a chosen individual to assist the family whose member is receiving resuscitation. This is similar to the findings by Powers and Reeve (2020) who noted that absence of designated family support person was a hindrance to implementation of family witnessed resuscitation practice. Gordon et al. (2011) obtained reliable results that demonstrated the need for more workers to assist the family and respond to their inquiries about the resuscitation procedure.

CHAPTER FIVE-

SUMMARY, CONCLUSION, AND RECOMMENDATION

5.1 Summary

This study's goal was to investigate nurse-related factors influencing implementation of FWR practice, identify perceived benefits and establish perceived risks of FWR practice among nurses offering nursing care in medical and surgical departments. The study targeted licensed nurses currently working in medical-surgical units of SCRH. This was a cross-sectional analytical study design. The data was collected using qualitative as well as quantitative techniques, and the conclusions were triangulated. Self-administered questionnaires and KII was used to obtain data from participants. The study aimed to recruit 75 registered nurses. 71 respondents filled the questionnaires, the response rate was 94.7%. Out the target population 4 participants did not return the questionnaires.

When nursing-related factors were run on chi-square test of independence, it revealed a significant association between implementation of FWR Practice and advanced specialized training ($X^2 = 4.125$, $df = 1$, $p = 0.042$), training on Family Witnessed Resuscitation ($X^2 = 6.728$, $df = 1$, $p = 0.009$) and nurse's perceived self-confidence ($X^2 = 8.060$, $df = 2$, $p = 0.010$). Implementation of FWR Practice proved to be independent of years of nursing experience, affiliation to professional organizations, and the number of times respondents took part in the resuscitation process.

Multivariate analysis was performed on the factors that had a significant correlation with the dependent variable. To create a prediction model for using the FWR practice, binary logistic regression was used. The Omnibus Tests were statistically significant, showing that the model's three predictor variables collectively influenced the dependent variable - implementation of Family Witnessed Resuscitation ($X^2 = 21.360$, $df = 4$, $p < 0.001$). The model has a sensitivity of 77.1% and a specificity of 69.4%. It correctly predicted 77.1%

of cases for having implemented Family Witnessed Resuscitation and correctly classified 69.4% cases for not implementing. This translates into an overall prediction score of 73.2%.

The Wald criterion demonstrated that two of the three variables: specialized training ($p = .033$) and training on Family Witnessed Resuscitation ($p = 0.017$), contributed significantly to the model. The adjusted odds ratio value indicates that nurses who had specialized training apart from basic nursing had a 3.3 times greater likelihood of implementing FWR compared to those who received no additional training. (OR=3.28, 95% CI 1.10-9.80). Those trained on Family Witnessed Resuscitation were 4.4 times more likely to implement than those with no training on the same (OR=4.42, 95% CI 1.35-14.92). It is worth noting that specialized training and Family Witnessed Resuscitation training were not correlated.

Perceived self-confidence did not significantly contribute to the model as a whole, but there was a significant difference between groups. Compared to nurses who were somewhat confident, those who were quite/very confident performed FWR 4.9 times more frequently (OR=4.94, 95% CI 1.07-22.71).

5.2 Conclusion

The implementation of FWR among medical-surgical nurses at SCRH is at 49.3% as 35 out of 71 participants reported they had invited family to be present during resuscitation. This concept appeared new among many participants despite having been introduced over a decade ago. Findings of this study shows that an association between implementation of family witnessed resuscitation practice and specialized training other than basic nursing, training on Family Witnessed Resuscitation and nurse's perceived self-confidence.

In comparison to nurses without any additional training, those with specialized training outside of nursing had a 3.3-fold higher likelihood of implementing FWR (OR=3.28, 95% CI 1.10-9.80). Family Witnessed Resuscitation training increased implementation rates by 4.4 times compared to individuals who did not get it (OR=4.42, 95% CI 1.35-14.92). When nurses perceived risks and benefits were computed from Family Presence Risk and Benefit Scale, it revealed that 47.9% of them had a perception of more benefits & fewer risks (Agree & Strongly Agree). Using the Family Presence Self-confidence (FPSC) Scale to gauge the nurses' perceived self-confidence, the study found that more than seven in ten (77.5%) of them were Quite/Very Confident in doing resuscitation in family presence. The odds of implementing FWR were 4.9 times higher for nurses who felt quite/very confident than for those who felt somewhat confident (OR=4.94, 95% CI 1.07-22.71).

5.3 Recommendation

The county government to facilitate and specialized training on BLS and ACLS among medical-surgical nurses to improve their resuscitation skills and to maximize the practice of FWR.

The hospital to organise continuous medical education among medical-surgical nurses to create awareness on how to support the family who opt to witness the resuscitation attempt of their loved ones in the context of patient- and family-centered care and improve implementation of FWR practice from current 49.3%.

The medical-surgical nurse are to improve their perceived self-confidence in carrying out resuscitation through advanced education, attending professional scientific conferences, seminars and workshops.

Hospitals to put in place institutional policies and guideline on implementation of family witnessed resuscitation.



REFERENCES

- Abuzeyad, F. H., Elhobi, A., Kamkoum, W., Bashmi, L., Al-Qasim, G., Alqasem, L., Mansoor, N. M. A., Hsu, S., & Das, P. (2020). Healthcare providers' perspectives on family presence during resuscitation in the emergency departments of the Kingdom of Bahrain. *BMC Emergency Medicine*, 20(1), 69. <https://doi.org/10.1186/s12873-020-00365-4>
- Adam, A. M. (2020). Sample Size Determination in Survey Research. *Journal of Scientific Research and Reports*, June, 90–97. <https://doi.org/10.9734/jsrr/2020/v26i530263>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- AmericanAssociationofCriticalCareNurses. (2016). *Family Presence During Resuscitation and Invasive Procedures - AACN*. <https://www.aacn.org/clinical-resources/practice-alerts/family-presence-during-resuscitation-and-invasive-procedures>
- AmericanHeartAssociation. (2020). *2020 American Heart Association Guidelines for Adult Basic and Advanced Life Support - CanadiEM*. <https://canadiem.org/2020-american-heart-association-guidelines-for-adult-basic-and-advanced-life-support/>
- Balogh-Mitchell, C. (2012). Is It Time for Family Presence During Resuscitation in the OR? *AORN Journal*, 96(1), 14–25. <https://doi.org/10.1016/j.aorn.2011.06.013>
- Barreto, M. da S., Marcon, S. S., & Garcia-Vivar, C. (2017). Patterns of behaviour in families of critically ill patients in the emergency room: a focused ethnography. *Journal of Advanced Nursing*, 73(3), 633–642. <https://doi.org/10.1111/jan.13156>
- Bashayreh, I., Saifan, A., Batiha, A. M., Timmons, S., & Nairn, S. (2015). Health professionals' perceptions regarding family witnessed resuscitation in adult critical care settings. *Journal of Clinical Nursing*, 24(17–18), 2611–2619. <https://doi.org/10.1111/jocn.12875>
- Beer, J. De, & Moleki, M. M. (2012). *Critical care nurses' perceptions of family witnessed resuscitation in the kingdom of saudi arabia*. 14(1), 105–115.
- Bolarinwa. (2015). Principles and methods of validity and reliability testing of questionnaires used in social and health science researches. *Nigerian Postgraduate Medical Journal*, 22(4), 195. <https://doi.org/10.4103/1117-1936.173959>

