SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

ELIZABETH MALEFU NKOSI

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SUPERVISOR: DR S ARMSTRONG
CO-SUPERVISOR: DR N NKOSI- MAFUTHA

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DECLARATION

I, Elizabeth Malefu Nkosi, declare that this research report (Human Research Ethics Clearance Number M180809) is my own work. It is being submitted for the Degree of Doctor of Philosophy in Nursing at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.

ELIZABETH MALEFU NKOSI

DEDICATION

I dedicate this thesis to:

The Lord Almighty, who had plans for me to prosper, gave me hope and a future

My loving husband Baba Nkosi Vusi, for his unwavering support from the beginning to the end of this demanding academic journey.

My beloved children Sizwe, Sandile, daughter-in-law Precious, and grandchild Khanyisile, for their patience while I was absent from home or working late, and their motivation whenever I was present.

ABSTRACT

Background: Adverse events in the healthcare services result not only in administrative and financial costs to the healthcare institution, but also in personal costs to the patients and their families, who are often angry, disappointed, and sad. In the current litigious healthcare climate, relatives, supported by legal advisors, often seek redress as a way of managing their distress. Thus, patients are not the only victims of adverse events. The healthcare professionals that are directly involved often shoulder the blame, sometimes fairly, and sometimes unfairly, while they too need psychological support. A culture of blame in institutions can lead to healthcare professionals involved in an adverse event being marginalised, feeling personally responsible for the event and that they have failed the patient, and they are left to suffer in silence.

While anecdotal evidence exists that such stress may lead to negative coping mechanisms, the researcher has not identified any research study conducted in public hospitals in Gauteng, South Africa that identifies and describes the influence that the involvement in an adverse event has on healthcare professionals. Such evidence is required to develop a support programme that could assist healthcare professionals who have been directly involved in adverse events, to minimise the concomitant stress, and to enable these professionals to continue to provide quality care after such an event.

Aim: The purpose of this study was to develop, describe, and evaluate the implementation of a support programme for healthcare professionals involved in adverse events in public hospitals.

Methodology: A sequential, multimethod research design was used. The study was conducted in five phases. Phase 1 consisted of a scoping review of the international literature that focused on the experiences of the nurses and doctors. The question asked in the scoping review was: What is known from existing literature about the support programmes for healthcare professionals involved in adverse events in clinical settings, and are they effective? Phase 2 involved storytelling that explored the impact of adverse events on involved healthcare professionals.
Smith and Liehr's (2005) methodology was used, that is, healthcare professionals who were directly involved in or affected by one or more adverse events in the public hospitals in Gauteng narrated their experiences. Phase 3 used semi-structured interviews with the managers to explore how best to support health professionals involved in adverse events. Phase 4 involved developing a support programme according to the Wits Trauma Model developed by Eagle, Friedman and

Shumkler, from the Psychology Department of the University of the Witwatersrand, in 1993 (Eagle, 2000).

Phase 5 focused on confirming and validating the programme to support healthcare professionals involved in adverse events in public hospitals. This phase was subdivided into two sections: Phase 5.1 comprised the Delphi group; and Phase 5.2 comprised the Focus group.

In the first round involving the Delphi group, technical data was collected from the experts who validated the programme by means of the survey that was distributed on Research Electronic Data Capture. Concerns arising out of the first round with the Delphi group and that required attention were addressed during the Focus group discussion.

Results: Hospitals were not aware of the magnitude of second victimhood and hence the delay in reviewing the structures in place to provide support to those involved. Just (fair) culture principles were not adhered to as there were no guidelines for their implementation, hence the second victims were left traumatised and in isolation following their involvement in adverse events, and they experienced blaming by management instead of being provided with much needed support.

Limitations: The limitations to the study include the small sample size during the data collection phases, due to the Coronavirus disease of 2019 pandemic**.** Due to the restrictions that were implemented it was not possible to contact all the staff as they had been relocated to other healthcare facilities, were absent, or had resigned. Those who were snowballed were no longer at the facilities where they were originally identified, and therefore the researcher was unable to capture their experiences. Objectivity was not maintained as the documents for the Delphi group were hand-delivered, participants were able to identify the researcher, and hence the social desirability concern. The face-to-face encounters made adherence to anonymity impossible. The model components were not practical in terms of the developed programme. Round two of the Delphi group could not be scheduled, thus challenging the study model.

Conclusion: The impact of adverse events on healthcare professionals remains an underestimated health concern. Experiences are magnified by unsupportive work environments, and are evident in increased hostility, blaming, fear of punishment, and reputational harm. The second victims require support to enable them to recover and learn from their involvement. The programme was developed, which included the summarised structure and the detailed process for implementation by hospital management on how to manage the adverse events in public hospitals in Gauteng.

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ABBREVIATIONS

A	Agree
CEO	Chief Executive Officer
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CISD	Critical Incidence Stress Debriefing
COVID-19	Coronavirus Disease 2019
CPD	Continuous Professional Development
C-SVEST	Chinese Version of the Second Victim Experience and Support Tool
D	Disagree
DHET	Department of Higher Education and Training
EAP	Employee Assistance Programme
GDoH	Gauteng Department of Health
GK	Gatekeeper
HCP	Healthcare Professional
HOU	Head of Unit
HR	Human Resource
I/C	In Charge
ICU	Intensive Care Unit
IO	Investigating Officer
K-SVEST	Korean Version of the Second Victim Experience and Support Tool
M&M	Morbidity and Mortality
MITSS	Medically Induced Trauma Support Services
N	Neutral
NDoH	National Department of Health
NICU	Neonatal Intensive Care Unit
OHS	Occupational Health System
OM	Operational Manager
PIC	Person In Charge
PSC	Patient Safety Committee

QA	Quality Assurance
RCA	Root Cause Analysis
RISE	Resilience in Stressful Events
SA	Strongly Agree
SAE	Serious Adverse Event
SANC	South African Nursing Council
SAQA	South African Qualifications Authority
SD	Strongly Disagree
SVEST	Second Victim Experience and Support Tool
SVEST-R	Revised Version of the Victim Experience and Support Tool
UM	Unit Manager
Wits	University of the Witwatersrand
WTM	Wits Trauma Model

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CHAPTER ONE
STUDY OVERVIEW

1. INTRODUCTION

This chapter introduces the reader to the study, providing an overview of the problem statement, the research question, the purpose of the research, and study objectives. The conceptual definitions for this study are, explained. The chapter concludes with a chapter outline and conclusion.

1.1 Background

In this section, the broader issues relating to system approach to errors is discussed, including a definition of the "concepts 'adverse events' and 'second victim'…" and the origin of the latter with reference to the original paper by Wu. Patient safety literature in relation to high reliability theory is deliberated, and a general overview of the systems approach to errors is presented. A discussion on Just culture and the root cause analysis completes the section.

1.1.1. Systems approach to errors

The systems' approach to errors is a recognition that human beings are fallible by nature and that errors can be expected. The approach concentrates on recognizing the genuine causes for errors and the creation of protections within those systems where they (beings) work rather than being assigned blame. This assists in error prediction, prevention, and reduction of the effect (Clarkson, Dean, Ward, Komashie & Bashford, 2018). In efforts to reduce the errors improvements in healthcare is imperative for patient safety. A systems approach to healthcare improvement was described as a means of tackling issues that admits the diversity of elements relating to impact an outcome of interest and implements processes or tools in a universal way. The approach combines the elements of the approach which are people, systems, design, and risk in a way that is applicable to healthcare systems across all scales from local service systems through to organisational, cross organisational and national policy levels (Clarkson, Bogle, Dean ,2017),

This approach has the potential to improve patient safety through the application of the critical stages namely: an understanding of the present system; designing a future system and planning

for implementation; using the system with appropriate evidence of success; and finally, to continue using the new system with consideration of further enhancement (Clarkson et al., 2018).

Dekker and Leveson (2015) argued that the use of checklists during root cause analysis in healthcare does not constitute a systems approach and defeats the goal of effective solution to events. It was affirmed that the goal of system approach was "not to reduce human behavior to rule after an event, but to design a system in which individual responsibility and competence can effectively help create desired outcomes" (Leveson et al., 2016). Therefore, it stands to reason that for adverse events to be reduced in healthcare and accomplish the goal of a systems approach required the design of a system. However, contrary to the aviation industry, healthcare was lagging in doing so (Leveson, 2011). A testimony from a patient advocate reported that although the Institute of Medicine seminal report was published some time ago, no progress was evident towards decreasing the frequencies of adverse events (Jha ,2014). The findings of a study by Leveson, Samost, Dekker, Finkelstein, and Raman (2016), conducted to establish the application of a system theory-based accident analysis in healthcare, reported that learning from the adverse events was a vital component of applying a successful system approach to safety. Assigning blame to staff without comprehension of the role of the system in which they operate will result in the loss of an opportunity to implement corrective safety measures (Leveson et al., 2016).

Dekker and Leveson (2015) concurred with the findings above, recommending that the adverse events be explored to establish the mandatory changes in the system that can be implemented to assist in their prevention. In addition, safety control structures must be designed to prevent events before they occur. According to Braithwaite, (2018) and Elliot and Deasley, (2007), "systems that work do not just happen, they need to be planned, designed, and built". People's behavior is affected by the context in which it occurs. Therefore, to change the behavior, the context must be changed. In conclusion, Leveson (2011) and Clarkson et al., (2018) stated that healthcare progress towards a system approach requires an investigation of the current adverse events to ascertain the necessary modifications for implementation in the system to prevent them. In addition, Komashie et al., (2021) affirmed that although there was limited review of evidence across healthcare literature on the systems approach to errors, a recommendation was made for the implementation to attend to those issues for the benefit of both the service and patients.

The 'Swiss cheese' model of accident interconnection has been utilised in risk analysis and risk management (Reason, 1990). The model compares human systems to multiple slices of Swiss cheese which are stacked side by side to prevent the threat of a risk becoming a reality. These

slices of Swiss cheese have holes known as “eyes” representing system weaknesses. In the event of an instant alignment of each slice, an error will pass through the holes in all the slices.

The author further asserted the complex nature of work environments with his “Swiss Cheese” model of complexity. He affirmed that “accidents are the result of active failures at the operational level and “latent conditions,” which include many organizational decisions at the higher management level…” In previous studies it was alluded that there was a tendency to ascribe errors to negative behaviour of fellow colleagues characterised by negligence and/or lack of motivation, thus leading to shaming and blaming. He further added that while human beings are involved in almost all incidents in some manner, human error is seldom the “appropriate” cause of the incident but has potential to result from of the complexity of the environment in which it occurs (Reason,1997).

Systemic errors can be attributed to shortage of staff, inadequate equipment, and other resources such as ventilators, cot sided beds and medication, insufficient number of skilled staff in specialty areas, failure to develop and training for staff and lack of communication. Hence the recommendation that healthcare management should ascertain that the systems are reorganised to upskill staff, boost patient safety, and ultimately reduce errors. Regularly appraised and proficient discussions with and among individuals throughout the organization on safety and incident prevention should be prioritised. These conversations should focus on determining the systemic related factors that are contributing to unsafe actions in the first place. During incident investigations, the focus of the investigation should be on system weaknesses as contributing factors (Ternov & Akselsson, 2005.

1.1.2. Adverse events

An AE is defined as a harmful an unintended and unexpected incident which causes harm to a patient and may lead to temporary or permanent disability (Skelly, Cassagnol, & Munakomi, 2021; WHO, 2009). According to Rafter, et al (2015), there are multiple ways in which the events occur, with 50% being preventable, while others cannot be prevented. Approximately ten percent of the patients were involved in one A/E globally (Schwendimann, Blatter, & Ausserhofer, 2018) with the age disparity indicating that the elderly and children were mostly affected (Luo, Eldredge & Cisler, 2016). The most common events stated in literature were medication and fluids related errors, hospital infections and surgical interventions. Although most events are treatable, some of the patients experienced permanent injury or death, with estimated mortality rate of 8%. The annual cost for the hospital was reportedly about 17 billion dollars. (Scwendimann et al., 2018). Previously recorded adverse events can offer esteemed evidence that can be used to apply the necessary changes to decrease or eliminate future events A thorough analysis of the event and safety culture are paramount for better patient outcomes (Dumpa & Kamity, 2022).

1.1.3. Second victims

Second victims have been defined as “healthcare providers who are involved in an unanticipated adverse patient event, medical error, and/or a patient-related injury and become victimized in the sense that the provider is traumatized by the event”. (Scott, Hirschinger, Cox, McCoig, Brandt, & Hall, 2009).

The term was seminally coined by Wu (2000), to acknowledge the profound and lingering effects of adverse events on the professionals and the need to effectively support them. A consensus of definitions and descriptions to broaden the concept concurred that the occurrence of second victims following an adverse event rose from 10.4% up to 43,3%, with every member of the healthcare team predisposed to the events and exposed to unavoidable patient harm. (Scott, Hirschinger, Cox, et al., 2010; Edrees, Paine Feroli et al., 2011; Seys, Wu, Van Gerven et al., 2012; Ullstrom, Sachs, Hansson et al. 2014; Ozeke, Ozeke, Coskun & Badakoglu ,2019; and Seys, Wu, Van Gerven et al., 2013).

The concept of second victim emerged unnamed and undefined in a study conducted by Dornette and Orth (1956) following the demise of a patient in the operating room. Subsequently, the Harvard Medical Practice provided findings of a study on the frequency of adverse events. The findings specified that many adverse events were caused by medical mismanagement, and deficient care, however there was no reference to the healthcare provider as a second victim (Brennan, Leape, Laird et al., 1991). Sachs and Wheaton (2021) explored the concept in which they argued against the notion of deficient care as a cause of adverse events. The basis of the argument was the absence of scientific evidence to support the assumption and conclusion that the incidents in medicine were due to “bad” or inefficient physicians. Ultimately, The Institute of Medicine “admitted an undeniable truth” in the journal, *To Err is Human: Building a Safer Health System,* affirming that “the problem is not bad people in healthcare settings --it is that good people are working in bad systems that need to be made safer.” (Kohn, Corrigan &Donaldson, 2000). In other studies, the authors called for respect and acknowledging the concept in solidarity with the Second Victims, considering that those involved professionals were noble, hardworking, attempting to render deficient systems safer. The majority allegedly meant to do well in care provision but found themselves in emotionally complex situations (Crelier, Schwappach & Schwendimann, 2020; Tamburri, 2017; Kohn et al., 2000).

An evidence-based literature review exploring the second victim phenomenon in healthcare was undertaken by Nydoo, Pillay and Naicker (2019). The review provided valuable information indicating that although most staff in healthcare were involved in one or more adverse event in their career, not all became second victims due to extenuating factors that either predispose or protect some more than others. (Edrees et al., 2011; Seys et al., 2012).

The concept will assist in recognising the main symptoms experienced by those suffering from the syndrome, will help justify the significance of an appropriate response program, and clarify the purpose of interprofessional team in mitigating the impact of the syndrome (Gomez-Duran, Tolchinsky, Martin-Fumado, Arimany-Manso, 2019; Scott et al., 2010; Scott et al., 2008; Denham, 2007). The concept received international recognition from the professionals, managers, and policymakers in healthcare, who regarded it as striking and believed it brought urgency to adverse event management (Wu, Shapiro & Harrison et al., 2017). Gomez-Duran, et al., (2019) stressed that using the concept emphasises that attention was required and does not disown responsibility.

Despite the successful introduction of the term in 2000 and reports of the article being cited more than 400 times, the concept has recently been noted as contentious and not universally accepted. Similarly, there were concerns noted recently over the usage (Wu et al., 2017). Some studies mentioned that the term was condemned by relatives and representatives of the patients (Tumelty, 2021; Clarkson, Haskell, Hemelgarn & Skolnik et al., 2019). Using the concept was viewed as being inconsiderate to the patients harmed and undermining the professional identity of the involved workers. In addition, the patients' advocates felt insulted by the term, trusting that it belittled the experiences of the patients and their families. The studies mentioned that the term provides for extra consideration on the suffering of the professional involved as opposed to that of the patients in question (Clarkson et al., 2019).

A plea was made to abandon the term second victim (Tumelty, 2021; Lawton, 2019). According to the findings of the editorials, a "victim" implied lack of liability or obligation to the error committed. The suggestion was made to find an appropriate replacement and the use of the term "second casualty" was contemplated an appropriate substitute (Tumelty, 2021). Despite its widespread use in other authorities, the term was viewed as an abomination or even worse, a curse (Tumelty, 2021; Lawton, 2019). It was concluded that the physicians and legal professionals were uncomfortable with the term second victim leading to its limited usage.

Although there were calls to abandon the term and continued appeals from the families of patients who sustained injuries from adverse events, the authors noted that finding a replacement for the term was hard. However, the clinicians, healthcare managers and policy makers were observed beginning to embrace the term, with the recognition, alterations, and extension to the educators and authors (Clarkson et al., 2019). Arguments concerning the advantages and shortcomings of the term continue to improve and further drive its development, while helping preserve the healthcare focus on the significance of acquiring and assessing support programs for involved persons. In support to the above and in response to appeals and calls to abandon the term 'second victim,' Lawson (2019) reported that there were limited number of concerns regarding the term. Subsequently it was recommended that until an alternative term was identified, and consensus reached, those involved in adverse event warrant to be identified as the 'victim'.

The Institute of Medicine report "To Err is Human: Building a Safer Health System" informed of approximately 44,000 to 98,000 deaths due to medical errors in the United States hospitals annually (Kohn, Corrigan & Donaldson, 2000). A committee was convened that recommended that hospitals create an environment where safety, which was leadership-driven became a priority.

1.1.4 Patient safety in relation to High Reliability Theory

The World Health Organization (WHO) defines patient safety as "the prevention of errors and adverse effects to patients associated with health care" and "to do no harm to patients." In addition, patient safety includes initiatives to identify, report, analyse and prevent any unintended or unexpected incidents that could harm users of healthcare (National Department of Health, 2011). Maintaining the highest levels of patient safety is a prerogative of healthcare organisations. Although extensive resources are invested in refining safety, patients still suffer preventable and avoidable harm (Diller et al., 2013). Patient safety practices consist of those activities or structures which, when applied, diminish the prospect of incidents resulting from exposure to healthcare across a range of diseases and procedures (World Health Organisation, 2008).

Achieving a culture of safety requires an understanding and implementation of the values, attitudes, beliefs, and norms that are essential to healthcare and the discovery of expected and appropriate attitudes and behaviours imperative for patient safety. To create a Patient Safety Culture, professionals must value following those practices that promote patient safety. The Institute of Medicine in the United States of America suggested that the biggest challenge to

moving towards a safer healthcare system was the alteration of culture from one in which people remain blamed for errors to one in which errors are treated as opportunities to improve the system and avoid harm (Institute of Medicine, 2001).

While some leadership in healthcare have implemented patient safety without significant progress, others have made progress in improving patient safety and incident reduction, achieved by the application of High Reliability Organisation theory (HRO) (Pryor, Hendrich, Henkel, Beckmann & Tersigni, 2011). High reliability organisations are those that perform their activities with smallest faults over time, while constantly making decisions that bring about high quality and high reliability (Roberts, 1990). The structures consist of numerous essential principles that together endorse a culture of safety.

The interdisciplinary nature of the theory was implemented in the military, nuclear power, and commercial aviation establishments to improve safety. According to Hartmann, Meterko, Zhao, Palmer, and Berlowitz, (2013), the principles of the theory are gaining ground and are gradually being utilised in healthcare even though the dissemination process remains restricted. Shabot, et al (2013), affirmed that organisations in pursuit of reliability are engrossed with failure while energetically functional towards augmenting a safety culture. This was confirmed by Bigley and Roberts, (2001).

Such organisations influence the rate of patient safety indicators, human error attributable to fatigue and stress and development of interdepartmental teams with open channels of communication, (Norris, Currie & Lecko, 2012; Riley, Davis, Miller & McCullough, 2010; Singer, Lin, Falwell, Gaba & Baker, 2009;). Due to the frequency of adverse events involving one patient instead of majority in healthcare, safety must be prioritised as the main objective with structures to support safety processes in place. Leadership is vital component of a successful patient safety programme which cannot be delegated (Botwinick, Bisognano & Haraden, 2005). Therefore, high reliability organisations require a management-led environment which is dedicated to safety, characterised by the cultivation of a safety culture where workers adopt safety projects and support the safety climate (Hartman et al., 2013). A review of literature was conducted to organise properties of a safety culture, in which a conceptual culture of safety model was developed inclusive of the following properties:

a) Committed Leadership and executive responsibility
b) Teamwork – collaboration and collegiality among all staff
c) Communication based on mutual trust and openness
d) Evidence based – patient care best practices based on evidence
e) Patient centered – patient care centered within family and patient
f) Learning: hospital to learn from mistakes made, find improvements
g) Just – system identifying errors as system failures

Assessment of safety culture aids healthcare organizations to identify areas for improvement and analyze changes over time. (Sammer, Lykens, Singh, Mains, & Lackan, 2010)
Patient safety is a dimension of quality assurance. Donabedian created a programme for measuring quality in health care. Key to his work are the concepts of 'quality assessment which consists of the measurement of quality care, and 'quality assurance that implies improving the quality of care. Three approaches were recommended for assessing the quality of care namely structure, process, and outcome (Donabedian 1980).

Structure refers to the material resources such as facilities and equipment, human resources such as the number, variety and qualification of personnel and organisational characteristics, including the kinds of supervision and performance review as well as methods of paying for care. Process consists of those activities that constitute health care, such as diagnosis and treatment, frequently carried out by professionals. Finally, outcome refers to the changes in individuals attributable to the care they received such as changes in health status, changes in behaviour of patients and family members and changes in knowledge acquired by them as well as the satisfaction of patients and family member.

Padgett, Gossett, Mayer, Chien, and Turner (2017) conducted a study which explored how the application of high reliability organisation principles affected the successful alteration of healthcare into a reliability - pursuing setting. The findings asserted that the shift provided fewer incidents, advancements on how staff recognised the workplace and reduced costs ascribed to unsafe care. The promotion of the theory to staff, increasing opportunities for training and education for staff were some of the recommendations made.

The introduction of the theory to the healthcare setting may benefit the quality of care for patients by enhancing staff and patient safety. What stood out was the recognition that government

regulations were ineffective in the reduction of avoidable incidents, hence the transition to the theory was beneficial. As adverse events are related to patient safety and quality of care, the decrease of events resulted in improved patient safety (Downey, Hernandez -Boussard, Banka & Morton, 2012). Healthcare can consider moving to a reliability – seeking environment that will contribute staff loyalty, to less adverse events, boost patients and staff safety and increased reporting to regulatory structures (Chassin & Loeb, 2013).

1.1.5 Just Culture

A method of managing adverse events which combines concern for patients, professionals and which recognizes the importance of a systems approach is the concept of "Just Culture". Paradiso and Sweeney (2019) defined the term as "organisational accountability for the system designed and employee accountability for the choices made" (Petschonek, Burlison, Cross et al., 2013). The study affirmed that the concept has been used and recognised in other industries although it was new to healthcare. The aviation industry employed nonpunitive fault reporting systems to improve safety and trustworthiness. The attention of the industry shifted from establishing who committed the mistake to identifying the conditions under which the mistake was made, to embrace the just culture (Gerstle, 2018). What was interesting were the findings from literature, stating that because healthcare is provided by people, it is always possible to identify a professional as the cause of the adverse event even when the event may have been unavoidable and not caused by human action (Seys, Wu, Van Gerven et al., 2013; Wu, 2000).

A Danish study conducted by Schroder, Lamont, Jorgensen and Hvidt (2018), reported the first attempt to practice just culture in healthcare in which the rights of both the patient and professionals were supported. This study maintains that Just culture focuses on finding and tackling actions that initiate the potential for adverse events and calls for applicable accountability. In addition, the culture supports disciplinary actions against individuals or organizations who engage in reckless conduct or deliberately breach best practices and standards of care. However, punishment of individuals for adverse events over which they have no control was avoided (Rodziewicz, Houseman & Hipskind, 2021). With just culture, rather than only focusing on the outcomes, an organization examines behavioural choices, thereby reducing severity bias. According to Willis, Yarker and Lewis (2019), just culture identifies that efficient staff make mistakes

The Institute for Safe Medication Practices (2021) asserts that transparency and error reporting are inspired by Just culture while creating a balance between blame-free and punitive environments that confirm accountability. Wachter (2012) affirmed that in a just culture, staff are accountable for their actions, choices, and those of colleagues, to the benefit of the integral confrontation of some who are unable to fulfil their roles due to either physical or mental challenges.

However, the absence of a just culture has serious implications for patient safety in healthcare. These include but are not limited to the prevention of incident reporting, impacting on the culture of blame, destabilising the establishment of a culture of safety, hastening the migration of practitioners from clinical practice, aggravating the shortage of healthcare providers, spreading the illusion that perfect operation is achievable, and delaying system improvements (Hughes, 2022). The blame culture that is rife in healthcare prevents professionals from being actively involved in the implementation of barriers to clinical risks or adverse events reporting (Tamburri 2017; Busch, Moretti, Campagna et al., 2021). A just culture must insist that leadership in healthcare understand that incidents are bound to happen. Seeing that leadership is liable for system design and any changes required, they must be proactive with system design improvements by learning and benefiting from the experiences of others when incidents occurred. This will ensure that accountability for safety is shared.

The Agency for Healthcare Research and Quality (2016) informed that action is needed on three fronts within healthcare to create a just culture: building awareness, implementing policies that support just culture, and building just culture principles into the practices and processes of daily work (Hughes, 2022). Patient safety literature argues that although active errors lead to adverse events, assigning blame to the individual is not justified and the reaction to error cannot simply focus on retraining of involved individual (Parker & Davies, 2020). Therefore, healthcare requires a culture change from the traditional one that focuses on guilt, shame and punishment to the second victims and be replaced with measures towards a just culture, where individuals account for actions within their regulation (Patient Safety & Quality Healthcare, 2018). The application of just culture in healthcare promotes patient safety and the hastens the recovery process of the 2nd victims of adverse events (Joesten, Cipparrone, Okuno-Jones et al., 2015; Mira, Carrillo, Lorenzo et al., 2015).

1.1.6 Root cause analysis

Root cause analysis is described as a regulated method used to analyze serious adverse events. Although originally developed to analyze industrial accidents, the method is now generally used as an error analysis instrument in healthcare. In medicine a root cause analysis is conducted to prevent future errors from happening, while in healthcare the investigations are a routine process in reaction to adverse events (Gomez-Duran, et al.,2019). Literature informs that although investigations are a critical process, they are often misunderstood and require reassessment to ensure those involved are not treated as though appearing in court for having committed a crime (Pettker, 2017; Wu & Steckelberg, 2012). The objective of incident investigations is to identify what happened, how and the factors that influenced the event. Root cause analysis is regarded as the most extensively utilised approaches to advancing patient safety, but its effectiveness has been called into question with studies stating their failure to implement sustainable systems-level solutions. Hence suggestions from other researchers that reconsider the process in healthcare.

When applying the analysis for prevention of errors, it is important to consider several patient-related factors and underlying issues that may deter the ability to generate an effective analysis. The awareness of safety hazards for certain patient demographics and groups can often help alleviate common errors and encourage patients to take responsibility for their safety. A root cause analysis can stipulate valuable solutions for healthcare and leadership to expand apprehension of and tackle adverse events thereby preventing potential episodes (Singh, Patel & Boster,2022).

According to Charles, Hood, DeRosier, Gosbee, Bagian, Li, Caird, Biermann, and Hake (2017), a structured root cause analysis, when performed thoroughly, is likely to reduce errors in healthcare. Because the discovery of events can become complex due to several underlying factors, an analysis can help identify factors within the process that may obstruct the ability to provide quality patient care. Vital implications are embedded within the process for healthcare to study events that resulted in patient harm, recognise approaches and to reduce future faults by improving patient care and safety (Singh et al., 2022).

