STRATEGIES TO ENHANCE PATIENT-CENTRED TRIAGE
IN AN EMERGENCY DEPARTMENT IN BOTSWANA: AN EXPLORATIVE STUDY

by

Moitshepi Phiri

15211399

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Supervisor: Prof. T. Heyns

Co-supervisor: Prof IM Coetzee

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DECLARATION

Student Number: 152 113 99

I, Moitshepi Phiri, declare that **Strategies to enhance patient-centred triage in an emergency department in Botswana** is my own work and that all sources that have been used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted for any other degree at any other institution.

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Name   **Date**

ABSTRACT

Triage allows for patients with life-threatening conditions to be identified and managed first, increasing the waiting times of patients presenting with non-critical conditions. The latter then perceive triage as negative. Even though triage is meant to save lives and improve patient satisfaction, frustrated and dissatisfied patients remain a concern in the selected emergency department of a referral hospital in Botswana.

The aim of the study was to explore strategies to enhance patient-centred triage in an emergency department in Botswana.

A qualitative descriptive phenomenographic study was done. Data were collected through semi-structured face-to-face interviews with 10 participants (patients) who were triaged in the emergency department. Data was analysed by the healthcare professionals involved in triage.

Three categories of description namely environment, nursing staff and waiting times were identified. Based on the findings the healthcare professionals collaboratively planned strategies and outcome spaces to move towards patient-centred triage.

Patients were given an opportunity to voice their experiences in triage. Sharing the data obtained from patients with healthcare professionals during the data analysis process was regarded as vital, as it would raise awareness of the way in which patients experienced triage. Being included in the data analysis process, the healthcare professionals understood of the way in which patients' experience triage and therefore were able to collaboratively plan strategies to move towards patient-centred triage and improve patients' satisfaction.

Keywords
Patient-centred care; patient-centred triage; patient experiences; triage, strategies

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LIST OF ABBREVIATIONS

LIST OF ABREVIATIONS	
ED	Emergency department
HCP	Healthcare professionals
SATS	South African Triage Scale

1 ORIENTATION TO THE STUDY

I was here first. Why is he being seen before me?

Piccolo (2013:4)

1.1 INTRODUCTION

Prioritising emergency care delivered to patients in an emergency department (ED) - a process also referred to as triage - is vital (NSW Ministry of Health [MOH] 2013:1). Healthcare professionals in the ED use triage to determine patients management priorities and based on the seriousness of their conditions, ensure that the right type of patient receives the appropriate level of care (NSW MOH 2013:1; Ajani 2012:487). Triage is thus a process of sorting patients according to the urgency of their illness or injury at the point of entry to the ED, allowing for the sickest and most severely injured patients to be identified and managed first (NSW MOH 2013:2). Augustyn (2011:24) Healthcare professionals in ED prioritise patients according to the level of their illness or injury using the following colour codes; Red which is priority one (P1) are the most critically ill or injured and have to be seen immediately , Orange or priority two or (P2) need to be seen within ten minutes for very urgent management, Yellow or priority three (P3) have to be seen within an hour for urgent management and Green which is priority four (P4) need to be seen within four hours for non-urgent management.

Even though the aim of triage is to save the critically ill or injured patients' lives, patients experience triage differently to healthcare professionals. In the United States of America, Barish, McGauly and Arnold (2012:306) found that some patients were dissatisfied and left before seeing the doctor since they could not cope with waiting while sicker patients were being seen first. In Johannesburg, South Africa, Piccolo (2013:14) noted that having to wait while other patients were being seen had negative effects on patients' like frustration ,leaving the ED unseen and dissatisfaction as they were not sure when they would be seen. It is further noted that leaving the ED unseen had a negative impact on the patient, healthcare

professionals, ED and the hospital. Piccolo (2013:14) added that dissatisfied patients who left the ED before being assessed by doctors deprived themselves of the needed treatment and might subsequently complicate. In a study done in Botswana the patients were dissatisfied and complained about the quality of care provided at the EDs , lost confidence in the ED services and were demoralised hence attracting media attention (Bamidele,Hogue & Van der Heever,2011:171). If patients are dissatisfied the image of both the hospital and ED could be negatively affected as the patients could seek medical help elsewhere resulting in loss of hospital funds or coming back later for medical care with complications warranting longer hospital stay (Lee, Cho, Choi, Kim & Park 2016:88). Rahmqvist, Samuelsson, Bastami &Rutberg (2016:500) associates longer hospital stay with hospital acquired infections, costs and increased mortality rates as patients may not return to hospital.

It has been noted that in the Botswana ED the patients prioritized as three or four complained the most and are disgruntled about the triage process to the extent of engaging the media for publicity (Bamidele, Hogue & Van der Heever, 2011:171) According to the statistics for the month of June, July and August 2016, out of the five thousand four hundred and four (5404) patients triaged in the ED, fifty (50) patients left the ED unseen (The hospital, 2016). Leaving the ED unseen may increase the morbidity and mortality of the patients. Among the patients who left unseen and came back, three were admitted to hospital with increased morbidity. Factors that give rise to the Botswana patient disgruntlement and dissatisfaction have to be known so that strategies to enhance patient centred triage could be formulated and implemented to enhance patient satisfaction. In view of the patients' disgruntlement, dissatisfaction and leaving the ED unseen the researcher found the need to conduct the study.

Globally, patient-centred care has become a central goal in health systems. Draper and Tetley (2013:156) describe patient-centred care as care which 'takes into consideration the needs, wants, desires and goals of patients'. Gluyas (2015:50) refers to patient-centred care as "a model that respects the patient's experience, values, needs and preferences in the planning and co-ordination and delivery of care. A central component of this model is a therapeutic relationship between the patient and the team of healthcare professionals. Patient-centred care starts from

planning and evaluation of care that benefits the patient, the family and the healthcare professionals, should be practised in all healthcare settings, inclusive during triage in the emergency department (ED).The implementation of patient-centred care contributes to improved outcomes for patients, better use of resources, decreased costs, and increased satisfaction with care (Gluyas 2015:51).

Though patients have been central to healthcare activities in hospitals, the reality is that patients' cultures, traditions, individual preferences, values and lifestyles, and recognition of the importance of their families when they are sick, has not been realised in healthcare delivery, including the ED (Bramley & Matiti 2014:2790 ; Balik, Conway, Zipperer & Watson 2011:3). Healthcare professionals do not necessarily understand patients' experiences of triage, but are aware that patients complain and that they seem to have other views about triage which leaves a quality gap regarding patient-centred triage that needs to be bridged (Shankar, Bhatia & Schuur 2014:529**).** The meaning of patient-centred triage, where the patient's needs are taken into consideration during triage is not known.

1.2 BACKGROUND TO AND RATIONALE

Triage comes from the French *trier*, meaning 'separate out', and originally referred to the action of sorting items according to quality. During the French Revolution, 1789-1799 and the Napoleonic wars, 1803-1815, it referred to prioritising and managing injured soldiers on the battlefields (Robertson-Steel 2006:154). In the 1930s, triage was used to refer to the military system of assessing the wounded on the battlefield. Triage was later adopted for use at accident scenes, disaster management, and hospitals to ensure that critically ill and/or injured patients are managed first (Elgammal 2014:789; Augustyn 2011:24). The use of triage in the ED as part of initial assessment was when there was more demand for medical care and less medical emergency adopted in ED resources (Becker,Lopez,Pinto,Campanharo,2015:780;Farrokhnia & Görranson 2011:1).

1.2.1 Purpose of triage

Becker, Lopez, Pinto, Campanharo (2015:780) consider triage as a process ensuring that the quality and level of care received by all patients in the ED match their illness acuity. Furthermore, triage promotes fair and effective distribution of ED resources based on patients' clinical needs (Erenler, Özel, Ece, Karabulut, Oruçoğlu, and Cifti .2015:14).

On arrival in the ED a patient is comforted and assured while being triaged as triage is an interactive process that promotes the flow of communication between patients and their family members or significant others and healthcare professionals concerning the nature of their problems (Elgammal 2014:789).Triage findings then serve as a baseline for further initiation of patient assessment and management (Elgammal 2014:789; Siddiqui 2012:840).

1.2.2 Types of triage

Different types of triage processes are used worldwide in EDs, such as the Australian Triage Score, Canadian Triage Assessment Scale, and Manchester Triage Scale (Saeed, Al-Fayyadh, Alshomar, Zekry, Alamiri, Alaska, 2017:17).

The South African Triage Score (SATS) is currently used in South Africa and Botswana. Patients' parameters, such as blood pressure, pulse rate, respiration, pain severity, level of consciousness and extent of trauma injuries, are used to calculate the patient priority score (Augustyn 2011:26). View Annexure B. Depending on the triage score, the triage nurse determines the level of priority and allocates colour codes, ranging from patients that require immediate care (red) to patients who have died (blue) (Augustyn 2011:25; Ramesh, Gasmans & Denier 2011:4).

Table 1.1 presents the SATS priority levels and target times to be managed.

Table 1.1 SATS priority levels and target times to be managed

Priority colour	Target time for treatment	Management
Red	IMMEDIATE	Take to the resuscitation room for immediate treatment
Orange	< 10 min	Refer to majors for very urgent management
Yellow	< 1 hour	Refer to majors for urgent management
Green	< 4 hours	Refer to designated area for non-urgent cases
Blue	< 2 hours	Refer to doctor for certification

Source: *South African Triage Score (SATS) Training Manual* (2012:7)

Triage is usually done by experienced emergency nurses who can reliably identify patients with complex conditions requiring special procedures and/or investigations and may even initiate emergency management, therefore enhancing quality care (Press 2012:3). In a study done in Uberaba and the Triângulo Mineiro region (Silva, Paiva, Faria, Ohl, Chavaglia, 2016:428) found that experienced triage nurses were able to identify critically ill patients better than other healthcare professionals, thereby promoting good patient outcomes. In Pakistan, Siddiqui (2012:839) examined the extent of healthcare professionals' knowledge of emergency triage. Siddiqui (2012:839) revealed that nursing attendants could support experienced nurses during triage and reassessment after initial triage.

1.2.3 Advantages of triage

Triage has several advantages as it identifies critically ill patients in time and assigns them for timely management relating to life-saving interventions, thereby saving their lives (Gilboy, Tanabe, Travers & Rosenau 2012:3; Saeed, Al-Fayyadh, Alshomar, Zekry, Alamiri, Alaska, 2017:17).

Triage ensures that hospital resources are fairly distributed based on illness acuity of patients thereby reducing mortality rates, length of hospital stay and health care costs (Erenler, Özel, Ece,Karabulut, Oruçoğlu, Cifti .2015:14; Lee, Cho, Choi, Kim & Park 2016:1). Moreover, triage improves the ED flow and improves family and patient satisfaction as critically ill patients are seen first (Siddiqui 2012:840). If triage is used effectively, it promotes early recognition and identification of critically ill patients, timely management and initiation of treatment. Consequently, patient care improves, morbidity may decrease and unnecessary complications prevented (Siddiqui 2012:840).

1.2.4 Disadvantages of triage

Triage also has disadvantages. Triage disadvantages patients with low illness acuity as they have to wait when critically ill patients are first assessed and managed, which consequently causes dissatisfaction with service delivery (Acharya,Gastmans,Denier 2011::26; Qureshi 2010:690). Lossius, Rehn, Tjosevik and Eken (2012:1) found that triage nurses prioritised patients based on a tentative diagnosis hence there was a high possibility of over- or under-triaging patients.

Moreover, inconsistencies in using triage scales by different triage nurses might cause overcrowding and patient dissatisfaction (Lossius et al 2012:1). It has also been noted that during triage a patient with a non-urgent condition can be denied emergency treatment and that is against the principle of autonomy and results in indirect harm (Acharya et al 2011:7).

1.2.5 Experiences of triage

Patients are not always satisfied with triage (Draper & Tetley 2013:154). According to Piccolo (2013:14), patients' dissatisfaction with triage could reduce the image of both the ED and the hospital as the families, friends and neighbours might be influenced to avoid seeking healthcare at that specific hospital. This could lead to hospital loss of finances (Piccolo 2013:14). Patients may leave the ED unseen and may come back with complications needing more hospital resources and longer hospital stay (Lee, Cho, Choi, Kim & Park 2016:88). Healthcare professionals in the ED use triage to enhance patient satisfaction, but this is not always the case. Healthcare professionals implement triage as a lifesaving process, but patients are sometimes dissatisfied, frustrated and disgruntled about triage, particularly over having to wait. Frequently, the patients who complain the most are the ones with lower priorities, from priority three (coded yellow) and priority four (coded green). Understanding lower priority patients' experiences of triage is necessary and healthcare professionals should know ,understand their dissatisfaction, incorporate and implement the patients' preferences to improve the triage process and move towards patient-centred triage (Shankar, Bhatia & Schuur 2014:529).

Although patient-centred care is a global focus, patients are still not engaged as the centre of healthcare (Barreto, Arruda, Garcia-Vivar, Marcon, 2017:2). In Tauranga, New Zealand, Boon (2012:1) found that the medical system is such that patients are expected to adapt to its policies and navigate through the many intersections outlined by the healthcare facilities. The World Health Organization (WHO), Common Wealth Fund Commission, American Agency for Healthcare Research and Quality, and other organisations regard patient-centeredness as an issue of interest. If patients could be prepared and engaged in the healthcare delivery decision making, quality of care might improve, medical costs could be reduced and better health be achieved (Millenson & Shalowitz 2014:2).

The researcher wished to move towards patient-centred triage in the ED and provide patients an opportunity to share their experiences of triage and then collaborate with healthcare professionals to plan strategies to enhance patient-centred triage in E.Ds. In order to bridge the gap between the patient, the researcher and the healthcare professional performing triage and enhance change of practice in the ED, the principles of inclusion, participation and collaboration were applied (Davis, Cilenti, Gunther-Mohr & Baker 2012:2). Accordingly, the patients were included by allowing them to voice their experiences of triage. The researcher collaborated and participated with the healthcare professionals through sharing the patients' experiences. This enabled them to give meaning to these experiences and identify possible strategies that could be implemented to enhance patient-centred triage which may improve the patients' experiences (Davis,Cilenti,Gunther-Mohr&Baker 2012:2;Boomer & McCormack 2012:2). Through collaborative planning, the healthcare professionals became aware of the challenges patients experience as they are triaged and were able to plan ways to solve these challenges (Boon 2012:633).