- Bouland, A. J., Halliday, M. H., Comer, A. C., Levy, M. J., Seaman, K. G., & Lawner, B. J. (2017). Evaluating Barriers to Bystander CPR among Laypersons before and after Compression-only CPR Training. *Http://Dx.Doi.Org/10.1080/10903127.2017.1308605*, 21(5), 662–669. <https://doi.org/10.1080/10903127.2017.1308605>
- Chapman, R., Bushby, A., Watkins, R., & Combs, S. (2014). Australian Emergency Department health professionals' reasons to invite or not invite Family Witnessed Resuscitation: A qualitative perspective. *International Emergency Nursing*, 22(1), 18–24. <https://doi.org/10.1016/j.ienj.2013.03.008>
- Chapman, R., Watkins, R., Bushby, A., & Combs, S. (2012). Family-Witnessed Resuscitation: Perceptions of Nurses and Doctors Working in an Australian Emergency Department. *ISRN Emergency Medicine*, 2012, 1–10. <https://doi.org/10.5402/2012/369423>
- Chapman, R., Watkins, R., Bushby, A., & Combs, S. (2013). Assessing health professionals' perceptions of family presence during resuscitation: A replication study. *International Emergency Nursing*, 21(1), 17–25. <https://doi.org/10.1016/j.ienj.2011.10.003>
- Clay, A. M., & Parsh, B. (2016). MEDICAL EDUCATION Patient-and Family-Centered Care: It's Not Just for Pediatrics Anymore. In *American Medical Association Journal of Ethics* (Vol. 18, Issue 1). <http://www.jointcommission.org/assets/1/6/>
- De Beer, J., & Moleki, M. M. (2012). Critical care nurses' perceptions of family witnessed resuscitation in the Kingdom of Saudi Arabia. *Africa Journal of Nursing and Midwifery*, 14(1), 105–115. <https://doi.org/10.25159/2520-5293/9187>
- De Robertis, E., Romano, G. M., Hinkelbein, J., Piazza, O., & Sorriento, G. (2017). Family presence during resuscitation: A concise narrative review. *Trends in Anaesthesia and Critical Care*, 15(July 2018), 12–16. <https://doi.org/10.1016/j.tacc.2017.06.001>
- De Stefano, C., Normand, D., Jabre, P., Azoulay, E., Kentish-Barnes, N., Lapostolle, F., Baubet, T., Reuter, P. G., Javaud, N., Borron, S. W., Vicaut, E., & Adnet, F. (2016). Family presence during resuscitation: A qualitative analysis from a national multicenter randomized clinical trial. *PLoS ONE*, 11(6). <https://doi.org/10.1371/journal.pone.0156100>
- Donoghue, A. J., Abella, B. S., Merchant, R., Praestgaard, A., Topjian, A., Berg, R., & Nadkarni, V. (2015). Cardiopulmonary resuscitation for in-hospital events in the emergency department: A comparison of adult and pediatric outcomes and care processes. *Resuscitation*, 92, 94–100. <https://doi.org/10.1016/j.resuscitation.2015.04.027>

- Elinar, L. (2012). "It's just what we do": a qualitative study of emergency nurses working with well-established family presence protocol. *Journal of Emergency Nursing*, 38(4), 329–334. <https://doi.org/10.1016/J.JEN.2010.12.016>
- EmergencyNursesAssociation. (2021). *Clinical Practice Guideline : Family Presence Synopsis Family Presence During Invasive During Procedures Invasive and Resuscitatonn Procedures and Resuscitation*. 60173.
- Erogul, M., Likourezos, A., Meddy, J., Terentiev, V., Davydkina, D., Monfort, R., Pushkar, I., Vu, T., Achalla, M., Fromm, C., & Marshall, J. (2020). Post-traumatic stress disorder in family-witnessed resuscitation of emergency department patients. *Western Journal of Emergency Medicine*, 21(5), 1182–1187. <https://doi.org/10.5811/westjem.2020.6.46300>
- Ferrara, G., Ramponi, D., & Cline, T. W. (2016). Evaluation of Physicians' and Nurses' Knowledge, Attitudes, and Compliance With Family Presence During Resuscitation in an Emergency Department Setting After an Educational Intervention. *Advanced Emergency Nursing Journal*, 38(1), 32–42. <https://doi.org/10.1097/TME.0000000000000086>
- Ganz, F. D., & Yoffe, F. (2012). Intensive care nurses' perspectives of family-centered care and their attitudes toward family presence during resuscitation. In *Journal of Cardiovascular Nursing* (Vol. 27, Issue 3, pp. 220–227). J Cardiovasc Nurs. <https://doi.org/10.1097/JCN.0b013e31821888b4>
- Go, D, M., VL, R., EJ, B., JD, B., WB, B., DM, B., S, D., ES, F., CS, F., S, F., HJ, F., C, G., SM, H., JA, H., VJ, H., MD, H., BM, K., SJ, K., ... MB, T. (2013). Heart disease and stroke statistics--2013 update: a report from the American Heart Association. *Circulation*, 127(1). <https://doi.org/10.1161/CIR.0B013E31828124AD>
- Goldberger, Z. D., Nallamotheu, B. K., Nichol, G., Chan, P. S., Curtis, J. R., & Cooke, C. R. (2015). Policies allowing family presence during resuscitation and patterns of care during in-hospital cardiac arrest. *Circulation: Cardiovascular Quality and Outcomes*, 8(3), 226–234. <https://doi.org/10.1161/CIRCOUTCOMES.114.001272>
- Gordon, E. D., Kramer, E., Couper, I., & Brysiewicz, P. (2011). Family-witnessed resuscitation in emergency departments: Doctors' attitudes and practices. *South African Medical Journal*, 101(10), 765–767. <https://doi.org/10.7196/SAMJ.5002>
- Guzzetta, C. E. (2015). *AACN Practice Alert.pdf*.
- Hassankhani, H., Zamanzadeh, V., Rahmani, A., Haririan, H., & Porter, J. E. (2017). Family Presence During Resuscitation: A Double-Edged Sword. *Journal of Nursing Scholarship*, 49(2), 127–134. <https://doi.org/10.1111/jnu.12273>