A 2017 commentary identified eight common reasons for ineffectiveness of the RCA process, including overreliance on weak solutions (such as educational interventions and enforcing existing policies), failure to aggregate data across institutions, and failure to incorporate principles of human factors engineering and safety science into error analysis and improvement efforts. The

National Patient Safety Foundation has proposed renaming the process root cause analysis and action (RCA2), stressing that a well-structured process may produce tough remedial actions and reduce the risks. As detailed in a 2016 Annual Perspective, safety experts agreed that effective error analysis required the active involvement of organizational leadership, training of specialized teams with expertise in safety science, focusing on stronger systems-level solutions, and measuring the execution and impact on outcomes.

1.1.7 Theory behind Quality Management

Quality Management is defined as the process of directing the tasks and activities required to preserve a necessary degree of excellence, and safeguards the coherence within a service, product, or an organization (Koskela, Tezel & Patel, 2019)). The Quality management systems were initially launched in the 1920s, with the introduction of statistical sampling techniques into quality control methodology by pioneer Shewhart. Literature affirms the recognition of Deming as the management theorist whose philosophy avoids apportioning blame from errors, but instead recognizes these as opportunities for improvement. The purpose of quality management is to ensure the cooperation between the stakeholders and ensuring that customers receive an excellent, quality product. (Luburic, 2015). In healthcare, quality management is referred to as the provision of systems design, policies, and processes that reduce, or eradicate, patient harm while enhancing care and outcomes (Dodwadd, 2013)

Quality management involves four phases namely: quality planning, quality assurance, quality control and quality assurance. The planning phase involves recognition of the related quality standards and deciding how to meet; while the improvement phase includes the process change to augment the confidence of the outcomes. In the control phase consists of efforts to sustain the process reliability towards the results while the assurance phase affirms the scheduled actions for the service to attain the obligations. The principles of quality management routinely implemented to steer organisations towards quality care include customer focus, leadership, people engagement, process approach, continuous improvement, evidence-based approach, and relationship management (Misztal,2010).

1.1.8 Experiences of HCP and related literature

Descriptions of healthcare professionals' (HCP) adverse event (AE) experiences are, reported to have been available since the mid-1980's (Cabilan & Kynoch, 2017. However, international studies acknowledge that until the 20th century, the emotional impact of AEs on physicians and clinicians, let alone the impact on nurses, was not given due attention by healthcare managers

and was rarely discussed (Alhassan, Halilu, Benin, Donyor, Kuwaru, Yipaalanaa, Nketiah Aponsah, Ayanore, Abousi, Afaya, Salia & Milipaak, 2019). Despite the widespread prevalence of AEs and the knowledge of the concept of second victims, there is little published evidence of the phenomenon. The rationale given is that there were no fora to facilitate healthy, non-judgmental discussions, and no open platforms existed where such discussions could be, held. Carrillo, Guilabert, Lorenzo, Pérez-Pérez, Silvestre, Ferrús and the Spanish Second Victim Research Team's (2016) study indicates that even in the morbidity and mortality (M&M) fora where these AEs were discussed among various disciplines within hospitals, only the medical facts were, highlighted, and second victims were not acknowledged.

In terms of nurses, fora for discussing nurse-related AEs were unheard of because nurses were concerned about hospital management and professional organisations taking disciplinary action, which could have led to the termination of their (the nurses) working contracts (White, Waterman, McCotter, Boyle & Gallagher 2008). Hence, from this point of view, the available literature affirms that the focus following involvement in nurse-related AEs was, centred on blaming and punishment, rather than learning from their mistakes, which contrasts with the cases involving physicians, as nurses were not protected by peer review and rules applicable to physicians.

One study reported an imbalance of published second victim studies between doctors and nurses. Most of the published international studies were concerned with the doctors (including physicians and clinicians), with only a few of these focusing on nurses. This revelation highlights the danger that the experiences of involved nurses may not be fully illustrated (Cabilan & Kynoch, 2017; Jones & Treiber, 2012; Kable, Kelly & Adams, 2018); Seys, Wu, Van Gerven, Vleugels, Euwema, Panella, Scott, Conway, Sermeus & Vanhaecht, 2012; Swift, 2013). It was proposed that not only doctors be included but also other HCPs, as they may be equally traumatised by their involvement in an AE.

Scott (2015) reported that despite the term 'second victim' being identified in 2000 by Professor Wu at the John Hopkins Centre, there seems to be a lack of understanding from hospital management regarding the emotional impact of AEs on involved HCPs. This report also affirmed that second victims seem to suffer prolonged psychological distress and felt helpless following their involvement in AEs. Other authors recommended that adequate organisational support structures be established to meet the second victims' needs, such implementing comprehensive support programmes (Mira, Lorenzo, Carrillo, Pere-Perez, Iglesias, Silvestre, Olivera, Nuno-Solinis, Maderuelo-Fernandez, Vitaller, Astier, Research

Group on Second& Third Victims, 2015; Robertson & Long, 2018; Zhang, Li, Guo & Lee, 2019).

Only in recent years have hospitals gradually begun to launch systems, procedures, and processes to acknowledge the impact that AEs have on second victims. Literature indicates that the reactions of second victims are influenced by the effect of the AE and their degree of personal liability for it (Delacroix, 2017; Mira et al., 2015; Pyo, Choi, Lee, Jang, Park, Ock & Lee, 2020). The second victims' reactions can be either emotional, cognitive, or behavioural, with a resultant manifestation of physical and psychological symptoms (Ajri-Khameslou, Abbaszadeh & Borhani, 2017; Busch, Moretti, Purgato, Barbui, Wu & Rimondini, 2020b).

Healthcare professionals require support to cope effectively as second victims.

While detailed and appropriate mechanisms were in place for patients to receive the help and care they need following an AE, the same infrastructure and support is often insufficient for second victims, with only about 7-10% of them reporting to have received the necessary support. The University of Missouri conducted a survey on the phenomenon and discovered that intense suffering of HCPs still exists following involvement in AEs, and that there is limited evidence of existing support programmes (Scott, 2009). For instance, up until 2009, studies on AEs in the Australian healthcare setting did not include mention of second victims (Kable et al., 2018). This points to a need to provide effective and efficient support programmes for second victims of AEs, which studies noted, was non- existent in most healthcare settings (Cabilan & Kynoch, 2017; Degnan, 2018).

Support programmes for HCPs are necessary due to the consequences suffered by second victims in an AE. Numerous studies have identified the considerable effects and influences suffered by second victims involved in AEs, highlighting the emotional devastation felt by these HCPs, including a range of emotional and psychological repercussions, the decline in professional competence and confidence, trauma, isolation, and the inability to concentrate (Hall & Scott, 2012; Nicol, 2015; Pratt & Jachna, 2015; Seys et al., 2013). Other studies report healthcare workers suffering in silence, increased feelings of vulnerability, and having their clinical actions exposed to intense scrutiny, thus leaving permanent emotional scars (Chard, 2010; Schwappach & Boluarte, 2008; Scott, Hirschinger, Cox, McCoig, Brandt & Hall, 2009; Sirriyeh, Lawton, Gardner & Armitage., 2010; Swift, 2013; Ullstrom, Sach, Hansson, Ovretveit &, Brommels, 2014).

The evidence above indicates that there is a need to fully understand, identify, and improve hospital management's responses to second victims of AEs and providing them with the necessary support (White, Brock, McCotter, Hofeldt, Edrees, Wu, Shannon, & Gallagher,2015; & Trent, Waldo, Wehbe-Janek, Wiliams, Hegefeld & Havens, 2016). It seems that the reported experiences of HCPs involved in AEs are consistent with those of the survivors of traumatic events who eventually develop symptoms of post-traumatic stress disorder (Panella, Rinaldi, Vanhaecht, Donnarumma, Tozzi & Di Stanislao, 2014). The psychological trauma associated with second victims' involvement in AEs often leaves them with permanent emotional scars (Dekker, 2013; Deroo, 2017; Lee, Pyo, Jang, Choi & Ock, 2019; Rassin et al., 2013; Swift, 2013;).

Lane, Newman, Taylor, O'Neill, Ghetti, Woltman, and Waterman's (2018) study acknowledges that while less than one in four second victims receive institutional support after an AE, there is difficulty in accessing the managerial support following involvement in AEs, while other second victims don't know how or where to access support or fail to access it at all. In some cases, following AE investigations, hospital management has failed to supply information or offered only limited support. The authors felt this was necessary to lessen the anxiety related to the situation (Kable et al., 2018; Mira et al., 2015; Scott, 2015; Ullstrom et al., 2014; Van Gerven, Bruyneel, Panella, Euwema & Vanhaecht, 2016; Waterman, Garbutt, Hazel, Dunagan, Levinson, Fraser & Gallagher, 2007).

Glauser, Taylor, and Tierney (2015) affirm that few studies have evaluated the support programmes available to second victims, as well as the lack of agreement on the best way to provide such support programmes (Winning, Merandi, Lewe, Stepney, Liao, Fortney & Gerhardt, 2019). While more research is required to understand the influence of AEs on involved HCPs, the development of a system and the provision of support is crucial. Awareness among hospital management regarding the importance of offering immediate and long-term support to involved HCPs is acknowledged as an important intervention to facilitate a speedy recovery. The availability of efficient and effective support programmes will enable involved HCPs to return to their individual professional roles and survive after an adverse experience (Jang & Lee, 2016; Jones & Treiber, 2012; Schwappach & Boluarte, 2008; Seys et al., 2012; Waterman et al., 2007).

The lack of institutional support programmes delays second victims' coping ability after an AE (Dukhanin, Edrees, Connors, Kang, Norvell & Wu, 2018; Sirriyeh et al., 2010). The lack of

efficient and effective support threatens their personal dignity and their professional reputations (Najafi, Fallahi-Khoshknab, Ahmadi, Dalvandi, & Rahgozar, 2017). In contrast, one study identified that over a two-year period, more than 200 HCPs affirmed that they received effective and efficient managerial support following an AE involvement (Merandi, Liao, Lewe, et al., (2017). Awareness regarding the availability of support programmes needs to be intensified (Edrees, Connors, Paine, Norvell, Taylor & Wu, 2016; Edrees, Paine, Feroli & Wu, 2011).

1.2 STATEMENT OF THE PROBLEM

AEs in healthcare services result not only in administrative and financial costs to healthcare institutions, but in also personal costs to patients and their families who are often angry, disappointed, and sad. In the current litigious climate, relatives, with the support of legal advisors, often seek redress as a way of managing their distress. Patients are not the only victims in AEs.

The HCPs who are directly involved often shoulder the blame of the AE, sometimes fairly and sometimes unfairly, while simultaneously in need of psychological support. An institutional culture of blame can lead to HCPs involved in an AE being marginalised, feeling personally responsible for the event and that they have failed the patient, and yet they are left to suffer in silence.

While there is anecdotal evidence that such stress can lead to negative coping mechanisms, the researcher has found that no research study has been conducted in the public hospitals in Gauteng to identify and describe the influence the involvement in an AE has on HCPs. Such evidence is required to develop a support programme, to assist the HCPs who have been directly involved in AEs, to minimise the stress caused, and to continue to provide quality care after the event.

1.3 RESEARCH QUESTION

“How can HCPs involved in AEs in public hospitals in Gauteng best be supported to minimise the stress caused, and to enable them to continue to provide quality care after the event”.

1.4 PURPOSE OF THE STUDY

The purpose of this study was to develop a support programme for HCPs that are directly involved in AEs in public hospitals in Gauteng.

1.5 STUDY OBJECTIVES

The research objectives for this study are to:

- explore the influence of AEs on HCPs in international literature.
- explore the influence of AEs on HCPs who have been directly involved in AEs in the Gauteng Department of Health's (GDoH) public hospitals.
- understand what mechanisms have been used by HCPs to cope with the stress caused by their involvement in AEs.
- develop a support programme for HCPs involved in AEs; and
- confirm and validate the programme using experts' opinions.

1.6 PHILOSOPHICAL ASSUMPTIONS UNDERPINNING THIS RESEARCH STUDY

A research paradigm is described as a conceptual lens through which the researcher inspects the methodological aspects of the study to establish research methods and how the data will be analysed. Creswell and Clark (2011), Patton (2002), and Rossman and Rallis (2003) refer to a paradigm as a way of thinking about and making sense of the complexities of the real world.

Paradigms are valuable in research because they provide beliefs and direct the researcher in terms of what must be studied, how it can be studied, and how will the outcomes be interpreted (Denzin & Lincoln, 2000; Kuvinja & Kuyini, 2017). A paradigm informs how meaning will be composed from the collected data, and the choice of a paradigm guides a researcher towards a specific methodology.

Several worldviews that are philosophical in nature, shape and organise research studies, and are described from ontological, epistemological, axiological, and methodological perspectives. The ontological perspectives focus on the nature of being, existence, and reality, to familiarise the researcher with the research problem, its importance, and to provide guidance in answering the research question. The epistemological perspective focuses on the foundations of knowledge, its nature, forms and how to obtain it; axiology in terms of the ethical issues to be considered, the role of values and morals in research, avoiding or minimising risk or harm to

the participants, and the methodology on shared comprehension in terms of the best ways to gain knowledge (Lincoln et al., 2011; Kuvinja & Kuyini, 2017).

In this study, the ontological perspective utilised was pragmatism, a concept originally derived from the Greek word 'pragma', which means action. Pragmatic philosophy propounds that human actions cannot be separated from experiences and beliefs that arise out of such experiences. Pragmatism is orientated towards unravelling practical problems in the actual world, thereby assisting HCPs to focus their attention on crucial concerns in their operational practice. The researcher adopted this paradigm because of the emotional distress experienced by HCPs involved in AEs in public hospitals in Gauteng (Borden, 2013). Pragmatists believe that reality is not static but rather transforms with every change of circumstance (Kaushik & Walsh, 2019).

The epistemological perspective adhered to in this study was that of sequential multi-methods. Since pragmatism embraces plurality, both qualitative and quantitative data was collected to answer the research objective. Epistemology helps the researcher to establish the faith placed in the data. According to Morgan (2014), pragmatism provides a philosophical foundation in multimethod research as utilised in this study.

The axiological perspective refers to the beliefs regarding the role and nature of ethics in research and the ethical considerations applied. This study focused on the ethical issue of exploring the impact on HCPs involved in AEs and developing support programmes to mitigate the negative impacts of AE involvement. Ethical considerations adhered to ensure the protection of participants by acknowledging that it is their fundamental right to make choices, and thus respected these rights. The participants that experienced emotional distress during storytelling, could withdraw from the study without consequence or penalty. The researcher exhibited the utmost ethical conduct by understanding and considering what was right and wrong throughout the study.

Pragmatists adhere to ethics-based research to ensure participants' democracy, equality, justice, and freedom, facilitating their withdrawal from the study without fear of penalty (Koenig, 2019). Three participants who exhibited signs of emotional distress could withdraw from the study. The pragmatist perspective also relates to the researcher's general values. The researcher applied her enquiring and curious mind, which was evident while probing,

questioning, clarifying, and asking participants to describe the details of their AE involvement during storytelling.

The researcher's adaptability was evident in her approach to the interviews. The participants could choose the venues, dates, and times suitable to their personal commitments, and reschedule appointments. The interviews were easy-going, and the researcher remained neutral and non-judgemental during the interpretation of the results.

Utilising the pragmatism approach gave the researcher freedom to choose the research design, methods, research approaches, and systematic processes to conduct the study (Kivunja & Kuyini, 2017). The researcher utilised a qualitative methodological perspective to explore the impact of involvement in AEs on HCPs. The semi-structured interviews were conducted to collect data from the professional nurses, doctors, and managers. The validation of the developed support programme was carried out by experts using the Delphi technique. A scoping review of international literature was conducted to obtain evidence of the impact of involvement in AEs.

1.7 CONCEPTUAL DEFINITIONS FOR THIS STUDY

- **Support**

In this study, support means assistance to bear the weight, trauma, and/or pain of having been involved in an AE.

- **Programme**

Programme refers to a document that outlines the support offered to HCPs following their involvement in AEs.

- **Healthcare Professional**

This refers to physicians, nurses, pharmacists, managers, and other members of the healthcare team prone to AEs, and who may be defenceless and helpless after an AE. This term excludes sub-professional staff members such as nursing auxiliaries, occupational therapy assistants, and enrolled nurses.

- **Adverse Event**

An AE is an incident that results in harm to a patient that is related to medical management, in contrast to disease, complications, or underlying diseases. National Department of Health (NDoH, 2017).

1.8 OUTLINE OF CHAPTERS

Chapter Two:	Research methodology.
Chapter Three:	Scoping review of the experiences of HCPs involved in AEs and how best these professionals could be supported.
Chapter Four:	Stories of HCPs involved in AEs.
Chapter Five:	Semi-structured interviews with the managers.
Chapter Six:	Developing a support programme.
Chapter Seven:	Expert review of the programme and focus group discussion.
Chapter Eight:	Summary of findings, limitations, conclusions, and recommendations.

1.9 CONCLUSION

In this chapter, the introduction, problem statement, research question, purpose of the study, objectives, and conceptual definitions of keywords for this study were described. The philosophical assumptions underpinning the study were also discussed. Chapter Two focuses on the research methodology used in this study.

CHAPTER TWO
METHODOLOGY

2.1 INTRODUCTION

Chapter one dealt with the study overview. The purpose of chapter two is to describe and justify the research design and method**.** The study was conducted in five phases. Phase 1 dealt with the scoping review, which explored evidence in the international literature regarding the impact of involvement in Adverse Events and how second victims could best be supported. This phase followed the five-stage methodological programme developed by Arksey and O' Malley (2005). Phase 2 focused on storytelling using Smith and Liehr's (2005) methodology, whereby Health Care Professionals who had been directly involved in, or affected by, one or more Adverse Events in a public hospital in Gauteng, told the story of their experiences.

Phase 3 involved semi-structured interviews, in which managers explained the procedures for managing Adverse Events in a hospital and described the support measures used to assist involved Health Care Professionals. Phase 4 saw the development of a support programme for Health Care Professionals involved in Adverse Events. This was guided by the Wits Trauma Model (Eagle, 1998). Phase 5 involved a Delphi study where experts were asked to confirm the appropriateness of the support programme. A focus group was included in this phase where the concerns from the Delphi group were addressed to finalise the programme.

2.2 RESEARCH DESIGN

The research design is a plan that the researcher intends to use and the procedures that span the decisions from broad assumptions to detailed methods of data collection and data analysis (Creswell 2013). According to Gerrish and Lathlean (2015), the research design clearly demonstrates how research questions are answered, how the proposed sample is justified, and how the participants are identified, approached, and recruited to the study. It also provides a detailed account of the data collection.

In this study, a sequential multimethod research design as described by Fetters, Curry, and Creswell (2013), was utilised to develop, implement, and evaluate a support programme for Health Care Professionals involved in Adverse Events in public hospitals in Gauteng, within a pragmatic paradigm that was detailed in Chapter One of this study.

2.2.1 Multimethod Research

Multimethod research design minimises a one-method prejudice and provides dominant tools for exploring complicated processes in healthcare. When using a multimethod design, the researcher can search out the opportunity for a variety of opinions. The outcomes from the different data collection methods, when merged, answer the general research question, with the results being triangulated to form a whole. Sequential methods determine the direction and the implementation of subsequent stages of a research study (Brink, van der Walt & van Rensburg, 2012; Fetters et al., 2013; Subedi, 2016; Teddlie & Tashakkori, 2009).

The researcher utilised five data collection methods, namely: a scoping review; storytelling; semi-structured individual interviews; a Delphi technique; and a focus group.

2.2.1.1. Scoping reviews

Scoping reviews are described as a “form of knowledge synthesis, which incorporate a range of study designs to comprehensively summarize and synthesize evidence with the aim of informing practice, programs, and policy and providing direction to future research priorities" (Colquhoun, Levac, O,Brien, Straus, Tricco, Perrier, Kastner & Moher, 2014). The reviews focus on searching the literature, determining the size and possible scope in a specific area, and describing the general outlook rather than responding to a specific question (Verdejo, Tapia-Benavente, Schuller-Martínez, Vergara-Merino, Vargas-Peirano, 2021). Arksey and O'Malley (2005) whose work was used to guide this study stated that scoping reviews "aim to map the key concepts rapidly underpinning a research area and the main sources and types of evidence available and can be undertaken as stand-alone projects in their own right, especially where an area is complex or has not been reviewed comprehensively before”. Therefore, scoping reviews are an inclusive literature review.

A scoping review was chosen as a method for phase one of the study as the researcher needed to consider credible, international evidence when developing the programme emanating from this study on. It would not have been appropriate simply rely on the experiences of the health professionals to develop the programme as there has been a great deal of work in the field elsewhere in the world. Scoping reviews do not require the quality of evidence to be assessed but, nevertheless, Davis, Grey, and Gould (2009) argued that scoping reviews are not less rigorous

than systematic reviews but are a different model with exclusive methodology and challenges. Arksey and O'Malley (2005) however devised a programme to improve methodology.

Rumrill, Fitzgerald and Merchant (2010), stated that the scoping reviews vary from narrative or literature reviews as the scoping process requires analytical explanation of literature, consistent with other studies.

Scoping reviews utilise Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR), to ensure the rigor of the report which intensifies the dependability of the readers in the displayed evidence allowing them to peruse these articles analytically. This methodology was updated in 2020 and can be found in the chapter of scoping reviews in the Joanna Briggs Institute (JBI) Manual for Evidence Synthesis (Peters, Godfrey, Mc Inerney, Munn, Tricco, & Khalil, 2020).

Pham et al., 2014 affirmed that many scoping reviews are related to health, followed by other social sciences and software engineering confirming this was an appropriate method of choice in this study. This was consistent with the findings of Munn et al., (2018) and Brien et al., (2010) who added that decision-making in healthcare was informed by evidence gaps that were identified through the scoping reviews – hence, if these were not assessed it creates challenges for those stakeholders who make decisions (Peters et al., 2020).

2.2.1.2. Storytelling

The concept of storytelling is not new to nursing having been used as a research method in various disciplines such as social work, and healthcare. Story theory was accepted as a middle range nursing theory in 1999 and published by Patricia Liehr and Mary Jane Smith as a method to guide nursing practice and research. Storytelling is described as a narrative event that allows a person to connect with themselves through a conversation with another person (Smith & Liehr, 2013). According to Smith and Liehr (2005), "Story theory is applicable when a nurse wants to understand what matters most to someone living through a health challenge." A study conducted by Holloway and Freshwater (2007), on vulnerable storytelling, informed that the participants shared their emotional experiences providing an opportunity to justify and validate their behaviour and reactions to the treatment received from other professionals or sometimes friends and relatives.

Storytelling can be useful as a coping strategy for the affected to manage the psychosocial and emotional aspects of their predicament. This method was chosen to enable the participants to tell the story of their experiences when involved in adverse events without interrupting their flow of thoughts characteristic during semi structured interviews and in so doing assist them to develop their ideas which is impossible in a question- and- answer session. (Fisher, 2019; Rolfe, 2005). Story telling enabled the participants to share their emotional experiences and accept their vulnerability (Kellas & Manusov, 2003).

2.2.1.3. Semi-structured interviews

Semi structured in-depth interviews are commonly used in qualitative research and are the most frequent qualitative data source in health care research. This method typically consists of a conversation between researcher and participant, guided by an adaptable interview protocol and accompanied by follow-up questions, probes and comments. (Miles, Huberman, & Saldana, 2013). During the interviews, the objective of the researcher was to urge the participants to share as much evidence as possible about the topic, and in their own words.

Miles et al., (2013) assert that semi structured interviews allow the researcher to collect open-ended data, to explore participant thoughts, feelings, and beliefs about a particular topic and to search deeply into personal and at times, sensitive issues (DeJonckheere & Vaughn, 2019), as was the case in this study. The purpose of using semi structured interviews for data collection was to collect information from key participants having personal experiences, attitudes, perceptions, and beliefs about the topic.

Semi-structured interviews were valuable in this study in order to solicit information from the managers as the researcher was able to probe and ask open-ended questions, in a desire to know the neutral thoughts of the participants on a topic that they might not be open about when asked in the company of peers or in a focus group. (Chang, Llanes, Gold, et al., 2013).

Though semi structured interviews are often an effective way to collect open-ended data, there are disadvantages as well, where it emerges that not all interviewees make great participants. Some individuals are hard to engage in conversation or may be reluctant to share about sensitive or personal topics (Creswell, 2013 & Watkins, 2012). By using semi-structured interviews in a one-on-one situation in a private setting, the researcher was able to encourage participants to share

potentially sensitive information and be truthful about the processes followed in managing adverse events.

2.2.1.4. Delphi technique

The Delphi is described as a research technique to obtain consensus opinions of experts in management, nursing education, and clinical work (Wilkes, 2015). The objectives of the technique to 'predict and explore group attitudes, needs and priorities' (Hasson & Keeney, 2011). Although there are specified features of the classic analysis, other modifications have been recorded in literature (Hasson et al., 2000; Skulmoski, Hartman & Krahn, 2007). The rigour of the technique in nursing and general literature was reported as controversial by Keeney, Hasson, McKenna, (2001), however other studies maintained its practicality as supported by Linstone and Turoff (2002) and Powell (2003).

A Delphi was initially considered the most suitable way of gaining consensus from the experts in phase 5 of the study as it can be done electronically and without contact with participants which was important during the Covid epidemic, but also because anonymity is guaranteed, and participants are not able to influence one another's opinions. However, due to challenges explained in section 2.4.5., this was not completely successful and had to be supplemented with a focus group.

2.2.1.5. Focus group.

The technique is described as process where the researcher gathers a group of individuals to discuss a specific topic, aiming to draw from the complex personal experiences, beliefs, perceptions, and attitudes of the participants through a moderated interaction.

The group discussion can be utilised as a technique in a multi-method research design. The most persuasive rationale for utilising the discussions was identified as the need to stimulate a debate about a research topic needing shared opinions and the significances, not limited to their experiences and ideas (Buijs, Fischer, Rink, & Young, 2010; Harisha & Padmavathy, 2013; Mfune, 2013).

The reason for choosing a focus group for this phase of the study was that the researcher needed the collective opinions of the participants who were purposively selected to represent the various

stakeholder groups. While both interviews and focus groups involve in-depth discussion with participants, the researcher, in an interview situation adopts the role of an "investigator" where he/she asks questions and controls the dynamics of the discussion. In a focus group, the researchers act as a "facilitator" or a "moderator." A discussion is facilitated between participants rather than between the researcher and a participant. The other benefits of focus group discussion are the ability to clarify and extend findings, as alluded by Harrison, Baker, Twinamatsiko, and Milner-Gulland,)2015), or to dispute the data collected through other techniques such as interviews (Zander, Stolz & Hamm, 2013).

As the researcher was attempting to get the opinions of the experts of the support programme, the dialogue that occurred in the focus group was the most appropriate way of doing this. In this setting, the researcher facilitates or moderates a group discussion between participants and not between the researcher and the participants

2.2.1.6. Triangulation

A useful aspect of using multi-methods is that the data can be triangulated and brought together to create a meaningful whole, which, in this study, culminated in the support programme for second victims.

Triangulation is described as a method used to increase the credibility and validity of research findings (Noble & Heale, 2019). Credibility refers to trustworthiness and how acceptable a study is; while validity is concerned with the extent to which a study accurately reflects the concept being explored (Johnson, O'Hara, Hirst et al., 2017) Triangulation, by combining theories, methods, or observers in a research study, can help ensure that fundamental biases arising from the use of a single method or researcher are overcome.

Denzin (1970) recommended four main types of triangulations, namely data triangulation, investigator triangulation, theory triangulation, and methodological triangulation. In this study the two types of triangulations that were used were data triangulation and methodological triangulation.

Data triangulation uses data from different times, spaces, and individuals. In data triangulation, multiple data sources are sourced in response to the research question. Data collection may be varied across time, space, or atypical people. When collecting data from distinctive samples, places, or times, the outcomes are more liable to be generalizable to other settings.