1.3 PROBLEM STATEMENT

Triage is a medical process used by healthcare professionals in the ED to identify and treat critically ill and injured patients first, namely priority one or red and priority two or orange (Ajani 2012:487). Many factors give rise to patients' dissatisfaction in triage. For example in a study done in Turky ED, 22% of ED visits were non urgent hence negatively affecting the ED'S readiness for emergencies and prolonged waiting time (Ozge, Onur, Onur, Denizbasi, koglu, Azpolat Akoglu.2012:971).In Saudi Arabia, Qureshi (2010:690) found that fifty percent of patients visited the hospital ED for non-urgent problems resulting in unnecessary costs and negative consequences, like prolonged waiting time. Prolonged waiting time is a common cause of patients' dissatisfaction with adverse effects that negatively affect the health outcomes. Patients with low illness acuity, namely priority three or yellow and priority four or green, are disgruntled and frustrated with the triage process and complain of waiting for long hours while patients who came after them are seen first. In addition,

due to their frustration with the triage process, many patients leave the ED unseen (Piccolo 2013:14).

Patients are not given an opportunity to voice their experiences and have their preferences incorporated in triage processes. In implementing the Cape Triage Scale at the ED of the National District Hospital in Bloemfontein, Gordon, Brits and Raubenheimer (2015:18) found that with the intention to solve ED triage issues, healthcare professionals devised a solution in the form of triage without involving the patients. In Sweden, Möller et al (2010:746); Adeniji and Mash (2012:1) found that patients viewed triage differently as some stated that as long as the triage nurse gave them information on the acuity of their illness they could cope with waiting while the critically ill were being treated. However, others said they were sick so what they needed was treatment not information. Cox and Naylor (2013:9) as well as Boomer and McCormack (2012:2) maintain that to change practice efficiently, healthcare professionals should involve the patients and collaboratively be partners in planning solutions to challenges, however, this does not always happen in the ED.

The triage process is meant to save the lives of the critically ill or injured patient and bring satisfaction to the families; nevertheless patients in Botswana are dissatisfied with the triage process.

1.4 AIM AND OBJECTIVES

The aim of the study was to explore strategies to enhance patient-centred triage in an ED in Botswana. In order to achieve the aim, the objectives were to

- Explore patients' experiences of triage in an ED.
- Identify strategies with healthcare professionals to enhance patient-centred triage in the ED.

1.5 CONTEXT

The context refers to 'the site or location used to conduct a study' (Burns & Grove 2013:373). The context in which the study was conducted is a six-bed ED of an urban public hospital with 540 bed capacity in the northern part of Botswana. The hospital is the only hospital using triage in northern Botswana. According to the

Botswana population and housing census, 2011, Northern Botswana has a population of 973 560 (Republic of Botswana, 2015).

The healthcare professionals triage, admit and manage patients of all ages with a variety of medical and trauma conditions before they are discharged home or admitted in the hospital for further management. There are six permanently employed medical doctors that work eight-hour day shifts and 12-hour night shifts in the ED. The nursing staff work eight-hour day shifts and 12-hour night shifts and consist of one matron, one unit manager, 18 registered nurses (RNs), and nine healthcare assistants. Approximately 1 900 patients are seen in the ED each month. Table 1.2 summarises the number and type of patients seen in the ED of the hospital. The patients ranged from critically ill (Priority 1) to minor illness (Priority 3 and Priority 4) (Qureshi 2010:690). View Table 1.2.

Table 1.2 Number and priority of patients visiting the ED, 1 June to 31 August, 2016

Triage priority	June 2016	July 2016	August 2016
P1 (Red)	05	0	01
P2 (Orange)	266	255	289
P3 (Yellow)	796	763	851
P4 (Green)	689	668	769
P 5 (Blue)	20	15	17
Subtotal	1776	1701	1927
Total	1776	1701	1927

Source*: Hospital records* (2016)

The selected ED has used the South African Triage Score (SATS) since 2010. Triage is done at an open reception designated as triage area, situated inside the ED near the entrance. There are two chairs, one for a patient and one for a triage nurse. One area is dedicated for doing patients' vital signs and there is a computer where all the patient information are recorded. There is an open space within the ED with wooden benches and a television set designated as a waiting area, where patients sit and wait to be treated after triage. This is the area where priority three and four patients wait after being assessed by the triage nurse. There is an enclosed area in

the consulting area with six beds for patients prioritized as one or two and also used for examination of patients during consultation.

1.6 SIGNIFICANCE OF THE STUDY

Triage has been approved and used as a lifesaving initiative especially for critically ill patients, and been found to improve the quality of ED services and patient satisfaction (Erenler, Özel, Ece, Karabulut, Oruçoğlu, Cifti .2015:14). Even though the lives of critically ill patients are saved, some patients with low illness acuity have negative experiences in triage and leave the ED before seeing the doctor which jeopardises their health (Piccolo 2013:15). The benefits of triage for EDs include reduction of overcrowding and long waiting times, but the researcher found little literature available on how patients experience it, especially in Botswana.

Understanding the patients' experiences in triage may help healthcare professionals to enhance patient-centred triage and improve patient satisfaction (Chandra, Mullan, Ho-Foster, Langeveldt, Caruso, Motsumi & Kestler 2014:2). The researcher was of the opinion that involving the data analysis and identifying strategies to enhance patient-centred triage might enhance the participant healthcare professionals' ownership and consequent implementation of these strategies in the ED. This, in turn, might move existing triage towards patient-centred triage. Patients' satisfaction in the ED may increase if the identified strategies to enhance patient-centred triage are implemented in future. The findings should assist the Botswana Ministry of Health to adopt and introduce a patient-centred triage system based on SATS.

The study is relevant to the needs of the participants and other patients of the ED and the knowledge gained by the participant healthcare professionals during data analysis and strategy identification would assist to move ED towards patient-centred triage thereby improving patients' experience of triage. This would benefit other EDs and hospitals.

1.7 CONCEPT CLARIFICATION

For the purposes of this study, the following key terms are used as defined below.

1.7.1 Healthcare professionals (HCPs)

In this study, healthcare professionals (HCPs) refer to medical doctors registered with the Botswana Health Professionals Council and registered nurses registered with the Botswana Nursing and Midwifery Council of Nurses working in the ED (*Nurses and Midwifery Act 1*, 1997:3).

1.7.2 Patients

Patients entering the ED to seek medical care are triaged to determine their level of illness. In the ED the SATS is used to identify the patient level of priority (Rominski, Bell, Odura, Ampong, Oteng, Donkor, 2013:73). Priority three patients are patients that are physiologically stable based on the initial assessment and vital signs (Rominski, Bell, Odura, Ampong, Oteng, and Donkor, 2013:73). These patients are assigned a yellow colour and their target times to treatment are within 60 minutes (Twomey 2012:6). Patients who are admitted to the ED with minor illness or injuries are triaged as Priority four colour green, and their target times to treatment are within 240 minutes (Twomey 2012:6:28). In this study, patients refer to priority three (yellow) and four (green) patients triaged at the ED.

1.7.3 Patient-centred triage

Triage originated from the French *trier*, which means to sort out and aims to bring "the greatest good to the greatest number of people" (Rominski, Bell, Oduro, Ampong, Oteng & Donkor 2014:72). Triage is used as a medical process for selecting and prioritising a wide range of patients according to their level of illness so that critically ill ones could be seen first (Twomey, Cohen, Louw, Ismael 2013:305). Patient-centred care is an approach that came into practice around 1961 with the intention of incorporating patients' experiences in all spectrums of care with the emphasis on the needs, wants and desires of patients (Draper & Tetley 2013:156). In this study, patient-centred triage refers to a medical process, which incorporates the needs, wants and desires expressed by the patients triaged as yellow and green in the selected ED in Botswana.

1.7.4 Strategy

Strategy refers to putting together thoughts, ideas, insights, experiences, goals, expertise, memories, perceptions and expectations for the purpose of guiding specific actions with the aim to achieve a certain outcome (Nickols 2012:5). In this study, a strategy refers to the participant HCPs' statements based on their thoughts, perceptions and insights to achieve patient-centred triage, following reading and analysing the data collected from the patient participants of triage.

1.8 PARADIGM

A paradigm is a way of looking at natural phenomena that encompasses a set of philosophical assumptions and that guides one's approach to inquiry and serve as an important frame work for guiding research (Rahi, 2017:1).The researcher used the interpretative paradigm as the framework for the study. Elshafie (2013:7) describes interpretivism as a qualitative paradigm that believes that knowledge lies within individuals and that individuals have their own personal way of constructing meaning from their own perspective.

This study wished to explore and describe the different ways the patients (participants) constructed their own knowledge and perception of triage service offered at the ED. The participants' autonomy was ensured because they were free to describe their experiences based on their interpretation of the phenomenon in terms of their culture, values and experiences (Elshafie 2013:7). The interpretive paradigm is based on ontological, epistemological and methodological assumptions. Assumptions are principles that are accepted as true based on logic or reason, without proof (Polit & Beck 2012:720).

1.8.1 Ontological assumptions

Ontology is the study of being or reality and what there is to be known about the world (Richie, Lewis, Nicholls & Ormston 2013:4). Ontology believes that there is a difference between the way the world really is and the way it is given meaning and interpretation by an individual (Creswell 2013:36). Ontological assumptions are concerned with the reality that is being investigated. In this study, then, it was assumed that even though triage is there to save the lives of patients, individual

patients may experience and interpret it differently. The study sought to understand the various ways patients in the ED experienced triage and the meaning they gave to it according to their individual perspective or world-view.

1.8.2 Epistemological assumptions

Epistemology is concerned with the nature of knowledge, its possibility, scope and general basis. Epistemological assumptions are assumptions about the nature of knowledge and science or about the content of truth and related reality. Epistemology, then, is concerned with how individuals attain knowledge, came to know and learnt about the world (Richie et al 2013:6). The assumption is that individuals construct knowledge based solely on how they experience the world around them or the phenomenon (Elshafie 2013:7). Accordingly, the researcher was independent from and had no influence on the participants. This, therefore, allowed the participants to reflect on and describe their triage experiences while the researcher's preconceptions remained bracketed throughout the study (Elshafie 2013:7). The epistemological knowledge focused on the participant patients' knowledge acquired through triage and the ways they experienced the phenomenon of triage. Through the participants' description and interpretation of their triage experiences they revealed their social reality (Elshafie 2013:7). The researcher was of the opinion that gaining insight into the participants' social reality, namely their experiences in triage, would assist and enable the researcher and healthcare professional participants to identify and formulate strategies that could enhance patient-centred triage (Boomer & Mc Cormack 2012:634).

1.8.3 Methodological assumptions

Methodology refers to the process and procedures of the study. Evidence is best obtained through stories patients and healthcare professionals tell about their experience of patient-centred communication in the ED (Polit & Beck 2012:130). Rich, in-depth information was obtained through face-to-face interviews with the patient participants (Polit & Beck 2012:130). Methodological assumptions deal with how the researcher will conduct the study (Creswell 2013:36).

1.9 RESEARCH DESIGN AND METHODS

A research design is "the overall plan for addressing a research question, including the specifications for enhancing the integrity of the study" (Polit & Beck 2012:741). In this study, the researcher used a qualitative research design, using a phenomenographic strategy. De Vos, A.S.Strydom, H. Fouche, C.B. & Deport, (2011:66) state that a qualitative research design describes the participants' perceptions and experiences.

Research methods are "the techniques researchers use to structure a study and to gather and analyse information relevant to the research question" (Polit & Beck 2012:741). These include the population, sample and sampling, data collection and analysis, and data-collection techniques. The population for the study was limited to patients who were triaged at the ED in the selected hospital. Only patients categorised as priority three (yellow) and four (green) who had been triaged at the ED were included since they were within the category that complained the most. The selection of participants was done fairly and justly to avoid bias which might negatively influence the results.

Key role players were engaged in the study from planning, conducting, analysing and dissemination of results. The key role players included the researcher's supervisor, the ethics committee of the Botswana MOH, and the management, ED and staff of the hospital where the study was conducted. The involvement of the key role players assisted the researcher and gained their cooperation (Boomer & McCormack 2010:644). Data was collected by means of face-to-face semi-structured interviews and then analysed by using Boomer and McCormack's (2010:644) six-step creative hermeneutic data analysis method.

The research design and methods are discussed in detail in Chapter 2.

1.10 ETHICAL CONSIDERATIONS

Ethics deals with matters of right and wrong. Ethical considerations are essential to the design of any research involving human subjects in order to protect the rights of

the research participants (Howell and Obado-Joel 2016:2). According to Polit and Beck (2012:727), ethics refers to the obligations that the researcher has towards the research participants. If the highest ethical research standards and obligations are followed, it will promote fair treatment and protect participants from any harm.

Howell and Obado-Joel (2016:2) stated that when conducting a study the researcher must ensure that the participants are protected from harm and possible benefits should outweigh potential harm.

In this study, the participants were not exposed to harm or discomfort. The participants were informed that their participation in the study may help improve their and other patients' experiences in ED as healthcare professionals (HCPs) would be part of the data analysis in order to devise strategies to improve patients' experiences in triage.

In this study the researcher obtained ethical clearance and permission to conduct the study, and upheld the principles of the *Belmont Report* (1979), namely beneficence, respect for human dignity, and justice (National Commission of the United States of America 1979:4).

1.10.1 Ethical clearance and permission

The researcher applied for and obtained written ethical approval and permission from the Faculty of Health Sciences, University of Pretoria and the Ministry of Health in Botswana (view Annexure A1 and A2). Permission to recruit participants was obtainedfrom the study hospital's ethics committee and the ED management of the hospital where the study was done (view Annexure A3).

1.10.2 Researcher competence and expertise

In research, the participants' safety and wellbeing must be protected by making sure that the researcher's qualifications and scientific and technical expertise are valid (Botswana MOH 1995). The researcher is a master's student whose proposal was approved by the Research Committee of the University of Pretoria, Botswana MOH, and the hospital where the study was conducted. The researcher has also worked in the ED for more than ten years and has gained experience in triage which rendered her competent to conduct the study.

1.10.3   Beneficence

Beneficence imposes a duty on researchers to minimize harm and to maximize benefits. Human research should be intended to produce benefits for participants themselves or for other individuals or society as a whole (Polit & Beck 2012:152). Moreover, all researchers need to ensure that the welfare of all study participants is safeguarded and it is considered unethical to undertake research that will be of no benefit to either the participants or society as a whole (Polit & Beck 2012:152).

1.10.4   Respect for human dignity

Respect for human dignity involves the participants' right to self-determination, which means participants have the freedom to control their own activities, including their voluntary participation in the study (Polit & Beck 2012:154). In this study, the researcher assured the participants that participation was voluntary (free) and that they could withdraw from the study at any time should they wish to do so.