- Havugitanga, P., & Brysiewicz, P. (2014). Exploring healthcare professionals' perceptions regarding family-witnessed resuscitation in a hospital in Kigali, Rwanda. *Southern African Journal of Critical Care*, 30(1), 18–21. <https://doi.org/10.7196/SAJCC.174>
- Jabre, P., Belpomme, V., Azoulay, E., Jacob, L., Bertrand, L., Lapostolle, F., Tazarourte, K., Bouilleau, G., Pinaud, V., Broche, C., Normand, D., Baubet, T., Ricard-Hibon, A., Istria, J., Beltramini, A., Alheritiere, A., Assez, N., Nace, L., Vivien, B., ... Adnet, F. (2013). Family Presence during Cardiopulmonary Resuscitation. *New England Journal of Medicine*, 368(11), 1008–1018. <https://doi.org/10.1056/NEJMoa1203366>
- Jabre, P., K, T., E, A., SW, B., V, B., L, J., L, B., F, L., X, C., M, G., V, P., C, D., D, N., A, B., N, A., B, V., E, V., & F, A. (2014). Offering the opportunity for family to be present during cardiopulmonary resuscitation: 1-year assessment. *Intensive Care Medicine*, 40(7), 981–987. <https://doi.org/10.1007/S00134-014-3337-1>
- Kim, K. I., & Kim, M. (2016). Intention of Korean nurses to allow family presence during resuscitation. *Journal of Hospice and Palliative Nursing*, 18(4), 364–370. <https://doi.org/10.1097/NJH.0000000000000260>
- Lai, M. K., Aritejo, B. A., Tang, J. S., Chen, C. L., & Chuang, C. C. (2017). Predicting medical professionals' intention to allow family presence during resuscitation: A cross sectional survey. *International Journal of Nursing Studies*, 70(February), 11–16. <https://doi.org/10.1016/j.ijnurstu.2017.02.007>
- Leske, J. S., McAndrew, N. S., & Brasel, K. J. (2013). Experiences of families when present during resuscitation in the emergency department after trauma. *Journal of Trauma Nursing : The Official Journal of the Society of Trauma Nurses*, 20(2), 77–85. <https://doi.org/10.1097/JTN.0b013e31829600a8>
- Leske, McAndrew, & KJ, B. (2013). Experiences of families when present during resuscitation in the emergency department after trauma. *Journal of Trauma Nursing : The Official Journal of the Society of Trauma Nurses*, 20(2), 77–85. <https://doi.org/10.1097/JTN.0B013E31829600A8>
- Mclean, J., Gill, F. J., & Shields, L. (2016). Family presence during resuscitation in a paediatric hospital: Health professionals' confidence and perceptions. *Journal of Clinical Nursing*, 25(7–8), 1045–1052. <https://doi.org/10.1111/jocn.13176>
- Muthoni Maina, P. (2018). Involvement of Patients' Families in Care of Critically Ill Patients at Kenyatta National Hospital Critical Care Units. *American Journal of Nursing Science*, 7(1), 31. <https://doi.org/10.11648/j.ajns.20180701.14>
- National Nurses Association of Kenya*. (2021). <https://engagement.wcea.education/nnak>

- Noble, H., & Heale, R. (2019). Triangulation in research, with examples. *Evidence-Based Nursing*, 22(3), 67–68. <https://doi.org/10.1136/ebnurs-2019-103145>
- Nolan, J. P., Soar, J., Smith, G. B., Gwinnutt, C., Parrott, F., Power, S., Harrison, D. A., Nixon, E., & Rowan, K. (2014). Clinical Paper Incidence and outcome of in-hospital cardiac arrest in the United Kingdom National Cardiac Arrest Audit. *Resuscitation*, 85, 987–992. <https://doi.org/10.1016/j.resuscitation.2014.04.002>
- O’Connell, K. J., Fritzeen, J., Guzzetta, C. E., Clark, A. P., Lloyd, C., Scott, S. H., Aldridge, M. D., & Kreling, B. (2017). Family presence during trauma resuscitation: Family members’ attitudes, behaviors, and experiences. *American Journal of Critical Care*, 26(3), 229–239. <https://doi.org/10.4037/ajcc2017503>
- Omoding, T. (2011). *Perceptions of nurses and family relatives towards family witnessed resuscitation in critical care units of Kenyatta National Hospital and Aga Khan University Hospital*. <http://erepository.uonbi.ac.ke/handle/11295/3780#.YGXrqQ11Fd4.mendel ey>
- Omran, S., AL Ali, N., & Alshahrani, H. (2015). Acute care nurses’ attitudes toward family presence during cardio-pulmonary resuscitation in the Kingdom of Saudi Arabia. *Clinical Nursing Studies*, 3(3), 69–75. <https://doi.org/10.5430/cns.v3n3p69>
- Paplanus, L. M., Salmond, S. W., Jadotte, Y. T., & Viera, D. L. (2012). A Systematic Review of Family Witnessed Resuscitation and Family Witnessed Invasive Procedures in Adults in Hospital Settings Internationally - Part II: Perspectives of Healthcare Providers. *JBIC Database of Systematic Reviews and Implementation Reports*, 10(33), 2018–2294. <https://doi.org/10.11124/01938924-201210330-00001>
- Porter, J. E., Cooper, S. J., & Sellick, K. (2014). Family presence during resuscitation (FPDR): Perceived benefits, barriers and enablers to implementation and practice. *International Emergency Nursing*, 22(2), 69–74. <https://doi.org/10.1016/j.ienj.2013.07.001>
- Porter, J. E., Grad, M. N., Cc, D., Ed, G. C., Hsm, G. D., & Acute, L. (2017). Perceived barriers and benefits to family presence during resuscitation in the emergency department Family presence during resuscitation (FPDR): Perceived benefits , barriers and enablers to implementation and practice. *International Emergency Nursing*, 22(2), 69–74. <https://doi.org/10.1016/j.ienj.2013.07.001>
- Powers, K., & Reeve, C. L. (2020). Original Research: Family Presence During Resuscitation: Medical-Surgical Nurses’ Perceptions, Self-Confidence, and Use of Invitations. *The American Journal of Nursing*, 120(11), 28–38. <https://doi.org/10.1097/01.NAJ.0000721244.16344.ee>