Methodological triangulation: Involves the use of different methodologies to tackle similar topic. When utilising methodological triangulation, different methods are used to approach the research question. The method was identified as most familiar type of triangulation, characterised by the merging of qualitative and quantitative research methods in a specific study. Methodological triangulation is valuable as the researcher can avert the faults and prejudice associated with dependence on a single research technique. Denzin and Lincoln (1998) alluded that this method was prevalent and widespread. However, in practice, this method may require more supplies to evaluate the program using different methods. Likewise, more time will be required to analyze the data produced by the various methods. (Bhandari, 2022; Guion, 2002).

Data and methodological triangulation were useful in this study as they assisted in enhancing the analysis and interpretation of the findings.

2.3 RESEARCH SETTING

The public hospitals in Gauteng have been categorised by the GDoH (Government Gazette No 35101 of 2012) into five areas for efficient patient referral from the one to the other. These are district, regional, tertiary, specialised, and central health services as indicated below:

Regional hospitals: These hospitals render services in the fields of general, midwifery and rehabilitation of patients. A regional hospital receives outreach and support from tertiary hospitals and has up to 600 beds. The referrals from district hospitals receive attention at regional hospitals, and they also provide specialist services to district hospitals, and conduct research. As a teaching hospital the regional hospital in this study is affiliated to a local university's medical school. The specific regional hospital used in this study hospital is-in a middle to low-income area of Johannesburg in which a couple of informal housing settlements are located. The researcher selected the regional hospital based on the large number of referrals from district hospitals. The many referrals lead to an increased likelihood of Adverse Events, making this regional hospital an appropriate choice for the study.

District hospitals: These are the 'lowest' level of hospital, which generally receive referrals from the clinics. District hospitals refer patients who require medical attention beyond its level to regional and central hospitals. Where possible, they offer training to Health Care Professionals. The chosen site is a level one district hospital situated in the southern part of Johannesburg. This hospital has 314 beds hospital with little support from specialists. During

the period of data collection, some of the services at the hospital had been terminated to provide facilities to manage Covid patients.

Academic/Central hospitals: According to the Government Gazette these hospitals are highly specialised healthcare centres, providing training of Health Care Professionals and conducting research, and act as specialist referral centres for regional hospitals and neighbouring provinces. Academic or central hospitals are attached to a medical school as the main teaching platform system. While an academic hospital was initially selected to be part of the study, the hospital was not accessible at the time of data collection and had to be excluded. The site was repurposed due to the Coronavirus Disease of 2019 pandemic, became a reception center for this purpose and was later was gutted by fire and closed temporarily while under re-construction and was therefore not accessible to the researcher.

Specialist hospitals: This category of hospital provides specialised health services with a specific maximum number of beds. The selected hospital offers services related to Maternity, Neonatal intensive care, and Paediatric services, and includes otolaryngology, orthopaedics, a casualty, and a polyclinic. The 146 bedded hospital is surrounded by an industrial area. The hospital was selected as it is the only one of its kind in the geographic area where the research was conducted and has many maternity patients where the frequency of AEs is likely to be higher than other hospitals.

The researcher received conditional Ethical clearance from the Human Research Ethics Committee in 2018 for the District and Regional hospital. The study was commenced at the district hospital in 2019. However due the pandemic, access to all sites including the collection of data and were suspended pending restrictions on movement of people and visits to healthcare sites. The clearance for the last site was not obtained as all research-related activities were halted. When the lockdown restrictions were eased in 2021, the Committee provided unconditional ethical clearance which included the Specialist hospital. The research study continued to include all three sites sequentially, following permission to proceed, (Annexure A) as indicated in the protocol for the study sites. (See Ethical Clearance Certificate attached)

2.3.1 Researcher Observations

On initial contact with the managers, the researcher was invited/requested to attend the morbidity and mortality meetings as they believed this would provide the researcher with an understanding of the structures and processes used to manage adverse events in each hospital. The meetings were not part of the formal data collection procedures but were useful in establishing rapport with the sites and provided an opportunity to present the information about the intended study. The insights gained were useful and the information is provided in the next subsection 2.3.1.1. to further clarify the context of the research settings.

Prior to collecting data from participants, the research sites granted permission for the researcher to attend incident review (IR) and Morbidity and Mortality meetings that provided useful information about the context of each hospital. The researcher noted her observations during each meeting.

2.3.1.1 Observations of the adverse events meeting during the incident review and morbidity and mortality sessions

An Incident Review is a formal opportunity to discuss Adverse Events that take place at a hospital with the intention to reduce Adverse Events appropriately. The purpose for conducting these reviews is to improve the process for future incidents and provides a learning experience for the HCPs (Sinitsky, Gowda, Dawas & Fernando, 2019). The researcher observed that the IRs were conducted differently from one another at each setting.

Site A:

Formal Incident Review

The researcher was invited to attend the formal Incident Review meeting and thereafter to present the information, study purpose, and processes, to identify and recruit participants who were interested in the study. The Incident Review meeting takes place once a week, where the audience consists of all categories of nursing staff and the management representatives from each department. At the meeting the researcher attended, the Adverse Events were discussed, and the facilitator chairing the session clarified the objectives with a view to improving patient outcomes, the quality of care, revising attitudes towards patient safety, and contributing to the education of nursing staff. A dedicated and chosen team of investigators asked the involved staff questions on what, how, and why the Adverse Event occurred, and finally agreed on a

way forward. Once everyone reached consensus on the action plan and all the issues had been dealt with, the meeting was adjourned.

Morbidity and Mortality meetings

These M&M meetings are conducted on a fortnightly basis in the morning before the hospital rounds. They are chaired on a rotational basis by the head of one of the specialties. Upon completion of the review meeting before the audience departed, the researcher was invited to attend and present the study purpose and objectives. The researcher observed that the doctors within each specialty presented their Adverse Events as a team, took turns answering questions from the audience and after their delivery, the head of the specialty summarised the events, and informed a possible way forward for the future management of similar events. No team or individual was blamed for an Adverse Event. The meeting lasted approximately 90 minutes to enable the doctors to commence their morning rounds in the hospital.

Site B:

Formal Incident Review

The informal meeting was routinely conducted by the involved department following an AE, on the day when shifts changed. The person in charge (PIC) of each department in which an incident had recently occurred chaired and facilitated the session and read the incident report to inform all those present. The staff then took turns contributing and deliberating on what happened, why it happened, and how it could have been prevented. The researcher observed that the review meeting became an educational session, facilitated by the charge person with everyone sharing their thoughts and suggesting the way forward to prevent further events and stating how they can improve on patient safety. Once everyone had contributed to the discussions, the meeting was, adjourned, and staff continued with their normal ward routines.

Morbidity and Mortality Meetings

These M&M were conducted every two to three months depending on the availability of most of the doctors from various specialties. These meeting are held in the afternoons when most of the hospital routine has been completed. Nursing staff, quality assurance (QA), and other Health Care Professionals were invited to attend. A facilitator who was head of a specialty welcomed everyone and introduced the events for discussion to the audience. The researcher observed that the teams took turns to present the adverse incidents' details. The duration was almost two hours as many events were presented at that forum for discussion. The focus was on learning, as each doctor deliberated on how to prevent some of the Adverse Events in future.

Once all the questions from invited participants and the floor were answered and exhausted, the meeting was adjourned.

Site C:

Formal Incident Review

This hospital does not routinely schedule the meetings and the staff stated they seldom experience Adverse Events. When these do occur, they convene in the department in which it occurred and only involve their own staff. The researcher did not have an opportunity to attend any such meetings at this hospital.

Morbidity and Mortality meetings

There were no meetings scheduled after March 2020 due to the announcement of the Coronavirus disease of 2019 pandemic and adherence to the lockdown restrictions. When the restrictions were reduced, there were delays in planning the proceedings. Therefore, the researcher was unable to attend one of these meetings at this setting.

2.4 METHODOLOGY

Literature defines research methodology as a comprehensive expression of the research design, methods, approaches, and organised investigation to discover something. This expression formulates the flow and logic of the systematic process tracked to gain knowledge about the research problem (Kivunja & Kuyini, 2017). This study was conducted in five phases as explained in Table 2.1. below.

Table 2.1: Sampling and data collection during the five phases

PHASES OF THIS STUDY	OBJECTIVE	METHOD	POPULATION/ SAMPLE
Phase 1	To explore the influence of adverse events on healthcare professionals in international literature	Scoping review	Data bases: EBSCOHOST/CINHAHL; PUBMED, EBSCOHOST/ERIC. Search words: Adverse events and second victims; Adverse events and influence; second victims and support.
Phase 2	To explore the influence of adverse events on healthcare professionals in Gauteng	Story Telling	Purposive sampling and snowballing of those involved in adverse events until saturation is reached.
Phase 3	To explore the mechanisms used to cope with the results of adverse events involvement	Semi structured interviews for managers, healthcare professionals and counsellors	Purposive sampling till saturation is reached
Phase 4	To develop the support program	Wits Trauma Model will be used as a framework	Results of all preceding phases together
Phase 5.1	To confirm and validate the program	Delphi technique	Experts: Psychologists, nurses, doctors & other health professional with at least 5 years' experience in managing people involved in SAEs. Purposive sampling and snowballing.
Phase 5.2	To address the concerns of the Delphi group	Focus Group discussion	Healthcare professionals with at least 5 years' experience in managing people involved in SAEs. Purposive sampling and snowballing.

2.4.1 Phase 1 – Scoping Review

A scoping review was, conducted to explore the influence of Adverse Events on Health Care Professionals as reported in the international literature, and how best they could be, supported.

2.4.1.1 Population

Population refers to a collection of events or individuals that have common characteristics of interest to the researcher and the population is the focus of the study (Gray, Grove &

Sutherland, 2018). The population for phase 1 were electronic databases, namely EBSCOHOST/CINHAHL, EBSCOHOST/ERIC, and PUBMED, where the search words indicated in Table 2.1 were, used.

2.4.1.2 Sample and sampling

The literature search was, conducted using the words: adverse event AND second victim; adverse event AND influence; second victim AND support, as well as the inclusion and exclusion criteria.

2.4.1.3 Data collection

Data collection refers to a series of organised activities aimed at collecting solid information to answer the research question (Polit & Beck, 2017). Data was collected using the scoping review process's recommended steps**.** In this process the researcher utilised the Arksey and O'Malley (2005) scoping review programme that promotes identifying the research question, identifying relevant studies, studying the selection from the inclusion and exclusion criteria, charting the data, and finally collating, summarising, and reporting the results.

(a) Identifying the research question

The focus of this review was to explore and describe the existing evidence published in international literature involving Health Care Professionals who were directly or indirectly involved in Adverse Events. This was, guided by the research question: *What is the impact of involvement in Adverse Events and how best can second victims be supported?*

The sources were, selected based on the following inclusion criteria: literature that was published between January 2000 and June 2020; English publications; and the context were all types of healthcare settings.

(b) Identifying relevant studies

An electronic search of literature of three electronic databases, namely PUBMED, EBSCOHOST/CINHAHL, and EBSCOHOST/ERIC was, conducted. References in the articles helped to search for additional literature. The following search strings were used: adverse events AND second victims; adverse events AND influence; and second victims AND support. A total of 55 eligible articles were accepted as per the inclusion criteria from 15 countries. The details of how Arksey and O'Malley's (2005) programme, including charting the data, collation, summarising, and reporting the results are explained in Chapter Three.

2.4.1.4 Data analysis

According to Arksey and O'Malley (2005), a scoping review does not need the researcher to seriously analyse the data collected in the review, but they must ensure that the data presented connects to the research question. The researcher used the thematic analysis guidelines specified by Braun and Clarke (2006) to analyse the scoping review data. Details are provided below:

Step one involved familiarising with the data and is where the researcher read the articles again, and again.

Step two consisted of code identification in the data by highlighting interesting and related parts in the text that were related to the asked question.

Step three involved searching for themes in which codes were assembled into themes and gathering ideas with similar meanings together.

Step four covered the review of the identified themes and involved the researcher going through the articles to verify the recognised themes.

Step five involved defining and naming the identified themes related to Adverse Events and second victims, Adverse Events and support, and Adverse Events and their influence.

Step six involved producing a report providing an explanation of the themes and focusing on the important aspects of Adverse Events and second victims.

2.4.2 Phase 2 - Storytelling

2.4.2.1 Population

The population comprised the Health Care Professionals, including nurses and doctors working at the public hospitals in Gauteng who were involved in Adverse Events in these hospitals and who were willing to participate in the study.

2.4.2.2 Sample and sampling

The study sample consisted of professional nurses and doctors, who were sampled using a snowballing sampling technique. According to Kirchherr and Charles (2018) and Heckathorn and Cameron (2017), snowball sampling is a sampling method in which research participants are asked to recommend potential participants who share relevant characteristics with the target population. The initial participant/s at each hospital approached the researcher after the Morbidity and Mortality session and volunteered to share their stories. The initial participants then suggested colleagues who may wish to share their stories and the researcher contacted them individually.

2.4.2.3 Data collection

Data was collected through the professional nurses and doctors' stories, which were digitally recorded with their permission. Smith and Liehr (2005) describe storytelling as a narrative occurrence in which the storyteller captures the story as it occurred. The assumption of the story path is that understanding a present challenge occurs by understanding past events related to a challenge. The present challenge in this study is the experience of Health Care Professionals' involvement in Adverse Events, and, how they perceived and reacted to them.

These stories were captured by the researcher at a mutually agreed venue and time chosen by the participants. An interview guide made up of four questions encouraged the Health Care Professionals to tell the story of their involvement in Adverse Events, namely:

- Please tell me the story of an experience of an Adverse Event that you were involved in during your career.
- Tell me what happened.
- How did you and other people deal with the experience?
- How did it make you feel?

Each interview lasted between 45 and 90 minutes and took place between September 2019 and March 2020. The participants were assigned codes to enable identification of institutions, which were A, B, and C respectively. Prompts were used to probe, clarify, and encourage the participants to describe their experiences.

The data collection process, which followed the stages of inquiry proposed by Smith and Liehr (2005) are illustrated in the diagram hereunder that demonstrates the phases (Figure 2.1.).

Figure 2.1: A diagrammatic presentation of the phases of inquiry (Smith & Liehr, 2005)

- **Stage 1: Gathering the story about the complicating health challenge**

The story-gathering involved incorporating the three interrelated concepts of story theory, which included a descriptive occurrence of connecting with the self-using intentional dialogue to create ease. The storytelling process took place in a trust relationship between the researcher and the participant, in which the researcher guided the participant to reveal what had happened. The researcher was attentive throughout to the unfolding story to ascertain the current circumstances and future direction of the participant.

- **Stage 2: Composing the reconstructed story**

In this stage, the researcher composed the reconstructed story by listening to and understanding what was said, as it was told by the participants, and was checked during the interview with the participant (member-checking).

- **Stage 3: Connecting existing literature to the challenges**

The researcher immersed herself in the stories told by the Health Care Professionals involved in Adverse Events and connected these to the literature from the scoping review.

Stage 4: Naming the complicating challenge

The naming process compels the researcher to consciously recall and replicate the reconstructed story, ensuring that the challenge named is an accurate and a true reflection of what the participant said and not what the researcher thought they said (Smith & Liehr, 2005). In this study the complicating challenges resulting from the involvement in Adverse Events were physical, psychological, personal, and professional in nature.

- **Stage 5: Describing the developing story plot**

This stage involved considering the past and focusing on the issues raised during storytelling. It was an explanation of the unfolding story on how the Adverse Events occurred. This phase has the potential to view challenges meaningfully.

- **Stage 6: Identifying movement towards resolution**

This stage included actions offered by the participants that could lead to resolving complicating challenges that resulted from their involvement in an Adverse Event. This entailed accepting supportive interventions from professionals, which in this study resulted in the debriefing and developed support programme. Smith and Liehr (2005) propose that actions could lead to resolving challenges. However, in this study, storytelling was, used as a data collection method for later resolution of challenges.

- **Stage 7: Collecting additional stories about the complicating challenge.**

The researcher became aware of similar experiences in other settings while involved in this research study and, made notes on the magnitude of the impact on healthcare professions involved in Adverse Events. These experiences were documented and are shared in Chapter Four of this thesis where comprehensive details of this phase are described.

The original plan was to collect data from five participants per site, however the researcher continued with the interviews until data saturation was, achieved. This is, noted as a point in which further data collection does not yield new information (Gray et al., 2018). The researcher conducted a total, of 13 semi-structured individual interviews at the three hospitals. This included 12 nurses and one doctor (physician), who told the stories of their respective experiences of involvement in AEs in these hospitals, as indicated below:

Table 2.2: Storytelling by healthcare professionals

METHOD	SITE A	SITE B	SITE C
Storytelling	2 Nurses 1 Doctor	6 Nurses	4 Nurses
Disciplines	1 x General trained nurse 1 x Maternity trained nurse 1 x Psychiatrist	2 x Intensive Care nurse 2 x Theatre trained 1 x General trained nurse 1 x Trauma nurses	2 x Maternity trained nurses 2 x Neonatal Intensive care trained nurses

The researcher was granted access to various hospital departments where time was spent inviting prospective participants and providing study information, including the study's aims, processes, and objectives. Those who were interested in participating were identified, provided their informed consent and their contact details to the researcher who used the information to confirm the dates and times for data collection. A total of 13 Health Care Professionals from the three hospitals participated.

2.4.2.4 Communication techniques/skills used

The researcher utilised communication techniques to elicit information from the participants, thus allowing for detailed exploration of the data regarding their experiences of involvement in Adverse Events in certain hospitals. The six techniques used in this study were clarifying, paraphrasing, probing, minimal verbal response, encouragement, and summarising.

(a) Clarification

Clarification is described as an account or more facts that clarify something or make it easier to recognise. The researcher clarified the research question by making it less confusing and clearer for the participants to understand by using open-ended research questions and repeating the participants' statements to clarify the meaning. This facilitated mutual understanding between the researcher and the participant, e.g., "*Correct me if I am wrong, but is this what you meant*?"

(b) Paraphrasing

According to Grove, Gray, and Burns (2015), paraphrasing refers to restating the response that the participant has just affirmed. The researcher used this technique as an expression of the ideas using the participant's own words, by repeating what they had said differently. This helped indicate to the participant that the researcher was listening attentively throughout the interview process and stimulated the participant to elaborate on what they had just sad, e.g., "*So the Matron meant that you were not careful*".

(c) Probing

De Vos, Strydom, Fouche, and Delport (2010) describe a probe as a researcher's query to elicit information from the participants about a specific question. The researcher asked the participants to explain, elaborate, or describe, making use of what, why, and how following each of the participants' responses to encourage them to talk more about the topic. Probing picks up on the participant's last remark, e.g. "*Can you please elaborate…"*

(d) Minimal verbal response

Townsend (2013) affirms that a minimal verbal response from the researcher determines whether there is a correlation between the participants' verbal expressions and gestures. It also reassures participants that the researcher is listening, e.g., occasional nodding and saying "Hmmmm*".*

(e) Encouragement

The word encourage refers to the researcher's ability to inspire the participants to continue their line of thought (Townsend, 2013) during data collection. The researcher encouraged the participants to share their experiences to provide rich data during the data collection process, e.g. "*I find that interesting, please tell me more…".*

(f) Summarising

The researcher used the main interview words, explaining their meanings at the participants' level of understanding, to make them short and concise. The researcher repeated the participants' responses in a respectful and organised manner in a meaningful paragraph to get clarification from them and/or to confirm their responses. The researcher used the summarising technique to finalise the conclusion of the interview process, e.g. "*So, what you need is for management to understand what you were going through after the AE, to restructure the review process, and not to interrogate but to support you?"*

2.4.2.5 Data analysis

The stories (Phase 1) and the semi-structured interviews (Phase 2) were analysed using Braun and Clarke's six steps of thematic analysis (2006). The same steps were used for the analysis of the stories. Further details are provided in Chapter Four and Five respectively.

Step 1: Become familiar with the data

The first step was about familiarising myself with the data by firstly listening to each digitally recorded interview once before transcribing that recording. This first playback of each interview recording required that the researcher listen attentively and refrain from taking any notes at this point. This was followed by the transcription of all interviews then, reading each transcripts numerous times. The back-and-forth process between the transcribed data and the interviews enabled the discovery of significant inclusions in the process. The researcher was able to recall gestures and mannerisms that may or may not have been documented in interview notes. The initial codes were jotted down with the researcher paying attention to patterns that occurred and for consideration in forthcoming steps.

Step 2: Generate initial codes

The researcher worked systematically and methodically through the entire dataset, attending to each data item with equal consideration, and identifying aspects of data items that were interesting and may be helpful in developing themes. This process allowed codes to be noted in the side margin, while also highlighting the area of text assigned to each respective code. The essential sections of text were discovered as connected to a theme and were labelled according to the association to the qualitative wealth of the concept being discussed, second victim. Sections of the texts were coded in various themes, repeatedly according to consideration of those involved. Hierarchical coding was implemented which enabled texts analysis to occur at diverse levels of exclusivity. The broad higher order codes provided an overview, and detailed lower codes allowed for discrepancies formulation. Data coding in a consistent and systematic approach began, where the classification of data into themes representing the incident was reviewed. Reflexive writing and Peer debriefing assisted the researcher and supervisors to review the advancement of their beliefs and opinions throughout the process of engaging with the data. An audit trail was created to keep record of developing data ideas. The step concluded with first coding done, data classified, and the identification of a list of different codes across data set.

Step 3: Search for themes

The researcher assembled the identified codes into initial candidate themes, which involved reviewing the coded data and assessing how different codes may be combined according to shared meanings so that they may form themes or sub-themes. The primarily coded data was sorted and collated into main themes and subthemes by means of a line-by-line analysis, where it was discovered that some of the codes were not placed anywhere. Comprehensive notes about the hierarchical development of the themes and subthemes were attained including a table that collated codes and data items relative to their respective themes. The step ended with the formulation of themes and subthemes.

Step 4: Reviewing themes

The researcher conducted a retrospective review of the identified themes in relation to the coded data items to ascertain if the research question(s)were addressed by any of the data items, that these themes were incongruent and required revision. The researcher asked the following questions to review the possible themes:

• Was this a theme (it could be a code)?

• If it was a theme, what was the quality of the theme (does it tell me something useful about the data set and the research question)?

• What were the boundaries of the theme (what did it include and exclude)?

• Were there sufficient (meaningful) data to support the theme (was the theme thin or thick)?

• Were the data too diverse and wide ranging (did the theme lack rationality)?

Some sub-themes or themes were restructured by adding or removing codes, while others required adding or removing themes and /or sub-themes to facilitate the most meaningful interpretation of the data. The overlapping or unused codes were removed, while the themes without supporting data or with varied data were reshuffled. Data reduction occurred to practicable themes summarising the text – identified clarity and distinction among themes. Assessment for referential suitability was obtained by returning to raw data and contrasting with developed themes ensuring that decisions taken were grounded in the data. Step ended when various themes were established, consistent, and completed the narrated version regarding the data. Ability to elaborate evidently on the origin of respective themes from the data.

Step 5: Defining and naming themes

This step was characterised by establishing correlation between data aspect and theme, what was regarded as exceptional and rationale. Performed a complete analysis and on record, the

story articulated by every theme jotted down. Classification and reclassification of themes was conducted till consensus was reached to assure everyone that entire data were presented as significant and effective as possible. Meetings regarding themes and naming of themes were recorded. At the end of this phase, researcher defined what current themes consisted of, and clarified individual themes in a few sentences. Peer debriefing with expert on thematic analysis accomplished. Step finalised when themes were completely recognised and differentiated, illustrating the substance and extent of every theme, the final analysis and report writing is ready to begin. Attached are examples of the coding process (See **Annexure S**)

Step 6: Producing the report

The goal of this phase was to create the thematic analysis to convey the complicated story of the data in a manner that convinces the reader of the validity and merit of the analysis.

The final step of analysis, with review to stipulate a comprehensive and consistent rationale of data across themes in an available manner to an analytical reader. Themes were connected in a logical and meaningful manner, building a logical description of the data. Researcher decided which themes made meaningful contributions to understanding what was going on within the data. An elaboration on the coding process was provided with notes related to the audit trail, methodology and trustworthiness saved for reference. Member checking was conducted where the final themes and supporting dialogue were submitted to the participants to authenticate if their description was an accurate representation; that is the truth between the participants opinions and the version of researcher.

2.4.3 Phase 3 – Semi-structured Interviews

2.4.3.1 Population

In phase 3, the population comprised managers who managed Health Care Professionals involved in Adverse Events.

2.4.3.2 Sample and sampling

The managers were samples through purposive sampling process. The researcher made an appointment with the Chief Executive Officer to introduce the study. The CEO referred the researcher to the Nurse manager who in turn assisted the researcher to access the participants who met the sampling criteria, which included a requirement for them to have managed at least two adverse events since being appointed as an Operational Manager. The researcher met with

each manager who had indicated their willingness to participate and shared the study aims, objectives and process with each participant. Arrangements were confirmed for the data collection dates.

These managers had rich, in-depth knowledge, and interest about the phenomenon under study because they managed the healthcare professionals involved in the adverse events. A total of 15 managers were included in the study. Although the intention was to use a total sample of w all those who had agreed to participate, due to Coronavirus, the process was stopped after the fifteenth interview. During analysis it became evident that saturation had been reached.

2.4.3.3 Data collection

Semi-structured interviews are interviews that make better use of the knowledge-producing potential of dialogue by allowing flexibility for following up on whatever angles were, deemed important by the respondents (Denzin & Lincoln, 2018). The semi-structured interviews, which lasted between 45 and 90 minutes each, were, conducted between September 2019 and March 2020 before lockdown, restrictions were, implemented. The researcher was able to recommence the interviews in January 2021 when lockdown restrictions were relaxed. The managers shared their experiences on how they managed professional nurses involved in Adverse Events at the three hospitals.

The interview guide consisting of three questions was used to encourage managers to respond:

- Please could you explain the procedure for managing AEs in this hospital?
- What support mechanisms are used to assist people involved in the event?
- Do you think any more could be done to support the health professionals directly involved in an AE, and if so, what?

The semi-structured interviews were conducted in the individual managers' offices at times chosen by them and did not disrupt the hospital or ward routines and schedules. The offices were comfortable and free from interruptions. The researcher introduced herself and requested permission to use the digital recorder. The managers' names were not used during data collection, to ensure anonymity and confidentiality; instead, codes that they formulated themselves were used. The study's details were, clearly explained to the managers, i.e., the research method, the purpose of the study, objectives, and their expectations as participants. They were, also informed of their right to withdraw from the study without prejudice. The

researcher asked clarifying and probing questions to gain a better understanding of these procedures.

Field notes were, taken during data collection regarding the participants' perceptions, feelings, and thoughts. Field notes are a non-verbal communication method used during interviews to enhance the data collected (Streubert-Speziale & Carpenter, 2011). The value of field notes in research is that they enable the researcher to document their observations during the individual interview process, they can, be retrieved and analysed whenever required, and are useful during triangulation. They contribute to the study's success and add to the richness of collected data.

Field notes enabled the researcher to note their observations of the participants during the interviewing process, including their tone of voice, gestures, and other mannerisms. Field notes helped the researcher to recall and explore the dynamics observed during the interviews, to record observations of non-verbal behaviour such as facial expressions, body posture and confidence, and to note participants' verbal behaviour such as stammering, tone of voice, mannerisms, and politeness. The researcher conducted 15 semi-structured individual interviews. Below is the table indicating the characteristics of the participants.