The participants were informed of the nature of the study as well as the benefits of the study to improve practice, with specific focus on patient-centred triage in the ED, and that data would be collected by means of face-to-face interviews for them to describe their experiences in triage. The researcher asked all participants for permission to tape-record the interviews. The participants were also informed that the only discomfort they would experience would be through having to stay an extra 20 to 30 minutes after the doctor's consultation. After explaining the nature and purpose of the study, the researcher gave each participant a copy of the information leaflet (view Annexure B). Data was only collected once the participants had volunteered to participate and signed the informed consent form (view Annexures D1 and D2). The study focused on patients who were not critically ill, namely category three colour coded yellow and category four colour coded green, since they could wait for one to four hours before seeing the doctor.

1.10.5   Justice

The third principle in the *Belmont Report* is justice which includes the participants' right to fair treatment, which includes privacy, anonymity and confidentiality (Polit &

Beck 2012:155). It is of the utmost importance to keep the participants' personal information and names anonymous and confidential. Accordingly, the participants' privacy and confidentiality were maintained throughout the study by using number codes instead of their names. The participants' identities were protected starting from data collection

until the dissemination of information. During data collection the researcher interviewed the participants alone, therefore, access to the participants' personal and private information and records was limited hence ensuring privacy and confidentiality.

The researcher adhered to these ethical principles in order to ensure that the interests of the participants were protected and that the information generated would provide knowledge that would benefit future patients and HCPs in EDs. In addition, qualitative phenomenography was used as the study needed a description of participants' various experiences in triage. This method gave the participants the opportunity to describe their experiences in a second-order format; that is, each participant perceived, interpreted and experienced it from their own perspective.

1.11 SUMMARY

This chapter outlined the problem, purpose and objectives of the study. Due to the importance of patient-centredness, it is necessary to hear patients' voices through their experiences. This study examined the experiences and dissatisfaction of patients triaged as priority 3 (yellow) and 4 (green) in a selected ED. The researcher and the participant HCPs working in the ED collaboratively analysed the data collected and developed strategies to enhance patient-centred triage.

Chapter 2 discusses the research design and methods of the study.

2 RESEARCH DESIGN AND METHODS

Not everything that can be counted counts, and not everything that counts can be counted.

Albert Einstein

2.1 INTRODUCTION

Chapter 1 provided an overview of the study. This chapter discusses the research design and methods used in the study, including phenomenography, the population, sampling and sample, data collection, data-collection instrument, and data analysis.

2.2 RESEARCH DESIGN

A research design is 'the overall plan for addressing a research question, including the specifications for enhancing the integrity of the study' (Polit & Beck 2012:741). De Vos, Strydom, Fouche and Delport (2011:142) define a research design as "the process of focusing on the end product and all the steps in the process to achieve the outcome anticipated". Creswell (2015:105) describes a research design as the structural plan and strategy used to address the research questions informed by the philosophical assumptions that the research brings in to the study and involves specific methods of data collection, data analysis and interpretation hence enriching the quality of the study.

The study aimed to derive patients' experiences regarding triage and with the participant HCPs to collaboratively analyse the data and develop strategies to then move towards patient-centred triage in the ED. The researcher, therefore, selected a qualitative research design, using a phenomenographic approach, for the study (Rands & Gansemer-Topf 2016:1; Traav, Gabirelsson & Kronqvist 2014:88).

2.2.1 Qualitative design

Qualitative research is the investigation of phenomena, typically in an in-depth and holistic fashion, through the collection of rich narrative descriptions using a flexible research design (Polit & Beck 2012:739). Gray, Burns and Sutherland (2017:37) describe qualitative research as "a systematic, subjective methodological approach used to describe life experiences and give them meaning". The researcher considered a qualitative research design suitable to explore, understand, explain, discover and clarify the participants' experiences in order to understand the human perspective of triage (Moreover, a qualitative research design would enable the participants to give a detailed explanation of their experiences (Cleland,2017:61).Qualitative research is generally distinguished from quantitative studies by focusing on features like 'why' and 'how' questions and uses verbs like identify, explore, describe , understand and explain to collect data rather than numbers (Cleland,2017:63). The primary focus of the study was on the participants' experiences, providing them with an opportunity to share their experiences in detail, which could vary from other patients' experiences. Chapter 3 provides direct quotations from participants regarding their experiences of triage in the ED.

Apart from using rich descriptions, analysis and interpretation, qualitative researchers go beyond the participants' constructed information with the relationship between the researcher and the participant based on human equality (Holloway & Wheeler 2013:4). Despite the equality, however, the primary focus of qualitative research is on the participants rather than the researcher as the story must be heard the way the participants want to narrate it (Holloway & Wheeler 2013:4). This study was concerned with the phenomenon of patients' various experiences in triage consequently a qualitative research design was regarded as appropriate as there was a need to gain insight into the participants' experiences in triage in an ED.

2.2.2 Phenomenography approach

Phenomenography aims to describe conceptions in an integrated way, with the potential to elicit a range of conceptions based on experiences. This study wished to explore the participant patients' experiences of triage in the selected ED in Botswana. The underpinning of phenomenography is that people can only experience the world as they know it (Khan 2014:34).

2.2.2.1 Origin

Phenomenography is largely attributed to Ference Marton and a team of researchers in 1970 at the University of Gothenburg in Sweden, used mainly to do research on first-year undergraduate learning outcomes (Rands & Gansemer 2016:2) Phenomenography is derived from two Greek words *phenomenon* (appearance) and *graphein* (description), therefore phenomenography is a description of appearances based on second-order perspective (Marton & Booth 1997:113).It is further stated that second-order perspective focuses on the phenomenon as experienced and described by participants while first-order focuses on the phenomenon as experienced by the researcher. The design was developed and implemented for many years before it was designated as a distinguished research design (Tight 2016:3).

Phenomenography has potential for healthcare research, specifically when the aim is to understand people's experiences (Assarroudi & Heydari 2016:218). Phenomenography was used in nursing research looking into the way nurses conceive themselves, understanding variations in experience and understanding of student nurses with registered nurses buddies, and nurses' perception of quality assurance (Degen 2010:39). Therefore the current study applied the phenomenographic approach to understand the participants' experiences in triage.

2.2.2.2 Tenets

In 1981, Marton (1981:177) explored phenomenography as describing conceptions of the world in which people lived. Marton set out to distinguish phenomenography from qualitative strategies such as ethnography and phenomenology.Svensson (1997:161)

maintained that Marton lacked a clear theoretical basis and examined the theoretical foundations of phenomenography. The key feature of Phenomenography is its embracing of second order perspective as its key feature in investigating the different qualitative way people understand, experience and conceive a phenomenon from their inner being (Yates, Partridge & Bruce (2012:97). Marton constructed the basic tenets of the 'pure' form of phenomenography (Rands & Gansemer –Topf (2016:4) as follows:

- Adoption of second-order perspective
- Centrality of the notion of 'essence'
- Variation and experience
- Reflection on lived experience or 'awareness'.

Each tenant will be briefly described.

> *Second-order perspective*

Phenomenography is regarded as second-order perspective (Yates et al 2012:97). In second-order perspective research, the main focus is to guide researchers understand the varying experiences, interpretation, understanding and conceptualisation thereof; for example, as in this study of patients relating to triage (Anderson, Willman, Sjöström-Strand & Borglin 2015:2; Yates et al 2012:104).Second-order research considers the way participants conceive or experience the world and describe it according to their personal understanding (Rands etal, 2016:4). The researcher and the HCP participants therefore did not make statements about triage, but focused on the patients' ideas of triage.

Chapter 3 discusses the data analysis, describes the research findings and provides supporting quotations by the participants. The data analysis revealed three categories of description (also referred to as conceptions), with related categories and sub-categories of patient-centred triage, namely environment, nursing staff and waiting times (view Chapter 3 for full discussion).

> *Essence*

Central to phenomenography is the notion of the "essence" or inter-subjective meaning made of a phenomenon (Marton 1981). Phenomenography is similar to phenomenology in that the researcher is concerned with defining the meaning or essence of a phenomenon.

The intention of phenomenographic research is to apprehend the notion of experience or understanding the phenomenon and this cannot be separated from the way an individual experience or understand it (Rands, Gansemer-Topf, and 2016:4). Rands etal (2016:4) are of the view that if the repeated investigations about a phenomenon are done, a range of limited different qualitative descriptions or conceptions are revealed. Therefore phenomenographic research emphasizes on investigating the different and similar ways a phenomenon is experienced and groups the experiences into 'collective intellect', conceptions or groups of ideas' or outcome spaces underlying probable interpretations of reality. The diagrammatic presentation can be made to show the essence of the relationship between the conceptions.

> *Variation*

One of the prime interests of phenomenographic research is identifying and describing the variation between categories of description (conceptions) and, when taken as a whole, capturing the essence of the phenomenon (Marton & Booth 1997:124). The aim is to discover and describe the participants' collective varying ways of experiencing a phenomenon (Tight 2016:3; Bromberg, Bisholt, Nilsson & Lindwall 2015:362). Phenomenography differentiates between what a phenomenon is and how it is experienced (Bromberg et al 2015:362).Using phenomenography allowed the researcher to scrutinise the participants' experiences collectively rather than consider them individually (Anderson et al 2015:2). In addition, the focus of phenomenography is on exploring the qualitative variations in conceptions (Traav et al 2014:88). In this study, the patients' collective varying experiences of triage in the ED were discovered. Through understanding the participants' experiences, the researcher and HCPs were able to co-construct strategies to move triage in the ED to patient-centred triage and thereby improve practice.

Phenomenography is an empirical framework of a qualitative research design, which believes that people have their individual ways of experiencing the world around them, constructing knowledge about it and giving it meaning according to their individual perspectives (Möller et al 2010:746; Rands etal, 2016:4). Through phenomenography categories of description can be generated that describe specific conceptions in a particular context (Traav et al 2014:88). Categories describe common meanings of a phenomenon grouped together (Rands etal, 2016:4).Central to phenomenography is the identification of multiple conceptions, also referred to as outcome space, and the logical relations between the conceptions – which are usually hierarchical in nature. Identifying outcome space enabled the researcher to provide a representation of the relationships in the variation in the ways of experiencing of triage by patients managed in the ED (Koole, Rasmussen, Costello 2014:24).

➢ Reflection on lived experiences

Since the object of experiencing a phenomenon cannot be separated from the way it is experienced or understood there is need for the participants to reflect on these experiences. Rands etal (2016:8) stated that an individual can experience a phenomenon in varying ways which could be investigated by probing the participants with questions to reflect on their own understanding or experiencing the phenomenon ; example , "What is a way of experiencing a phenomenon "The question is followed with probing questions to encourage the participant to reflect on their lived experiences which will raise the participant complete awareness of the context, relationship and how the phenomena is experienced. Therefore a complete structure of the variations can be presented Rands etal, 2016:4).In order to achieve formulation of the strategies to enhance patient centered triage in an ED in Botswana the researcher posed the following question to the participants:

Can you tell me about your experiences from when you were first checked by the nurse up to the time when you were seen by the doctor?

The researcher helped the participants to reflect on their lived experiences by asking the probing questions to raise the participant awareness in triage (view Annexure D).The complete participants reflections in the form of experiences were analyzed with the HCP to raise their awareness of the concerns of their patients .

2.3 Research methods

Research methods refer to the techniques used to give structure to a study, and how data was obtained and analysed in a systematic manner (Polit & Beck 2012:741). The research methods are discussed according to the two study objectives next.

In objective 1 the patients' experiences of triage in an ED were explored. The research methods relating the first study objective are discussed in terms of the population, sampling and data collection.

2.3.1 Population

Burns and Grove (2011:290) describe a population as all the elements, individuals or objects that the researcher is interested in studying. Polit and Beck (2008:338) distinguish between the target and the accessible population. The target population is all the cases about which the researcher would like to generalise. The accessible population consists of the cases that meet the inclusion criteria and are accessible as participants for a study. In this study, the target population was all the patients triaged as priority three (green) or four (yellow) in the ED.

2.3.2 Sampling

Sampling is the process of selecting a part of the population to represent the total population (Polit & Beck 2012:290). Purposive or non-probability sampling is used in qualitative research to select study participants because they understand the research problem and phenomenon under study (Creswell 2014:225). In purposive or non-probability sampling, the researcher selects participants based on personal judgement about which ones will be the most informative (Polit & Beck 2012:291; Creswell 2014:225).The priority three and four patients triaged on the date of data collection were

selected as a study sample due to their availability, conversant enough to understand the research question and the phenomenon under study

In phenomenographic studies, the participants should be selected from varying backgrounds and characteristics to gain different experiences (Tight,2016:5).The researcher therefore selected male and female participants, aged above eighteen years, from different educational backgrounds, and the participants had to be awake and orientated, able to speak English, mentally stable, and who had been triaged as priority three or four. The rationale for selecting these participants was that the majority of complaints received in the ED came from priority three and four patients, therefore it is essential to get the experiences from varying groups of people as described by Sin 2010:312).To capture varying experiences participants were selected at different times ,that is; from the morning, evening and night shift, weekdays and weekends to have a fair representation of participants in order to obtain rich varying experiences and information without bias (Tight,2016:5).

Table 2.1 presents the participants' demographic profile.

Table 2.1: Participants' demographic information

Participant	Gender	Age	Educational level	Triage priority	Time triaged	Day of the week
Patient 1	F	22	Diploma	4	10 am	Tuesday
Patient 2	M	53	Bachelor's degree	3	8 pm	Wednesday -
Patient 3	M	29	Certificate	4	12 midnight	Saturday
Patient 4	F	24	Diploma	3	11 am	Thursday
Patient 5	M	23	Diploma	3	01 am	Saturday
Patient 6	F	28	Secondary	3	3 pm	Friday
Patient 7	M	29	Secondary	3	10 pm	Friday
Patient 8	M	45	Secondary	4	3 pm	Monday
Patient 9	F	48	Diploma	4	08 am	Sunday
Patient 10	M	50	Bachelor's degree	3	1 pm	Wednesday

2.3.3 Data collection

Data collection is the precise, systematic gathering of information relevant to the research purpose or specific objectives of a study (Burns & Grove 2013:41). Data was collected by means of face-to-face semi-structured interviews. In phenomenography, the purpose of collecting data is to describe how participants experience the phenomenon (Creswell 2013:161; Sin 2010:313). In the study in-depth face-to-face semi-structured interviews were used to explore and describe the participants' experiences of triage in the ED Through obtaining direct, rich and detailed data, the researcher and the HCPs wished to obtain insight into the way the participants experienced triage by giving them the opportunity to voice their experiences and perceptions (Creswell 2013:161).