- Rose, S. (2018). Supporting relatives who choose to witness resuscitation attempts. *Nursing Times*, 114(3), 30–32.
- Sak-Dankosky, N., Andruszkiewicz, P., Sherwood, P. R., & Kvist, T. (2015). Factors associated with experiences and attitudes of healthcare professionals towards family-witnessed resuscitation: A cross-sectional study. *Journal of Advanced Nursing*, 71(11), 2595–2608. <https://doi.org/10.1111/jan.12736>
- Sak-Dankosky, N., Andruszkiewicz, P., Sherwood, P. R., & Kvist, T. (2018). Health care professionals' concerns regarding in-hospital family-witnessed cardiopulmonary resuscitation implementation into clinical practice. *Nursing in Critical Care*, 23(3), 134–140. <https://doi.org/10.1111/nicc.12294>
- Sangoseni, O., Hellman, M., & Hill, C. (2013). Development and Validation of a Questionnaire to Assess the Effect of Online Learning on Behaviors, Attitudes, and Clinical Practices of Physical Therapists in the United States Regarding Evidenced-based Clinical Practice. *Internet Journal of Allied Health Sciences and Practice*, May 2013. <https://doi.org/10.46743/1540-580x/2013.1439>
- Schneide, A. (2015). *Nursing Organizations: The Role they Play in Professional Development*. <https://www.rn.com/nursing-organizations-the-role-they-play-in-professional-development/>
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53. <https://doi.org/10.5116/IJME.4DFB.8DFD>
- Tomlinson, K. R., Golden, I. J., Mallory, J. L., & Comer, L. (2010). Family Presence During Adult Resuscitation. *Advanced Emergency Nursing Journal*, 32(1), 46–58. <https://doi.org/10.1097/TME.0b013e3181cbe902>
- Tripon, C., Defossez, G., Ragot, S., Ghazali, A., Boureau-Voultoury, A., Scépi, M., & Oriot, D. (2014). Parental presence during cardiopulmonary resuscitation of children: The experience, opinions and moral positions of emergency teams in France. *Archives of Disease in Childhood*, 99(4), 310–315. <https://doi.org/10.1136/archdischild-2013-304488>
- Tudor, K., Berger, J., Polivka, B. J., Chlebowy, R., & Thomas, B. (2014). Nurses' perceptions of family presence during resuscitation. *American Journal of Critical Care*, 23(6), e88–e96. <https://doi.org/10.4037/ajcc2014484>
- Twibell, R., Craig, S., Siela, D., Cern-K, A.-B., Simmonds, S., & Thomas, C. (2015). *Families in Critical Care Being There: inpaTienTs' percepTions of family presence During resusciTaTion anD invasive carDiac proceDures*. <https://doi.org/10.4037/ajcc2015470>

- Twibell, R., Siela, D., Riwitis, C., Neal, A., & Waters, N. (2018). A qualitative study of factors in nurses' and physicians' decision-making related to family presence during resuscitation. *Journal of Clinical Nursing*, 27(1–2), e320–e334. <https://doi.org/10.1111/jocn.13948>
- Twibell, Siela, D., Riwitis, C., Wheatley, J., Riegle, T., Bousman, D., Cable, S., Caudill, P., Harrigan, S., Hollars, R., Johnson, D., & Neal, A. (2008). Nurses' perceptions of their self-confidence and the benefits and risks of family presence during resuscitation. *American Journal of Critical Care*, 17(2), 101–111. <https://doi.org/10.4037/ajcc2008.17.2.101>
- Yamane. (1967). *Statistics: an introductory analysis / by Taro Yamane* | National Library of Australia.



APPENDICES

Appendix I: Consent Form

Dear Participant,

My name is Andrew Angute, postgraduate student at Mount Kenya University pursuing Master of Science in nursing (Medical-Surgical). I am conducting a research on “factors that influence the implementation of family witnessed resuscitation among nurses working in medical-surgical units in Siaya county referral hospital”

Family witnessed resuscitation is defined as the process of performing resuscitation with one or more family members present in the room in an effort to sustain life of a loved one.

Despite the practice having been recommended by professional bodies such American Heart Association, American Association of Critical Care, and Society of Critical Care Medicine and Emergency Nurses Association there are still controversies and the practice is not fully implemented.

The aim of this study is to establish nursing related factors that influence family witnessed resuscitation and describe benefits and risks of this practice. The findings of this study would provide empirical evidence that would be useful for optimal implementation of this practice.

By signing this form you consent to participate in the study. The participation is on voluntary basis and you have a right to withdraw at any time of the study. Filling the questionnaire will take you 15-20 minutes.

This study has no risks involved. It has no material benefit. The confidentiality and anonymity of the gathered information is guaranteed.

Thank you.

Signature of participant.....Date.....

Signature of researcher.....Date.....

11. Have you ever invited a member of the patient's family to see when you were performing resuscitation?

Yes

No

12. Number of times you invited patient's family to see when you were performing resuscitation during your entire nursing career _____

13. Have you ever been in the room when your relative was being resuscitated?

Yes

No

14. Decisions on whether a member of patient's family should be present during resuscitation should be made in advance.

Yes

No

15. Who should make decision on FWR? (Choose one option)

Patient (in advance)

Yes

No

Nurse

Yes

No

Doctor

Yes

No

Family

Yes

No

Jointly by resuscitation team. Yes

No

SECTION C - PERCEIVED SELF-CONFIDENCE

	Using a tick (√) rate your level of confidence in the performance of the listed nursing procedures in resuscitation effort in the presence of family.	Not at all Confident	Not Very Confident	Somewhat Confident	Quite Confident	Very Confident
17.	I could comfortably notify family on the progress of resuscitation efforts.					
18.	I could administer medication during resuscitation efforts in the presence of family.					
19.	I could perform effective chest compressions in the presence of the family.					
20.	I could communicate clearly with resuscitation team members in presence of family					
21.	I could uphold patients' dignity when they are undergoing resuscitation efforts in the family member's presence.					

22.	I was able to recognize family members of the patient who behaved appropriately enough to be admitted to the resuscitation chamber.					
23.	I could prepare members of the patient's family to go into the room where their loved one is being resuscitation.					
24.	I could accompany the family into the resuscitation area where their loved one is being resuscitated.					
25.	I may inform the resuscitation team that the patient's family members were there in the room while the patient was being undertaken					
	Using a tick (√) rate your level of confidence in the performance of the listed nursing procedures in resuscitation effort in the presence of family.	Not at all Confident	Not Very Confident	Somewhat Confident	Quite Confident	Very Confident

26.	I could make the patient's family feel at ease as they see their loved one be revived.					
17.	I could recognize the emotional & spiritual requests of the family who choose to witness efforts of resuscitation of their kin.					
28.	I could encourage communication between patient's family and their kin being resuscitated					
29.	I could delegate responsibilities among the resuscitation team members to care for the family whose member is being resuscitated					
30.	After the patient's family members were resuscitated, I could give them a report.					
31.	I could organize grief follow-up with the members of the patient's family following resuscitation of their loved one, if necessary.					

SECTION D – PERCEIVED RISKS AND BENEFITS

Using a tick (√) please rate the statement that best represents your opinion.		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
32.	Family members should have the option of watching the resuscitation of their loved one.					
33.	Family members will panic when they are present when their member is being resuscitated.					
34.	There will be long term suffering of emotional effects when they witness the resuscitation process					
35.	There will be a close association between resuscitation team and family who choose to witness the resuscitation process than those who do not.					
36.	Family members who witness the resuscitation process would recognize the efforts of healthcare professionals.					
37.	Family members who are present would scrutinize the resuscitation process.					
38.	Patients might not want their loved ones present while they are being resuscitated.					
39.	The death of their loved one would be accepted by the family members who saw resuscitation.					
40.	Family members who observe resuscitation attempt would have a better process of grieving.					
41.	The presence of the family for the duration of resuscitation is traumatic to the family members					

42.	There will be disruption of resuscitation process by family the when they are in attendance during resuscitation.					
	Using a tick (√) rate the statement that best represents your opinion.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
43.	There is reduction of post-traumatic stress disorder when family observe there kin's observe resuscitation					
44.	Family members who observe the resuscitation process are likely to file a lawsuit.					
45.	There would be discomfort and hindrance of optimal functioning by resuscitation team when family member observe resuscitation attempt					
46.	Family who witness the resuscitation of their member accept that all that was possible was done to preserve loved ones' life.					
47.	My coworkers' families prefer to be there when the patient is being resuscitated.					
48.	The presence of family when a loved one is undergoing resuscitation is beneficial to patients.					
49.	The unit where I work usually lacks a designated person to offer support to the family whose member is being resuscitated.					
50.	Family involvement during CPR should be considered patient and family-centered treatment.					
51.	Presence of family during resuscitation would raise ratings of patient satisfaction with nursing care.					