Table 2.3: Managers' characteristics

METHOD	SITE A	SITE B	SITE C
SSI	3 x Managers	6 x Managers	6 x Managers
ROLES	1 x Nursing Service Manager 1 x Trauma Unit Charge Person 1 x Night Staff Supervisor	2 x Trauma Unit In-Charge 2 x Theatre Unit In-Charge 2 x General Unit In - Charge	2 x Quality Assurance Unit In-Charge 1 x Neonatal Unit In-Charge 2 x Maternity Unit In-Charge 1 x Covid-19 Unit In-Charge

Communication Techniques Used

The researcher used the six communication techniques previously mentioned to prompt information from the managers to achieve a complete understanding of their stance and

explanation regarding the management of Health Care Professionals involved in Adverse Events in the hospitals under study.

2.4.3.4 Data analysis

As explained above, the stories (Phase 1) and the semi-structured interviews (Phase 2) were analysed using Braun and Clarke's six steps of thematic analysis (2006). The same steps were, used to analyse the stories. Further details are provided in Chapter Four and Chapter Five respectively.

2.4.4 Phase 4 – Developing the Support Programme

It is acknowledged that the evidence was from the scoping review rather than an integrative review and had not been critically appraised and that the summary of the findings was done by the researcher herself. This may lead to questioning of the validity of the findings. However, the findings were later taken to a Delphi group and the Focus group as part of the support programme for further deliberation.

2.4.4.1 Population

In phase 4, the population comprised the results of the preceding phases, altogether.

2.4.4.2 Sample and sampling

The results of all the phases together were, used as the sample, including the Wits Trauma Model to develop the programme.

2.4.4.3 Data collection

The data collection was achieved by developing the programme based on the Wits Trauma Model according to Eagle (1998), using the findings from phases 1 to 3 of the study.

(a) Model description

The Wits Trauma Model according to Eagle (1998) was used to guide the development of the support programme. The model consists of five components, which can be presented, in no specific order, within the participants' needs and the session flow. The objective of the model is to address the impact and the participant's resultant distress following involvement in Adverse Events as completely as possible. A brief outline of the five phases follows below.

2.4.4.4. Phases of the Wits Trauma Model

Telling or Retelling the Traumatic Story

According to the WTM, in this phase, the victim provides a comprehensive description of the traumatic story, giving an account of the facts, feelings, and sensations on what, how, and when the AE happened (Eagle, 1998). The storyteller tells the listener how they were affected and how they survived; the person expresses the unexpected feelings associated with the trauma that arose after the AE. While telling the story, trauma memories reopen wounds and remind the person of the pain they experienced when the adverse incident occurred, which can be intensely emotional, and may pose an ethical challenge or risk (Wand & Geale, 2015). The listener should have a plan in place, such as pausing, stopping the interview completely, or identifying a counsellor for the victim to consult after the storytelling session. Telling their stories provides the second victim with an opportunity to express themselves, to heal, relax their body and spirit, sends a message of hope, and encourages the storyteller to explore and move beyond their traumatic experience. The interpretation of events is provided to reduce the distress and anger experiences related to the incident. A trust relationship is established between the researcher and storyteller prior to facilitating a comfortable elaboration without invading the storyteller's space (Wang & Geale, 2015).

Telling a story for the first time can be distressing and overwhelming for second victims, and the possibility of triggering flashbacks to the AE exists, however with retelling the distress is reduced. Shock, disbelief, and anxiety are some of the victims' experiences after an AE, hence the counsellor should focus on reducing anxiety and alleviating shock and disbelief. A nonthreatening environment should be established to establish the real reasons for the AE, enabling the victim to open and to be truthful rather than being defensive and covering up. The second victim should be encouraged by asking them open-ended questioning and offering them compassionate reflection, while the counsellor actively listens and probes to enable the story retelling (Eagle, 1998).

Jackson's undated study on trauma-informed storytelling reveals that not everyone is willing to tell and retell their stories due the extreme nature of their traumatic experiences, thus the WTM training empowers counsellors to identify those second victims and create a safe, trustworthy environment in which they may be willing to tell their stories. Gillihan (2019) and Bamidele (2015), assert that following AEs, traumatic memories remain with the victims for prolonged periods, especially when they attempt to avoid them; others may prefer to remain silent and not to disclose the sequence of events because the story and the memories are too painful to revisit. The

counsellor should encourage and reassure second victims that telling their stories will convert their circumstances from stories of shame and embarrassment to witnessing and healing. Retelling their stories will provide second victims with a means of acknowledging their traumatic experiences and achieving healing and reconciliation (Bamidele, 2016 & Gillihan, 2019). The ability to have their traumatic stories heard without judgment was regarded as crucial to second victims' emotional wellbeing (Ullstrom et al., 2014) – another advantage of storytelling.

Normalising Traumatic Symptoms

During this phase the second victim is given information on post-traumatic stress that reassures them that their feelings are a normal response to trauma, thus normalisation is achieved. It is important that effective communication is applied during this phase to avoid second victims feeling that their experiences are minimised or not taken seriously. In this phase the counsellor takes time to listen before stating that the second victims' feelings are normal in anyone who has experienced trauma. According to Salter, Conroy, |Dragiewicz, Burke, Ussher, Middleton, Vilenica and Noack-Lundberg (2020), the purpose of normalising the symptoms is to:

- reassure the client that their responses are normal reactions to abnormal events.
- educate the client about which symptoms they can expect, and to help them to understand their symptoms.
- reassure the client that their symptoms will improve over time.
- eliminate the perception that they may be going crazy; and
- make links between the traumatic experience and symptoms that are being experienced.

Addressing self-blame

Self-blame is likely, as second victims wish to undo the incident, and are preoccupied with thoughts of weakness due to the adverse incident (Bamidele, 2016; Gillihan, 2019). They assume responsibility for the AE because they could neither foresee nor prevent it. The purpose of addressing self-blame is so that second victims can explore, reflect upon, and work towards self-reconciliation. Emphasising some of the approaches that have been effective during traumatic experiences may assist second victims to reconcile themselves to the reality of the AEs and their reactions, without damaging their self-concept (Eagle, 1998). According to According to Salter et al, (2020), during this phase, the counsellor may ask several questions to explore whether there is self-blame. The counsellor must eradicate feelings of self-blame by asking questions such as:

- Do you think you could have done anything to prevent or change what happened?

- What are your feelings about how you handled the situation?
- Looking back, is there anything you would have done differently?
- Do you in any way feel responsible for what happened?

Promoting Mastery of Traumatic Symptoms

Second victims experience success when they can master the impact of traumatic symptoms. Mastery counteracts the second victims' feelings of helplessness related to trauma, which are replaced by reverting to previous levels of functioning (Gillihan, 2019; Eagle, 1998). Finding the courage to tell their story instils confidence in the second victim and enables them to realise their strengths and recover their sense of wholeness. The second victim is encouraged to identify and utilise existing support structures, which are important contributory factors to coping. As the second victim's coping capacity increases, anxiety is also reduced during this phase. Trauma mastery is characterised by recreating situations in the hope of achieving a different outcome.

Facilitating the Creation of Meaning of a Traumatic Experience

As described by the WTM, this phase relates to the benefit of telling and retelling, such that the second victim begins to make sense of the AE and their reactions to the traumatic experience (Gillihan, 2019). The involved second victim reflects on their experience from a detached manner and can acknowledge themself as a survivor rather than a victim. When new meaning is created out of an AE, the appreciation for life is enhanced, and a sense of wholeness is achieved (Bamidele, 2015). The second victim's fears are reduced as they achieve a superior freedom in their lives. Effective counselling enables a second victim to revisit memories of a traumatic experience without anxiety and allows them to explore and create meaning. When meaning is created, the second victim may decide, independently, to involve themselves in activities that prevent such incidences from reoccurring, or even volunteer to assume a role in the facility.

2.4.5 Phase 5 – Confirmation and Validation of the Programme

2.4.5.1 Phase 5.1 - Delphi Study

The Delphi technique is an organised group communication process of consensus-building on real life issues by utilising a series of questionnaires delivered to collect data from a panel of selected experts (Hsu & Sanford, 2007). The aim of a Delphi technique is to conduct detailed examinations and deliberations of a specific issue for policy exploration, goal setting, or to

forecast the manifestation of future events, by trying to address "what could or can be" (Hsu & Sanford, 2007).

Types of Delphi

Literature informs us of the various types of Delphi types that are available. These include: the Real-Time Delphi in which experts receive feedback online in real time (Aengenheyster, Cuhls, Gerhold, Heiskanen-Schuttler, Huck & Muszynska, 2017); the Delphi Markets that involve market predictions (Servan-Schreiber, 2012); the Argumentative Delphi focusing on the justification for the expert consensus (Keeney, Hasson & McKenna, 2011); the Group Delphi involving meeting experts in a workshop to justify differing judgements (Ives, Dunn, Molewijk, Schildmann, Bærøe & Frith, Huxtable, Landeweer, Mertz, Provoost, Rid, Salloch, Sheehan, Strech, de Vries, & Widdershoven 2018), and the Policy Delphi (Niederberger & Spranger, 2020; Hasson, Keeney & McKenna, 2000; & Turoff, 1970). While Dailey (1988), named one type as an exploratory Delphi as it can be used to predict the likelihood of future events, another type was identified as a conventional Delphi (Van Dijk, 1990). However, Habibi, Sarafrazi and Izadyar (2014) concurred that the three generally and comprehensively used types are the classical, the policy and the decision Delphi.

Delphi type selected for this study

The researcher selected the Modified Policy Delphi to identify the level of consensus on the developed programme to support Health Care Professionals involved in Adverse Events in public hospitals in Gauteng. Unlike the original Delphi, the modified Delphi emerged between the 1970s and 1980s to enhance realisation of consensus on a specific topic or research question. Custer, Scarsella, and Stewart (1999), cited by Zeedick (2012), declared that the method was utilised to reach a consensus among professionals with experience on a subject in each field of study, industry, and researchers. The method was modified in many ways, as its creation in the RAND corporation, through declarative statements and rounds of questionnaires using the Likert scale (Dalkey and Helmer, 1963; Linstone and Turoff, 1975, cited by Zeedick, 2012). Contrarily the Modified Delphi Method provides a medium for the systematic request for an opinion and potential consensus among experienced professionals (Linstone and Turoff, 1975, cited by Zeedick, 2012). They call it modified Delphi as they planned to acquire consensus from "experienced practitioners" (Zeedick, 2012). Modifications to the Delphi method may be specific to the study. In the original version of the Delphi method, three or more rounds are performed, whereas in the so-called "modified Delphi" two rounds are usually carried out (Winkler & Moser,

2016). The researcher chose this method as two rounds were implemented to acquire a consensus from the experts.

Steps followed in the Delphi

Previous studies have identified a minimum of the following five steps: formation of the team; selection of the panel of experts; development of the rounds; transmission to the panellist; and using analysis to prepare the report. However, in this study the researcher modified the Delphi, such that the following three steps were used: selecting a panel of experts; developing the rounds; and using analysis to prepare the report. In phase 5.1 the Delphi study was designed to confirm and validate the draft programme.

(a) Population

The population comprised experts who are described as people with skills, experience, or extensive knowledge in their calling or special branch of learning (Hsu & Sanford, 2007). In addition, Adler and Ziglio (1996) propose that the following characteristics be included for an ideal experts' panel:

- knowledge and experience of the explored issue.
- eagerness and ability to participate.
- sufficient time for participation; and
- applicable communication skills.

The experts in phase 5.1 consisted of psychologists, doctors, nurses, and other health professionals with at least five years' experience in managing people involved in Adverse Events.

(b) Sample and sampling

The researcher requested advice from an expert in quality management of Gauteng Department of health with the view of understanding who the stakeholders were that could act as experts to review the program. She suggested the experts to include Nursing Services Managers, Operational Managers, Quality Assurance Managers, medical doctors, counsellors, and psychologists. Also included were employees of the Office of Health Standards Compliance, whose function is to act on behalf of the public to guide, monitor and enforce health and quality standards in health

establishments. In addition, the nurses who were directly involved with adverse events were also included. Finally, representatives from Gauteng Department of Health, whose role it is to investigate adverse events in public settings and redress families of the patients involved were included. Nurse managers of each site who had assisted with the semi structured interviews were asked to provide the contact details of the stakeholders.

In phase 5.1 the experts were sampled using both purposive and snowballing sampling techniques. These experts were nursing services managers, operational managers (OM), Quality Assurance managers, medical doctors, counsellors, and psychologists. Also included were the Office of Health Standards Compliance employees, whose function is to act on behalf of the public to guide, monitor, and enforce health and quality standards in health establishments. Additionally, the nurses who were directly involved with Adverse Events were also included. Finally, representatives from Gauteng Department of Health were included; their role it is to investigate Adverse Events in public settings and redress families of the patients involved.

Academic background was not considered a requirement in the inclusion criteria. However, all experts had a minimum of a diploma qualification (South African Qualifications Authority (SAQA) LEVEL 6). The inclusion criteria included participants having a minimum of five years' experience in managing people involved in Adverse Events, and/or who had themselves been involved in Adverse Events. Questionnaires were sent to 42 participants; 26 responded and completed the questionnaire making a realised sample for this phase.

(c) Data collection

Data for the Delphi technique was collected from the experts to confirm the appropriateness of the support programme. According to Linstone and Turoff (2002), there is no consensus on the precise number of rounds for a Delphi, but mostly two to three rounds are used. Following the construction of a questionnaire for the Delphi technique, the questions were designed based on the structure, process, and outcomes for the management of Adverse Events in Gauteng public hospitals. An email link to the questionnaires was sent via REDCap to 42 people on the 28$^{th\ of}$ June 2021. Weekly reminders were sent over a 10-week period, and ultimately 26 participants returned their questionnaires in the first round.

The first round of a Delphi study routinely utilises unstructured, open-ended questions, which serve as a foundation of exploring specific information about the content area. During the

second round, the researcher sends the expert the second round of questions and asks them to review the summarised items based on information from the first round. The controlled feedback process consists of a well-organised brief on earlier feedback distributed to the experts. This enables the experts to generate additional awareness and thoroughly clarify and identify priorities.

According to the literature, during the Delphi method, experts routinely respond to more than one round of questionnaires, while other researchers did not specify the number of rounds. These experts then adjust the responses they receive in future rounds based on the understanding that they have from the previous group responses (Löe, Melnychuk, Murray & Plummer, 2016; Oleg, Chulok, & Shashnov, 2017). Therefore, the construction of the second-round questions relies on the objectives of the Delphi method and the results of first one. However, the researcher was only able to conduct one round of the Delphi technique because of challenges encountered in accessing experts for the second round. These challenges included a lack of access to devices, and the high absenteeism rate of staff due to Coronavirus disease of 2019 infections during the first round. In addition, the feedback from the first round was not sufficiently robust for the researcher to rely on this for conformation and validation. Hence the researcher scheduled a focus group session to respond to these concerns and finalise the programme.

CONSTRUCTION OF THE DELPHI QUESTIONNAIRE

The questions for the Delphi technique were based on the structure, process, and outcomes for the management of Adverse Events in Gauteng public hospitals. To achieve the objective of this phase, the survey was divided into four sections. In the first round of the Delphi, the questionnaire comprised three sections. An attachment entitled *Support Programme for Adverse Events* was provided together with the information and consent forms. In Section A entitled, *Study Questions*, a total of six statements were included and the respondents were asked to indicate to what extent they agreed that the roles of those mentioned were valuable in reaching the programme outcomes. This section of the survey was presented in a 5-point Likert scale format to show the level of variation in the response, where Strongly Agree = SA; Agree = A; Neutral = N; Disagree = D and Strongly Disagree = SD.

Sections B, C, and D each consisted of 13 statements to which the experts were asked to comment. Each of the criteria, which included clarity, feasibility, and relevance, were

dichotomous questions. On completion of the questionnaire, instructions were provided for the experts to click the 'submit' button and close the survey.

(d) Data analysis

The results of round one of the Delphi Survey were analysed. Details are provided in the relevant chapter. Qualitative data was coded, while statistical values and meaning were established from the quantitative questions (Hsu & Sanford, 2007:4).

When analysing the first round of the Delphi, it was realised that the participants did not give sufficient in-depth responses. A decision was then made not to include the second round, but rather to schedule a focus group discussion to address the concerns of the Delphi group and finalise the programme.

2.4.5.2 Phase 5.2 - Focus Group

A focus group discussion involves assembling people from related backgrounds or experiences jointly to discuss a specific subject of significance. It is a qualitative research method where participants are asked questions to deliberate about their views, positions, values, opinions, or understanding related to a topic (Ochieng, Wilson, Derrick & Mukherjee, 2018). The focus group in the study was specifically established to address the concerns from the Delphi group to finalise the programme.

(a) Population

The experts in this phase were health professionals with five years' experience of managing people involved in Adverse Events.

(b) Sample and sampling

Initially purposive sampling techniques were utilised to identify the expert participants. The researcher was aware of people with rich information regarding the management of Adverse Events and who were regarded as experts in the field. These experts were approached, and their participation was requested to confirm and validate the Delphi group's revised programme. An invitation letter that introduced the study, the objectives of the planned discussion, and the anticipated time was forwarded to the seven experts. A Doodle Poll was conducted to enable prospective persons to choose suitable dates and times. Two participants responded positively while others indicated they were not able to participate due to Coronavirus disease of 2019 restrictions or did not respond at all.

Two months later, following weekly reminders through emails, messaging, and telephone calls, and still not being able to convene a focus group, snowballing sampling was used to recruit alternative experts to convene a suitable focus group. All participants had at least five years' experience of managing Health Care Professionals involved in Adverse Events in public hospitals in Gauteng.

The experts were as follows: a representative from the Office of the Health Standards Compliance; an occupational therapist with previous experience in Adverse Events investigation; a nurse educator with previous experience as consultant on Adverse Events and serving on a professional conduct committee; and a nurse educator, who was previously a director Quality Assurance and currently a Quality Assurance consultant.

Although the literature proposes that the total number of respondents acceptable for a focus group discussion be between six to eight participants (Krueger & Casey, 2000), other studies concur that as few as four and as many as 15 are suitable (Fern, 1982; Mendes de Almeida, 1980; Rabiee, 2004). The total sample for this focus group discussion was four experts.

(c) Data collection

A mutually agreeable venue and date away from distractions such as noise was chosen for the scheduled face-to face meeting. The accessible venue provided comfortable seating to ensure the experts had a clear view of each other and the researcher, and Coronavirus disease of 2019 protocols were adhered to, including having adequate ventilation and social distancing.

The experts of the focus group were invited, thereafter an information letter explaining the purpose of the study, with hard copies of the original programme and amended programme following the Delphi group discussion were handed to the experts. A PowerPoint presentation on the study's objectives and progress were provided to familiarise the experts on the discussion topic. The researcher was introduced and moderated the discussions by providing clarity on the roles and functions of the individuals who appeared in the programme and the rationale for their involvement. Thereafter questions about the developed programme were answered. Following the presentation in which the experts deliberated on the programmes provided, dialogue between the experts commenced. The comments and narrative related to the focus group discussion are detailed in Chapter Six. The researcher ensured that the

questions were answered as comprehensively as possible by using the communication techniques provided earlier.

The semi-structured focus group discussion was scheduled for Tuesday 7th December 2021 at 15:00 and digitally recorded by the researcher with the permission of the experts. The discussion lasted for approximately two hours. An interview guide for the experts was used to steer the discussion. The experts were asked to review the modified programme according to the criteria of clarity, relevance, and feasibility, using the interview guide as provided hereunder:

Clarity

- What do you think of the programme's clarity?
- In your opinion what can be included to ensure the programme is clear?
- What other comments can you share prior to the introduction of the programme?
- Have we exhausted all suggestions related to clarity?
- What do you think of the programme's relevancy?
- In your opinion what must be included to ensure the programme's relevance?
- What other comments can you share prior to the introduction of the programme?

Relevance

- What do you think of the programme's relevancy's relevance?
- In your opinion what can be included to ensure the programme's relevance?
- What other comments can you share prior to the introduction of the programme?
- Have you exhausted all suggestions related to the programme's relevancy?

Feasibility

What do you think of the programme's feasibility?

In your opinion what must be included to ensure the programme's feasibility?

What other comments can you share prior to the introduction of the programme?

Have you exhausted all suggestions related to the feasibility aspect?

The researcher summarised and concluded the focus group discussion. Comprehensive details and findings are provided in Chapter Six.

(d) Data analysis

Braun and Clarke's (2006) six steps of thematic analysis were used to analyse discussion with the experts and the narrative to support their input is discussed in Chapter Seven.

2.5 TRUSTWORTHINESS

a) **Credibility** is the criterion used to assess the truth value of the findings through prolonged engagement, triangulation, peer debriefing, and member checking (Polit & Beck, 2018; Lincoln & Guba, 2013).

- *Prolonged engagement* involves immersing the researcher in the data. In this study, sufficient time was spent with the participants during storytelling and the managers during the individual, semi-structured interviews (Lincoln & Guba, 2013).
- Several clear questions were asked regarding involvement in adverse events and support available in the sites. The participants were stimulated to support their responses with examples, while the interviewer continued to probe, summarise, paraphrase before asking follow-up questions. The researchers listened to the data from the digitally recorded interview material till confirmation of phenomenon under study truly explored. The individual interviews lasted approximately 45 to 90 minutes.
- *Triangulation* signifies the process of validating evidence from a variety of sources to enrich the study's truthfulness, and involves using multiple methods, sources, and theories. In this study, scoping reviews were searched from relevant literature, professional nurses and a doctor told stories of their involvement which were captured digitally recorded, semi-structured interviews were conducted with the managers, professional nurses, and doctors (Polit & Beck, 2018).
- Field notes were documented, in which verbal and nonverbal observations were recorded as they occurred, to ensure a precise reflection of the experiences (De Vos et al., 2010). The Delphi technique was used to collect data from the experts who had in-depth knowledge and expertise in serious AE management.
- The objective of *member-checking* is to verify the reliability of the themes and subthemes that emerge from the coding process. Member-checking occurred following a meeting between the researcher and the managers to confirm that the collected data and documented field notes were a true reflection of what was verbalised during the data collection process. Member-checking could not take place with the professional nurses and the doctor due to operational challenges and emotional distress observed,

which resulted in some of the participants withdrawing from the study (Polit & Beck, 2018).

b) **Transferability** applies to the criterion of assessing against the applicability to different situations. This was accomplished through the provision of participants' demographic data, a thick description of the research methodology, nominated samples and direct quotation from the participants. At a later stage, the programme will be piloted in other sites to further ensure generalisability (Lincoln & Guba, 2013).

c) **Dependability** is the process of seeking meaning, considering instability, or design induced change. This was ensured by providing a clear description of the research process, methodology, data collection method, sample, population, data analysis, and ethical considerations (Polit & Beck, 2018).

- *Triangulation* also enhanced dependability in this research study by ensuring that the weakness of one data collection method was compensated for by using five alternative data collection methods. In this study, in-depth, semi-structured, individual interviews, a scoping review, a Delphi survey, and field notes were used as data collection methods.
- A consensus meeting between the researcher and supervisors was conducted to reach an agreement on the findings to ensure *dependability* (Lincoln & Guba, 1985).

d) **Confirmability** refers to the evaluation of the data and whether others can confirm the research results. It is a neutral criterion for measuring a qualitative study's trustworthiness, and a strategy to ensure the data's neutrality rather than the researcher's neutrality. It indicates the degree to which the findings are a result of research conditions rather than researcher bias. Confirmability was guaranteed by a confirmability audit and reflexivity (Polit & Beck, 2018).

- *Confirmability Audit*

The confirmability audit involved compiling records such as field notes, digital recordings, transcription notes, coding details, and a proposal. The confirmability audit was monitored throughout the study by the researcher's supervisor and the co-supervisor. The documents, transcripts, and reports will be kept for three years for auditing purposes.

2.5.1 Reflexivity

Reflexivity is described as the process of constant inner dialogue and critical self-assessment of the researcher's opinion as well as dynamic acceptance and its potential of affecting the research process and outcome (Bradbury-Jones, 2007; Guillemin & Gillam, 2004). "Reflexivity means turning of the researcher lens back onto oneself to recognize and take responsibility for one's own situatedness within the research and the effect that it may have on the setting and people being studied, questions being asked, data being collected and its interpretation" (Berger, 2015).

I became interested in the topic after completing my masters' study which was entitled: "Experiences of nurses involved in adverse events in a public hospital in Gauteng", in 2017. One of the themes that emerged from the study was lack of support for nurses following involvement in adverse events. The participants of the study were nurses only – hence I needed to understand what it felt like to be supported or to lack support and the impact it may have on the healthcare professionals.

In conducting this study, I carefully monitored the effect of any biases, personal beliefs, and experiences, while maintaining the balance between personal and the universal as affirmed in literature (Berger, 2015). I identified myself as an outsider, and a student conducting research as approved by the Human Ethics Committee of XXX university. My intentions were to recruit and interview the healthcare professionals involved in events.

The participants saw me as an outsider who was willing to listen to their experiences of emotional distress after events, who would keep their identity confidential, and would inform management without judging or blaming them so that second victims would, in future, receive much needed support/attention. I perceived the healthcare professionals as persons in need of someone to talk to and I believed it was helpful to them, and to my study, to interview them and hear their stories of adverse event involvement. Contrarily I did not experience the managers' involvement in the same light. Some I saw as people who were defensive, secretive of their surroundings, and not welcoming of outsiders and thus not willing to share their experiences with unfamiliar people. Others were eager to learn what research was all about and how they could contribute to change the way things were done in their respective areas. Thus, I was able to conduct the semi structured interviews to the listen to what they had to say; and was willing to find out whether support programs for second victims were available in the public hospitals in Gauteng.

I experienced challenges in accessing the sites due to a restructuring process which later intensified due to the COVID-19 lockdown restrictions. One site welcomed me, and I was able to recruit both nurses and managers, scheduled and conducted the interviews.

In reflecting on my role as a researcher, I believe I was able to take a step backwards during data collection to reflect on how the questions were asked – and became more skilled at interviewing the participants so that so the questioning did not appear as an interrogation. The story telling process provoked intense emotional responses of the interviewee to the extent that three participants were referred for counselling. This had a profound impact on me as a researcher and I was obliged to debrief before continuing with further interviews. It naturally made me sympathetic with the second victims and could have influenced the way I perceived the managers' role.

My personal experience during the study led me to believe that humility is the key to success. When interacting with others, it is necessary to ensure they see you as a peer and not someone more skilled or learned than the participants, to listen empathetically without judging when conducting interviews, and to suspend preconceived ideas and beliefs about the situation or the people, i.e., to employ bracketing. On a professional level, I learned to identify myself as a research instrument, hence the quality of the findings depends on observing and carefully addressing the criteria of trustworthiness.

2.6 ETHICAL CONSIDERATIONS

The University of the Witwatersrand's (Wits) Ethics Committee evaluated the research proposal for Post Graduate Research at the University of Witwatersrand, prior to granting permission to conduct the research study (Document M180809). The Research Ethics Committees at the hospitals where the study took place granted permission to proceed and access to the relevant hospital authorities/employees. The researcher applied the following four ethical principles proposed by Dhai and McQouid-Mason (2011), namely autonomy, beneficence and nonmaleficence, and justice.

2.6.1 Autonomy

The principle of autonomy recognises that the person's rights to self-determination, choice, and decision-making must be included in the process of decision-making (Gray et al., 2018). Prior to the commencement of the study, the researcher explained in detail and as accurately as possible the purpose, objectives, and process of interviews to the participants for them to make informed decisions. This afforded them the opportunity to withdraw from the study without penalty if they decide to do so. Informed consent was required before the study could

commence for participation and for the interviews, which were digitally recorded (Dhai & McQuaid-Mason, 2011).

2.6.2 Beneficence and Non-maleficence

The principle of beneficence involves the researcher's duty to secure the participants' wellbeing, to do good, and to ensure that the participants are not subjected to unnecessary harm or discomfort (Dhai & McQuoid-Mason, 2011). The researcher took all possible measures to prevent exposing the participants to emotional discomfort while sharing their experiences of their involvement in Adverse Events, as well as how they were managed at the hospital. Three participants experienced emotional distress due to the sensitivity of their involvement in the Adverse Events and the way in which the Incident Review was conducted. They were all asked if they would like to end the interviews, as they had been informed of their right to do so before the study commenced and during the briefing sessions. The contact details of the counsellors were provided to support them, and the interviews were halted.