In addition, semi-structured interviews provide valuable information in the form of participants' verbal and non-verbal responses and allow researchers to understand the phenomenon in the context as experienced by participants (Saunders, Lewis & Thornhill 2012:318.The nonverbal responses were captured through paying attention to gestures like body movements, postures, facial expressions and quality of voice. During the interview the researcher picked emotional expressions like crying or raising voices, frowning during the interview. The researcher conducted and recorded all the interviews and transcribed later (Bornacio, O'Reilly, O'Sullian, Chiocchio 2016:20). Throughout the study, the researcher remained conscious of not influencing the participants by focusing on their expressions and avoiding assumptions, but asking probing questions for clarification, if necessary (Foltos 2014:30). The researcher listened empathetically, did not introduce new terms or ask any leading questions. The interview guide was semi-structured and consisted of one open-ended question. In the interviews, the participants could freely express their experiences and perceptions of patient-centred triage in the ED. Ten (10) participants were interviewed. Data saturation was obtained after eight (8) interviews. A further two interviews were conducted to ensure that no new data emerged (Yates et al 2012:103).

2.3.3.1 Pilot study

Before data collection, the researcher had several practice sessions with the supervisors to prepare for the interviews. In May 2016, the researcher conducted a pilot study with two (2) participants who did not participate in the study in order to test the validity and feasibility of the interview guide (Traav et al 2014:88). A pilot study or pre-test is a trial run to determine whether the instrument is clearly worded and free from major biases and whether it solicits the desired information (Morin, 2013:547). The pilot study enabled the researcher to practise her interview skills and indicated that probing questions were necessary (Moxham, 2012:35).

Table 2.2 presents the two participants' demographic profile.

Table 2.2: Pilot study participants' demographic profile

Participant	Gender	Age	Educational level	Triage priority	Time triaged	Day of week
Pilot patient 1	Female	58 years	Diploma	4	12 pm	Monday
Pilot patient 2	Male	24 years	Diploma	3	7 pm	Saturday

Anderson, Willman, Sjöström-Strand and Borglin (2015:3) state that a question should ask the participants what the phenomenon of interest means to them and be followed up by other questions that prompt them to tell the interviewer more about the phenomenon and how they experience it (view Annexure D3). In the pilot study, the researcher asked the participants the question:

Can you tell me about your experiences from when you were first checked by the nurse up to the time when you were seen by the doctor?

During the pilot study the researcher realised that probing questions were necessary to elicit a deeper understanding of the patients' way of experiencing triage in the ED. The following probing questions were incorporated:

- Can you explain further what you mean by that?
- Can you give me an example?
- I am not sure I understand what you mean.
- How do you feel about it?
- How does it affect you as a patient?
- Is there anything else you would like to add?

2.3.3.2 Semi-structured interviews

The face-to-face semi-structured interviews were conducted from July to August 2016 and involved three phases, namely preparatory, interview and post-interview.

⇨ *Preparatory phase*

The researcher obtained permission to conduct the interviews in a secluded office in the ED where there was minimal risk for interruptions and noise (Gerrish & Lacey 2010:352). The office was accessible, quiet, convenient to the participants, and provided comfort, privacy and confidentiality (Gerrish & Lacey 2010:352).The interview guide incorporated the probing questions elicited during the pilot study (view Annexure D3).The phase also included the organization of the audio tape recorder and batteries; a note book; identification cards, recruitment of participants and provision of a participant information and consent letter with the researcher's details (view Annexure D1).

The researcher and the contact nurse purposively selected the participants based on their varying characteristics and triaged as priority three or four (Burns & Grove 2013:365). The interviews were scheduled at a time and date which suited the participants.

⇨ *Interview phase*

The researcher introduced herself to the participants in a friendly way and explained the aim of the study, and the importance of their contribution, which in turn enhanced their

trust in the researcher (Gerrish & Lacey 2010:352). Establishing rapport and gaining the participants' trust was important to enhance the worth of the data obtained. The researcher clarified all the sections in the participant information leaflet (view Annexure D1). The researcher ensured that the interviewee understood the confidentiality agreement and obtained permission to audiotape record the interview from all the interviewees (Foltos 2014:30; Gerrish & Lacey 2010:352). Audio-taping the interviews ensured the accuracy of the data, minimized the loss of information and allowed the researcher to concentrate and give her full attention during the interview. The researcher allowed the participants to clarify any doubts about the interview. Once the participants had agreed to participate, they were asked to sign the informed consent form (American Psychological Association 2010:13). View Annexure D1). Before commencing the interviews, the researcher obtained the participants' demographical information (view Annexure E1).

Once informed consent forms were signed, the researcher switched on the audio recorder and commenced the interview. One open-ended question and probing questions were used (view Annexure D3) to allow the participants to reflect on their experiences and thereby provide unanticipated information (Yates et al 2012:102; Sin 2010:9). The open ended question that was asked is as follows;

Can you tell me about your experiences from when you were first checked by the nurse up to the time when you were seen by the doctor?

Throughout the interview the researcher paid attention and showed interest by listening attentively to the participants' experiences (Gerrish & Lacey 2010:352). The researcher's subjectivity was bracketed throughout the study to avoid influencing responses (Anderson, William, and Sjöström-Strand 2015:3). The researcher avoided interrupting the participants and said as little as possible throughout the interview to not influence them (Gerrish & Lacey, 2010:352). The researcher used strategies such as prompts, probes and maintaining eye contact throughout the interview to gain an in-

depth understanding of the participants' experiences of triage in the ED (Anderson et al 2015:3; Stensfor-Hayes, Hult & Dahlgren 2013:264; Gerrish & Lacey, 2010:352). Data was collected within two months (July to August 2016).

⇨ *Post-interview phase*

On completion of each interview the researcher summarised the main points and confirmed the accuracy of the information with the participants (Sin 2010:314). The researcher reassured the participants that the information they shared was confidential and no names would be used when disseminating the content. Following the interview the participants were formally thanked for sharing their experiences. The researcher repeatedly listened and reflected on the relevant contextual features of the interview shortly after the interview to avoid losing touch with interview (Sin 2010:314).

Objective 2: Strategies to enhance patient-centred triage

The second objective was to identify strategies with healthcare professionals to enhance patient-centred triage in the ED. The researcher transcribed the data collected from the interviews verbatim without interpreting or restating to ensure that the participants' information remained original (Sin 2010:314). Sharing the data obtained from patients (verbatim transcribed interviews) with healthcare professionals (data analysis) working in the ED was regarded as vital, as it would raise awareness of the healthcare professionals of the way in which patients experienced triage. Being included in the data analysis process, the healthcare professionals would have an understanding of the way in which patients' experience triage and therefore be able to plan strategies (view Sections 3.3.4, 3.4.3 and 3.5.4) to move towards patient-centred triage in the ED. Collaborating, including and participating with the healthcare professionals may also enhance the buy-in from the healthcare professionals, which may then increase ownership to move towards patient-centred triage. The researcher reread the transcribed information to familiarize with the data yet during data analysis the researcher distanced from the process of analysis to avoid influencing the results and allowed the healthcare professionals to interact with the data by repeatedly reading it

and identifying patients experiences hence bracketing and being empathetic (Sin 2010:314).

2.3.4 Population

The population comprised all the HCPs (nurses and doctors) working in the selected ED. To be included in the study, the HCPs had to work in the selected ED and be involved in triage. Six doctors and eighteen nurses and one matron worked in the selected ED. Of these eighteen nurses are involved in triage, six doctors attend to the patients after triage.

2.3.5 Sampling

Purposive sampling was used to select the participants. HCPs who were off duty with different chacteristics like gender, age, years of experience in triage were asked to participate in the data analysis process. Collaboration during the data analysis was done to raise awareness of the participants' experiences of triage and involve them in planning strategies to promote and enhance patient-centred triage in the ED.

Table 2.3 summarises the demographic profile of the HCPs who participated in the data analysis event, which took place on 9 September 2016 from 08:00 to 11:30. The HCP participants' demographic profile is presented below.

Table 2.3 HCP participants' demographic profile

	Participants	Gender Male	Female	Age (years)	Experience in ED
Nurses	Healthcare professional 1		X	52	3 years
	Healthcare professional 2		X	46	5 years
	Healthcare professional 3	X	X	34	9 years
	Healthcare professional 4	X	X	34	9 years
	Healthcare professional 5		X	44	3 years
	Healthcare professional 6		X	26	3 years
	Healthcare		X	28	8 months

professional 7				
Healthcare professional 8		X	34	10 years
Healthcare professional 9		X	33	1 year and 6 months
Healthcare professional 10		X	29	5 months
Healthcare professional 11		X	26	9 months

Eleven (11) professional nurses attended the data analysis event. Of the participants, two (2) were males and nine (9) were females; their ages ranged between 22 and 52 years with an average age of 30 years, and their experience in the ED and triage varied from five months to 9 years with an average of 3 years. All the six doctors working in the ED were invited, but none attended the data analysis event.

2.3.6 Data analysis
Eleven HCPs collaboratively analysed the data obtained from the participants. A quiet empty room outside the hospital was used for data analysis. Before commencing, the researcher discussed the aim of the study as well as the content of the participant information leaflet (view Annexure D2) with the HCPs. The HCPs participated voluntarily and signed informed consent. The purpose of inviting the HCPs' participation in the data analysis was to raise their awareness of the patient participants' experiences in triage and involve them in planning strategies to promote and enhance patient-centred triage in the ED.

Figure 2.1 depicts some of the HCP participants and a facilitator engaged in data analysis.

Figure 2.1 Facilitator and HCPs engaged in data analysis

Boomer and McCormack's (2010:644) six-step of creative hermeneutic data analysis method was adapted to analyse the data. Two experienced facilitators, who had previously used the method, organised and led he data analysis. During analysis the researcher asked the participants to avoid influencing interpretation of the findings by bracketing their preconceptions, having empathy for patients' experiences and focusing on the transcribed data (Stenfors-Hayes,Hutt,Dahlgren, 2013:263).The six steps of data analysis as described by Boomer and McCormack (2010:644) were adapted for data analysis.

Step 1: Pair participants and ask them to read through the transcribed data. Then ask each participant to create a visual image – capturing the core idea(s) of what they read in the transcribed data.

- Step 2: Participants then share their visual image with their co-participant (paired partner), focusing on what their picture represents. The co-participants listen attentively and write down the main ideas, which may create an opportunity to raise awareness regarding the patients' experiences of triage in the ED.

- Step 3: Using the written main ideas (categories of description) and the creative image as the centrepiece, the participants are asked to identify as many categories of description as possible. Each category is then written on a separate piece of paper.

- Step 4: Form small groups (3 to 4 participants) by putting pairs together. Each group identifies categories of description and discuss them to create and reach consensus on shared categories. The choice of group members was done using systematic random sampling where HCP were asked to count one up to three and the participants were grouped according to their numbers example three s formed a small group (Rahi 2017:3).

- Step 5: The small groups then present their categories of description to the other groups and a discussion follows to finally agree on one set of categories of description by all groups.

- Step 6: Each participant is then asked to note down three strategies on separate sticky notes that could be implemented to enhance patient-centred triage in the ED. The participants are then given a chance to display their strategies under applicable categories identified. The identified strategies could be implemented by the HCP at later stage to enhance patient-centred triage in the ED.

2.4   TRUSTWORTHINESS

Trustworthiness is "the degree of confidence that qualitative researchers have in their data, using the strategies of credibility, dependability, confirmability, and transferability" (Polit & Beck 2012:745; White, Oelke & Friesen 2012:246).To ensure the trustworthiness of the study, the researcher used credibility, dependability,

confirmability, transferability and authenticity (Polit & Beck 2012:584).Phenomenographic trustworthiness is established through checking validity and reliability in order to promote rigor in the study. Validity refers to sufficient control over variables and the extent to which the study results can be generalised (De Vos et al 2011:153). Reliability is the degree of consistency and dependency of the research technique (De Vos et al 2011:156). This means that an instrument is dependable if it yields the same results when used repeatedly over time on the same subjects. Rigor is defined as the strong point of the research design and it ensures that the study is conducted prudently following the right processes and eradicating all the circumstances that could jeopardize the expected outcome of the study and ensures that the conclusions made could be trusted by the readers (Gerrish & Lacey 2010:24). Consequently, to ensure validity, reliability and rigor, the researcher made sure that the results were not influenced by the researcher but were solely the participants' experiences. The researcher informed the HCPs during collaborative data analysis that they should avoid influencing the results but bracket their preconceptions and assumptions and be empathetic towards the experiences of the patients.

2.4.1 Credibility

Credibility refers to the confidence that the researcher has in the truth of the data and the interpretation thereof (Polit & Beck 2012:585). Credibility validates that there is a match between the participants' experiences and the researcher's reconstruction and representation of them (de Vos et al 2011:420). In this study, credibility was enhanced the following:

- The researcher has worked in the ED for approximately 10 years and therefore has prolonged engagement in the context.
- The researcher ensured that the HCPs adhered to the transcribed data and read through the data to acquire empathy with the patients.
- The interview guide guided the researcher to collect similar data during the interviews.

Credibility was ensured from the beginning of the study to the end by controlling and checking the researcher's background; formulation of the data-collection questions; interviewing the participants and tape-recording the data; analysing the verbatim transcribed data, and reporting the final categories of descriptions (Polit & Beck 2012:585).

2.4.1.1 Researcher's background

It is essential for a researcher's background to be known as the researcher interacts with the data throughout the study therefore credibility of the findings should be verified De Vos et al 2011:419). The researcher worked in the same ED for ten years (2000 to 2010) as a registered (professional) nurse and has done triage. To avoid bias, the researcher selected the participants and interviewed the eligible patients from priority three and four who were triaged and seen during different shifts to avoid bias in selection of participants.

2.4.1.2 Formulation of the research questions

Research questions should be formulated in such a way that they ask participants about the phenomenon of interest (Anderson et al 2015:3). One question was asked, giving the participants liberty to express their experiences without being led. Probing questions were asked for further clarification so that participants could explain the experiences without being led by the researcher (view Annexure D3)

2.4.1.3 Interviewing the participants

The interviews were tape recorded for accuracy and summarized to participants to ensure that the information was a true representation of the interview thereby ensuring credibility (Gerrish & Lacey 2010:352; Sin 2010:9).

2.4.1.4 Analysing the data in the verbatim transcribed scripts

The results of the study should be a true representation of the participants' experiences. The researcher applied Boomer and McCormack's (2010:644) data analysis method which excluded her from directly analysing the data. The HCPs collaboratively analysed

the data thereby preventing researcher bias and gaining a "buy in" from the HCPs. The data analysis process was conducted by two facilitators who were familiar with the method. The researcher reminded the HCPs to bracket their experiences throughout data analysis. (View Section 2.3.6).