52.	Family satisfaction with nursing care would increase in FWR					
53.	FWR would make nurses more likely to be rated as providing excellent patient and family-centered care.					

Courtesy of Twibel et al, (2008)



Appendix III: Key Informant Interview Guide

1. What nursing-related elements do you believe play a role in the decision to allow a patient's family to be present during resuscitation of a loved one?
2. What are the main justifications for inviting a family member to watch when their loved one's resuscitation?
3. What are the justifications for not inviting a family member to see their loved one undergo resuscitation?

Courtesy of Twibel et al, (2008)

Thank you for your responses

Appendix IV: Approval Letter For Data Collection Tool

9/10/21, 11:46 AM

Gmail - FOLLOW ON REQUEST FOR APPROVAL



Andrew Angute <andrew.angute@gmail.com>

FOLLOW ON REQUEST FOR APPROVAL

Twibell, Kathryn <rtwibell@bsu.edu>
To: Andrew Angute <andrew.angute@gmail.com>

Tue, Jul 27, 2021 at 9:45 PM

Hello, Andrew,

I am excited to hear about your master's degree work, and I am pleased that you are considering the use of our FPDR scales. You have permission to use the tools Family Presence Risk-Benefit Scale and the Family Presence Self-confidence Scale. You may translate the scales into another language and modify the items/scales in minor ways. We do not give permission for use of the items to create a new scale.

Attached is the complete version of the tool we used. Some of the items are reverse scored, as noted. The Risk-Benefit Scale consists of items 1-26. As reported in the published article, three risk-benefit items (on the first page of the tool) were deleted due to the way they functioned on the factor analysis. The items came out of our qualitative work and we believed they were important, but they did not work consistently with the other items. Items 27-43 compose the self-confidence scale.

As you know, this tool was only tested with nurses. We do have parallel tools for physicians, if those interest you.

The items from 44 to the end were other items we did not report on in the AJCC article. Feel free to use them as you wish. One suggestion I would make is to ask the respondents what experience they have had with CPR and family presence. That is one item I wish we would have included.

Thank you for your willingness to name our original tools in any of your materials, presentations, and publications; indicate the items that have been modified; and cite the 2008 AJCC publication.

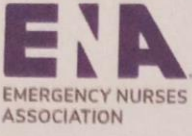
I wish you well in your studies and endeavors. If I can be of any further assistance, please feel free to email any time.

Renee

Renee Twibell, PhD, RN, CNE
Associate Professor, School of Nursing
Ball State University
Nurse Researcher, Ball Memorial Hospital
Muncie, IN 47304
rtwibell@bsu.edu

Renee

Appendix V: Emergency Nurses Association Practice Guideline



Clinical Practice Guideline: Synopsis Family Presence During Invasive Procedures and Resuscitation

CLINICAL QUESTION:
Does family presence have a positive or negative influence on the patient, family, and staff during invasive procedures and resuscitation?

PROBLEM:
The practice of allowing family members to be present during the resuscitation of or invasive procedures on their relative is one that has been discussed over the past few decades. With the rise of family-centered care, family input into healthcare decisions has increased and strict visitation policies have relaxed, even including family at the bedside during invasive procedures and resuscitation. This concept was first presented in the early 1980s when Foote Hospital in Michigan began a program to facilitate the practice of family member presence during resuscitation as a response to demands by families (Doyle et al., 1987). Hanson and Strawser (1992) presented data from the program as the seminal research on this topic. Since then, research has centered on several different aspects of this issue. For both the initial CPG and this update, the literature indicates that healthcare workers and family members support family presence. New research has not yielded any findings that would change the practice recommendations for allowing family presence during resuscitation.

Description of Decision Options/Interventions and the Level of Recommendation	
Family member presence during invasive procedures or resuscitation should be offered as an option to family members and should be based on written institution policies (Basol et al., 2009; Ferrara et al. 2016; Goldberger et al. 2015; Howlett et al., 2010; Lederman et al. 2014; Madden & Condon, 2007; Pankop et al. 2013; Sak-Dankosky et al. 2014; Zavotsky et al. 2014).	A
Concerns that family presence is detrimental to the patient, the family, or the healthcare team are not supported by the evidence (Celik et al. 2013, Bjorshol et al., 2011; Fernandez et al., 2009; Fernandes et al., 2014; Hassankhani et al., 2017; Jabre et al., 2013; Jabre et al., 2014; McAlvin et al., 2014; Nigrovic et al., 2007; O'Connell et al., 2007; Porter et al., 2014; Sacchetti et al., 2005; Yavuz et al., 2014; Youngson et al., 2016).	B
Acceptance of family presence may have some cultural basis (Al-Mutair et al., 2012; Günes & Zaybak, 2009; Hassankhani et al., 2017; Koberich et al., 2010; Lai et al., 2017; Leung & Chow, 2012; Masa'Deh et al., 2013; Soleimanour et al., 2015; Young, 2014; Youngson, Currey & Considine, 2016).	B
Healthcare professionals support the presence of a designated healthcare professional assigned to family members present to provide explanation and comfort (Basol et al., 2009; Dingeman et al., 2007; Dwyer, 2015; Dwyer & Friel, 2016; Fallis et al., 2008; Kuzin et al., 2007; Madden & Condon, 2007; McClement et al., 2009; O'Connell et al., 2007; Stefano et al., 2016; Twibell et al., 2015)	B
Educating staff in the development, implementation, and evaluation of policy regarding family member presence provides structure and support to healthcare professionals involved in this practice (Basol et al., 2009; Butler et al., 2014, Carroll, et al., 2014, Chapman et al., 2011, Ferrara et al., 2016; Guzzetta, 2016, Howlett et al., 2010; Madden & Condon, 2007; Zavotsky et al., 2014).	B

A	Level A (High)	Based on consistent and good quality of evidence; has relevance and applicability to emergency nursing practice.
B	Level B (Moderate)	There are some minor inconsistencies in quality of evidence; has relevance and applicability to emergency nursing practice.
C	Level C (Weak)	There is limited or low quality patient-oriented evidence; has relevance and applicability to emergency nursing practice.
NR	Not Recommended	Not recommended based upon current evidence.
I/E	Insufficient Evidence	Insufficient evidence upon which to make a recommendation.
N/E	No Evidence	No evidence upon which to make a recommendation.