2.6.2.1 Distress protocol and contact details of support person

The following is a procedural protocol that was designed to assist any participants who became distressed while being interviewed for the support programme for Health Care Professionals involved in Adverse Events in public hospitals in Gauteng.

If a participant became distressed or upset during interview:

1. they were asked if they would like to take a break and if they would like the researcher to switch off the digital recorder.
2. they were asked if they would like to end the interview and if they would like the researcher to call someone to support them.
3. prior to their departure, they were asked if it would be acceptable to call them later in the day or the next day to ensure they are okay.
4. additionally, the contact details of a local counsellor, a trained psychiatric nurse with experience in post-research counselling, were provided.

2.6.3 Justice

The principle of justice refers to the fair distribution of the potential benefits of the research study (Dhai & McQuaid-Mason, 2011). The selection of participants was fairly conducted by extending an open invitation to the professional nurses, doctors, and managers, including others who showed interest, and upon conforming to the inclusion criteria. The researcher honoured

all appointments and agreements made with the participants, ensuring that those who decided not to participate or who withdrew from the study, were treated with respect, and were not judged for their withdrawal. The participants were selected for the reasons directly related to the study problem and not because they could be manipulated easily.

The researcher explained the purpose, objectives methods, and study expectations to the participants. Informed consent to voluntarily participate in the study, and their agreement to the use of an audio tape recorder were obtained in writing. Pseudonyms were created to ensure anonymity, and confidentiality was ensured by the safekeeping of digitally recorded interviews and transcript; the participants were informed that these would be kept under lock and key for a period of two years after the study was published, after which they will be destroyed. Participants were informed about their freedom to withdraw from the study without fear of penalty. The supervisors signed a confidentiality agreement in which they pledged not to divulge any information regarding the study and participants to anyone not related to the study.

2.7 CONCLUSION

Chapter Two provided an overview of the research design and the methodologies employed in the five phases of this study. The population of each phase, the sample and sampling process, the data collection process, and the communication techniques used in the study were presented. The data analysis of each phase was detailed. Smith and Liehr's (2005) phases of inquiry were mentioned. The focus group discussion, including the rationale for scheduling the sessions, were provided. An overview of the original programme, which was sent to the participants, the modified programme after the Delphi group input, and the final modified programme following the experts' input were presented. The findings and the narrative from the experts input to support the final modified programme are detailed in Chapter Seven.
Chapter Three follows, describing phase 1 of the study, and provides the scoping review findings in which the experiences of the Health Care Professionals involved in Adverse Events in international literature were explored and described.

CHAPTER THREE
SCOPING REVIEW

The previous chapter discussed the study's methodology and provided a detailed description and justification of the research design and method. This chapter begins by highlighting the reasoning for a scoping literature review in this study. The methodological programme followed for this scoping review is then detailed, including the description of the data collection method.

3.1 INTRODUCTION

The rationale for this review was to explore and describe the existing evidence published in international literature on the experiences of HCPs who were directly or indirectly involved in AEs, to determine how best they should be supported to minimise the stress caused, and to continue to provide quality care after the event to support those involved in AEs. The HCPs in this context were nurses, doctors, and managers in clinical settings.

3.2 METHODS

3.2.1 Study Design

The study followed the five-stage methodological programme for scoping reviews recommended by Arksey and O'Malley (2005), which are: (1) identifying the research question; (2) identifying relevant studies; (3) study selection of the inclusion and exclusion criteria; (4) charting the data; and (5) collating, summarising, and reporting the results. The stages of the review are detailed below.

3.2.1.1 Identifying the research question

The focus of this review was to explore and describe the existing evidence published in international literature regarding the experiences of HCPs who were directly or indirectly involved in AEs. This was guided by the following research question:

"What is the impact of involvement in AEs and how best can second victims be supported?

3.2.1.2 Identifying relevant studies

The following three electronic databases were searched: PUBMED; EBSCOHOST/CINHAHL; and EBSCOHOST/ERIC. Although Arksey and O'Malley (2005)

propose a wide definition of search terms, three terms were utilised in this study for this scoping review. These were: adverse events AND second victims: adverse events AND influence, and second victims AND support. Search techniques used included using search tools such as the Boolean operators to narrow, widen, and combine the literature searches. The established search terms are, detailed in Table 3.1.

Table 3.1 Key search terms.

Search Terms
Adverse events AND second victims.
Adverse events AND influence.
Second victims AND support.

The inclusion and exclusion criteria were developed to ensure interrogating appropriate studies. A full list of inclusion and exclusion criteria is summarised below in Table 3.2.

Table 3.2 Inclusion and exclusion criteria.

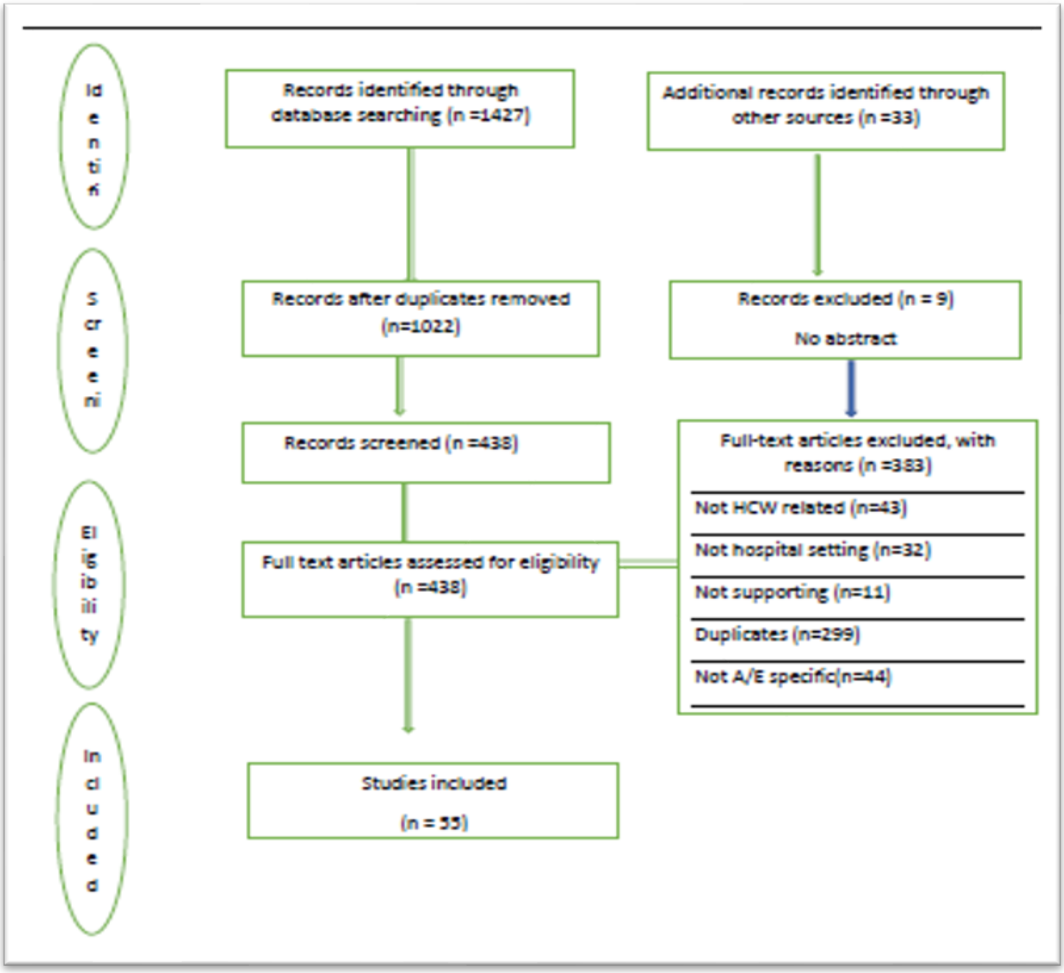
Criterion	Inclusion	Exclusion
Time period	2010 to 2020	Literature falling outside of these dates
Language	English	Non-English literature
Study focus	Support programme related studies, second victims	Non-support programmes not related, no second victim
Settings	Clinical settings	Non-clinical settings
Study type	Full text, peer reviewed articles	No abstract, non-peer reviewed articles

3.2.1.3 Study selection

Only articles published in English from 2010 up to 2020 were, recovered. Using the keywords described in Table 3.1 about 1427 articles were identified. Articles were, screened followed by a reading of the abstracts to assess the relevance of the contents to the study, reducing the

number of total retained articles to 438. Reference lists from other studies were reviewed for additional articles related to second victimhood, with 33 studies identified. Based on the inclusion and exclusion criteria, a final review yielded 55 studies that were relevant to the research topic. See the PRISMA Flow diagram of included studies in Table 3.3 below.

Table 3.3 PRISMA flow diagram.



3.2.1.4 Charting the data

This fourth stage of the scoping review is described by Arksey and O'Malley as a procedure to integrate and explain qualitative data (2005). However, the researcher found that Arksey and O'Malley's (2005) programme does not clarify a typical process for charting the data, nor does it specify the steps for adherence. Hence, for charting the data, a summary is, presented regarding the author and year, the title of the study, the impact of the AE involvement on the second victims, and the available support interventions. The headings for the findings were, selected according to the scoping review question, which refers:

"What is the impact of involvement in AEs and how best can second victims be supported?

Details of these are provided in Table 3.4 below.

Table 3.4: Charting the data.

AUTHOR	TITLE OF STUDY	IMPACT ON SECOND VICTIMS	SUPPORT INTERVENTIONS
Ajri-Khameslou M, Abbaszadeh A, Borhani F. (2017).	Emergency Nurses as Second Victims of Error.	Positive and negative impacts on the emergency nurses' attitude. Confronting the errors through learning from the mistakes can result in the improvement of patients' safety.	None in place - The second victims need support and protection to enhance their careers.
Alhassan RK, Halilu B, Benin SM, Bentor Donyor F, Kuwaru AY, Yipaalanaa D, Nketiah-Amponsah E, Ayanore MA, Abuosi AA, Agani Afaya, Salia SM and Milipaak J (2019).	Experiences of Frontline Nurses with Adverse Medical Events in a Regional Referral Hospital in Northern Ghana: A Cross-Sectional Study.	No specific impact mentioned.	No support system in place, including lack of knowledge on types of support, steps reporting, and employer role following the AE.
Burlison JD, Scott SD, Browne EK, Thompson SG, Hoffman JM. (2017)	The Second Victim Experience and Support Tool: Validation of an Organizational Resource for Assessing Second Victim Effects and the Quality of Support Resources.	Nothing specific indicated except that there were various psychological and physical symptoms.	Second Victim Experience and Support Tool (SVEST) was assessed for content validity, internal consistency, and construct validity with confirmatory factor analysis. The most desired second victim support option was "A respected peer to discuss the details of what happened." The tool will provide healthcare organisation leaders with information on most preferred second victim-related support resources.
Busch IM; Moretti F; Purgato M; Barbui C; Wu AW & Rimondini M. (2020b)	Psychological and Psychosomatic Symptoms of Second Victims of Adverse Events. A Systematic Review and Meta Analysis.	Troubling memories, anger, anxiety distress, remorse, a high incidence and extensive scope of psychological symptoms.	No specific interventions noted but indicated that preventive and therapeutic support programmes should aim to decrease second victims' emotional distress. No mention of how this will be done.

Busch IM , Moretti F, Purgato M , Barbui C , Wu AW , Rimondini M (2020a)	Dealing with Adverse Events: A Metanalysis on Second Victims' Coping Strategies.	Negative effects on personal and professional wellbeing, including relationships with patients. Use of task- and emotion oriented coping strategies and, to a lesser degree, avoidance-oriented strategies.	Coping strategies should be evaluated considering the effects on the second victim.
Cabilan CJ, Kynoch K. (2017).	Experiences of and Support for Nurses as Second Victims of Adverse Nursing Errors.	Considerable and long-lasting emotional burden to the second victims. No specific details of burden.	No mention of support interventions, except to mention that second victims do not always receive the support needed.
Chan ST, Khong PCB, Wang W. (2017).	Psychological Responses, Coping and Supporting Needs of Health Care Professionals as Second Victims.	Enduring intense negative psychological responses.	No interventions in place, hence desired emotional and informational support. The establishment of organisational support structures is necessary to meet needs of second victims. This knowledge will guide policy makers to develop a comprehensive and effective second victim support programme.
Chan ST, Khong BPC, Tan LPL, He HG, Wang W. (2018).	Experiences of Singapore Nurses as Second Victims: a Qualitative Study.	Psychological impact after the event, feeling others' prejudices, having intrusive thoughts, drawing valuable lessons from the event, coping to recover after the event, taking responsibility for the mistakes made, and finding self-identity.	No support interventions in place, hence needed.
Chen J, Yang Q, Zhao QZ, Mingzhao Xiao (2019).	Psychometric Validation of the Chinese Version of the Second Victim Experience and Support Tool (CSVEST.	None mentioned.	Evidence of C-SVEST scale with excellent psychometric properties, which can be applied to measure second victims' experiences and support level in patient safety incidents.
Christoffersen L, Teigen J, Ronningstad C. (2020)	Following-up Midwives after Adverse Events: How Front-Line Management Practices Help Second Victims.	Guilt, shame, and anxiety; loss of reputation; suffering in isolation; in crisis mode, continuous emotional distress; kept away from patients; left job.	Individual support with proactive follow up. Debriefings conducted prior to formal brief.

De Boer J, van Rikxoort S, Bakker AB, Smit BJ. (2014)	Critical Incidents among Intensive Care Unit (ICU) Nurses and their Need for Support: Explorative Interviews.	Physical reactions, emotional reactions, and cognitive/behavioural reactions.	Insufficient support intervention reported, though not specific on the type.
Delacroix R. (2017).	Exploring the Experience of Nurse Practitioners who have Committed Medical Errors: A Phenomenological Approach.	Guilt, victimisation, psychological injuries.	No intervention for support identified. Debriefing needed to prevent psychological harm.
Dukhanin V, Edrees HH, Connors CA, Kang E, Norvell M, Wu AW. (2018).	A Second Victim Support Programme in Paediatrics: Successes and Challenges to Implementation.	Self-blame and distress.	Availability of the RISE support intervention, greater awareness of the availability of the support. Also identified barriers to using RISE: overcoming blame culture; need to promote the initiative; and need more staff time to handle AEs.
Edrees H, Paine LA, Feroli ER, Wu AW. (2011).	Healthcare Workers as Second Victims of Medical Errors.	Non-specified emotional distress.	No support interventions. Need for "second victim" support strategies within healthcare.
Edrees H, Connors C, Paine L, Norvell M, Taylor H, Wu AW. (2016)	Implementing the RISE Second Victim Support Program at the John Hopkins Hospital: A Case Study.	Non-specified impact but reported that second victims of staff had experienced an AE, and most would prefer peer support.	The RISE programme implemented to provide timely psychological first aid and emotional support within 12 hours of a second victim experiencing an AE. It offers 24/7 support in a peer-to-peer or group format, depending on the second victim's request. Programme phases: development, recruitment, and training of peer supporters, pilot launch and implementation.
Edrees H , Brock DM , Wu AW, McCotter PI, Hofeldt R , Shannon SE , Gallagher TH , White AA. (2016)	The Experiences of Risk Managers in Providing Emotional Support for Health Care Workers After Adverse Events.	No reported impact on the managers.	Non-specified support interventions, but suggestions to train interested risk managers and provide them with opportunities to practice.

El Hechi MW, Bohnen JD, Westfal M, Han K, Cauley C, Wright C, Schultz J, Mort E, Ferris T, Lillemoe KD, Kaafarani HMA. (2019)	Design and Impact of a Novel Surgery Specific Second Victim Peer Support Program.	Psychological burden, high levels of sadness, shame, guilt, embarrassment, anger, and anxiety.	Reported successful support intervention programme created and implemented using the five-step process: created conceptual programme, choosing peer supporters, training peer supporters, identification of major AEs, and the systematic design of an intervention plan.
Finney RE, Torbenson VE, Riggan KA, Weaver AL, Long ME, Allyse MA, Rivera – Chiauzzi EY. (2020).	Second Victim Experiences of Nurses in Obstetrics and Gynaecology: A Second Victim Experience and Support Tool Survey.	Psychological misery plans to leave the profession and decreased professional usefulness.	No reports of support programme in place, however staff mentioned that support from the institution was poor. Second victims stated the need for peer support involvement.
Gerven EV, Seys D, Panella M, Sermeus W, Euwema M, Federico F, Kenney L, Vanhaecht K. (2014).	Involvement of Healthcare Professionals in an Adverse Event: The Role of Management in Supporting their Workforce.	Emotional and professional suffering.	Existence of a systematic plan to support second victims. No specific details.
Han K; Bohnen JD; Peponis T; Martinez M; Nandan A. Yeh DD; Lee J; Demoya M. Velmahos G & Kaafarani HMA. (2017)	The Surgeon as The Second Victim? Results of the Boston Intraoperative Adverse Events Surgeons' Attitude (BISA) Study.	Emotional toll was significant, with a combination of anxiety, guilt, sadness, shame, embarrassment, and anger.	No specific intervention programme mentioned, but a call to support second victims and standardise reporting of AEs.
Harrison R, Lawton R, Stewart K. (2014).	Doctor's Experiences of Adverse Events in Secondary Care: The Professional and Personal Impact.	Personal or professional effects, stress, anxiety about potential future errors, sleep disturbance, and reduced professional confidence.	Reports of few formal sources of support intervention, not specific.
Joesten, L., Cipparrone, N., Okuno-Jones, S., & DuBose, E. R. (2015).	Assessing the Perceived Level of Institutional Support for the Second Victims After a Patient Safety Event.	Distressing symptoms after an AE, troubling memories, and concerns about lawsuits.	Evidence of low formal hospital support intervention in place.
Jones JH & Treiber LA. (2012)	When Nurses become the "Second" Victim.	Guilt, remorse, and loss of personal and professional self-esteem.	No evidence of support interventions, hence the necessity of these.

Kable A; Kelly B & Adams J; (2018).	Effects of Adverse Events in Health Care on Acute Care Nurses in an Australian Context.	Psychological trauma, decline in communication and collegial relationships.	No support intervention programme in place, hence second victims need support.
Kim EM, Kim SA, Lee JR, Burlison JD, Oh EG; (2018).	Psychometric Properties of the Korean Version of the SVEST (K-SVEST).	None mentioned.	The K-SVEST demonstrated good psychometric properties and adequate validity and reliability. The results showed that the K-SVEST demonstrated the extent of second victimhood and support resources in Korean healthcare workers, and could assist in developing support programmes and evaluating their effectiveness.
Koll-Krüsmann M. (2019).	Psychosocial Support and Prevention for Second Victims.	Trauma disorders	No report of intervention. Suggested psychoeducation as an imperative and effective psychosocial support for second victims.
Krzan, K , Merandi J, Morvay S, Mirtallo J.(2015)	Implementation of a "Second Victim" Program in a Paediatric Hospital.	Anxiety, loss of confidence, and career uncertainty.	A peer-based support initiative (the YOUMatter programme) with the peer supporter team referred to as the YOUMatter Team based on an established three-tiered intervention model. Staff members trained to identify second victims. A team of trained peer supporters serving as first responders; if more support is needed, referrals to behavioural health, social work, and Employee Assistance Programme's (EAP) personnel are made.
Kubheka B, Naidoo S, Etieyibo E, Moyo, K. (2019).	Health Care Practitioners as Second Victims of Patient Safety Incidents.	Shame, anxiety, anger, sadness, guilt, blaming others and loss of confidence.	No support intervention. Recommend development of support programmes with clear referral mechanisms and staff training.

Lane MA, Newman BM, Taylor MZ, O'Neill M, Ghetti C, Woltman RM, et al. (2018)	Supporting Clinicians after Adverse Events: Development of a Clinician Peer Support Program.	Emotional harm that influences their personal and professional lives.	No intervention. Necessary to develop support for second victims.
Lee W, Pyo J, Jang SG, Choi JE, Ock M. (2019)	Experiences and Responses of Second Victims of Patient Safety Incidents in Korea.	Affected according to stages - entanglement, agitating, struggling, managing stage, and "indurating stage."	No evidence of support intervention, hence, suggests designing a specialised second victim support programme in Korea.
Marran EJ. (2019)	Supporting Staff who are Second Victims after Adverse Healthcare Events.	Negative psychological effects feel they have failed the patient and doubt their clinical skills and knowledge base and leaving their profession.	Nonspecific report of support interventions.
Margulies SL, Benham J, Liebermann J , Amdur R, Gaba N, Keller J. (2020)	Adverse Events in Obstetrics: Impacts on Providers and Staff of Maternity Care.	Higher levels of depression and anxiety, considered career change, required mental health intervention, and substance abuse.	Reports of support intervention processes available, no details given.
Martens J, Van Gerven E, Lannoy K, Panella M, Euwema M, Sermeus W, De Hert M, Vanhaecht K. (2016)	Serious Reportable Events within the Inpatient Mental Health Care: Impact on Physicians and Nurses.	Considered quitting their jobs and affected quality of care.	Support interventions seem to be in place but not specific, received collegial support from the chief nurse, and the partner.
McDaniel LR, Morris C. (2020)	The Second Victim Phenomenon: How are Midwives Affected?	Physical, psychological, and psychosocial outcomes such as guilt, anxiety, shame flashbacks, and nightmares. These can impact personal and professional lives.	No report of support interventions.
Merandi J, Liao N, Lewe D, Morvay S, Stewart B, Catt C E, et al., (2017).	Deployment of a Second Victim Peer Support Program.	The second victims that received support reported improved emotional status and improved return-to work metrics.	The YOUMatter programme uses the Scott Three-Tiered Interventional Model of Support for Second Victims, as follows: • Tier 1 local unit/department support, providing one-on one reassurance to second victims. • Tier 2 consists of trained peer supporters, the patient safety

			team, and risk management activation if the second victim requires further assistance. • Tier 3 results in expedited referral to ensure availability of professional support/guidance as needed (Covid19, chaplain, social work, clinical psychologist, and so on).
Mira JJ, Carrillo I, Guilabert M, Lorenzo S, Pérez-Pérez P[4], Silvestre C, Ferrús L; Spanish Second Victim Research Team. (2017)	The Second Victim Phenomenon after a Clinical Error: The Design and Evaluation of a Website to Reduce Caregivers' Emotional Responses after a Clinical Error.	Emotional hardship for the second victim.	The MISE support intervention proved a successful programme implemented, based on the comprehension, usefulness of the information, and general adequacy.
Mira JJ, Lorenzo S, Carrillo I, Ferrús L, Silvestre C, Astier P, Iglesias-Alonso F, Maderuelo JA, Pérez-Pérez P, Torijano ML, Zavala E, Scott SD RESEARCH GROUP ON SECOND AND THIRD VICTIMS. (2017).	Lessons Learned for Reducing the Negative Impact of Adverse Events on Patients, Health Professionals and Healthcare Organizations.	Negative impacts on second victims.	Recommendations preventing aftermath of AEs have been identified and structured around eight areas: (i) safety and organisational policies; (ii) patient care; (iii) proactive approach to preventing reoccurrence; (iv) supporting the clinician and healthcare team; (v) activation of resources to provide an appropriate response; (vi) informing patients and/or family members; (vii) incidents' analysis; and (viii) protecting the reputation of health professionals and the organisation.
Mok WQ, Chin GF, Wang W. (2020)	Cross-sectional Survey on Nurses' Second Victim Experiences and Quality of Support Resources in Singapore.	Physical, psychological, and professional distress, which led to increased absenteeism and high turnover.	No support intervention programmes offered; however, second victims would prefer peer support.

Panella M, Rinaldi C, Vanhaecht K, Donnarumma C, Tozzi Q, Di Stanislao F. (2014).	Second Victims of Medical Errors: A Systemic Review of the Literature.	Negative impact on healthcare providers involved, leading to physical and cognitive changes.	No support interventions reported.
Pyo J, Choi EY, Lee W, Jang SG, Park YK, Ock M, Lee SI. (2020).	Physicians' Difficulties due to Patient Safety Incidents in Korea.	AE-induced sleep disorder, eating disorders, considered changing jobs, extra careful in similar situations.	None existed, hence discussions for support programmes necessary.
Rinaldi C, Leigheb F, Vanhaecht K, Donnarumma C, Panella M. (2016)	Becoming a "Second Victim" in Health Care: Pathway of Recovery after Adverse Event.	Remembered the AE and referred to the physical and psycho-social symptoms experienced.	Support interventions in place, however they were described as poor and inefficient.
Rinaldi C, Leigheb F, Di Dio A, Vanhaecht K, Donnarumma C, Panella M. (2016).	Second Victims in Healthcare: The Stages of Recovery Following an Adverse Event.	Not specific impact, except that second victims traumatised.	Evidence of support interventions reported as poor and inefficient.
Schroeder K, Edrees HH, Jorgensen JS, Lamont RF, Hvidt NC. (2019)	Second Victims in the Labor Ward. Are Danish Midwives and Obstetricians Getting the Support they Need?	No reported impact	No specific interventions in place, hence, suggest development of second victim support programmes by qualified and trained peers.
Seys D, Wu AW, Van Gerven E, Vleugels A, Euwema M, Panella M, et al. (2013).	Health Care Professionals as Second Victims after Adverse Events. A Systematic Review.	Common emotional, cognitive, and behavioural symptoms.	None in place. Critical that support networks are in place to protect second victims.
Seys D, Scott S, Wu AW, Van Gerven E, Vleugels A, Euwema M, et al. (2013)	Supporting Involved Health Care Professionals (Second Victims) following an Adverse Health Event.	Significant personal and professional distress.	None reported - Programmes need to include support provided immediately post-AE, as well as on middle-long- and long-term basis.
Trent M, Waldo K, WehbeJanek H, Williams D, Hegefeld W, Havens L. (2016)	Impact of Health Care Adversity on Providers: Lessons Learned from a Staff Support Program.	Non-specific, but evidence of traumatic experiences.	No specific programme reported.
Ullström S, Andreen Sachs M, Hansson J, Ovretveit J, Brommels M. (2014).	Suffering in Silence: A Qualitative Study of Second Victims of Adverse Events.	Long-lasting emotional stress following AE involvement.	Evidence of unstructured and unsystematic support intervention. Feedback from formal investigation not timely, made it more difficult for second victim to process the event emotionally and reach closure.