2.4.1.5 **Reporting the final categories of descriptions**

During data analysis the HCPs identified categories of description that emerged from the data. These categories of description were further discussed, analysed and refined (Boomer & McCormack 2010:644; de Vos et al 2011:420).

2.4.2 Dependability

Dependability means enhancing the reliability of data over a period of time even in changing conditions (Polit& Beck 2012:585). The researcher followed the planned methodology throughout the study (de Vos et al 2011:420). The researcher ensured that the data collection exercise was not influenced, ensuring that the results of the study represented what the participants saw and experienced along the way. The methodology is outlined in a way that another researcher with similar objectives may follow and have the same results, unless if a different path is followed.

2.4.3 Confirmability

Confirmability refers to the objectivity of the researcher in ensuring that the data collected and interpreted are not influenced by the researcher (Polit & Beck 2012:585). In this study, the researcher ensured confirmability by bracketing her perceptions and assumptions during data collection and focused solely on the participants. In addition, the researcher informed the HCPs that their personal perceptions should be bracketed during data analysis.

2.4.4 Transferability

Transferability refers essentially to the generalization of data; that is, the extent to which the findings can be transferred to or have applicability in other settings or groups (Polit & Beck 2012:585).

Transferability refers to the extent in which the collected data can be transferred to other contexts and whether the data is descriptive enough to be used in other contexts (Polit & Beck 2012:585). Accordingly, the researcher provided thick, rich and thorough descriptions of the research design, context, participants, data collection and analysis methods (Polit & Beck 2012:526).The data collected is not transferable to other areas since the study was limited to one selected ED and hospital.

2.4.5 Authenticity

Authenticity refers to the extent to which researchers fairly and faithfully show a range of realities. Authenticity in a report conveys the tone of participants' lived experiences (Polit & Beck 2012:585). Authenticity is achieved if participants' experiences are the reality and delivered with truth and faithfulness (Polit & Beck, 2012:585). Through the audio-taped interviews with the participants their experiences explored the reality relating to triage in the ED and provided the HCPs with an opportunity to gain insight into and understand the current reality. The HCPs could then collaboratively plan strategies to promote patient-centred triage in the ED.

2.4.6 Bracketing

Bracketing is the process of identifying and holding in abeyance any preconceived knowledge, beliefs and opinions about a phenomenon throughout the study (Polit & Beck 2012:721). In bracketing, researchers set aside their own views, preconceptions and knowledge so that they do not influence the research process and outcome. To ensure bracketing in this study, the researcher reflected continuously on how her own actions, values and perceptions impacted the research setting and affected data collection and analysis (Gerrish & Lacy 2010:531). Therefore the researcher who was knowledgeable on triage bracketed her experiences to avoid influencing the results (Anderson et al 2015:3).The phenomenographic design avoids the influence of the study by having a well-detailed plan from beginning to end (Umeogu 2012:3).

 For example, the participants selected were in line with the purpose of the study as planned in advance to be from the group that complained the most, namely priority

three and four. Therefore the researcher focused only on this group to avoid bias. It is important to bracket the researcher's ideas therefore the in-depth semi-structured interview with one opening question was used throughout the study to allow the participants to talk more while the researcher talked less and asked probing questions depending on the participant's discussion (Khan, Bibi & Hasan 2016:5). The researcher repeatedly read the transcripts during verbatim transcription to ensure that all the participants' experiences were captured.

Researchers must be empathetic to participants' experiences as described by them and avoid personal input (Anderson et al 2015:47) for example, as participants stated that HCPs were collecting their history while other patients were nearby, the researcher was not supposed to clarify but empathise with those experiences to avoid influencing the results. During data analysis the researcher emphasised the verbatim transcribed data and bracketed her own ideas.

The researcher's main focus was on the transcription and the results to be discovered and constructed from the participants' experiences rather than predetermining the results (Stucky, 2017:7). During data analysis the researcher engaged the participant HCPs to look into the experiences of participants individually and discuss them as a group to clear any bias and share common understanding of the results (Boomer & McCormack 2010:644).The transcripts back the data analysis as evidence that the participants' voices were analysed, not the researcher's.

2.4.7 Empathy

Empathy involves an understanding of participants' experiences, concerns, and being able to communicate this understanding and the willingness to help (Hojat et al 2010:83). The researcher and the HCPs bracketed their knowledge and experience, focused on the experiences as related by the participants, showed their empathy and willingness to help throughout the data collection and analysis.

2.5 SUMMARY

This chapter discussed the research design and methods in detail, including the rationale for using a phenomenological approach, the population, data collection-collection instrument, data collection and analysis. Chapter 3 discusses the findings with reference to related literature.

3 RESEARCH FINDINGS AND DISCUSSION

If you don't like something change it, if you can't change it,
change the way you think about it.
Mary Engelbreit

3.1 INTRODUCTION

Chapter 2 discussed the research design and methods used in the study. This chapter covers the data analysis, findings, strategies and recommendations, and the outcome space designed by the researcher.

3.2 CATEGORIES OF DESCRIPTION

Eleven HCPs participated in the data analysis on 6 September 2016 from 0800 to 12:00. No doctors attended and the HCPs who collaboratively analysed the data from the interviews with the 10 patients were nurses involved in triage. Three categories of description (also referred to as conceptions) were identified, with related categories and sub-categories, namely

- Category of description1: Environment
- Category of description 2: Nursing staff
- Category of description 3: Waiting times

Table 3.1 lists the categories of description and their related sub-categories, and the anticipated outcome.

Table 3.1 Categories of description, sub-categories and anticipated outcome

Category of description	Sub-category	Anticipated outcome
Environment	Privacy	
	Confidentiality	
	Resources	
Nursing staff	Sharing of information	Patient-centred triage
	Attitude	
Waiting times	Neglect	
	Emotional distress	
	Dissatisfaction	

The categories of description and related sub-categories are discussed next.

3.3 CATEGORY OF DESCRIPTION 1: ENVIRONMENT

Although the patients agreed that triage is an essential part of emergency care, and that the customer service was good, they perceived the environment in which triage was done as challenging because the area dedicated to triage was an open space (view Figure 3.1). According to the participants:

It's an open area [triage desk]…everybody could hear what you were talking about. I sat next to the nurse facing the computer and I saw other people's illnesses and the colours assigned to them. (Participant 7)

It was good [customer service] but the environment was intimidating me.
(Participant 7)

I felt embarrassed because I had to give my information in front of other people [patients].
(Participant 2)

The environment in which triage was done was an open area which is a Holloway sub-divided into a waiting area and triage area. The patients perceived this as unsatisfactory and intimidating. (View figure 3.1 for depiction of triage area). Conventional hospital environmental design, including waiting rooms, could contribute to patient stress which is also often aggravated by crowding (Nemschoff 2015:1; O'Connor, Gatien, Weir & Calder 2014:3).The ED environment as well was perceived by participants as stressful and intimidating.

On arrival in the ED environment patients' queue to be triaged by a nurse seated at an open reception desk. Currently the open environment exposes patients to unnecessary invasion of privacy since other patients and relatives make general enquires at the same triage desk. The people making enquiries during triage sessions can overhear other patients' private information thereby invading the patient privacy. The openness of the triage area limits the triage nurse from carrying out activities like initial dressing and the patient information on the triage computer could be viewed by passers-by and patients being triaged as the place is open (view figure 3.1). There is also a hallway demarcated by curtains where patients are kept after triage and privacy and confidentiality becomes compromised making communication between healthcare professionals and patients difficult and intimidating (Lin, Lin, Chen and Lin 2013:1).

Figure 3.1 Current triage environment

Burström, Starrin, Engström and Thulesius (2013:2) state that triage can be done by both nurses and medical doctors, where a doctor may assess the patient, order special investigations (such as a chest X-ray or full blood count) and implement initial treatment hence reducing waiting time for patients during triage. Though physicians can conduct triage it is new and uncommon in the Botswana ED. The ED environment is not conducive for doctors' triage as patient assessment has to be done in an enclosed area to enhance patient privacy.

In Saudi Arabia, experienced triage nurses are able to identify critically ill patients better than other HCPs, thereby promoting good patient outcomes (Qureshi 2010:691). In the Botswana ED, all levels of nurses conduct triage from Registered nurse to Chief Registered nurse. Even though internationally nurse triage has been recognised as promoting good customer outcome, contrary in Botswana ED, the participants commented that the customer service was good except that the environment where triage was done invaded their privacy and confidentiality as they had to give private information in front of other patients. This was viewed as embarrassment by the participants. Upon entering the triage area, the patient is seated and waits in front of the open triage area while the triage nurse performs a brief history-taking and focused assessment on the other patient before assigning an acuity priority based on the South African Triage Score (Augustyn 2011:24).Though focused assessment is part of the triage procedure the environment was open so the nurse could not carry out all the focused assessment hence risking missing some of the information not given by the patient.

The ED environment uses face to face triage which was viewed as a controversy between the health care service delivery expected from HCP and actual care received.

For instance protection of their confidentiality and privacy was expected as the conversation between the nurse and patient takes place at an intimidating open environment. If the environment intimidates patients they may not effectively give all the information hence jeopardising their care (Cipi,2012:152) Therefore the ED environment did not provide patient care focused around the patients which made the care un patient centered hence the need for formulating strategies to enhance patient centered triage in the Botswana ED.

Three sub-categories relating to environment were identified, namely privacy, confidentiality and resources.

3.3.1 Sub-category 1: Privacy

Privacy was one of the areas of concern experienced by the participants during triage. The triage desk is situated along the ED Holloway making the environment unconducive to express self during triage. Other patients waiting at the triage desk nearby could see what was going on between the patient and triage nurse which was intimidating. In all triage processes privacy is viewed as an essential component that must be protected (Jenkin, Calbria, Edelheim, Hodges, Markwell, Walo, Weeks & Witsel 2011:43). Patients expressed discomfort and wished they could give their private information in a private place away from public scrutiny. Participants stated that providing personal and private medical information to the nurse at the triage desk in an open environment was uncomfortable and intimidating. Patients expressed discomfort, frustration and dissatisfaction over the invasion of their privacy during triage. According to participants, the open triage environment affected their privacy:

> It's an open area [triage desk]…everybody could hear what you were talking about. (Participant 7)
>
> I had to give private information in an open area [triage desk]. I think there is a need for a corner or an enclosed area where I can share my problem without intimidation. (Participant 2)
>
> You have to talk to the doctor with other patients around you; there are no curtains and we were just next to each other. (Participant 1)
>
> It was good [customer service] but the environment was intimidating me. (Participant 7)

Privacy is defined as a state whereby one's personal affairs and information are free from being intruded by another person or stranger; the right of an individual to keep his health information private (Gensler & Spurgin 2010:225). Furthermore, privacy is invaded if one person gains access to another person's private information. Protection of personal privacy is vital in guarding the interests of individuals, preventing harm and preserving their rights as some patients have reported information withholding which could have life- threatening consequences for patients as doctors may not have a

complete picture of their health status and subsequently deprive them of better and more informed decisions about their health (Patel etal 2015:1).In this study, privacy referred to a lack of protection of patients' private information, namely vital data and the reason for visiting the ED (Augustyn 2011:24).

According to the European Data Protection Supervisor (2015:4), the right to privacy and protection of personal data are fundamental and essential for the protection of human dignity. Invasion of individuals' privacy could trigger adverse effects like patients withholding information. The protection of patient privacy might determine how effectively patients release their private information as, ideally, patients' information should not be discussed in public where it could be overheard by irrelevant people (Papoutsi, Reed,Marston,Lewis,Majeed,Bell,2015:2).According to a participant,

> I had to give private information in an open area [triage desk]. I think there is a need for a corner or an enclosed area where I can share my problem without others hearing. (Participant 2).

If privacy is not protected, it may damage the organisation's reputation and negatively affect the doctor patient relationship (Beltran-Aroca,Girela-Lopez,Collazo-Chao,Montero-Perez-Barqueromn, Muñoz-Villanueva, 2016:1). The triage environment should be an enclosed area where patients are not expected to give information where other patients and HCPs can hear everything they say. Maintaining patient trust is the cornerstone to a successful healthcare system therefore the privacy of patients should be considered throughout the triage process (Jenkin et al 2011:43). The NSW Ministry of Health (MOH) (2013:11) stipulates that a safe ideal triage environment be enclosed; have basic emergency equipment like gloves; have a hand washing basin; provide for patient examination and initial care, and have adequate communication facilities like a telephone and for recording triage information. In this study, however, the triage area at the ED was open, did not have examination facilities but had a triage area where patients' privacy was not taken into account and a computer where nurses documented

triage information, which was visible to other patients and therefore did not protect the patients' recorded information and privacy.

3.3.2 Sub-category 2: Confidentiality

Confidentiality in health care refers to the obligation of professionals entrusted with the patient's health records or communication to hold that information in confidence (Ohio State University 2013:1;Gensler & Spurgin 2010:225). Patients have a right to confidentiality (Florida Department of Health 2014:2; South African Department of Justice 2014:3). Patients expressed dissatisfaction with the ED triage environment complaining that their confidentiality was breached during the triage process as the personal and medical information shared with the triage nurses and/or doctors was not kept confidential but could be seen or heard by other patients waiting nearby. According to the participants:

> You are facing the computer and you can see everyone's [other patients] information and their problems. (Participant 1)
>
> It's open [triage desk] and it is then difficult to state your problem because others are nearby. (Participant 7)
>
> I had to give private information in an open area [triage desk]. I think there is a need for a corner or an enclosed area where I can share my problem without others hearing. (Participant 2)
>
> I felt embarrassed because I had to give my information in front of other people [patients]. (Participant 2)
>
> It's an open area [triage desk]…everybody could hear what you were talking about. I sat next to the nurse facing the computer and I saw other people's illnesses and the colours assigned to them. (Participant 7)

Inadequate hospital structures, which in this study referred to the environment in which triage takes place, facilitate breach of patient confidentiality and can jeopardize the relationship between patients and HCPs (Beltran-Aroca etal,2016:3).