ACCESS THE FULL CLINICAL GUIDELINE AT: <https://bit.ly/2C4JGdt>

Appendix VI: American Association of Critical Care Nurses Practice Alert

AACN Practice Alert

Family Presence During Resuscitation and Invasive Procedures

Scope and Impact of the Problem

Evidence is mounting that family presence during resuscitation and invasive procedures is beneficial to patients and their families. Meeting psychosocial needs in a time of crisis exemplifies care driven by the needs of patients and their families.

Expected Practice

1. Family members of all patients undergoing resuscitation and invasive procedures should be given the option to be present at the bedside per the patient's wishes. (Family members are those individuals defined by the patient, or in the case of a minor or those without decision-making capacity, by their surrogates. Family members may be relatives or significant others who provide support and with whom the patient shares a significant relationship.¹) [level B]
2. All patient-care units should have an approved written practice document (ie, policy, procedure, or standard of care) for presenting the option of family presence during resuscitation and bedside invasive procedures, including the roles and responsibilities of the family presence facilitator. [level D]

Supporting Evidence

Research and public opinion polls indicate that the majority of patients, patients' families, and consumers

AACN Levels of Evidence

- Level A** Meta-analysis of quantitative studies or metasynthesis of qualitative studies with results that consistently support a specific action, intervention, or treatment (including systematic review of randomized controlled trials)
- Level B** Well-designed, controlled studies with results that consistently support a specific action, intervention, or treatment
- Level C** Qualitative studies, descriptive or correlational studies, integrative reviews, systematic reviews, or randomized controlled trials with inconsistent results
- Level D** Peer-reviewed professional and organizational standards with the support of clinical study recommendations
- Level E** Multiple case reports, theory-based evidence from expert opinions, or peer-reviewed professional organizational standards without clinical studies to support recommendations
- Level M** Manufacturer's recommendations only

believe that patients' family members should be offered the opportunity to be present during emergency procedures and at the time of their loved one's death.²⁻¹³

Despite recommendations from professional organizations, consensus conferences, joint position and policy statements, and clinical practice guidelines regarding family presence during resuscitation,¹⁴⁻²⁶ only 5% of critical care units in the United States,²⁷ 8% in Canada,²⁸ and 7% in Europe²⁹ have written policies that allow family presence. Surveys of nurses' practice indicate that many, if not most, critical care nurses have been asked by patients' family members if they could be present during resuscitation and invasive procedures and have brought such families to the bedside, despite the lack of formal written hospital policies.²⁷⁻³⁰

AACN
PracticeAlert™

©2016 American Association of Critical-Care Nurses doi: <http://dx.doi.org/10.4037/ccn2016980>

Appendix VII: European Federation Approval of FWR Practice

Box 1. The European Federation of Critical Care Nursing Associations, The European Society of Paediatric and Neonatal Intensive Care, and The European Society of Cardiology Council on Cardiovascular Nursing and Allied Professions Position

Position Statement

1. All patients have the right to have family members present during resuscitation (see note 1 below)
2. The patient's family members should be offered the opportunity to be present during resuscitation of a relative (see note 2 below)
3. Support should be provided by an appropriately qualified health care professional whose responsibility is to care for family members witnessing cardiopulmonary resuscitation (CPR) (see note 3 below)
4. Professional counseling should be offered to family members who have witnessed a resuscitation event
5. All members of the resuscitation team who were involved in a resuscitation attempt when family members were present should participate in team debriefing
6. Family presence during resuscitation should be incorporated into the curricula of CPR training programs
7. All intensive and critical care units should have multidisciplinary written guidelines on the presence of family members during CPR

Notes

Note 1

The decision to enable family members to be present during a resuscitation attempt should be made in the best interests of the person who is being resuscitated. In this regard, discussion should be facilitated by experienced healthcare professionals. When appropriate, spiritual leaders or other trained members of the health care team may assume this role. If the patient who is being resuscitated has expressed a prior wish, this should be respected.

Note 2

When the person who is being resuscitated is not able to communicate his or her wishes, or who has not previously expressed their wishes in an advanced directive, the decision about who should be present during resuscitation should be made jointly by the members of the resuscitation team and family members.

The decision of a family member about whether or not to be present during CPR of a relative should be made freely by the family member, without coercion or pressure

Family members should be warned that on occasions they may be asked to leave the bedside if at any time it is thought to be in their or the patient's best interests, for example, for the purpose of obtaining radiographs or to avoid obstructing the work of the resuscitation team.

Europe is multiculturally diverse, and the resuscitation team should take the individual patient's and family's beliefs, values and rituals into account. The patient's and the family's cultural background should be assessed with respect to the provision of appropriate individualized care.

Note 3

While it is conceded that on some occasions it may not be possible to provide a health care professional whose sole responsibility is to care for the family member, this should not mean the exclusion of the family member from the resuscitation. Rather, an experienced member of the resuscitation team, who is not undertaking a lead role, should be designated primary responsibility for the continued care of the family member.

With respect to family members, the role of the designated health care professional is to:

- brief them about what to expect prior to entering the resuscitation area,
- provide a running commentary with appropriate explanations,
- help them to communicate their presence to their relative,
- respond truthfully and realistically to questions,
- maintain a safe environment,
- assess continually their emotional and physical status,
- if possible, accompany the family member if he or she wishes to leave the scene, continuing to liaise with the resuscitation team on their behalf,
- provide an opportunity for them to reflect on the resuscitation process after the event, participate in resuscitation team debriefing, providing feedback with respect to the needs and concerns expressed by them.

Reproduced with permission. (Fulbrook P, Latour J, Albaran J, Graaf de W, Lynch F, Devictor D, Norekvål T; The Presence of Family Members During Cardiopulmonary Resuscitation Working Group (2007). The presence of family members during cardiopulmonary resuscitation: European federation of Critical Care Nursing associations, European Society of Paediatric and Neonatal Intensive Care and European Society of Cardiology Council on Cardiovascular Nursing and Allied Professions Joint Position Statement. *Connect World Crit Care Nurs.* 2007;5(4):86-88.)

Appendix VIII: American Heart Association Recommendation of FWR Practice

Family Presence During Resuscitation	According to surveys in the United States and the United Kingdom, most family members state that they would like to be present during the attempted resuscitation of a loved one. Parents and care providers of
---	---

ACLS Provider Manual Supplementary Material

chronically ill patients are often knowledgeable about and comfortable with medical equipment and emergency procedures.