Vanhaecht K, Seys D, Schouten L, Bruyneel L, Coeckelberghs E, Panella M, Zeeman G; Dutch Peer Support Collaborative Research Group. (2019).	Duration of Second Victim Symptoms in the Aftermath of a Patient Safety Incident and Association with the Level of Patient Harm: A Cross-Sectional Study in The Netherlands.	The most common symptom was hypervigilance, having doubts about knowledge and skill, feeling unable to provide quality care, and feeling uncomfortable within the team.	No evidence of support interventions reported.
Vanhaecht K, Seys D, Schouten L, Bruyneel L, Coeckelberghs E, Panella M, Zeeman G; Dutch Peer Support Collaborative Research Group. (2019).	Duration of Second Victim Symptoms in the Aftermath of a Patient Safety Incident and Association with the Level of Patient Harm: A Cross-Sectional Study in The Netherlands.	The most common symptom was hypervigilance, having doubts about knowledge and skill, feeling unable to provide quality care, and feeling uncomfortable within the team.	No evidence of support interventions reported.
Wahlberg A, Hogberg U, Emmelin M. (2020).	Left Alone with the Emotional Surge- A Qualitative Study of Midwives and Obstetricians' Experiences of Severe Events on the Labour Ward.	Cognitive and emotional discordance was experienced.	No record of support interventions
White AA, Brock DM, McCotter PI, Hofeldt R, Edrees HH, Wu AW, Shannon S, Gallagher TH. (2015).	Risk Managers' Descriptions of Programs to Support Second Victims after Adverse Events.	No reported impact.	Reports of existing support interventions but no details given.
Winning AM, Merandi JP, Lewe D, Stepney LMC, Liao NN, Fortney CA, et al. (2018)	The Emotional Impact of Errors or Adverse Events on Healthcare Providers in the NICU: The Protective Role of Co-worker Support.	Higher levels of anxiety and secondary traumatic stress, depression, and burnout.	No reported support interventions
Winning AM, Merandi JP, Rausch JR, Liao NM, Hoffman JM, Burlison JD, Gerhardt CA. (2020).	Validation of the Second Victim Experience and Support Tool – Revised in the Neonatal Intensive Care Unit.	Psychological and physical stress.	Evidence of a support intervention tool included positive outcomes stemming from an AE involvement.
Zhang X, Chen J, Lee S. (2020).	Psychometric Testing of the Chinese Version of Second Victim Experience and Support Tool.	Emotional distress, physical discomfort, and intention to leave.	Evidence of a valid and reliable support intervention tool. No details supplied.
Zhang X , Li Q , Guo Y , Lee SY (2019).	From Organisational Support to Second Victim-Related Distress: Role of Patient Safety Culture.	Psychological distress and intention to leave profession.	No support interventions, however organisational support may be enhanced via improvements in patient safety culture.

3.2.1.5 Collating, summarising, and reporting of the results

The fifth and final stage of the scoping review programme involves collating, summarising, and reporting the findings. Details are included in the discussion below.

Data analysis

In this review, data analysis followed Braun and Clarke's (2006) guidelines described in Chapter 2.4.1.4. The findings are presented in tables and graphs.

3.3 FINDINGS

The findings show the geographic distribution of the articles, the frequency per database, the impact of involvement and support offered to the second victims. These are, detailed in the discussion below.

3.3.1 Geographic Distribution of Articles

The scoping review generated 55 articles from 11 countries. Of these, 21 studies were conducted in the United States, 17 in Europe, three studies each in China, Korea, and in Singapore, two studies in both Australia and in UK, one study each in Ghana, Iran, the Netherlands, and South Africa. Alhassan et al. (2019) reports on the scarcity of literature on AEs in Sub-Saharan countries, including limited empirical studies in the African context, except for a recent article by Kubheka et al. (2019). Additionally, the studies revealed an underestimation and underreporting of AEs due to HCPs having inadequate knowledge related to AEs. Previous studies did not emphasise the second victims' experiences, which was consistent with Alhassan et al.'s (2019) findings. See Table 3.5 of the geographic distribution hereunder.

Table 3.5 Geographic Distribution

AUTHOR/S & DATE	GEOGRAPHIC AREA	NUMBER OF STUDIES
Cabilan & Kynoch, 2017. Kable et al., 2018.	AUSTRALIA	2
Chen et al., 2019. Zhang et al., 2019. Zhang et al., 2020.	CHINA	3

Busch et al., 2020. **Busch et al., 2020.** **Christofferson et al., 2020.** **De Boer et al., 2014.** **Gerven Van E et al., 2014** **Koll-Krusmann M, 2019** **Martens et al., 2016** **Mira et al., 2017** **Mira et al., 2017.** **Panella et al., 2014** **Rinaldi et al., 2016** **Rinaldi et al., 2016.** **Schroeder et al., 2019.** **Seys et al., 2013** **Seys et al., 2013** **Ullstrom et al., 2014** **Wahlberg et al., 2020.**	EUROPE	17
Alhassan et al., 2019.	GHANA	1
Ajri-Khameslou et al., 2017.	IRAN	1
Kim et al., 2018 **Lee et al., 2019 Pyo et al.,2020.**	KOREA	3
Vanhaecht et al., 2019.	NETHERLANDS	1
Chan et al., 2017 **Chan et al., 2018 Mok et al., 2020.**	SINGAPORE	3
Kubheka et al., 2019.	SOUTH AFRICA	1
Burlison et al.,2017. **Delacroix,2017.** **Dukhanin et al., 2018** **Edrees et al., 2011**	USA	21

3.3.2 Frequency Per Database

Table 3.6 below presents a classification of the findings from the three databases. All the studies were published in English, and represented as original articles, reflection articles, and review articles. The table also presents the frequency per database.

Table 3.6: Frequency per database

Database	Keywords	Number Sourced	Excluded on Title	Excluded on Abstract	Excluded on Full Text
PUBMED	Adverse events AND second victims	610	8	0	26
	Adverse events AND influence	8	4	0	16
	Second victims AND Support	22	2	2	33
EBSCOHOST/CINHAHL	Adverse events AND second victims	428	7	2	12
	Adverse events AND influence	6	3	1	22
	Second victims AND support	110	3	1	8
ENSCOHOST/ERIC	Adverse events AND second Victims	120	107	2	11
	Adverse events AND influence	9	4	1	4
	Second victims AND support	114	17	1	96

3.3.3 Impact of Involvement

In response to the first part of the scoping review question, *"What is the impact of involvement in AEs",* the authors of the articles acknowledged that the impact of involvement was emotional, physical, personal, and professional in nature. The summary of impact of involvement is presented in Table 3.7 below.

Table 3.7 Summary of the impact of involvement

PROFESSIONAL	PSYCHOLOGICAL	PHYSICAL	EMOTIONAL
Burnout	Anxiety	Exhaustion	Anger
Career uncertainty	Depression	Muscle tension	Humiliation
Decreased job satisfaction	Flashbacks	Insomnia and other sleeping disorders	Disbelief
Decline in collegial relationships and communication	Repetitive memories	Increased heart rate	Grief
Hypervigilance and overly cautious	Concentration difficulties	Eating disorders	Guilt
Loss of professional self-esteem and confidence			Remorse
Uncomfortable feeling in the presence of colleagues			Sadness
			Shame

3.3.4 Support for Second Victims

The three main themes/measures that were identified from the thematic analysis of the scoping review in response to the question, "*How best can second victims be supported*", were: the programmes; the tools; and interventions as indicated in Table 3.8 hereunder.

Table 3.8: Identified themes

PROGRAMMES	TOOLS	INTERVENTIONS
For You	K-SVEST	Curriculum
Medically Induced Trauma Support Services (MITTS)	SVEST	Just Culture

Resilience in Stressful Events (RISE)	C-SVEST	Risk Managers
You Matter	SVEST- R	Critical Incidence Stress Debriefing (CISD)
Clinician Peer Support Programme		
Surgery Specific second Victim Peer Support Programme		
Mitigating Impact in Second Victims (MISE)		
"Second Victim" Programme		

The themes presented in Table 3.8 are unpacked and presented below in terms of a summary of the characteristics, successes, and challenges of the identified themes:

3.3.4.1 Theme 1: Programmes

The theme consists of programmes identified in the studies to support second victims involved in AEs as indicated below.

The University of Missouri's Health Care implemented a for YOU programme**,** which was reported in most studies. The programme's "Scott Three-Tiered Integrated Model of Intervention Support" provided emotional and confidential support following involvement in traumatic event to all second victims, irrespective of their rank, and in their workplace where the event took place to address their exclusive needs (Quadrado, Tronchin & Maia, 2020; Scott et al., 2010). A multidisciplinary team of professionals established open communication channels for the second victims, ensuring that the environment was empathetic and compassionate.

The non-profit organisation **Medically Induced Trauma Support Services** (**MITSS**) was jointly established by an anaesthetist and a patient who was involved in an AE. The organisation aims to support, educate, train, and help victims of AEs. The focus is on the

promotion of recovery and seeks to reinstate hope in distressed patients, staff, and their families (McGinley, 2013).

"**The Second Victim"** support programme was deployed in healthcare settings and used the abovementioned Scott Three-Tiered Intervention Model of Support for Second Victims. Accordingly, Tier 1 renders departmental support, Tier 2 offers peer support, while Tier 3 provides referrals for professional support (Merandi et al., 2017).

The Resilience in Stressful Events (RISE) was successfully developed and implemented at the Johns Hopkins Hospital. This focus of this support programme was to provide timely psychological first aid and emotional support within 12 hours of a second victim experiencing an

AE. The support is rendered in a peer-to-peer or group format, depending on the second victim's request (Edrees et al., 2016). Studies reported that the programme resulted in cost savings in the healthcare facilities (Moran, Wu, Connors, Chappidi, Sreedhara, Selter & Padula, 2017).

A Clinician Peer Support Programme was developed at two large teaching hospitals affiliated with the Washington University School of Medicine in St. Louis, Missouri. A curriculum to train clinicians was developed to offer support to involved peers. The programme also provided support to clinicians following AEs (Lane et al., 2018).

The **YOUMatter Second Victim Peer Support Programme** includes elements altered to include electronic peer support reporting. The programme matched the programme and the implementation strategies of the University of Missouri Healthcare's forYOU Team. An improvement in the emotional state of the second victims was reported (Merandi et al., 2015).

A **Surgery-Specific Second Victim Peer Support** programme was successfully implemented using the five-step process: conceptual programme creation; choice of peer supporters; training of peer supporters; recognise AEs; and design of intervention plan (El Hechi et al., 2019).

A "**Second Victim**" programme was implemented at a paediatric hospital at the Nationwide Children's Hospital (NCH). A peer-based support plan was adopted (the YOUMatter programme) based on an existing three-tiered intervention model in which the participants were trained to identify second victims. The principle of the programme was a team of trained

peer supporters who served as first responders. If the need arises for additional support of the second victims, referrals to Developmental Health, Social Work, and the EAP personnel were confirmed (Krzan et al., 2015).

The Mitigating Impact in Second Victims' (MISE) online programme was successfully designed and implemented. Their objective was to raise awareness and provide information on second victim experiences. The programme proved to be easily accessible and preventive such that programme beneficiaries reported to have gained knowledge on support models for second victims and recommended actions following their involvement in AEs (Mira et al., 2017). In addition, support was provided to facilitate communication with the involved patients and their families following the AEs.

3.3.4.2 Theme 2: Tools

The studies identified the following tools to aid in developing support programmes for second victims.

The Psychometric Properties of the K-SVEST were evaluated. The K-SVEST demonstrated good psychometric properties and adequate validity and reliability. The results showed that the K-SVEST demonstrated the extent of second victimhood and support resources in Korean healthcare workers that could guide the development of support programmes and the evaluation of their effectiveness (Kim et al., 2018).

The SVEST was developed and implemented. The tool consisted of 29 items representing seven dimensions and two outcome variables to assess the domains associated with the second victim's experiences. The tool was instrumental in informing healthcare leaders on the second victim's preferred support resources (Burlison et al., 2017).

The Revised Version of the SVEST (SVEST-R) was implemented. The revision resulted in an expansion of the original tool from 29 to 43 items to assess the second victims' experiences, and during validation it was reported as a valid and reliable tool. Positive outcomes of second victims' experiences were reported from this revised version (Winning et al., 2020).

The Psychometric Properties of the C-SVEST were evaluated and reported as a valid and reliable tool to provide much needed efficient and effective support to second victims involved in AEs (Zhang et al., 2020).

3.3.4.3 Theme 3: Interventions

The interventions stated hereunder were identified in literature as developing support programmes for second victims involved in AEs.

Critical Incidence Stress Debriefing

A critical incidence stress debriefing (CISD) is a regulated, short intervention comprising seven stages and lasting about three hours that was developed for second victims of AEs. It is routinely offered in a small group setting immediately following an AE. The focus is on helping second victims to deal with the event and decrease their symptoms of traumatic stress, despair, and apprehension. According to studies, the intervention was initially implemented among firefighters and police departments, however realising that the HCPs also experience stressful situations, they were then included (Edrees et al., 2017; White et al., 2015; Jones & Treiber, 2012).

A curriculum for second victims was developed in which education and training concerning second victims of AEs was shared among new graduate and student nurse anaesthetists. The rationale was to promote a better understanding of the required peer and support protocols (Daniels & McCorkle, 2016). The type of support sought by second victims was also described (Scott et al.,2009; Edrees et al., 2014; White et al., 2015).

The just culture, the stages, and pathway to recovery following exposure to AEs (Rinaldi et al.,2016) and the type of support and way second victims would like to feel supported were identified and acknowledged, but no specific intervention was created (Chan et al., 2017; Burlison et al., 2017; Lane et al., 2018; Edrees et al., 2011).

Risk Managers described the support programmes for second victims in which they provided the steps necessary for the improvement of existing resources. These included assessing the structures, usage, and efficiency, raising awareness, and a way forward too close the gaps associated with the proposals (White et al., 2015).

3.4 DISCUSSION

The focus of this scoping review was to determine the impact of involvement in AEs and how best second victims could be supported. Most of the international studies were conducted in the USA (21) followed by Europe with 17 studies. In other countries, three studies were

conducted in China, Korea, and Singapore. Two studies were conducted in Australia and UK, and one study each in Ghana, Iran, the Netherlands, and South Africa.

According to the literature, the involvement in AEs results in intense emotional disorders in the second victims (Christoffersen et al., 2020; Wahlberg et al., 2020; Jones & Treiber, 2012). This was due to continued feelings of unreality and what others termed a 'mental block', while some questioned what went wrong and what they missed. Studies have revealed that in addition to the physical, the professional, and the personal impact, the emotional impact of the second victim's involvement was significant and yet surprisingly overlooked. According to Trent et al. (2016), Robertson (2017), and Joesten et al. (2015), the emotional impact of involvement in AEs manifested as anger, disbelief, shock, and humiliation in most second victims. This was consistent with the findings in Lee et al.'s (2019) Korean study that established that the emotional impact resulted in post-traumatic stress for some of the second victims, leading to the possibility of repeating the AEs, having flashbacks, and experiencing emotional numbness, hence the need for timely, efficient support.

The findings Wahlberg et al.'s (2017) study on the experiences of midwives and obstetricians following AEs revealed that second victims regularly reported hesitancy where routine and procedures previously performed were not remembered, while others experienced ongoing blame, guilt, and shame. This was affirmed in a Danish study in which obstetricians and midwives reported feeling morally responsible for the AEs and felt unable to continue with clinical practice after a traumatic childbirth (Busch et al., 2019; Schroeder et al., 2018). What was notable in this review are the obvious similarities in the structures and process of the devised programmes, tools, and interventions. Initially a professional team was contacted to alleviate the negative impact of the AE, and thereafter a peer support approach was implemented to ensure that both the second victim and the hospital benefitted (Edrees et al., 2016; Pratt et al., 2012).

In relation to how best the second victims can be supported, Christoffersen et al. (2020) affirms that although the need for support programmes is evident and well-detailed in literature, it is not applied in practice, and hence there is a need to revise support programmes. This is consistent with findings of the Brazilian studies conducted by Quadrado et al. (2020), Chan et al. (2018), and Edrees et al. (2016). Christoffersen et al. (2020) state that second victims should be provided with access to support programmes that are designed according to their specific needs. For instance, midwifery-specific support programmes for the midwives, clinician-

specific support programmes for clinicians, etc. The findings recommend that there should be a proactive approach to AEs in education and practice.

Previous studies established a growing need for healthcare organisations to develop and implement formal and informal support interventions for second victims (Kubheka et al., 2019; Singh, Choudhary, Kumar & John, 2019; Lane et al., 2018; Harrison et al., 2014). According to Van Gerven et al. (2016), second victims who perceived that their organisations were supportive, reported less emotional distress in comparison to those who did not receive any support at all. This finding was supported by Scott et al. (2012) and Joesten et al. (2015), when similar findings resulted from their research. Earlier studies reported minimal published guidance regarding the design of supportive interventions, with suggestions that national support programmes should be appropriate to culture and behavioural circumstances (Shor, Tal & Maymon, 2017). A roadmap was provided to guide healthcare organisations to develop these programmes (Conway, Federico, Stewart & Campbell, 2010).

Studies reported that following involvement in AEs second victims preferred speaking to experienced, trustworthy colleagues or friends who would understand their experiences (Ullstrom et al., 2014). This was supported by Wahlberg et al. (2020) and Christoffersen et al. (2020), who established that those individuals with experience of the clinical environment were able to manage the second victims efficiently and effectively. Others mentioned that management should focus on a non-punitive approach to AEs to promote the reporting of future events and to generate a culture of learning (Cabilan & Kynoch, 2017; Edrees et al., 2016). Some literature provided recommendations for good practices to provide support to second victims that are not limited to existing programmes.

These included religious, spiritual, self-compassion, self-forgiveness, and a review of perfectionist behaviour (Chan et al., 2018; Dukhanin et al., 2018; Cabilan and Kynoch, 2017; Han et al., 2017). It emerged that frontline management was considered as the vital party to follow up and provide support to midwives after an AE (Christoffersen et al., 2020). This was consistent with Wahlberg et al.'s (2020) findings; they reported that "only those with detailed knowledge of the clinical environment where the incident occurred will render effective support". Pratt, Kenney, Wu, and Scott's (2012) study revealed that among the reasons that hospitals did not support second victims was the lack of knowledge on the development and effective implementation of such programmes, which required discussion by hospital leadership.

Although research on second victims has largely focused on the negative outcomes of associated AEs, evidence emerged that their involvement might also yield desirable outcomes (Winning et al., 2020). This was consistent with an earlier study that reported increased attentiveness to safety in the workplace and improved co-worker relationships (Harrison et al., 2014). As healthcare organisations are investing more resources in programmes to support second victims, it is imperative to consult accurate information to substantiate and guide organisations towards the development of appropriate supportive intervention programmes (Burlison et al., 2017).

3.5 SUMMARY OF FINDINGS

The scoping review chapter explored and described the existing evidence in international literature regarding the experiences of HCPs involved in AEs, and who were, identified as second, victims. The review assisted in establishing how best second victims should be supported to reduce the stress caused by their involvement and to enable them to continue providing quality nursing care. The findings showed that these second victims experienced intense psychological, physical, emotional, and professional distress following their involvement. It was reported that for some the distress was long-lasting, preventing them from performing their duties as expected. There was a discussion of support programmes developed and implemented in certain countries. While some countries described the available tools that were, designed to assist in developing support programmes, other countries recommended available interventions to accomplish that.

In Chapter 4, which is Phase 2 of the study, the focus is on storytelling following Smith and Liehr's (2005) methodology. In this phase, the HCPs who were directly involved in, or are, affected by, one or more AEs in public hospitals in Gauteng, narrate their experiences.

CHAPTER FOUR
STORYTELLING

4.1 INTRODUCTION

The previous chapter focused on the scoping review where databases were searched to explore and describe the experiences of HCPs involved in AEs documented in international literature.

In Chapter Four, which describes Phase 2 of the study, the focus is on storytelling using Smith and Liehr's (2005) methodology. In this phase, the HCPs who had been directly involved in, or affected by one or more AEs in public hospitals in Gauteng, narrated the story of their experiences. Thirteen interviews were conducted with HCPs, consisting of 12 professional nurses and one psychiatrist.

As explained in the methodology chapter, HCPs were encouraged to relate their story by the researcher asking them to "*tell me the story about when you were involved in an AE. Tell me what happened, how you and others dealt with it, and how it made you feel*".

The original intention had been to ask follow-up questions at a second interview. However, due to the challenges experienced with the planned second session, including the emotions related to the involvement in AEs, those questions were asked immediately following the storytelling, during the first session. The researcher summarised the story told by the participant to confirm the facts (member-checking).

The following four questions were then asked (see Annexure B):

- Tell me how you would have liked the AE to be different?
- How or what would you change if you had the experience again?
- Thinking back on the experience, what are your feelings about it?
- What impact did the experience have on you and others that were involved?

4.2 FINDINGS

4.2.1 Demographic profile of the participants

The demographic profile for HCPs involved in AEs in public hospitals in Gauteng are presented in Table 4.1. The characteristics include their ages, gender, professions, years in their professions, and AE involvement.

Table 4.1 Demographic profile of the involved healthcare professionals

Demographic variable	Response	Frequency (N =13)
Age	>30	2
	30 – 40	4
	41- 50	5
	51 – 60	2
Gender	Male	3
	Female	10
Profession	Professional nurses	12
	Medical doctor	1
Years in the profession	>5 years	2
	5 -10 years	7
	10+ years	4
Adverse event involvement	Directly involved	13

In this phase the data was analysed according to Braun and Clarke's (2006) six steps of thematic analysis as described in Chapter Two, in section 2.4.2.4. Three themes were identified from the stories the participants shared. These were:

1. The impact of AE involvement.
2. Types of experiences
3. Support systems.

Below is the summary of the themes and sub-themes that emerged from the data analysis.

TABLE 4.2 Summarised Table of Themes and Sub-themes

THEMES	SUB-THEMES
1. Impact of adverse event involvement	1.1. Initial emotional reactions 1.2. Subsequent emotional reactions: 1.3. Lessons learnt from the event
2. Types of experiences of the internal review	2.1 Experiences before the review: 2.2 Experiences during the review:

	2.3. Experiences after the review:
3. Support systems	3.1. Types of support received: 3.2. Participants' perception of helpful support 3.3. Recommendations made:

4.2.2 Theme One: Impact of Adverse Events involvement

Theme one relates to the AEs had on the participants which included the impact on them personally and professionally as well as the effect it had on the quality of patient care.
The experiences impacted strongly and negatively on every participant and varied in specifics, but their responses indicated initial emotional reactions, subsequent emotional reactions and lessons learned from the experience which generally emerged later and on reflection on the event.

4.2.2.1 Sub-theme 1.1: Initial emotional reactions

The participants reported initial emotional reactions of disbelief and shock, which appeared immediately after the adverse event. Most of them were overwhelmed by negative emotional reactions such as fear, shock, and worry, with others affirming sadness, being tearful, and feeling traumatised by the event. These participants made the following statements:

It was clear from RH3's response that the initial emotional reactions were felt, not only by the health professional directly involved, but also by others who were involved in the patient's care. She said, *"It's not traumatic to you only. It was traumatic to the [everyone] that [was] on duty. Even people that were […] off that handed over, it was just a shock and traumatic. How can [they] hear the mommy talking and then they come there in an hour's time, then the same person passed. It's traumatic not only to one person, but to the whole team*.

This position was supported by RH9 who said, *I don't think there is anyone that wants to experience a patient dying in their care. A patient dying will just be a blow to anyone, irrespective of what was done or was not done and all that. I haven't [dealt] with it very well because it was very traumatic to me, I kept asking myself why me? As if I could have done something more to save that patient. People also point at each other and there is a lot of blaming, but at the end it is just trauma that is setting in"*

Other emotional reactions expressed were sadness from having failed the patients in their care, using the terms "emptiness" **(P15),** feeling "depressed, "bad". (**RH9**)", Feelings of being "devastated" **P13**, helpless and "extreme sadness (**RH1**)" were some of other reactions.

Participant RH1 experienced many of these reactions saying, *"It was a sad experience, but we get used to it. I mean we were not happy the way things happened, we felt helpless, hopeless, and yes, very sad after everything. We were also worried about this".*
Participant RH9 was clearly still traumatised when interviewed as she was tearful while describing how she felt immediately after the event, saying, "*I felt very sad, as nobody expected that to happen, I feel we failed that woman. There is no explanation for a maternal death; it was a bad experience for me as it made me feel empty. It made me feel like a failure"***.**

4.2.2.2 Sub-theme 1.2: Subsequent emotional reactions

When the initial trauma had subsided, participants began worrying about criticism from colleagues, with some being self-critical, and started doubting their professional judgement. They reported feelings of guilt and shame as they expressed their awareness of their own and / or other people's clinical incompetence, using terms such as "error", "mistakes" (**P7**), "gaps" and "loopholes **(P3)".**
*This was illustrated by P3 who stated, "So, in that process there were loopholes, some … mistakes that were done on that day. I mean the whole procedure ... was not quite followed properly.... I mean with the…with.…monitoring…monitoring form…that isn't that I have to monitor temperature…" (***P3).**

Some participants including participant P7 accepted responsibility for the event. She said, *"The error I think we didn't report the stoma to […] assist with further management with regards to the skin, including the occiput, because that's the department that deals with wounds. So those type of wounds they were not referred to them, but we were managing it internally in terms of dressing the wounds, making sure they were clean***" (P7).**

A sense of relief was experienced by one participant upon being informed that the patient would survive.
"I managed to find the telephone numbers and called the other hospital to find out if the patient was going to be okay and they replied no! That shattered me, I felt helpless, hopeless, and very sad, but angry as well. I was frustrated, yes, lost, and empty. My only consolation was that she was alive and was going for surgery that afternoon, what a relief". **(P7).**

4.2.2.3 Sub-theme 1.3: Lessons learnt from the event

Although most of the participants reported feeling shattered by the event, two participants affirmed having learnt valuable lessons from the event and having gained valuable understanding from the event experience.

"I mean from that review, I feel like it was just a wakeup call … because I mean the same mistake […] on that patient, will never be [made] again. Because I mean, like it's like a learning curve … it's like a learning, because you are just equipped with information…". **(P3).**

Participant 8 supported learning from the event experience saying "*I saw what I learned was that…..: I mustn't keep a thing on me or us in the unit…. now we are referring everything…. we must refer and involve the doctors and we must document whatever we see"*

4.2.3 Theme Two: Types of experiences of the internal review (IR)

In this theme the participants revealed their experiences of the internal review (IR) which were initiated by management of the investigation processes. The review process is routinely scheduled by the various stakeholders in the hospitals following an event to determine the causes, and to implement the necessary preventive measures to avoid a recurrence. Four sub-themes were identified, namely: 1) experiences before the IR; 2) experiences during the IR; 3) experiences after the IR; and 4) recommendations for the review process.

4.2.3.1 Sub-theme 2.1: Experiences before the IR

The participants reported both negative and positive experiences before the reviews. While some of the participants stated positive experiences of relief and confidence at being able to prepare for their reviews, others mentioned negative experiences of fear and concern at being unable to prepare beforehand.

One of the participants who felt relief was P8 who said, *"When the OM called us for a mini review before the main one, I was relieved […] so I accumulated all the files, all the records, to see what happened because I know I assessed the patient that day, so I had to be ready with answers for the panel".*

Other participants reported negative experiences of fear **(P4),** frustration (**P11**), disappointment **(P9),** anxiety, and concern **(P3)** before the actual review session.

Participant P3 described the process to prepare for the internal review to mitigate the negative experience of the internal review. She said, *"We had to sit down and discuss with the manager, preparing I mean… for that day of the…of the case review … and say what went wrong on that*

day and just find out, I mean to … to collect the … the information so that when we go there for the review, we have enough information that have been equipped with, I mean to know, I mean where did we go wrong? Obviously, this thing is done previously before, I mean the … the … actual interview…".

Some participants were concerned that there was a lack of clarity relating to the forthcoming process and that they received no guidance in this regard which appeared to some to be unfair. P9 reported inconsistencies relating to the timing of the process. She said, *"So, we were taken immediately to the hearing the morning after that the evening [of the adverse incident], the morning we went for the review. We could not prepare anything and some of our colleagues didn't come.*

P 11's frustration related to the inability to prepare for the review. She said, "As I told you that we got the letter in the evening when we came on duty for our last shift notifying us that we are to present ourselves at the review. The next day in the morning we were going there to the review, and so, we didn't know that the file of the patient [was also] being investigated. We could not prepare for the review because after we handed over to the day staff we were expected in the boardroom within an hour, and the patient's file was missing; what can we do in so little time?".

Participant 4 (P4) confirmed the importance of being prepared for the review. "I think it helps in a way to go there prepared. In terms of you know when you're asked the question about the patient who was in ICU that you've nursed, you must know the patient like this (gesturing) … not be looking for information on the chart because that's when they say 'Oh, she did not nurse that patient, what was she doing?'.

4.2.3.2 Sub-theme 2.2: Experiences during IR

This sub-theme involved the participants' experiences during the IRs, and these experiences varied between the three sites. The variation was largely due to their preparedness for the review process and the interaction between the participants and the panel members who conducted the review. At one of the research sites, IRs had been temporarily discontinued due to the Covid-19 pandemic. Most of the participants mentioned negative experiences of sadness and frustration during the review process.