Furthermore, HCPs are obliged to safeguard information entrusted to them by patients, providing care in a conducive, safe and respectful environment to fulfil their ethical obligations to all people and ensuring patient security (Cipi, 2012:152). If patients feel insecure, it affects the trust between the patient and the HCP and the patient might not provide all the required health information. Cipi (2012:152) emphasises that there is "no medicine if there is lack of trust". According to a participant:

> It's open [triage desk] and it is then difficult to state your problem because others [patients] are nearby. (Participant 7)

In the ED confidentiality was affected because the patients being triaged could see other patients' information on the computer and the environment in which triage takes place is not enclosed. This gave patients access to see or hear confidential information provided by others who were being triaged. Cipi (2012:140) maintains that all the information that a patient gives to the healthcare professionals should be treated confidentially. Medical confidentiality makes communication and the relationship between the healthcare professionals and patients stronger and therefore the patient may provide quality information for quality treatment. Furthermore, patients experience discomfort when there is a breach of their confidentiality, which makes it difficult to give vital information. According to the participants:

> It's open [triage desk] and it is then difficult to state your problem because others are nearby. (Participant 7)
> I had to give private information in an open area [triage desk]. I think there is a need for a corner or an enclosed area where I can share my problem without others hearing. (Participant 2)
> I felt embarrassed because I had to give my information in front of other people. (Participant 2)

Withholding information during triage may lead to under-triage, which might then expose the patient to risk of deterioration of their condition while waiting to see the doctor. Accurate triage is essential for accuracy of the ED operations and correct assigning of

triage priority levels thereby treating the patient on time (Gilboy et al 2012:1). Breach of confidentiality may affect the patients' willingness to seek professional medical help; make them feel uncomfortable to give all the needed information to the healthcare professional, and make them not comply with treatment plans or return for review (Majumder & Guerrini 2016:288).

3.3.3 Sub-category 3: Resources

Resources are "inputs used to produce desired goods and services and are also called factors of production may be material or immaterial", and include material and human resources (WHO 2011:5). The participants expressed dissatisfaction with the shortage of resources in the ED:

> I found somebody [patient] lying on the floor; there was no chair available. (Participant 2)
> There are no curtains. I also saw patients sleeping on couches by the waiting area exposed without blankets. Aah, I was disappointed. (Participant 5)
> I think there should be two doctors in a shift so that there is an emergency doctor and the other one [doctor] makes the line move [triage]. (Participant 8)

It is vital to have adequate resources as the quantity of an organisation's resources equates its production (Avery 2013:3). Resources are used to produce value or profit; are renewable or non-renewable, and their availability may increase proper functioning of a system, or promote wellbeing hence satisfying needs and wants of clients (Avery 2013:3). The patients emphasised two specific resources in triage, namely material and human resources.

3.3.3.1 Material resources

The patients experienced inadequate material resources in the environment where triage took place. The patients revealed that there was only one computer available to register patients and there were a limited number of chairs (two) where they could sit and wait to be triaged. Once called to be triaged by the nurse there were no curtains or screens to provide privacy during the triage process. Patients expressed

disappointment and dissatisfaction at seeing other patients in the waiting bay lying without curtains and blankets. According to the participants:

> The cubicles there [in the ED] should be increased because there are just too many patients. (Participant 4)
>
> I found somebody [patient] lying on the floor; there was no chair available. (Participant 2)
>
> There are no curtains. I also saw patients sleeping on couches by the waiting area exposed without blankets. (Participant 5)
>
> I had to ask the security guard what is going on as there were no nurses available at the reception to assist me. (Participant 3)

Material resources are assets in the form of material possessions owned by an individual or organisation; for example, screens, furniture, and linen (Snyder 2012:73). In the ED, the material resources should be adequately available in order to facilitate provision of a safe environment that promotes healthcare delivery. In a study in Florida, USA, Hwang, Payton, Weeks and Plourde (2016:2) found that during busy periods, material resources such as screens or consultation cubicles were inadequate therefore patients were triaged and even treated while waiting in the triage area. Beltran-Aroca et al (2016:3) found that inadequate resources like screens resulted in breach of confidentiality.

Material resources are essential and a lack of adequate resources hinders service delivery (WHO 2011:17). Davies2016:8) emphasises that when patients are exposed and this is observed by others, it causes embarrassment and lowers their dignity. The Ontario Hospital Association (OHA) (2010:10) states that patient satisfaction could be improved despite limited material resources if processes and systems change using quality improvement approaches to improve ED operations. For example, Nemschoff (2015:4) maintains that if patients' surroundings are comfortable, their perception of quality of care can be doubled and anxiety reduced while they wait for their care. Therefore, if the triage area material resources like curtains, chairs could be improved in the ED of the study, patient satisfaction might be improved. The HCPs indicated that patients' privacy could be improved despite the limited resources by controlling the use

of the ED as a pathway to reach other hospital departments, staff education, and encouraging HCPs to adhere to ethical principles when attending to patients.

3.3.3.2 Human resources

The World Health Organisation (WHO) (2011:5) defines human resources as the total of all employees of an organisation, both professional and non-professional, working together to promote, protect and improve the health of patients. In this study, the participants expressed their dissatisfaction with the inadequacy of nurses and doctors available to assist with triage, frustration at the long waiting periods before being registered and triaged, and lack of information. According to the participants:

> I think there should be two doctors in a shift…so that there is an emergency doctor and the other one [doctor] makes the line move [triage]. (Participant 8)
>
> More staff [nurses and doctors] to attend to people because there are many people [patients] with many issues [sick]. (Participant 7)
>
> I had to ask the security guard what was going on as there were no nurses available at the reception to assist me. (Participant 3)
>
> There was just one doctor running around. (Participant 5)
>
> I think you need a floor manager or somebody who receives patients as they come [triage desk] and somebody who registers patients so that he is able to see the condition of the patient. (Participant 2)

Safari (2012:42) and National Health Services (2016:6) emphasise that a shortage of healthcare professionals, including doctors and nurses, interferes with the expected standard of implementing triage assessment and treatment and negatively affects quality care delivered to ED patients. A shortage of nurses and doctors negatively affects patient care and outcomes. In Pennsylvania, USA, Berry and Curry (2012:27) found that a shortage of nurses increased the chances of patients dying from preventable conditions. Other factors associated with a shortage of nursing staff that impact negatively on patient outcomes include patient falls; overcrowding of patients in ED; medication errors; failure to identify a change in condition and rescue patients; staff burnout and lower levels of patient care (Berry & Curry 2012:27). Furthermore,

O'Connor, Gatien, Weir and Calder (2014:1) emphasise that a shortage of staff in the ED may cause under-triaging of patients, resulting in prolonged time of workup and length of stay in the ED, thereby increasing the rate of morbidity and mortality. Berry and Curry (2012:27) found that patients who were managed in the ED indicated that they were frustrated at having to wait longer at the triage desk without anyone to help them. According to a participant:

> I had to ask the security guard what was going on as there were no nurses available at the reception to assist me. (Participant 3)

Sun, Renee, Hsia, Weiss, Zingmond, Liang, Han, McCreath, Asch (2012 :3) found that a shortages of HCP like nurses led to patients leaving the ED before being seen and then returning later with complications warranting admission thus increasing length of hospital stay, increased morbidity, increased mortality and hospital expenses.

3.3.4 Strategies: Category of description 1: Environment

The HCPs suggested the following strategies relating to environment that could be implemented to enhance patient-centred triage in the ED:

- Privacy will be protected by using mobile screens and curtains to separate the triage area from the waiting area allowing free expression and assessment between the patient and triage nurse.
- Raise awareness on a continuous basis to enhance patient privacy and confidentiality.
- Position the triage monitor in front of the nurse with the patient sitting on the side of the table to avoid patient access to the other patient information on the triage monitor.

- Motivate for an increase in beds and oxygen cylinders available in the ED, among other things.

- Demarcate the Holloway with curtains to provide privacy for patient in the triage area and waiting area

- Use the Healthcare Assistants as a floor manager to attend to inquiries and avoid invasion of patient privacy and confidentiality during triage.

- Support staff should not sit at the triage area to ensure the patient information is not heard by a third party.

- Motivate for an enclosed triage place where patient focused assessment could be done by triage nurse

- Motivate for an increase in the number of nurses and doctors working in the ED.

3.4 CATEGORY OF DESCRIPTION 2: NURSING STAFF

Nursing staff (registered nurses) are the primary care givers of triage in the selected ED. According to Ebrahimi, Mirhaghi, Mazlom, Heydari, Nassehi and Jafari (2016:2), triage should be done by at least a registered nurse who assesses patients and then, using evidence-based triage, systematically prioritises the patients to ensure that they are managed within a specific time frame and provides a safe environment in the ED. Furthermore, a senior doctor should collaborate with the triage nurse where the doctor would do the investigations and minor treatment from the triage room and thereby reduce prolonged waiting time (Ebrahimi et al 2016:2). In this study, all the participants were triaged in the ED and experienced nurses' attitude and lack of information sharing as of concern. Two sub-categories relating to nursing staff were identified, namely sharing information and attitude.

3.4.1 Sub-category 1: Sharing information

The participants indicated a lack of information sharing by the nurses during and after triage, such as updating them on triage processes, waiting time, why it was necessary to wait, and what to expect while waiting. The participants added that the limited information caused them dissatisfaction with the care received during triage. It is

essential to listen and communicate the facts with respect, dignity so that patients understand what is going on and what to expect rather than showing them belittling attitude (Larsson et al 2011:4).

When patients lack information about the process of triage they become frustrated and dissatisfied with the way in which triage is done. This is a sign of lack of patient-centred approach during triage which was evident at the ED.

In a Swedish ED, Göransson and Rosen (2010:40) found that lack of adequate communication caused patient dissatisfaction. Möller, Fridlund and Göransson (2010:746) found that nurses' main focus was on prioritising and managing patients with life-threatening conditions, and forgot the psychosocial aspect of patients, perceiving documentation as more important than patient care and focusing on their own concerns. The participants complained that the nurses were busy with other things but no communication was given as to what was going on leaving the patients frustrated.

According to the participants,

> If you confront one [nurse], they actually do take their time to explain, but that should not be the case. (Participant 7)
> The only instructions I got from those people [nurses] was when they told me where to sit. (Participant 7)
> Nobody explained to me what was happening. (Participant 1)
> I did not understand what was going on. (Participant 6)
> They [nurses] should put up clear charts to explain who is to be assisted first. (Participant 5)
> They [nurses] were just staring at me. (Participant 8)
> There was nobody to ask …hence me asking the security guard what was going on. (Participant 3)
> I realise you [nurses] only have one weakness, you [nurses] don't communicate well with your customers [patients]. (Participant 1)

Silva, Paiva, Faria, Ohl, Rib and Chavaglia (2016:431) maintain that effective information sharing on arrival at the ED is essential since patients who are informed may be more satisfied with care received. According to Shah, Rumero, Hohmann and Fullam (2015:32) and the Ohio Hospital Association (OHA 2010:19), dissatisfied patients are mostly those who received limited information. The participants expressed dissatisfaction with communication as follows:

> They [nurses] should put up clear charts to explain who is to be assisted first.
> (Participant 5)

Satisfied patients are more likely to adhere to doctors' orders, perceive the care rendered positively, complain less, be more loyal, return for further treatment and refer others for treatment consequently promoting higher institutional profits (Xesfingi & Vozilkis 2016:2). Satisfied patients share their healthcare experiences with others by giving a positive word-of-mouth about the service rendered hence marketing the institution well (Kitapci, Akdogan & Dortyol 2014:162). Patients in the Botswana ED expressed frustration that nurses were moving up and down doing nothing and did not explain the reason and length of waiting in ED, which resulted in their anxiety and frustration. According to one participant,

> I did not understand what was going on. (Participant 6)

If HCPs do not explain the reason for waiting, patients become anxious, frustrated and angry and may not understand why other patients are prioritised first nor why nurses at times appear as if they are idling but not assisting them (Burström, Starrin, Engström & Thulesius 2013:1).This was the case at the Botswana ED as lack of communication left the patient wondering what was going on and comp

3.4.2 Sub-category 2: Attitude

The second sub-category of nursing staff was attitude which was defined by Jain (2014:2) as "relatively lifelong collections of feelings, beliefs, and behavioural tendencies directed towards specific persons, ideas, objects groups, and persons

.The participants complained about the negative attitudes of some HCPs; for example, nurses and doctors did not always pay attention to their concerns, like pain, ignored their inquiries and did not greet them. It is essential for HCPs to display caring attitudes towards patients, thereby enhancing patients' satisfaction and perception of triage which did not always happen leaving patients dissatisfied.

Dissatisfied patients may decline follow-up care, HCPs' recommendations, and compliance with prescribed treatment which will impact negatively on their health status and clinical outcomes (Soliman, Kassam & Ibrahim 2015:31)Therefore the HCP have to portray positive attitudes towards patients to improve the patient perception of triage and compliance to treatment .

According to the participants:

I greeted her [nurse]…I told her [nurse] that I was breathless, but she [nurse] just kept on writing something. (Participant 2)

I didn't feel good at first. I was thinking because the way the nurse responded to me, telling me I shouldn't have come here…I should have gone to the clinic. (Participant 8)

I was thinking the nurse was making me pay for coming here by making me wait long…for not going to the clinic. (Participant 8)

I asked the lady [nurse] at the reception why it was taking time for me to see the doctor, but she [nurse] did not answer, was just keeping herself busy. (Participant 1)

The doctor who assisted me was harsh…I asked him to handle me with caution as I was in pain, then he said 'If you do not need this help you should tell me'…' [Participant 5]

One nurse said there are people who are hot [seriously ill] and you are cold [not seriously ill]; you will leave this place [emergency department] very late. (Participant 8)The nurse said such cases should not come this side [emergency department], that I should know better. (Participant 6)

I think those ladies were nurses, they were just walking around and not explaining what was happening. (Participant 1)

Like the nurse, after he took my vital signs he went and the only time I could see him was when he passed by me, to go and chat with his friend, laughing. (Participant 8)

It is clear that the attitude displayed by some HCP in ED was perceived by participants as uncaring, insensitive unpatient centered and unsatisfying. Al-Abri & Al-Balushi

2014:2; Burström et al 2013:1) are of the view that if the doctors and nurses are caring, courteous and listen carefully to patients strongly influence patient satisfaction and recommendation. Therefore there is need for employing new strategies to enhance patient centered triage in order to improve patient experiences in triage in ED.

3.4.3 Strategies: Category of description 2: Nursing staff

HCPs suggested implantation of the following strategies relating to nursing staff that could be implemented to enhance patient-centred triage in the ED:

- Improve staff communication skills.
- Reassure patients and explain the triage process.
- Utilise the information boards; for example, explaining triage categories.
- Inform patients about the triage process when they enter the ED.
- Develop information pamphlets to provide patients with relevant information on triage.
- Allocate a specific HCP to give health-related information while patients are waiting in the triage area to be managed.
- Update patients regularly on waiting times, such as time when special investigations will be available, activities in the emergency department.
- Enhance teamwork to support each other when there are staff shortages.
- Focus on greeting patients.
- Remind each other to be friendly and kind to patients.
- Provide in-service training to promote customer service.
- Establish a feedback mechanism to address negative attitudes of staff.