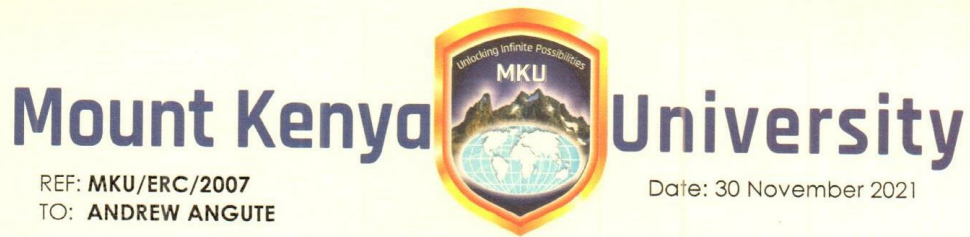
Even family members with no medical background report that it is comforting to be at the side of a loved one and say goodbye during the final moments of life. These are those who choose to be at the bedside and who have a designated support person with them to answer questions, clarify information, and comfort the family.

Family members often do not ask if they can be present, but healthcare providers should offer the opportunity whenever possible.

Relatives and friends who are present and are provided counseling during resuscitation of a loved one report fewer incidences of posttraumatic avoidance behaviors, fewer grieving symptoms, and less intrusive imagery.

When family members are present during resuscitative efforts, sensitivity is heightened among resuscitation team members. A team member who is knowledgeable about resuscitation practices should be available to answer questions, provide comfort, and help the family during the resuscitation. Even when the resuscitation outcome is not optimal, families feel comforted to know they can be present to say goodbye, give comfort to their dying loved one, and begin the grieving process.

Appendix IX: ERC Certificate



REG: MSCN/2019/55010

Dear Sir/Madam,

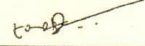
RE: FACTORS THAT INFLUENCE IMPLEMENTATION OF FAMILY WITNESSED RESUSCITATION PRACTICE AMONG NURSES WORKING IN MEDICAL-SURGICAL UNITS IN SIAYA COUNTY REFERRAL HOSPITAL, KENYA

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **1080**. The approval period is **30/11/2021 - 29/11/2022**.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including informed consents, study instruments, MTA will be used
- ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
- vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,

**The Chairman
Mount Kenya University
Ethics Review Committee
P. O. Box 342 - 0100, Thika**

**Dr. Peter G. Kirira
Chairman, Mount Kenya University IERC**

Appendix X: Introduction letter to NACOSTI



DIRECTORATE OF GRADUATE STUDIES

MSCN/2019/55010

1st December, 2021

*The Director, Research Coordination Division
National Commission for Science, Technology & Innovation
Utalii House, 8th & 9th Floor
P.O Box 30623- 00100
NAIROBI*

Dear Sir/Madam,

RE: ANDREW ANGUTE - REGISTRATION NO. MSCN/2019/55010

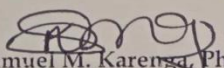
The purpose of this letter is to introduce the above named student who is pursuing Master of Science in Nursing in the Department of Medical Surgical Nursing in the School of Nursing.

The title of his research is *"Factors that Influence Implementation of Family Witnessed Resuscitation Practice Among Nurses Working in Medical-Surgical Units in Siaya County Referral Hospital, Kenya."*

He has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data for his research between **December, 2021 and February, 2022.**

Any assistance accorded to him will be highly appreciated.

Thank you.







Dr. Samuel M. Karenga, Ph.D
Director, Graduate Studies
Euc.

Mount Kenya University
P. O. Box 342 - 01000, THIKA
Office of the Director
Graduate Studies

Main Campus, General Kago Road, P.O. Box 342-01000 Thika. Tel: +254 67 2820 000,
Cell: +254 720 790 796, 0709 153 000

Email: info@mku.ac.ke, Web: www.mku.ac.ke
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Appendix XI: NACOSTI LICENSE

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 149947	Date of Issue: 07/December/2021
RESEARCH LICENSE	
	
<p>This is to Certify that Mr.. Andrew Angute Angute of Mount Kenya University, has been licensed to conduct research in Siaya on the topic: FACTORS THAT INFLUENCE IMPLEMENTATION OF FAMILY WITNESSED RESUSCITATION PRACTICE AMONG NURSES WORKING IN MEDICALSURGICAL UNITS IN SIAYA COUNTY REFERRAL HOSPITAL, KENYA for the period ending : 07/December/2022.</p>	
License No: NACOSTI/P/21/14768	
149947 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code 
<p>NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.</p>	

Appendix XII: Siaya County Referral Hospital Permit

REPUBLIC OF KENYA



COUNTY GOVERNMENT OF SIAYA
DEPARTMENT OF HEALTH AND SANITATION

Email: siayacountyrh@gmail.com
Telephone: 0757955067
When replying please quote

MEDICAL SUPERINTENDENT
SIAYA COUNTY REFERRAL
P.O. BOX 144 - 40600
SIAYA

3.1.2022

DEPARTMENT HEADS
SIAYA COUNTY REFERRAL HOSPITAL

RESEARCH AUTHORISATION – MR ANDREW ANGUTE

Mr. Andrew Angute has been authorized to conduct a study on *factors that influence implementation of family witnessed resuscitation practice among nurses working in medical surgical units in Siaya County Referral Hospital* following review of the application and approval by the undersigned.

All necessary approvals by National Commission for Science, Technology and Innovation (NACOSTI), Mount Kenya University (MKU) and the CGS Health department have been provided for the study.

All necessary support should be accorded to Mr. Angute.

A copy of the final report is to be submitted to the hospital upon completion of the study.


Dr. Liech Adoyo
Medical Superintendent
Siaya County Referral Hospital



Appendix XIII: Siaya County Government Permit

REPUBLIC OF KENYA



COUNTY GOVERNMENT OF SIAYA

Department of Health and Sanitation

Correspondence should be addressed to:
The County Government of Siaya
Email: siayachd@gmail.com
In reply please quote:

County Health Headquarters
Adjacent to ICC Church
P.O. Box 597 – 40600
SIAYA

REF: CGS/CHD/RESEARCH/VOL/IV(161)

15th December, 2021

Medical superintendent
Siaya County Referral Hospital

CLEARANCE TO CONDUCT A RESEARCH ON FACTORS THAT INFLUENCE IMPLEMENTATION OF FAMILY WITNESSED RESUSCITATION PRACTICE AMONG NURSES WORKING IN MEDICAL SURGICAL UNITS IN SIAYA COUNTY REFERRAL HOSPITAL, KENYA

Mr. Andrew Angule of Mount Kenya University has received authorization from the National Commission for Science, Technology and Innovation (NACOSTI), vide License No: NACOSTI/P/21/1476B, and Mount Kenya University ERC vide Ref: MKU/ERC/2007, to conduct the study in our County. The study timeline is period ending: 7th December, 2022

Specific objectives of the study are:

1. To describe nursing-related factors influencing implementation of family witnessed resuscitation practice among nurses working in medical and surgical units.
2. To identify perceived benefits of Family Witnessed Resuscitation practice among nurses in medical and surgical units.
3. To establish perceived risks of Family Witnessed Resuscitation practice among nurses in medical and surgical units.

This is to notify you that the Research has been approved by the office of the undersigned.

Andrew is advised to share the preliminary results of the study with stakeholders, including this office. Kindly accord him necessary support.