"Because they (the other staff members) were intimidated sort of, the way I see it. And the blame was on me because I was the one that stuck to the story that we discussed in the ward "Their attitude. There are other issues, and unfortunately none of the questions that came up could be addressed. It was more of attacking from management, it was more of an interrogation, and then putting the blame on the staff". (**P11).**

Others experienced the question-and-answer session like an interrogation and being attacked by the reviewers during the review:

"And then like you said, when you started with the review down there, you felt that it was more of an interrogation". **(P3).**
"The people were even like now, it's like when you are honest, you are being attacked for your honesty **(P10).**

Most of the participants affirmed experiencing a lack of professional treatment with some referring to the reviewers' attitudes as a negative experience. The participants mentioned feeling "uncomfortable" (**P4**) in the reviewers' presence, being floored by questions; "thrown questions this side and that side" (**P10);** that "conclusions [were] drawn" **(P7),** and "being punched and pounced [on]" (**P11**) – feelings related to the negative reviewers' attitudes.

"I just felt like it was like on the side of management; it was like now we've got you theatre staff, now is our time to pounce and punch you now … they will look for other things even the documentation that you didn't write in the patient' file, you didn't complete the document so they are not going to concentrate on that incident on its own, they'll find out any other mistakes that were done on that day on the patient". **(P10**).

*"I don't know, I wasn't comfortable with the way the questions were asked, it was like a conclusion [had already been drawn] because even when you try to explain***…". (P4)**

Participants indicated the experiences of disappointment in the panel for what they perceived as an uncaring attitude towards the affected staff and that the focus was on the involved patients.

"And with them asking us a lot of questions and no one cared that we knocked off late. Did we arrive home safely, and how we [feel]. No one asked how we feel, and we were never referred for debriefing". (**P4.)**

"Out of the whole staff was that there was no support from the hospital. It is all about the patient and nothing for the nurses…". **(P11).**

Apart from disappointment with the perceived lack of caring of the panel members, some participants indicated that not only were they blamed, but that stories were made up to implicate the affected staff.

"And then because now they don't have anyone to blame maybe they will blame the nurses. I feel like they just dealt with it in their own way, and that's it. We don't even know what happened with that case…". **(PD4).**

"We went to the review. There according to them we were shifting the blame. How can I put it? We were defensive. They said we were defensive instead of accepting that we didn't report in time, we are now saying it is a hematoma, and we are telling so many stories…". **(P8)**

In relaying the stories of their negative experiences of the reviews, overwhelming feelings of sadness were expressed related to how the participants and their colleagues were victimized.

"The story came back to say that I [had] beat[en] up the grandmother; I beat up the husband – physically beating them up. That is the report that came to me, and after two nights I was immediately removed form night duty by management. They called me down and said, 'You beat people so we are removing you from night duty', and at the same time the Chief Executive Officer (CEO) said that I must be suspended immediately". **(RH10).**

"I mean how can they say we are killers? You know we were told straight by one of them. We were told that we are killers. How can a senior person label you like that in a room full of junior and senior nurses? Imagine that seriously". **(P9).**

"Comments such as 'You ICU people you think you are special; you ICU people think you can … you want to change how assessment ... is done'. First-year assessment is still the same as post-graduate assessment, but I always say every ICU patient that comes into an intensive care environment is a special patient…". **(P4).**

"They said that is the problem, because we are not special, we are like any other unit, there is nothing special about us. …it's like we are arrogant, and we want to justify, and we think we are special; we are not special, we are just like any other ward…". **(P7**).

"They said, 'no, we are making ourselves special'. I don't know what they [meant]; the way I was presenting myself that showed them that belittling, so yes, it was not taken even there in a good spirit". (**P8).**

4.2.3.3 Sub-theme 2.3: Experiences after the IR

This sub-theme involved the participants' experiences after the IR, as indicated in the following sub-themes that emerged, namely a) traumatised and sad following IR; b) disappointment; and c) demotivation. Mixed experiences were reported with some participants stating a negative experiences and others a positive one.

Most of those participants who experienced the review process negatively spoke about continued feelings of sadness and of being traumatised after the review.

"*They were becoming defensive so at the end, I do not feel as if we learned from the review, instead I feel like it was just to embarrass the staff that was [t]here as if 'You think you're more educated than other people, look now what happened, okay'. People are always on their feet working, so that I saw people may not say 'You know what I feel de-motivated', but we could feel people are withdrawn and they felt de-motivated as if they are not doing much…".* **(P10).**

A worried participant affirmed experiencing demotivation that management does not appreciate the workload nor acknowledge the staff:

"…it was not a really a learning curve for me, because I almost felt like I'm being attacked, even if I'm trying to explain to say, 'Okay in theatre it is multidisciplin[ary]'. The mini review was held [and] there was not much that could come out of that, but from the big review, what came out of that, there was almost no learning curve, because now it was about protecting the person, no questions…". (**P11).**

However, not all the participants experienced the review process negatively. Some of the participants mentioned that they experienced it as a "wakeup call" and a positive learning curve. The participants clarified that following the session they were armed with information, that will ensure that they never commit similar error.

"I mean from that review, I feel like it was just a wakeup call … because I mean the same mistake […] on that patient, will never be [made] again. Because I mean, like it's like a learning curve … it's like a learning, because you are just equipped with information…". **(P3).**
"I learnt so much I wasn't in the panel; I was in the ward, just as an observer. For me out of all the reviews that I've attended … that was the most fruitful eye opener, maybe because of relevance, [and] because they're also an ICU…". **(P4).**

"The review is the learning curve, because as you know that we have a challenge of litigation with recommendation…". **(P7).**

4.2.4 Theme Three: Support system

This theme involved the support that the participants experienced after their involvement in AEs. Three sub-themes emerged from this theme, namely: a) types of support received, b) participants' perception of support and c) overlaps between the two.

4.2.4.1 Sub-theme 3.1: Type of support received

While some participants mentioned receiving departmental/peer support immediately following the review process, others did not receive such a benefit. The peer support from colleagues who were non-judgmental was experienced as an outlet for emotional release which was much appreciated.

"After the review we all sat together here [at] the table; we even called the people who didn't attend because this type of issue affects the staff morale. We sat together and tried to look at what … best way we could've answered maybe the questions, or maybe did our own internal review. So, people came up with solutions … so we could've said this and that… but the… manager at the time, the matron said, 'But I feel you answered to your best level'". **(P4).**

"The staff sat down with our manager in the ward to debrief because the hospital does not offer that for the nurses. We even organised our team-building outing so we can appreciate each other and the hard work we face every day. When we come back, we are positive and refreshed, with the incidents behind us". **(SRD5).**

Few participants reported receiving external professional support following their involvement in the event.

"We've had debriefings - there was a professor who was from XXX…". **(PD4).**

"The people who are trained we know about the … EAP, so Doctor XXX has actually organised for everyone, although it came months later, but I think it would be due in this month October because he even organised for the doctors". **(RH3).**

One participant indicated that she had received support from her supervisor after the event. She said, *"Sometimes when you're working, you want to know if your supervisor really cares, or they recognise what you are doing; they don't only come to you when there's an incident. They also come to you when you have done […] well. Just to come and motivate you".* **(RH9).**

4.2.4.2. Sub-theme 3.2: Participant perception of helpful support

This sub-theme relates to the perception of helpful support – either that was received or perceptions of what would have been helpful. There were variety of responses to what was perceived as helpful support. Most of the participants perceived psychological counselling and debriefing as helpful support:

"*Most of the time you are in this environment, and I think if we can get also support from […] counselling, because it will also help"***. (RH3).**

Participants P10 and PD 4 both described what was missing and by implication what they would have found helpful.

"We didn't get any counselling because it was a trauma to go through that, the whole situation to me. I felt at the end of that […] I felt we could have maybe gotten somebody to give us counselling because everybody was traumatised there. It took from 9 o'clock to 12 o'clock. I felt like maybe they could have arranged counselling for us because it was traumatising [for] us". **(P10).***".*
"No one asked how we feel, and we were never referred for debriefing". **(PD4).**

P4 supported the above on support that would have been helpful stating the importance of having someone from management to listen to involved staff. She said: "*Just to have a meeting with management and let them listen to the people who have been involved*"

Many participants mentioned the importance of the presence of a manager for guidance/acknowledge and motivation/ professional assurance as a positive organisational support following an event but noted this was often lacking. Others used terms such as "support programme", "more human **(SRD2**)", "meet us halfway (**P10)",** recognise our efforts **(P8)",** "motivation **(RH9)",** and "assistance" when describing the perceived type of helpful support.

*"Assistance when we call for help, and not to promise and not come to the scene at that time. I feel that management should continuously be recognising our efforts, be there to guide me, and not expect me to ask for assistance after an incident has occurred". (***P8).**

"Sometimes when you're working you want to know if your supervisor really cares, or they recognise what you are doing; they don't only come to you when there's an incident. They also come to you when you have done well. Just to come and motivate you. It mustn't always be that you are working, and nobody is recognising". **(RH9).**

"I don't know if maybe they want us to come to them to say, 'I'm not coping with this situation. I need help', but nobody will come to you and say, 'Are you okay? What is it that we can do, so that you, you know, you'll feel better or what?' Nobody will do that. You must deal with it your own way". **(RH9).**

"She's the only one that took the report and the rest of the management, no one came. No one said anything, [it] was just negative, negative all the time. 'Remove her. Suspend her'. Ja this, yes that, and so I just accepted it. Management never supported me. No one came asking 'How you are. Are you feeling okay? Are you coping? Do you need a break?' At the end of the day, it was a horrible experience, no one cared actually". **(RH10).**

The other type of helpful support mentioned was that of the provision of resources which included skilled staff and equipment.

*"We need also more experienced people in the department, you know. We need more advanced midwives on the floor because you've got somebody. Maybe the other midwives can also consult and keep on, you know, what should we do here, it will also help"***. (RH3)**.

"To make it more human, to have a setting that can allow us to have the patient under our observation all the time, like having cameras for instance, because we can't change the setting of the hospital. Like having cameras that can allow us to see the patient because [at] that time he was preparing that sheet to make a rope we could have picked it up. And I think that that will help a lot". **(SRD2).**

4.2.4.3. Sub-theme 3.3: Recommendations

The participants provided recommendations related to the management of the adverse events by the relevant stakeholders/panel and the conduct of the incident review process.

One recommendation related to the training of staff who conduct reviews. P8 said, *"I think maybe they should also get […] some training so when they're doing their review, they should [know how to] conduct themselves so that they don't project themselves as the people who are going to attack you, or who are actually attacking you".*

Participant 10 (P10) also commented on training, but her suggestion referred to having a person with specialist knowledge of the incident present at the review. She said, *"I would like to have a person maybe who is trained in my speciality, who will have to, to explain to the panel how an emergency in the department is handled".* **(P10).**

Participant 8 made a further suggestion about the composition of the review panel saying that someone neutral and with sufficient knowledge should chair the panel. She said, "*I think maybe all the time there must be somebody in charge. There must be people that know the hospital, that know what is expected in the hospital. There must be somebody neutral".* **(P8).**

Participant 4 made a further recommendation as to how the reviews should occur which could be done without a review panel. She said, *"Why can't we just have a meeting with management and then let them listen to the people who've been hurt, because it's many people that speak to management, or we understand their approach for managing these incidents its good, but how the panel conducts themselves you know, how you are doing this… I think just to speak with management and … try to let them see how they are approaching this whole IR***". (P4).**

Participants 4 and 10 made recommendations on how management should guide and assist staff following involvement in events and why it was necessary to do so. They said, *"It should*

be purely to guide us so that we correct our mistakes **(P10),** and "*Assistance when we call for help and not to promise and not come to the scene at that time* **(P4)"**

Participants 4, 7 and 10 further commented on the need for debriefing and /or counselling and resources to the settings a means of support that they expect from management. Participant 4 said: "*I wish I could have tried to organise a debriefing session for the whole department…. Because the type of environment in ICU is very stressful* **(P4).".** Participant 10 and RH3 supported saying: *"I felt we could have gotten somebody to give us counselling because everybody was traumatised;" to have a setting that can allow us to have the patient under our observations all the time like having cameras* **(P10).**
"The main thing that I would've liked is […] some support mechanism of staff involved. It's really lacking". (**RH3); and '***Out of the whole staff there was no support from the hospital* **(P11***), while the other added: 'I felt that the hospital does not care about us, our health, it does not matter to them"* **(P10).**

4.3 Discussion of Findings

The interviews indicated that staff are, understandably, deeply traumatized by an adverse event and indicated that the staff involved in adverse events had similar experiences to those reported in the literature. Overall, the aftermath of adverse events reported on in this study are not being managed well although it was evident that most of the problems occur at one of the hospitals included in the study. However, it was clear that all could improve to prevent further adverse events and to support their staff.

A study carried out in the United States of America by Scott et al (2009) found that health professionals involved in adverse events pass through six stages irrespective of their background. These are (1) chaos and accident response, (2) intrusive reflections, (3) restoring personal integrity, (4) enduring the inquisition, (5) obtaining emotional first aid and (6) moving on.

In discussing the experiences of the health professional as told in their stories, it is useful to use these stages as a basis for reflection on those experiences to identify similarities and differences in their response to those in the study by Scott et al (2009).

4.3.1 Stages

In stage 1, all participants experienced the first stage immediately after the event characterised by intense emotional reactions of shock, fear and worry when they recognised and became aware of the adverse event, as confirmed by literature (Rinaldi, Leigheb, Vanhaecht, Donnarumma & Panella, 2016; Ullstrom, Sachs, Hansson, Ovretveit & Brommels, 2014; Scott, Hirschinger, Cox, McCoig, Brandt & Hall, 2009).

Although the nature of events differed, reactions were similar. It emerged that involvement in an AE affected the participants over the course of their career – even years after it happened, which is confirmed by previous research (Koen, Ebright, Fann, Draucker, & Faan's ,2016). The findings acknowledged that the involved HCPs were emotionally and psychologically traumatised following their experiences. Robertson and Long (2018) conducted a study on the impact of AEs on physicians' mental health, and their findings concur with the current study that AE involvement has a negative impact on healthcare providers' mental health.

The emotional distress affected the involved HCPs on a professional and personal level, thereby compromising patient care and safety. A study (Choi et al., 2020) carried out in Korea showed similar results regarding the impact on nurses involved in AEs. Their findings revealed that a significant percentage of nurses experienced intense psychological distress following their involvement in an AE that interfered with their work. Ullstrom et al.'s (2014) findings are congruent with this research study, as their study established that professional performance of Swedish nurses, physicians, and allied healthcare providers after AEs deteriorated, leading to higher likelihoods of future AEs as possible consequences of emotional distress. Dartey et al.'s (2019) study on midwives' emotional experiences following a maternal death reported that the impact of AEs on HCPs was significant, and their training had not prepared them to manage or cope with the outcomes of an AE.

Stage 2 displayed intrusive reflections with feelings of internal inadequacy where the HCP expressed diverse reflections on AEs. The participants became aware of their incompetence, which led to feelings of self-doubt and negativity. They believed that their incompetence resulted in the AE.

Although the urgency to act at that moment thereby preventing the AE from happening, was later recognised, the participants stated that they were unable to act appropriately at the time, resulting in dire consequences. Previous studies revealed similar results. Wahlberg et al.'s (2020) study in Sweden explored midwives' experiences of AEs in the labour ward. Their

findings indicate that in clinical situations, teamwork following AEs is essential for health workers to avoid procrastination and to ensure a united front when implementing critical clinical actions to save patients' lives.

The second main theme that emerged was the types of experiences related to the IR process that was conducted following AEs. A variety of responses indicated that before the IR few participants were confident of having the opportunity to prepare themselves by collaborating with fellow colleagues who were on duty when the AE occurred, such as browsing through the involved patients' files together and confirming the errors identified. This was consistent with Stage 3 which was described as seeking support from colleagues and supervisors.

Other participants stated that their responses to the review members' questions were only considered during the review panel session. However, it emerged that many participants could not prepare for the review as they were given short notice to avail themselves for the review session, which resulted in experiences of fear and concern. It also led to the review process appearing to be unstructured.

In stage 4 there was reference to wondering about repercussions and litigations. Some of the participants stated that after preparing for the reviews, they were notified that the meetings were postponed, and when the new dates were announced most of the involved colleagues were absent for various reasons beyond their control, resulting in only a few of them being present at the meeting. During the IRs, many of the participants stated that they experienced the IR process negatively, as recorded in previous studies (Wahlberg et al, 2020; Ullstrom et al, 2014). What stood out in this research study was the participants' described feelings of feeling interrogated during the reviews instead of addressing the issues at hand.

Stage 5 was characterised by obtaining "emotional first aid" in which the participants were looking for emotional support and someone to talk to, one who can listen, consistent with previous research (Ozeke et al., 2019; Ullstrom et al., 2014)). The studies affirmed that majority of affected staff needed to talk to someone about to relate what happened, who will listen to them with empathy. The participants were keen in communicating their personal experiences of involvement in events with colleagues for them to learn hoping to prevent them from making similar mistakes. Same needs were identified in other research (Chan, Khong, Tan, He & Wang, 2017). This was the fifth stage for all participants.

Conversely, some of the participants revealed that the review was a positive learning experience. This was consistent with stage 6 of the recovery process where they further stated that they were equipped with information and confident that the event would not recur. According to previous studies, something positive was obtained by those who survived the experience, meaning something good was made from the experience (Ozeke et al., 2019).
Consistent with previous research, it was established that a poor approach to the review processes, identified inadequacies, and unclear guidelines tend to exacerbate the emotional distress of the involved HCP and intensify the AE's impact. According to Leigh-Brown (2015) and Ullstrom et al. (2014), the participants' attendance at the reviews ought to provide and reinforce positive learning opportunities for the involved healthcare institutions. In this study none of the participants changed or left the profession or roles.
In conclusion, when comparing the stages with the participants response process in this study overall, the stages were similar.

Along with this theme were the review process recommendations. Findings established that the reviews were negatively experienced. Contrary to these findings, and consistent with previous studies, the aims of a review or investigation process are to establish factors that contribute to the AEs, and to reduce the recurrence and impact of similar future incidents. Van Gerven, Seys, Panella, Sermeus, Euwema, Federico, Kenney, and Vanhaecht's (2014). A Belgian study on the involvement of health-care professionals in AEs and the role of management in supporting their workforce, acknowledges that reviews should occur regularly rather than following AEs, that they provide evidence regarding what happened and reaction strategies to facilitate learning opportunities, and that the review is handled in a non-confrontational manner, in line with this study.

4.3.2 Management support

Many participants recommended the need for management support. They stated that they required immediate and ongoing support, which could either be formal or informal, including extensive emotional support, as confirmed in previous research. Seys et al. (2013) conducted a study in Belgium hospitals to establish the prevalence of support systems for HCPs involved in an AE, and they found that support programmes were imperative for both the involved healthcare practitioners and the institution. Additionally, the programmes should include support provided immediately after the AE and on a middle- to long-term basis to improve quality patient care, in line with the current study. This study highlighted the need for

management to review the exiting EAP/EWP as presently it was not providing services for staff involved in adverse events. Hence when staff were referred for support following adverse events, they mentioned that the service was ineffective and insufficient – consistent with previous research (Mira et al., 2015; Ullstrom et al., 2014; Edrees et al., 2011). Participants affirmed the need for both informal support and administrative assistance following events – hence commented on guidance from management. Failure to address these needs will hinder learning from the event and increase the potential for post-traumatic stress syndrome (PTSD), in a way that confirms previous research (Chan et al., 2017; Rinaldi et al., 2016; Ullstrom et al., 2014).

The findings of the study by Edrees et al. (2011) and Van Gerven et al. (2014) concur with this practice i.e., that the involved HCPs required extensive psychological support following the events. Schwappach et al. (2009) also concurs with the above in their review findings evaluating the support interventions for physicians following incidents, recommending that healthcare institutions provide formal and informal systems of support, in line with the current study. Training to facilitate coping with the effects of the events and review meetings were both recommended as essential interventions post AEs. The participants recommended revising human resource (HR) allocation and suggested that staffing quotas needed revisiting to ensure adequate skills application in the workplace.

This research study established that supporting second victims is imperative as it has the potential to protect other patients from being victims of AEs and reduce staff turnover. Other research has recognised comparable needs. Consistent with previous research, there is a need to develop and implement support programmes for involved HCPs in their respective hospitals as currently there is no support system in place (Kubheka et al, 2019; Mira et al., 2015). The participants recommended that management adopt a non-punitive, non-judgemental, no labelling, non-blaming approach and avoid using inappropriate, harsh wording while conducting the reviews process or upon discovering that an AE has occurred.

Van Gerven et al.'s (2016) Belgian study regarding the psychological impact of involvement and recovery from AEs among HCPs, revealed that hospital management should promote an atmosphere of performance enhancement instead of punishment to prevent blame-related emotional distress. Liukka, Steven, Moreno, Sara-aho, Khakurel, Pearson, Turunen, and Tella's (2020) Finnish study to synthesise knowledge theory and evidence related to action after AEs, established a lack of comprehensive models for action to be taken following these

events. The study recommended developing a system-wide model for action after AEs for instant prevention of permanent emotional distress leading to post traumatic stress disorder of involved HCPs, which is in line with the current study.

4.3.3 Review Panel

The participants recommended that the panel members conducting the review acquire specific qualities and skills. The findings revealed that the participants considered some of the panel members' communication skills and conduct to be inappropriate, necessitating a review of these aspects. In line with this study, a non-judgemental, well-behaved, and empathic reviewer was recommended for the smooth conduct of an investigation and review process. In-service training for the reviewers on review methodologies and application was recommended for all review panel members (Van Rensen & Zwart, 2018; Leigh-Brown, 2015). This is supported by Van Gerven et al. (2014) who concur that sessions should be blame-free and non-confrontational.

What stood out in this research study were the recommendations to design and implement an effective, efficient support programme for the involved HCPs in all settings as a matter of urgency, and for management to provide such a support programme.

The third theme described the support systems available to participants after AEs. While some participants indicated that they received support following events, which boosted their morale, most had no such experience. Some participants reported being left stranded without transport following having to write up the incident report after the AE, while others mentioned being embarrassed and stigmatised because of management instantly forcing an unplanned transfer on them. According to Cauldwell et al. (2015), hospital management that debriefs and provides support to involved HCPs following AEs, enables their speedy recovery and improves patient care. Contrary to the above, our study revealed that no support was available to participants after AEs in these public hospitals.

Christoffesen et al.'s (2020) Norwegian study described how frontline managers supported midwives following maternal deaths and reported on limited and unstructured support. This is in line with Wahlberg et al. (2019) who also established that insufficient, unstructured organisational support and inconsistent debriefing sessions led to the involved HCPs suffering in silence, extended their recovery period, and delayed them in finding closure. Some HCPs reported being left to cope with the emotional distress on their own following the events in the

absence of much needed support. What the participants needed was timely and immediate support following an AE, described as "emotional first aid" (Kubheka et al., 2019). The participants mentioned the necessity for debriefing and counselling mechanisms following AEs, as identified in other studies. The findings revealed that although the six post- adverse event recovery stages were experienced by all the participants, the sequence varied from the version in literature (Scott et al., 2009). In conclusion Busch, Moretti, Campagna, Benoni, Tardivo, Wu and Rimondidni (2021) affirmed that "the provision of comprehensive emotional support for the second victims of A/E is a moral obligation for every hospital".

4.4 SUMMARY

In this chapter, the HCPs who were directly involved in, or affected by one or more AEs in public hospitals in Gauteng told the stories of their experiences. Data was analysed using thematic analyses. The three main themes that emerged were firstly, the impact of AEs involvement in relation to the emotional reactions experienced immediately and after the event.

The second main theme involved the types of experiences because of the IR process, that was before, during, and after the process, and the recommendations for the review process. The third and final theme highlighted the support systems after the AEs, which referred to the types of support received, the participants' perception of helpful support and the overlaps between the two.

In Chapter Five, which describes Phase 3 of the study, the focus is on exploring the mechanisms the managers use to address the results of AE involvement.

CHAPTER FIVE
SEMI-STRUCTURED INTERVIEWS

5.1 INTRODUCTION

The previous chapter focused on storytelling according to Smith and Liehr's (2005) proposed methodology. HCPs who have been directly involved in or affected by one or more AEs in public hospitals in Gauteng, related the stories of their experiences.

Chapter Five describes Phase 3 of the study; the objective was to explore the mechanisms used to address the results of AE involvement. Fifteen managers consented to participate in the study and data was collected through digitally recordings, semi-structured interviews. Three questions were asked during the data collection process:

- Could you explain the hospital's procedure for managing AEs?
- What support mechanisms are used to assist people involved in the AE – in relation to the patient, their relatives, and the involved staff member/s?
- Do you think any more could be done to support HCPs directly involved in an AE, and if so, what can be done? (Annexure C).

5.2 FINDINGS

5.2.1 Demographic Profile of the Participants

The demographic profile of the managers identified to address the results of the AEs involvement are presented in Table 5.1. The characteristic aspects included age, gender, profession, years in the profession, and AE involvement.

Table 5.1 Demographic profile of the managers

Demographic variable	Response	Frequency (N =15)
Age	30 – 40	4
	41- 50	6
	51 - 60	3
	60 +	2
Gender	Male	3

	Female	12
Profession	Nurse Managers	15
Years in the profession	5 -10 years	3
	11 – 15 years	5
	15 + years	7
AE involvement	Indirectly involved	15

In this phase, data analysis was conducted using Braun and Clarke's (2006) six steps of thematic analysis as described in Chapter Two, in section 2.4.3.4. Three themes emerged, with 13 subthemes. The themes were as follows: 1): Policy and procedure; 2): Training and knowledge; and 3): Support systems. Below is Table 5.2, indicating the summarised table of themes and sub-themes:

Table 5.2: Themes and Sub-themes

THEMES	SUB-THEMES
1.Policy and procedure	1.1 The intended path
	1.2 Deviations in the path
	1.3 Avoiding litigation
	1.4 Redress and quality improvement
2. Training and knowledge	2.1 Orientation
	2.2 Continuing professional development
	2.3 Post review awareness
	2.4 Insight
	2.5 Recommendations for improvement
3. Support systems	3.1 Supporting patients and families
	3.2 Referrals
	3.3 Resources for staff
	3.4 Barriers to receiving support

5.2.2 Theme 1: Policy and Procedure

In this theme, the participants described their understanding of the policy and procedure for managing the adverse events as well as the reporting mechanism. Four sub-themes were identified: a) the intended path; b) deviations in the path; c) avoiding litigation; and d) redress and quality improvement.

5.2.2.1: Sub-theme 1.1: The intended path

This sub-theme involved the internal reporting of the AEs to the hospitals' internal structures and the expected time frames. With a few exceptions, the participants reported similar steps, which included reporting to either the sister in charge or a senior professional nurse when a junior professional nurse was involved, to the matron in charge of the hospital at that time, and to the QA managers.

Participant RH6 specified the sequence of the intended path indicating the person to be informed and the time frames, saying: *"Number one, the people (staff) involved needs to ensure the patient is safe first. And then (they) must report to the manager, OM. Within 24 hours the manager should know about this (the incident)".* **(RH6).**

This position was supported by participant RH8 who further said: *"When there are AEs, the people (meaning the staff) that [are] involved, if it's in a ward, if it's maybe a junior person, she will inform a senior [manager]. And then the senior will inform the matron on call. And then if the matron on call [arrives], she writes out what happened and the persons [involved staff] in the ward must also write down [document] the incident. Then within 24 hours you need to inform the person that's handling the complaints of the AEs, the minister that's in charge of it".* **(RH8).**

"Okay, if there's an AE that had happened, then the people that are on duty in that department will report to their matron, and then if it's after four [afternoon, day shift], they report to the matron who is knocking off at seven; she's the zoning [officer]. Err ... in the zoning office". **(P5).**

"Then the file [patients' file] gets scrutinised and sent to the CEO's office where the PA [stationed in that office] will be asked to make copies. We must ensure that the final entries [what the staff has written] are intact [visible and as complete as possible], and no additions nor amendments are made. Thereafter a copy will be sent to all relevant stakeholders including the QA [officer] who takes over from there". (**RH11**).