The participants expressed dissatisfaction with the HCPs' uncaring attitudes and lack of sharing information. Patients need to understand the process involved in triage to enable them to make an informed decision to wait. The participants experienced an uncaring attitude from the HCPs, felt that inadequate information was provided, and found waiting without knowledge difficult and frustrating. The researcher is of the opinion that HCPs should incorporate patients' voices in healthcare provision thereby

moving the ED towards patient-centred triage which may improve patients' experiences and satisfaction.

3.5 CATEGORY OF DESCRIPTION 3: WAITING TIMES

The participants were dissatisfied with the prolonged waiting times during triage, felt neglected and anxious, and expressed dissatisfaction with having to wait longer for a triage nurse at the triage desk and waiting longer at the waiting area after being triaged. According to the participants:

> I was made to wait, wait, wait. (Participant 1)
>
> It took very, very long and then it was not even a doctor that attended to me. (Participant 1)
>
> I sat down after sitting for almost 30 minutes, that's why I [patient] even stood up and went to check why it was taking so long, just to check results in the computer, to call me and tell me. (Participant 10)
>
> When I went to ask again…the nurse said 'Isn't it that they [nurses] said they will call you? (Participant 8)
>
> I waited more than an hour and 45 minutes…that is when I saw the doctor. (Participant 3)

When many people seek care in the ED, the waiting period can be prolonged up to four to six hours, which delays diagnosis and treatment thereby compromising patient safety, risking deterioration of their medical condition, and causing anxiety and negative patient experiences in the ED (Burström et al 2013:1). Even though the standard waiting time for priority three and four ranges from one to four hours, patients in ED experience waiting time differently from the actual time that they have to wait due to lack of so HCPs need to communicate effectively and show compassion to help them cope with waiting (Dahlen et al 2012:2).This was the case with the ED patient who waited for thirty minutes after triage and felt neglected and dissatisfied with care since there was no communication nor updates on what was going on.

Had the HCP effectively communicated the triage process including reasons and anticipated time for waiting the anxieties and emotional distress and feeling of being neglected would have been prevented and patient experiences and satisfaction improved.

Qureshi 2010 (696) concurs with this by affirming that the acceptable waiting times for priority three and four is one hour and four hours respectively .Therefore having to wait for thirty minutes without communication from the HCP seemed longer than the actual time waited by the participants hence the need for HCP to improve patient satisfaction and public trust by communication well (Emergency Medicine Society of South Africa [EMSSA] 2011:5)

.Three sub-categories were identified for waiting times, namely neglect, emotional distress and dissatisfied.

3.5.1 Sub-category 1: Neglect

Neglect was a sub-category of waiting times. The participants expected to be treated as soon as possible on arrival at the ED and this did not always happen. The participants then felt dissatisfied and neglected. According to the participants:

> It took a very, very long time to get the pain medication, but finally I got them [pain medication]. (Participant 3)
>
> Even to take our temperatures … they were very slow. (Participant 2)
>
> It is very frustrating, because you get there to the emergency department to get help as soon as possible. So it is very frustrating because we feel that we are neglected. (Participant 1)

If relevant information is given on the triage process and what to expect, the waiting time would appear shorter than usual and would reduce anxiety and frustration (Ballensweig & Becker 2009:14).The HCP need to focus the triage process upon the patients' needs and not to neglect their responsibility of keeping the patients up to date with what is going on or else the patients feel neglected and dissatisfied with the care provided in the ED. For example pain should be attended during triage or explanation

and information be shared where there is no need for analgesia to allay anxiety and feeling of being neglected (Nalamachu, Pergolizz, Raffa & Taylor 2013:2).

Well-managed pain improves patient satisfaction, and managing pain maximizes function, improves quality of life and patient satisfaction (Nalamachu et al 2013:2).

3.5.2 Sub-category 2: Emotional distress

The second sub-category of waiting times was emotional distress. Some of the participants expressed how upset they were and even cried over the treatment received during triage. One participant said that he was emotionally distressed and crying because of excruciating pain which was untreated for two hours. Some participants expressed dissatisfaction that nurses just stared at them without communicating what was going on and there was no nurse to liaise with on arrival while the triage nurse was busy with other patients. According to the participants:

> Oh, I was upset…! (Participant 3)

> After two hours of being there with a broken arm in pain and crying …no one [HCP] was helping me. (Participant 5)
> Oh, I was so upset [field notes: emotional and crying during interview]! (Participant 7)
> No one was paying attention to me because I was crying, then I called one of the doctors who was passing by to come and help me. (Participant 5)

Dahlen, Westin and Adolffson (2012:2) emphasise that it is essential for HCPs to provide care to lower triage priority patients with consideration of their emotions and staff attitudes should be qualitatively considered to ensure patient comfort and satisfaction. The time that patients wait without information sharing is unoccupied time and appears longer than the real time waited hence they feel anxious, ignored and out of control of their situation (Dahlen et al 2012:2). The participants felt neglected emotionally distressed, ignored and anxious, therefore it is important to provide satisfactory care since it yields good patient outcomes (Kapoor & Thorn 2014.Emotional

distress may complicate the patients' treatment and outcome (Kapoor & Thorn 2014:4; Messina, Vencia, Mecheroni, Dionisi, Baragatti & Nante 2014:24).

3.5.3 Sub-category 3: Dissatisfaction

Sub-category 3 was dissatisfaction. The participants expressed dissatisfaction with the ED triage as they had to wait longer, service was slow and poor, and at times there was no HCP to help at the triage desk and they had to wait . The participants indicated that they came to an ED because they had an emergency and expected to be treated immediately which did not happen. According to the participants:

> I was really sick, wanting to see the doctor…I raised my voice. (Participant 3)
> I was impatient and angry because I had to wait so long. (Participant 4)

> Immediately as soon as you enter the emergency department, there should be somebody [nurse] there at the triage desk to assist you, because people go there with diseases. This is an emergency department they should be helped rather than just waiting. The nurses should be more alert and act quickly. (Participant 7)

> There was a time when I wanted to go home and get back to the hospital the following day…it was not really very nice to sit around and wait. [Participant 4]
> All I can say is their [nurses] service is very poor and very slow. I don't know how to put it, I will just say it is very, very poor. (Participant 3)

Patient satisfaction is an important pointer for measuring the quality of triage services in EDs (Eshghi, Rahmani, Derakhti, Robai, Abdollahi & Tajoddini 2015:16).The participants stated that the root cause of their dissatisfaction was poor, slow triage service with periodic absence no liaison nurse to assist patients on arrival, and having to wait longer than expected before and after triage. For example, one participant was dissatisfied, angry and impatient to the point of almost leaving before seeing the doctor due to the poor service and having to sit and wait longer.

Shah, Patel, Rumoro, Hohmann and Fullam (2015:32) emphasise that waiting is frustrating can affect the way patients perceive care, and is a common cause of patient dissatisfaction. Meeting the patients' expectations influences patient satisfaction. If the actual waiting times and the psychological or subjective or perceived waiting time could be managed through appropriate communication of the patients' circumstances, patients would be satisfied (Shah et al 2015:32). Furthermore, to show empathy and improve patient satisfaction, there should be a multifaceted triage and a patient liaison nurse who will take care of the patients' expectations on arrival at the emergency entrance (Shah et al 2015:33). Grigsby (2011:3) states that patient satisfaction strongly influences healthcare outcomes, improves efficiency and safety, and reduces the hospital costs. Shah et al (2015:2) concur stating that if patients' expectations are met through communication, patients may cope with waiting longer.

3.5.4 Strategies: Waiting times

The HCPs suggested the following strategies relating to waiting times that could be implemented to enhance patient-centred triage in the ED:

- Provide a board to display information on the triage process.
- Showcase estimated waiting times for each priority.
- Initiate a continuous quality improvement strategy relating to patient-centred triage in the ED.
- Provide a suggestion box for patient feedback.
- Conduct a patient satisfaction survey prior to discharge.

In this study, the participants were dissatisfied and emotional as a result of lack of timely communication from triage HCPs throughout the waiting period. Timely communication and attention would help patients to understand the reasons for waiting and the flow process, which in turn would improve patient satisfaction. The selected triage place was not conducive for patient assessment, verbal communication and first aid treatment since it is an open area .The participants' waiting time seemed longer than the actual time due to waiting without information.

3.6 OUTCOME SPACE

The outcomes space is an image created by the researcher. Based on the participants' data and the strategies suggested by the HCPs to move towards patient-centred triage in the ED, the researcher developed an outcome space representing three missing pieces of a puzzle, namely nursing staff, waiting times, and environment essential for enhancing patient-centred triage. Figure 3.2 illustrates the relationship between the conceptions, which provides a comprehensive and explanatory presentation of the results of the study (Traav et al 2014:88). The final results reported are in a form of categories which form a hierarchical outcome space as experienced by the participants (Rands 2016:16).

Figure 3.2 Outcome space: Moving towards patient-centred triage
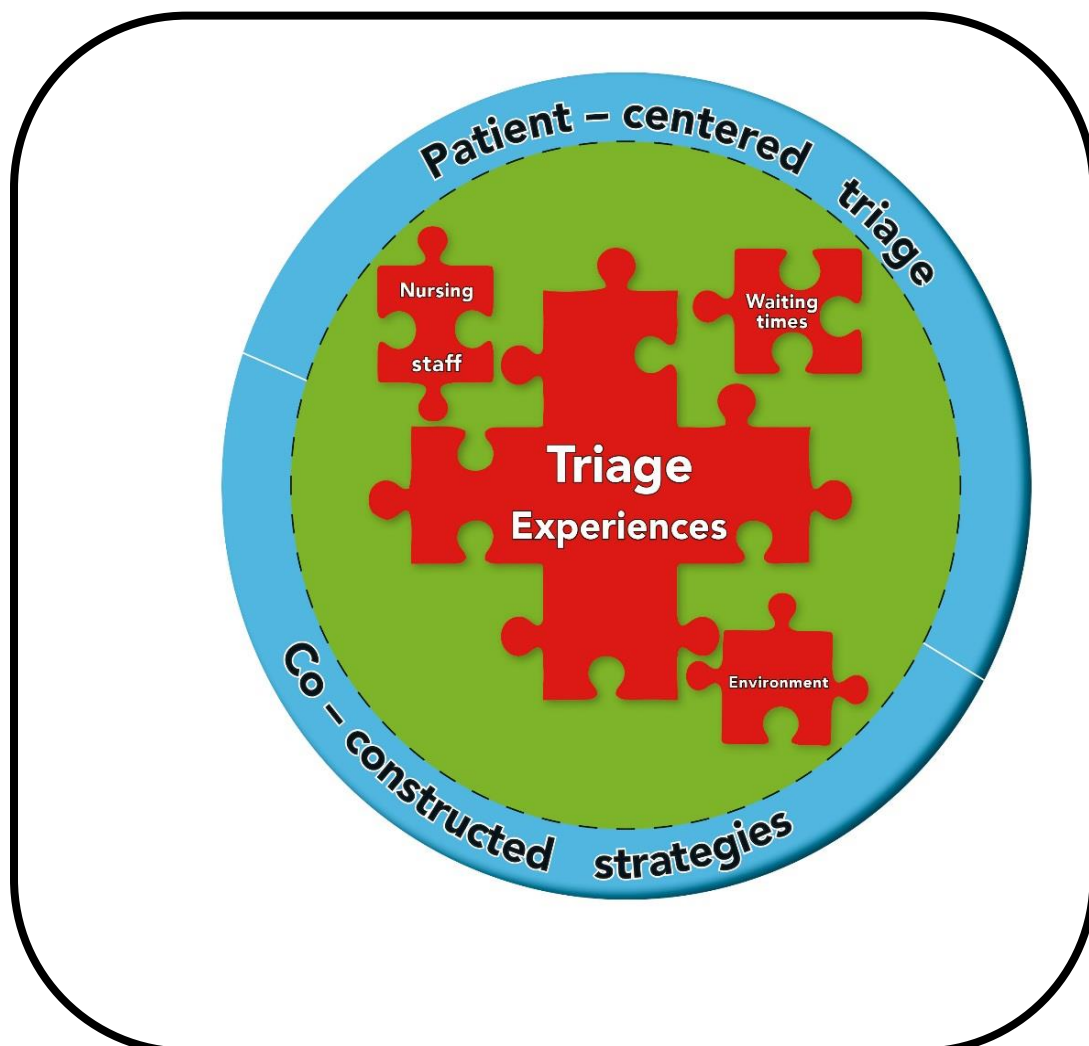
The outcome spaces are based on second-order descriptions since they are the participants' experiences in triage from their own perspective (Sin 2010:315). Marton (1981:198) describes them as the hierarchical representation of the relationship between conceptions, namely the structured pool of ideas, beliefs, facts, and experiences underlying and the interpretation and construction of reality. Figure 3.2 depicts the outcome space constructed by the researcher to visually show what patient-centred triage should be in the ED based on the participants' views.

The participants acknowledged the importance of triage in the ED and indicated that they understood the rationale for the process. Triage a medical system used in ED to prioritise care of patients – making sure that patients who are critically ill or injured are treated first. Triage is essential for fairly distributing resources and interactively promoting the flow of communication between patients, their family members and HCPs concerning the nature of their problems (Elgammal,2014:789; NSW MOH 2013:1;Lossius et al 2012:1; Augustyn, 2011:24).

While priority one and two patients are critically ill/injured and are treated first in the ED, priority three and four wait, it is crucial for HCPs to regularly update patients on their conditions and the need to wait in order to promote patient-centred care and satisfaction (Acharya et al 2011:2). Patients may be satisfied in triage if the care delivered is medically focused as well as patient-centred, incorporating patients' needs, wants and desires (Draper & Tetley 2013:156). Currently the triage system in the ED is focused on giving priority care to critically ill patients without incorporating the voice of the lower priority patients (Draper & Tetley 2013:156). In this study, the patients' experiences were shared with the HCPs during data analysis in order to enhance a "buy in" and promote patient-centeredness. Finally three categories of description were identified in hierarchical order, namely nursing staff, waiting times and environment (view table 3.1).