Dr. Felix Tindi
Ag. County Director of Health

CC: The CECM – Health and Sanitation
The Ag. Chief Officer of Health



Appendix XIV: County Director of Education Permit



REPUBLIC OF KENYA
MINISTRY OF EDUCATION
State Department of Early Learning and Basic Education

COUNTY DIRECTOR OF EDUCATION
SIAYA COUNTY
P.O. BOX 564
SIAYA

E-mail: cdsisiaya2016@gmail.com

MOE/SYA/CDE/JURA/1/10/VOL.II/36

Thursday, December 9, 2021

TO WHOM IT MAY CONCERN

RESEARCH AUTHORIZATION - MR. ANDREW ANGUTE

Refer to your request letter dated 17th December, 2021 on the above subject.

Authority is granted to research License No. NACOSTIP/21/14768 dated 7th December, 2021 to be used in conducting research in this county for the period ending 7th December, 2022.

The research title is "*Factors that Influence Implementation of Family Witnessed Resuscitation Practice Among Nurses Working in Medical Surgical Units in Siaya County Referral Hospital, Kenya*".

Please accord the necessary assistance in this County as may require.

SIUNA N. M
COUNTY DIRECTOR OF EDUCATION
SIAYA COUNTY



Appendix XV: County Commissioner Permit



**OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND COORDINATION OF
NATIONAL GOVERNMENT**

Emails: cc.siaya@yahoo.com
cc.siaya@interior.go.ke

When replying please quote Ref. & date

THE COUNTY COMMISSIONER
SIAYA COUNTY
P.O. BOX 83 - 40600
SIAYA

RE: CC/SC/A.31 VOLIV/39

9th December, 2021

Deputy County Commissioner
SIAYA SUB COUNTY

RE: RESEARCH AUTHORIZATION – ANDREW ANGUTE OKOTH

The person referred to above from Mount Kenya University, has been licensed by Director General National Commission for Science, Technology & Innovation vide License No. NACOSTI/P/21/14768 dated 7th December, 2021 to conduct research on topic: *“Factors That Influence Implementation Of Family Witnessed Resuscitation Practice Among Nurses Working In Medical Surgical Units In Siaya County Referral Hospital”* for the period ending: 7th December, 2022.

The purpose of the letter therefore is to ask that you accord him the necessary support as he carries out research in your Sub County.

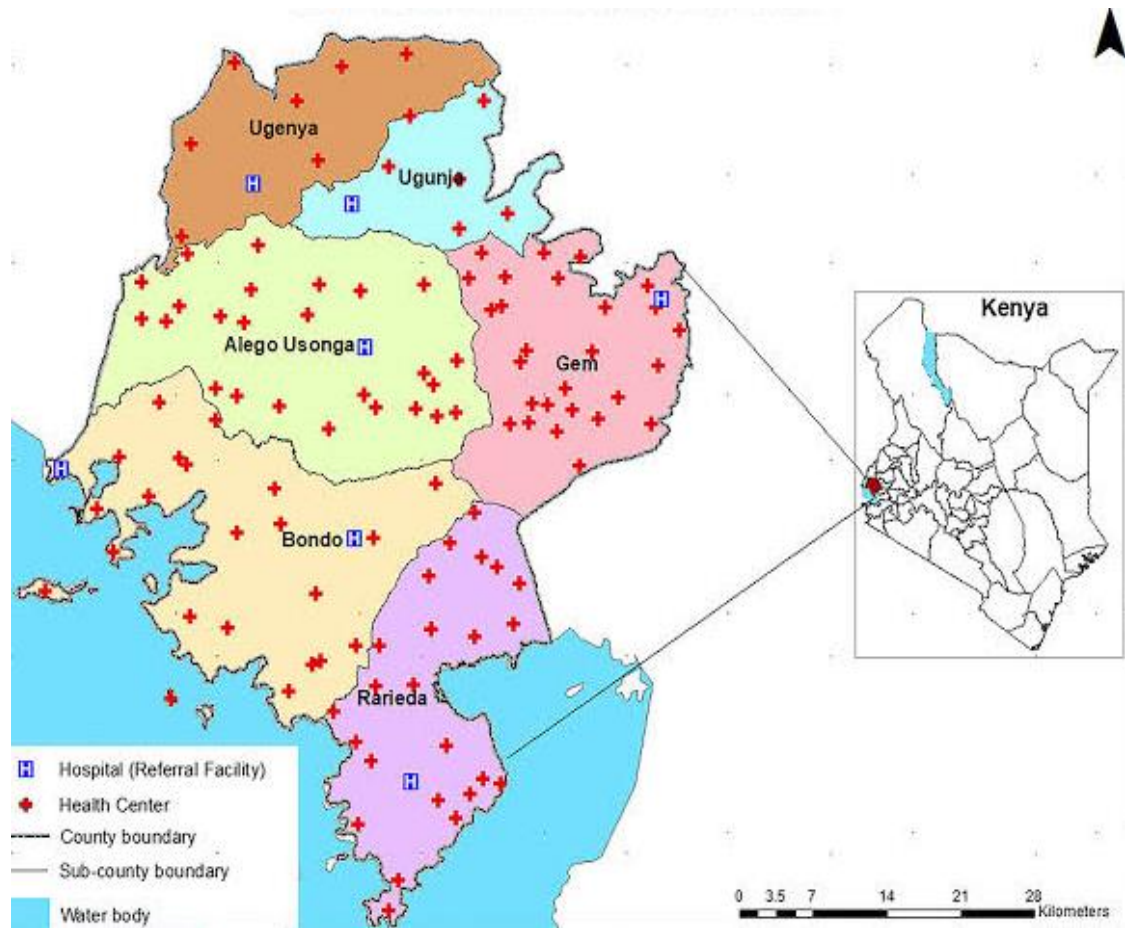
NOTE: Due to the prevailing COVID – 19 Situation, he must observe containment protocols as directed by the Ministry of Health.

RODAH CHERUS
For: COUNTY COMMISSIONER
SIAYA COUNTY

Copy to: County Director of Education
SIAYA COUNTY

Mr. Andrew Angute Okoth
Email: Andrew.angute@gmail.com

Appendix XVI: Map of The Study Area



Source: Siaya County County and Sub County boundaries

FACTORS INFLUENCING
IMPLEMENTATION OF FAMILY
WITNESSED RESUSCITATION
PRACTICE AMONG NURSES
WORKING IN MEDICAL-
SURGICAL UNITS IN SIAYA
COUNTY REFERRAL HOSPITAL,
KENYA

Submission date: 26-Jun-2023 01:50PM (UTC+0300)
Submission ID: 2122907824
File name: ANDREW_ANGUTE_OKOTH_final.docx (11.79M)
Word count: 20008
Character count: 115036

FACTORS INFLUENCING IMPLEMENTATION OF FAMILY WITNESSED RESUSCITATION PRACTICE AMONG NURSES WORKING IN MEDICAL-SURGICAL UNITS IN SIAYA COUNTY REFERRAL HOSPITAL, KENYA

ORIGINALITY REPORT

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