3.6.1 Nursing staff

Nursing is an essential profession that interacts with patients more than any other health profession therefore if nurses have empathy with the patients and provide care that is centred on the patients' needs and preferences, high quality care would be achieved, resulting in positive patient experiences (Kieft, Browser, Francke & Denoij 2014:2). Patients' experiences may be influenced by communication between nurses, doctors and patients, the effectiveness of their pain management and how well they receive health information (Lopez 2012:3). For better health outcomes and patient satisfaction, patient-centeredness should be the core of health services delivery (Constand, MacDermid, Dal Bello-Haas & Law 2014:3). Patient-centeredness in nursing implies that the care delivered by nurses should be empathetic, caring, compassionate, healing and investigating patient problems (Drenkard 2013:2; Hughes 2011:2). Patient-centred care directly and positively influences patients' perceptions of quality care while non-patient-centred care negatively influences their perception of quality care thereby resulting in patient dissatisfaction (Drenkard 2013:2). Hughes (2011:3) and Drenkard (2013:4) maintain that patients are not aware that they are responsible for guiding their care therefore nurses should teach them how to guide their care. Therefore, nurses should investigate patients' problems and incorporate them into patient care. Consequently, nurses should change the current way of guiding patient care and teach them to guide their care based on the investigated patient outcomes. Updating patients on the processes of ED should be part of the triage care given by nurses.

3.6.2 Waiting times

The participants' second discomfort and dissatisfaction emanated from waiting for a long time before and after triage without knowing what to expect or how long to wait which caused anger, anxiety and frustration. Waiting in expectation for a long time negatively affects both quality outcomes and patient satisfaction, and could cause patients to leave before being seen (Piccolo 2013:5). Therefore it is crucial for patient flow and waiting times to be managed to enhance patient satisfaction. The implementation of triage has brought about a reduction in waiting time and increased in patient satisfaction in priority one and two cases (Drenkard 2013:2) The patients should

be assessed within ten minutes of arrival and reassessed to monitor the triage levels especially if the patients have exceeded the recommended waiting time thereby improving patient-centeredness and satisfaction (Drenkard(2013:2).

3.6.3 Environment

It is essential for the ED environment to be safe and trustworthy with confidentiality and privacy well maintained so that patients to feel secure in providing medical information to the HCP without withholding any vital information (Jenkin et al 2011:43). In this study, the participants expressed disappointment and feeling intimidated by the way their confidentiality was maintained during triage. A safer triage environment is healing therefore patients feel secure and trust HCPs with their sensitive information. To move towards patient-centred triage, HCPs should have empathy with patients' experiences and address the three missing pieces of the puzzle inclusive of environment, by implementing the core constructed strategies planned to address patients' concerns and consequently move towards patient-centred triage. To provide patient-centred care nurses should teach patients about triage processes including expected waiting times.

3.7 SUMMARY

This chapter discussed the data analysis and findings from the study. In qualitative research the findings discover new information that can improve practice. The researcher and the HCPs examined the participants' experiences and collaboratively identified strategies that could enhance patient-centred triage in the ED. Three categories of description and their related sub-categories emerged from the data. The first category of description was environment, with three sub-categories: confidentiality, privacy and resources (material and human). The second category of description was nursing staff, with two sub-categories: share information and attitude. The third category of description was waiting times, with three sub-categories: neglect, emotional distress, and dissatisfaction. It is clear from the findings of the study that the three categories of description are essential for developing triage competence and improving care and patient satisfaction. The researcher and the HCPs collaboratively identified strategies

and made recommendations to enhance patient-centred triage to improve patient satisfaction.

Chapter 4 presents the conclusions and limitations of the study and makes recommendations for practice and future research.

4 CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

Reach high, for stars lie hidden in your soul. Dream deep, for every dream
Precedes the goal.

Ralph Vaull Starr

4.1 INTRODUCTION

Chapter 3 discussed the data analysis and findings with reference to applicable literature. The researcher and the HCPs collaboratively analysed the data. This chapter presents the conclusions and recommendations, briefly discusses the limitations of the study, makes recommendations for further research, and presents a personal reflection.

4.2 AIM AND OBJECTIVES

The aim of the study was to explore strategies to enhance patient-centred triage in an ED in Botswana. In order to achieve the aim, the objectives were to

- Explore patients' experiences of triage in an ED.
- Identify strategies with healthcare professionals to enhance patient-centred triage in the ED.

4.3 CONCLUSIONS AND RECOMMENDATIONS

Data was collected by means of semi-structured interviews with ten (10) participants. The researcher and eleven (11) HCPs (nurses) collaboratively analysed the data, using a creative hermeneutic data analysis method, which was facilitated by two experienced researchers. The participants identified three categories of description, namely environment, nursing staff and waiting times. The conclusions and recommendations relating to each category of description and the outcome spaces delineated to move towards patient-centred triage are discussed next.

4.3.1 Category of description 1: Environment

Triage is a system of sorting patients according to their condition. The participants were triaged as priority three and four and discussed issues that made triage uncomfortable and frustrating, such as lack of privacy and confidentiality, inadequacy of resources, and open space environment which made it intimidating and uncomfortable. The open triage space invaded the participants' privacy and confidentiality and made it difficult to provide information required to provide quality care. If patients find it difficult to provide HCPs with essential information it may jeopardise their condition. Lack of privacy and confidentiality was experienced both during and after triage in the waiting area because of a lack of chairs and curtains for demarcating the cubicles hence private information could be overheard. Discomfort in giving information might result in essential data being withheld and consequent misdiagnosis, increased morbidity and recurrent ED visits. Lack of privacy and confidentiality made the participants frustrated and anxious while the lack of chairs, couches and blankets in the waiting area made waiting uncomfortable and frustrating. The ED environment should incorporate patients' experiences and make triage patient-centred in order to improve patient experiences in triage and improve healthcare provision.

4.3.1.1 Recommendations

In order to enhance patient-centred triage, the researcher recommends that

- Triage should be done in an enclosed room or a place demarcated with mobile screens, where patients can share private information with the nurse involved in the triage process
- The computer screen should not face the patients so that the collected information is kept secure and confidential
- The waiting area should be separated from the triage area to avoid breach of confidentiality through overhearing other patients' private information.
- A dedicated health care assistant should be assigned to guide patients as they arrive at the ED to avoid inquiring at the triage desk.
- The hospital management should motivate increased material resources, specifically curtains, screens, and chairs where patients can be seated for triage waiting bay.

- Healthcare professionals should be made aware of the importance of protecting and maintaining patient confidentiality and privacy.
- Ongoing in-service training should be provided on taking patients into consideration during triage.
- The number of nurses and doctors working in the ED should be increased.

4.3.2 Category of description 2: Nursing staff

The participants expressed dissatisfaction with the uncaring attitudes and lack of information sharing by the nurses. Patients need to understand the process involved in triage in order to wait. The participants indicated that they were given inadequate information hence waiting without knowledge became difficult and frustrating. The uncaring attitude experienced by the participants is an indication that HCPs should incorporate the patients' voices in the healthcare provision thereby moving the ED towards patient-centred triage to improve the patients' experience and satisfaction.

4.3.2.1 Recommendations

In order to enhance patient-centred triage, the researcher makes the following recommendations for HCPs:

- HCPs and specifically nurses should show empathy to patients in order to help them cope with waiting.
- Improve communication throughout the triage and waiting period so that patients understand why they have to wait and the anticipated waiting time.
- Develop information pamphlets to provide patients with relevant information on triage so that they can read and understand how triage works.
- Allocate a specific health care assistant (HCA) to give health-related information while patients are waiting in the triage area to be managed. The HCA must also be available to explain any inquiries instead of the triage nurse attending to general inquiries
- Update patients regularly on waiting times, such as when the results of investigations like full blood count will be ready.

- Update patients on activities in the ED like ongoing resuscitation to allay anxiety and help them plan for their period of waiting.

- In-service training, including triage and customer service, should be carried out weekly to promote customer service and patient-centred care.

- Regular surveys should be conducted on patient experiences to give patients an opportunity to voice their opinions on what they view as important.

- Enhance teamwork to support each other when there are staff shortages.

- Establish a feedback mechanism to address negative attitudes of staff.

4.3.3 Category of description 3: Waiting times

The participants indicated that they were dissatisfied and emotional as a result of lack of timely communication from triage throughout the waiting period. They wished to understand the reasons for waiting and the flow process. The triage place is not conducive for patient assessment, verbal communication and first aid treatment since it is an open area. The participants' waiting time seemed longer than the actual time due to waiting without information.

4.3.3.1 Recommendations

With regard to waiting times, the researcher recommends the following
Nurses should undergo regular training on triage

- Nurses should encourage patients with non-urgent conditions to use locals clinics to avoid waiting longer at the ED while the sicker patients are being seen first
- Clear verbal and nonverbal communication on ED processes should be provided.
- Making the waiting comfortable supportive and caring Allocated HCP should explain the processes to patients and posters should illustrate the process and triage process.
- Provide a board to display information on the triage process.
- HCPs should undergo refresher courses on triage.
- Fliers should be available for patients to read while they wait.
- ED services should be guided by patient experience and recommendations
- Regular in-service training on triage should be provided.
- Showcase estimated waiting times for each priority.
- Provide a suggestion box for patient feedback
- There should be a Healthcare assistant to guide patients and relatives on arrival to ED to avoid making unnecessary inquiries from the triage nurse which could prolong patient triage waiting time
- A triage nurse should be available at triage desk during all the shifts and all the time to reduce triage waiting time
- The supportive staff like cleaners and porters who are usually found at the triage desk should be trained on guiding patients accordingly to avoid patients waiting unnecessarily
- Fast track system should be used where the non-urgent patients are attended to by a nurse to avoid patients waiting longer post triage
- Breaking up the load: Emergency cases should be separated from non-urgent cases and have two separate care areas with separate entrances and different triage set ups yet have an opening between the two care areas for easy transfer if need be. (view figure 4.1).
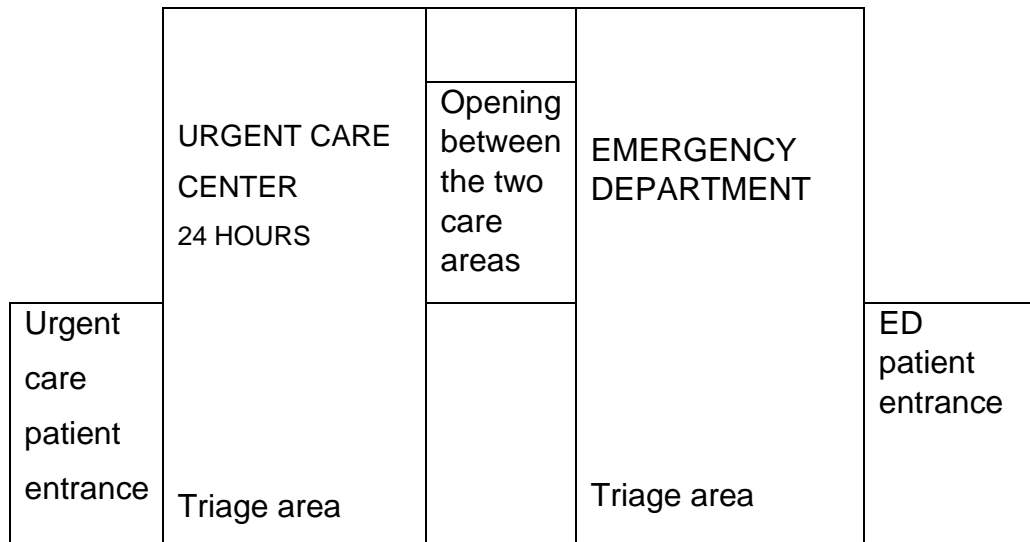
	URGENT CARE CENTER 24 HOURS	Opening between the two care areas	EMERGENCY DEPARTMENT	
Urgent care patient entrance	Triage area		Triage area	ED patient entrance

Figure 4.1

4.3.4 Outcome spaces

The three outcome spaces related to nursing, ED environment and waiting times appeared to be missing in triage and hindering patient satisfaction. Therefore if the HCP could work as a team, listen to the patients' experiences, plan strategies to be incorporated into the daily triage services, the patients may be satisfied. The patients appreciated triage processes but complained that if the three missing pieces of a puzzle that completes patient centeredness could be incorporated into the triage care, patients' experiences may improve.

4.4 LIMITATIONS

Although data saturation of themes was reached with the ten interviews with patients, additional interviews might have enabled more balance between colour codes, gender, and time seen. The participants' socio-cultural orientation could have affected their expectations, satisfaction, and perceptions. Moreover, the study was limited to one hospital and ED. Therefore the findings of the study cannot be transferred to EDs in other hospitals in Botswana or elsewhere.

4.5   FUTURE RESEARCH

Based on the findings, the researcher recommends that future research be conducted on:

- An investigation into HCPs' understanding of patient-centred care and triage
- An exploration of patients' understanding of patient-centred care and triage
- An exploration and evaluation of patient-centred approaches to waiting times for priority three and four triage patients
- An investigation into the barriers to patient-centred triage in the ED
- HCPs' perceptions of patient-centred triage
- HCPs' perceptions of barriers to patient-centred triage in the ED

4.6 PERSONAL REFLECTION

The researcher is a nurse with ten years' experience in triage and therefore understood the experiences of patients in triage. The researcher is also familiar with the pressures and conditions in the ED. HCPs, especially nurses, are under pressure to perform at speed, take down patient particulars accurately, and be professional at all times. HCPs and patients are all different, which also increases the tension in the ED. The research journey that was taken by the researcher was eye opening as to how the voices of ED patients could be used to plan care relevant to the patients' needs. The lesson learnt by the researcher is that patients should be involved in their care to make it patient centered. The researcher also learnt that non nursing staff like cleaners and porters could be trained to give basic assistance like guiding patients to other department of the hospital without having to wait for a triage nurse. The researcher learnt that triage could save lives of the critically ill and that it should be done by the most senior or experienced nurse. As a member of the triage team the researcher learnt that patient centered triage is essential in promoting patient satisfaction and avoid patients leaving the ED unseen as it has negative effects on the outcome of the patients' conditions and increase hospital expenses. The researcher was motivated to undertake this study to examine ways in which services in the ED could become patient-centred based on patients' experiences. Involving the HCPs (nurses) in the data analysis enhanced their

perspectives and understanding and facilitated the formulation of strategies to effectively conduct patient-centred triage. Now that the research has been completed the researcher has learnt that listening to the voices of patients is vital so that care could be planned the patients should always be involved in

4.7 CONCLUSION

The triage system at the selected Botswana ED is not adequate and patients have little information about or understanding of what is happening to them in this process. Patients coded green and yellow (priority three and four) experienced long waiting times and waited in the same post triage area. This raised concern over privacy, confidentiality and quality of care, and led to complaints that this was a stressful experience. The overall triage processes were not patient-centred hence the disgruntlement and dissatisfaction of patients in triage.

The study therefore recommends the introduction of a system to inform patients more actively about the triage process and waiting times. Patient centeredness should be the core of triage processes in the ED and a triage officer must be at the triage desk at all times. The study also found that it is necessary to recognize the important role that support staff like security guards and cleaners play in the overall patient experience and train them so that they can provide accurate information when asked for help.

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