All participants unanimously agreed on the timeframes in place for incident reporting in their respective hospitals, with others stressing the importance of adherence to the timeframes: Participant RH7 affirmed this saying: *"We try and do it as soon as possible, so either within - immediately after the incident occurred within the maximum (which) is seven days, but preferably within 24 hours. Say if the incident occurred on night duty, and they didn't leave an incident report, then we would ask them to please complete it when they come back on shift that evening, so it's within the twenty-four hours. If the person has left the premises and is night- off for seven days, then we contact them and ask them to please come back [from their day-off at the hospital]".* **(RH7).**

Participant RH8 supported the above and said: *"The matron on call facilitates the process [for reporting], and within 24 hours the report should, a preliminary report should be written [and submitted] to the QA department. We [managers on call] must report [the incident] to the manager, [the] OM. Within 24 hours the manager should know about this*". **(RH8).** With

participant PD3 adding that: *"Another thing that I've left [out] is that with the incident report writing, it should be done within 24 hours".* **(PD3).**

The participants described the processes to be adhered to for incident reporting at night and over weekends. While some were able to indicate the roles that they played in ensuring adherence in this regard, others were hesitant and struggled to recall what the processes of after-hours reporting involved. Those that described the reporting over weekends and at night could easily elaborate, because they managed the AEs while allocated to either night shift or weekend shifts.

"If there's an incident [that occurred] during the night, the matter is reported to that particular matron, and also during the night there are in-services that are conducted [to prevent] incidents from happening". (**P5**).

Participants RH4 and RH7 explained the role played by the quality assurance (QA) department. They said: *"If the incident happened at night – according to the severity – if its severe, then the people that are on duty, the staff that are on duty, they need to inform the QA manager at night, and then that QA will give them advice".* **(RH4).**

While RH7 added stating: *"So, if the incident occurred after hours…Then the QA manager is informed about it; they get phoned about it, so they can follow up on the incident in the morning when they come back, and then they do all the collection of the reports, they follow up, they record them [document the incidents], they have a database that they have to enter it into. And so, they would then follow, so as a manager we would just do the initial part, and then we hand it over to QA because it is now about the [QA matter]".* **(RH7).**

In summary participants stated that at their respective hospitals, systems were in place, and identified the dedicated stakeholders to whom staff involved had to report the incidents. Alternate names of stakeholder to contact were provided in the event of the initial person is unavailable. The participants confirmed the expected time frames within which incident reporting should occur, the documentation required to accompany the reporting processes, and where or to whom it should be submitted.

5.2.2.2: *Sub-theme 1.2: Deviations in the path*

Other participants provided explanation of deviation from the procedure which was followed for managing the adverse events in their settings. For instance, Participant PD1 and RH7,

agreed that: *"You see depending on whether an incident took place, the people involved would inform the PIC of the hospital that has been assigned either be [they] a night supervisor or a day supervisor. Then the day supervisor will inform the matron who's on call, then the matron on call will inform the … manager and the CEO".* **(PD1).**

The above was supported by participant RH7 adding that: *"When an incident happens, the staff informs the PIC of the hospital that has been assigned, [whether that] be a night supervisor or a day supervisor. Then the day supervisor will inform the […] the matron on call". (***RH7***).*

While a few participants were able to recall the process for external reporting, others could not differentiate, nor were they able to offer specifics in terms of internal and external reporting, this means it is possible that they wouldn't follow the normal internal process if incident arised. Participant RH11 explained a deviation to the normal path in comparison to the statements provided by previous other participants above, saying: *"Routinely there should be then a report written by the QA Manager on this AE, which needs to then be forwarded to our provincial or district officer so [that is] where they capture this [incident], and to also keep records".* **(RH11).**

Participant P6 spoke about the process of reporting till the involvement of the head office, stating: *"The Quality Manager [per hospital] will also do her round; go and look and see what happened to the patient or what happened in that department. Then she will also write her report. And if it's the serious [incident] we must report to our Manager, our Nursing Manager, and the CEO for them to report to Head Office. There's only matron [to be] be reported to. Then [the] matron will then assess the situation. If it's a serious one, they will follow the same procedure and report to the manager [of] nursing telephonically, and phone the CEO as well, or the clinicians, clinical manager for that department".* **(P6).**

Participant P5 and RH6 and RH2 also provided different versions which differed from previously given versions of the path. They said: *"Then after [the reporting of the incident] the matter will be reported to QA, [who] will report it to Head Office".* **(P5).**

While participants provided said: *"It needs to be escalated to the central office as well, Department of Health, within that seven-day period".* **(RH6).**

"Once we have had that report, [it] will be compiled and sent to Head Office. Once they receive the preliminary report they will [decide and notify the hospital concerned] whether [or not] the incident must be investigated". **(RH2).**

In summary the participants revealed that deviations from the normal internal procedure for reporting incidents were possible. This posed a threat in the management of AE.

5.2.2.3: *Sub-theme 1.3: Avoiding litigation*

Most participants affirmed the importance of documenting the incident immediately, in which some encountered challenges and delays from the involved staff. They explained that the delay could be attributed to the involved HCPs' fear of litigation, or the professional body's retaliation. Others detailed the writing requirements for the incident report.

Participant 1 elaborated on the measures undertaken to avoid litigation, saying: *"Then there are reports that need to be written [documented]. There are different sets of reports that the nurses will have to fill in. There is a standard one that we must submit to the quality department that then gets further sent to head office depending on the situation [severity of the incident]. However, for each incident, for instance a fall, we have developed our own reporting system where we have identified some of the [pause] I don't want to say shortfalls, but it's just something for the better of the nursing staff that they must fill in and then we also must go over that and see if the forms are done [completed comprehensively]"*. **(P1).**

Participant P2 elaborated on the different types of forms to be used for reporting the incident and indicated the persons required to complete this process, saying: *"They [involved staff] will also complete [the] incident [report form], the particular incident forms, because each incident will have its own incident [reporting] form. For example, if it is a missing patient, it will have its own type of incident form. If it's an incident where a patient fell out of the bed, we also have another incident form, which is the falls protocol. …all the incidents are covered by a protocol*. **(P2)**.

Participant RH4 clarified the roles of the managers during the documentation of the incident which were expected to be adhered to in avoiding litigation. She said: "*All the [involved] staff members that are on duty are advised to write [complete] an incident report based on what has happened, and I as a manager, I reread all the incident reports that they've written and try to identify where the problem was".* **(RH4).**

The above was supported to stipulate the encouragement to staff in reminding them regarding the requirements when recording the events by participant RH2 that: *"We encourage the staff to write what happened and not hearsay or what others suggest, and they must avoid incriminating themselves. The nurses are also reminded to refrain from pointing fingers at each other, shifting the blame, or documenting conflicting stories".* ***(*RH2).**

Litigations in the health profession is a challenge globally, in this instance the managers felt that staff involved in AE avoided reporting timeously in order to figure out how to avoid being charged and implicated in AE.

5.2.2.4: Sub-theme 1.4: Redress and quality improvement

This sub-theme involved the redress provided to people involved in AEs and improving quality. Participant RH5, RH2 and PD3 had this to say:

"At the end of an incident investigation we need to be able to schedule a redress with the [involved] patients. So that's when we set up a redress meeting. That sitting will have the employees involved, and the patient available, so that we can be able to address them, and attend to the incident … itself". **(RH5).**

While participant RH2 added saying: *[wherever] it is suitable, but it will be within the hospital".* **(RH2).** PD affirmed in agreement that: *"It's their QA manager that continues with that, and the [involved] staff members are called in […] to explain [to the patients and their families]; [but it did not go well most of the time and thus the decision was taken not to include the involved staff] when they withdrew their, their, what is it for their redress?"* **(PD3).**

The participants mentioned quality improvement measures executed for involved staff to implement in the wards following AEs. These were established in consultation with the staff development and training departments who were routinely involved with staff teaching. The participants affirmed regular quality initiatives to ensure continuity.

Participant PD3 stated the process followed to ensure the implementation process, saying: *"Whenever we do ward rounds … it's our responsibility and duty to observe, do observations. and check the records. The way [all staff] manage the patients, if you see that there is a lack, you can even do on the spot teaching besides taking them as a group".* **(PD3).**

This was supported by participant RH5 who elaborated on the process further and said: *"Information [will be provided] to the QA committee discussing the incident, so that they have the right information. Once [this is] done, recommendations should be sent to management and for system improvements, and how we can more forward so that we prevent a re-occurrence of the same incident".* **(RH5).**

Participant PD1 further clarified that: *"Once the incident has happened this is when we do our quality improvement plan … or Patient Safety Incident plan. Planning yes. Where everybody gets involved to say [discuss what] could have been prevented so that this incident does not happen, and what could be put in place for future, so exactly this is what we do".* **(PD1).**

It was also evident that following a review sitting, the involved staff were assigned the task of preparing a lecture based on that adverse incident in question, to emphasise that learning had been accomplished. This is in line with the quality improvement plan – although only one participant recalled this practice being implemented at their hospital. Participant P5 stated

below: "*If the incident had happened, that department [concerned and involved staff] are tasked [with preparing] a lecture on how best that incident was [could have been] prevented".* **(P5).**

In summary most participants were able to articulate the necessity of providing timely redress to the involved patients and their families, the participants' responses highlighted the fact that the involved HCPs were excluded in the provision of redress sessions following AEs. The interviews indicated that following the patient and family redress, the outcomes were only provided to the involved HCPs, and even this did not happen at all the hospitals.

5.2.3 Theme 2: Training and Knowledge

In this theme the participants mentioned the need for in-service training sessions on incidents and reporting to be provided by the relevant departments. Five sub-themes were identified as follows: a) orientation; b) continuous professional development; c) post review awareness; d) insight; and e) recommendations for improvement.

5.2.3.1: Sub-theme 2.1: Orientation

The participants mentioned the availability of the orientation sessions that were typically conducted by the staff development departments at the respective hospitals to prepare and induct the newly employed staff. These sessions included the expected nurse conduct that the new staff were expected to emulate, namely: the collegial expectations of nurses to identify as one; and the professional values, including information on AEs. Participant P6 explained the duration of the orientation process and the stakeholders involved saying: *"We do [conduct] the orientation before [the new staff] are allocated to the wards. It is two weeks [in duration], one week is HR- and one week is nursing-[oriented], where we teach them about everything that [they] have to know, all the qualities of [of being a nurse and expectations]".* **(P6).**

However, the duration and contents of the orientation programmes were understood differently as described by Participants P5 and PD1, who said. *"For every newly employed person, before they can go to the units that they will be allocated to, they go through an orientation period which lasts for a month. So, all of what is happening in the hospital – the reviews, how to report incidents, how to prevent [them]. We have a curriculum on what it is that we're supposed to teach the people that are newly employed".* **(P5).**

"Oh yes ma'am this part actually forms part of our induction programme. It's maybe we don't miss this one out of all the topics that are covered so yes, serious adverse events (SAE) it's part and parcel of our induction. And not only [in terms of] induction, remember we also have […] in-service plan"**. (PD1).**

5.2.3.2: Sub-theme 2.2: Continuing professional development

The category involved the CPD, and training required for the HCPs involved in AEs. While most of the participants stated a need for continuous training to remind staff about the possibility of AEs, others mentioned drills such as fire drills to simulate an incident.

Participant PD3 elaborated that staff attend the hearings conducted by the professional body (i.e., SANC) to sensitise them to the fact that AEs were a reality, and to understand the consequences following their involvement in such events, saying. *"I think the way that we can help [involved staff] is to continue to do CPD, always give them in-service training on SAEs and how to deal with them. In addition, keep on reminding them that, in their workplace there will be those incidents. We must have a way of avoiding them, so we train them so that we avoid the occurrence again. And I think we need to make sure that they really get support. because sometimes they even go attend the cases, they go further to the SANC, and they've got fear of losing their jobs."* (**PD3).**

Participant RH11 supported the introduction of specific drills for professional development saying: *"Drills [will benefit most of the staff]. For instance, we have regular fire drills where everyone is allocated a number, and they are taught how to react in case the ward [catches] on fire. So, we need to make a mock incident like a patient has fallen from the bed, and after observing how [the staff] acts, show them how to deal with it [in an appropriate manner], and to minimise the patient's injuries [and further complications]. They can also learn how to prevent incidents from happening.* (**RH11**).

While participant RH7 affirmed on importance on involving the managers in continuing professional development of the affected HCP, stating: *"[I believe that we as managers should] also [conduct] more in-service [education sessions] [to prepare] for avoiding this SAE. How do you do correct record-keeping? Or, how to prepare someone if you do get sued? What are things that [lawyers and the professional body] look at? And have it as part of your CPD, and even part of training".* **(RH7)**.

Participants PD3 and P6 added that training was provided to prevent a repetition of a similar AE indicating the persons assigned this task, stating: "*And also, if there is a need for training as well, we, we train them, we retrain them, and give them in-service training based on what has happened".* **(PD3).**

"We use our two managers who [deal] with the reviews. They visit that ward and try and explain, teach [the involved staff what a review is, and] why are we reviewing the cases". **(P6).**

5.2.3.3: Sub-theme 2.3: Post review awareness

Two participants mentioned the need to raise staff awareness following the occurrence of incidents at their respective hospitals. They indicated that there were protocols to follow, which would benefit the involved staff, as implementation thereof would reassure and guide them, thereby ensuring that calmness would be restored in those departments. This is evidenced in the statements by participants PD3 and P5 who said: "*And after identifying where the problem is and then [taking the] responsibility of making the staff aware, that […] the reporting of incident [is] not about punishing them, it's important, and they must be transparent and say […] exactly what has happened. And they shouldn't write the hearsay, and whatever incident report that the nurse has written, should be an individual one".* (**PD3).**

"[In our efforts we provide the in service to all involved staff] to help the nurses see the seriousness of what's happening when the incident [has occurred]), to reduce the number of incidents and also to come to at least none of incidents happening and also to conscientise them [to encourage them to be alert and conscious of their surroundings and patients within their care [so] that they should be aware. When they are on duty, they should be fully present in the departments; and also, it helps us to see where [we went] wrong […] so that even if [the incident is escalated to other structures outside the hospital due to its seriousness], you [can accompany them should the incident] go [if] they report the matter to the South African Nursing Council (SANC)". **(P5).**

In addition to the raising the awareness, the managers informed of reviews routinely conducted in the involved wards following AEs. During the interviews it was evident that in addition to the reporting described above, an additional process known as a ward review takes place. The purpose of this review was to inform those staff members who were not involved in the incident about what happened, with the intention of preventing future similar AEs.

Participants PD1, P5 and P2 made the following statements in this regard:

"When it's not such a major serious [incident], we will just, at ward level, [conduct] a mini review. Like this that we have, [where] we call the staff together and look at what happened, [and ask] what could we have done differently and discuss issues that come up". **(P1).**

"The [senior managers and matrons on night duty] also do their own reviews at night, but also during the day, in the morning around half past seven before night staff goes home … the night matron will ask [for an opportunity to have a discussion with all staff] at half past seven in the morning so that after they have reviewed the case … the day staff also can learn from the incident". **(P5).**

Participant P2 explained the process undertaken at night when the reviews were conducted and the persons involved, saying: *"We also [conduct] IRs at night. So those internal reviews also occur at night. Then based on the interviews, because at night there are two matrons that is working, they will also interview; they will also refer the [involved] staff, [it's the] same [process] we do during the day. You will then have an IR in the ward [which] is just an internal one where you look at what transpired, what we could have done differently, did the staff have enough knowledge on how to deal with what happened with the patient, in terms of the patient's diagnosis, in terms of the level of training, in terms of AEs? Were the staff members capable of dealing with such things?"* **(P2).**

5.2.3.4: Sub-theme 2.4: Insight/lack of knowledge.

It emerged during the awareness that some of the involved HCP were not aware of the protocol/process for incident reporting, which fuelled the need for training following the review. Participant SRH4, who witnessed a maternal death in the career alluded as stated below:

"It was the first time I see a maternal death and I've been here for like twelve years now. Yes, we don't even know the process, but I remember there were, there was a time when others had an incident, but it was not a maternal death but I'm not sure what was the incident…. They don't enforce such things and have trainings on such things, they just left it at that". SRH4.

Similarly participant PD3 confirmed the lack of knowledge regarding the incident reporting process as affirmed: *"No, I don't know about that thing… I am also new; I mean it's only… my first month. I am from medical ward…Where I'm working, we didn't have much of the incidents, I don't know, maybe it is, I was just worried".* PD3.

5.2.3.5: Sub-theme 2.5: Recommendations for improvement

This sub-theme involved the recommendations for improvement in supporting involved HCPs. While many of the participants described various ways in which they supported the HCPs directly involved in AEs, many explained that this was insufficient, and unstructured. They expressed the necessity for providing support to staff in AEs, thus detailing what more could be done to achieve this. The recommendations for improvement in supporting involved HCPs emerged as follows: a) structured support programmes; b) provision of resources; and c) reviewing the process for IRs.

(a) Structured support programmes

Recommendations for structured support programmes were pointed out. Most of the participants stressed the need for structured support programmes, using terms such as "information" (**RH5),** "guidelines" and "protocols"; as stated below:

Participant RH5 commented saying: "*We [managers] should be able to psychologically attend to [the involved staff]. I think it would be wise to have an EAP programme that's driven by a psychologist, a social worker, or somebody who is more informed about how to manage the psychological being … so that they can make proper follow up. So, we need to be able to support in terms of gathering information [on what the involved nurses need following an adverse incident]. Maybe our information stores should be better managed*". **(RH5).**

While Participants RH6, RH10 and RH11, RH8 and RH2 provided more suggestions for supporting the involved stating: *"[The counsellors and psychologists] must check if the [involved] staff themselves were not traumatised by the incident. And then we need to have a supportive structure, like a staff wellness co-ordinator, or psychologist, or counsellors".* **(RH6).**

"And also, I think, ja we need to make sure that they really get support because sometimes they even go attend the cases, they go further to SANC, and they've got fear of losing their jobs. So, but when they get that support psychologically, they will be free to voice whatever has happened". (**RH10).**

"We should teach them, show them what to write and what not to write, because you don't want at the end of the day incrimination of the staff…. Ideally you know we need to perhaps get a psychologist, and we should also actually coordinate another programme to support them. That's why I also suggest that our staff should try and then of course have some sessions with our clinical psychologist". **(RH11).**

"So, I think [the involved staff] need to be maybe stimulated to say, let's talk about AEs. AEs don't say that you are wrong as a nurse. Adverse events [are about] avoiding problems so that you can't be garnished or punished. It's just that nurses are just feeling 'No, man

whatever, or we going to be, we are going to be blamed' (the involved staff feelings). That's why I … say at this event, 'It's not always that you must be blamed'. It must get out of the brain of the nurse to say, 'I planned today'. It's a situation". **(RH8).**

"What I think could be done in providing support with the… because this person (meaning involved nurse) remember will be traumatised by the incident. Will be experiencing psychological trauma. [They need] some reassurance that yes, you may be involved in this incident, but it doesn't mean that you are guilty or not. You know, just to have somebody on her side that will [make her understand and accept that) things do happen to people, and you may not be the exception. You know, something like emotional support I think is needed, yes, which I don't think we have so far". **(RH2).**

However, Participant PD1 disagreed, affirming that there was nothing more that hospitals were able to offer for supporting HCP following adverse events stating:
"You know with the resources available I don't think there's more that we could have done because then we would have used our internal resources, and if the [involved staff member] is not happy with the internal [resources or services], then we would even escalate to the external resources". **(PD1)**.

(b) Provision of resources

The participants recommended provision of resources to minimise the occurrence of AEs. Participant RH9 and RH11 recommended the need for increasing the provision of resources, while others considered the resources to be sufficient, as stated below:
"I think we as management should allocate more qualified staff in specialty wards. This is a specialty hospital, so we need advanced midwives to assess the pregnant women and those in labour; this way they can see who a high-risk patient is and treat accordingly, and more registrars in high-risk wards". **(RH9).**

"You can't manage [involved staff] if the workplace is not safe. If it's not well equipped, if it's not well staffed, if your staff are not skilled enough, you know if you don't have the necessary knowledge for that matter, so how will you take care and avoid the incident?". **(RH11).**

(c)| Reviewing the Incident Review Process

The participants recommended that the review process required to be restructured. During the interviews it became apparent that two of the three settings conducted the IRs at their settings,

however one setting had suspended the reviews due to the Covid-19 pandemic, while the third setting had not conducted any reviews in the year the study was conducted.

Participants P5 and P6 who work at the setting where most IRs took place prior to the pandemic, recommended the need for consistency of reviews saying: **"***In some instances our IRs […] are not conducted in such a way that they provide learning or comfort to the [involved staff], so if we can be consistent on how the IRs are conducted, then I think that will be more … that will bring more ease to our staff and then there will be more, how can I put it, they will be more willing to learn".* **(P5).**

While P6 added: *"We [managers] were [asked for suggestions regarding the conduct of the reviews], to go as departments and think on how [best] this can be done [to ensure that the staff see this as a learning curve]. So, we are in a process in a way because suggestions were that it shouldn't be [inclusive only of the staff] that were involved, [instead the review session could be attended by other staff who were not involved, to share ideas and find a solution on how to prevent a repeat of that incident], because anyone can be involved in an incident".* **(P6).**

In summary of this theme, it was stated that upon the arrival of the PIC of the hospital or the manager on call authorised to deal with the incident at the specific departments where the incident occurred, or upon receiving the incident report, they discovered that the information provided was inadequate and incomplete. When making inquiries from those involved, the staff reported that they did not know what an incident was, nor were they aware of the reporting protocol. This led them to conclude that training would be necessary to equip the staff for them to comprehend what an incident entailed, as well as the reporting protocol.

5.2.4 Theme 3: Support Systems

This theme described the systems in place to support the people involved following the adverse events. Four sub-themes were identified namely: a) supporting patients and families; b) referrals; c) resources for staff; and d) barriers to receiving support.

5.2.4.1: Sub-theme 3.1: Supporting patients and families

This theme indicates the measures that the participants implemented to support the involved patients and their families following AEs. The participants mentioned that although each

hospital dealt with providing support differently but in line with the respective protocols in place. According to the participants a few measures were provided, such as referring affected patients and their families for counselling and providing them with the necessary information. The participants revealed that following AEs the involved patients received immediate medical intervention on site to reduce the effect of the event and to prevent further complications. Once the patient had been stabilised and reassured, their families were notified that there was a change in their condition, and they were allowed to come to the hospital to spend time with the patients. It was pointed out that the hospitals routinely had measures in place for implementation to ensure the patients' wellbeing and that their families receive due attention. Most of the participants pointed out that the management focus regarding the involved patients was not limited to their physical wellbeing but extended to their emotional wellbeing. Hence, they said that assigned managers of AEs were compelled to follow measures to manage AEs in all settings to ensure that this was accomplished.

Participant RH4 illustrated in the statement, saying: *"We need to see if we can sort of minimise the impact of the incident to the patient, so they don't have further complications [arising] after the incident as well".* **(RH4).**

While participant RH5 stated the challenges that were encountered while managing those involved in adverse events: *"We get a lot of emotional […] problems … from patients […] at [the] time of incidences. So, we call in…. We've got a psychologist in the hospital…. The patent is referred to the psychologist for immediate referral […] as part of the incident. ... we also have the social worker system working with us. …We make maximum use of the support systems that are within the hospital and reference, in referring clients"*. **(RH5).**

Measures were also implemented to ensure that the involved patients' physical wellbeing was maintained. Some of the participants affirmed the importance of timeously informing the necessary staff and the involvement of physicians to manage the patients immediately at the scene of the AE to prevent further complications arising. However, other participants stated that the patients' emotional and physical wellbeing were ensured simultaneously.

Participant P1 illustrated the process involved saying: *"And if the incident has affected the patient physically or even emotionally, we make sure that the patient has been seen by the doctor who is called to assess the patient and identify if there are any [further] injuries sustained".* **(P1).**

Participant RH5 stated the intervention that followed where the patient has sustained visible injuries saying:*" If the patient is physically injured, then they review it medically and [are] treated specifically for the incident. So, it means that they will be re-routed to treat the incident as well,*

or maybe their medical programme will be pre-packaged so that it includes that. So, the medical manager will be notified immediately". **(RH5).**

Some participants affirmed that at some hospitals the patients' family members are permitted to stay with the patients and keep them company, especially pregnant women who came to deliver their babies; however, in other hospitals this is not permitted. It emerged during the interviews, that in such instances where the families were not around when the adverse incident occurred, the hospitals called them afterwards. Upon their arrival, management typically secured a venue, made them comfortable, and provided information related to the adverse incident to their families, as evidenced in the statements below.

Participants P5 and P2 alluded saying: *"Family members are [called to the hospital in which we, the allocated managers will then] explained [how and what happened] and nothing is hidden from them. The information [available to] them so that they can deal with the situation the best way [they see fit]".* **(P5).**
"We also inform the family [of the involved patients and say,] 'Your relative fell, you can come to the hospital and see your relative, [and then we have a communication session allowing them to ask questions related to the incident]". **(P2).**

5.2.4.2: Sub-theme 3.2: Referrals - patients

The participants mentioned that following medical treatment and intervention provided to patients involved in AEs, they observed that some patients were not stable and required further attention. In such instances, these patients were referred to the hospital psychologist for counselling to prevent further emotional distress.
Participant RH5 mentioned the process adhered to when the patients experienced emotional distress following events, saying: *"We get a lot of emotional … maybe problems … from patients as well at that time of incidences. So, we call in … we've got a psychologist in the hospital…. The patient is referred to the psychologist for immediate referral, and then as part of the incident".* **(RH5).**

While participant PD1 sadly indicated the limited resources for continuity of the process.
She said: *"Patients are referred to the social workers for counselling; we will continue counselling, and unfortunately that's what we have currently".* **(PD1).**

"Then we also refer [patients] to [a] social worker, to [a] psychologist, and we try then when we have multi-disciplinary meetings to get the feedback to say, 'Post fall, what transpired and all that?'". **(P2).**

5.2.4.3: Sub-theme 3.3: Resources for staff

This sub-theme involved the resources available for the involved HCPs following AEs. The participants stated unanimously that following AEs, each hospital had systems in place to provide support to the HCPs that were directly involved. They further stated that some of the support systems available were formal while others were informal. Some of the resources were available at other hospitals, while other resources were not. The participants mentioned the internal referral systems available for staff, the role by management to support staff, follow up conducted on the progress of the referral and mental health support.

a) Internal Referral Support Systems

While many participants were aware of the internal referral systems in place for the HCPs directly involved in the AEs, some participants were less certain.

Participants P2, PD1, mentioned the systems in place at their setting saying: *"The [involved] staff member will go to [the] emergency department to be seen, but they are also then referred to the EAP or [an] employee wellness programme for some form of support, because [involvement in an adverse incident] is very traumatic".* **(P2).**

"If [after being involved in an AE at our hospital, some [involved staff] would like to be referred to wellness centre, if they indicate they need to, then we refer them to our internal [structures], but you find out that there are those that would feel […] more comfortable speaking to someone else out there". **(PD1).**

Participants PD3, participant RH4 and participant P6 each provided a different service provider for referral of the affected staff to obtain the required psychological support in their statements below. *"We refer them to Careways because what we use here is Careways, and also our … we've got our nurse that is dealing with wellness, so we refer them so that they [can] get psychological help".* **(PD3).**

Participant RH4 mentioned the role of the pastors for supporting affected staff prior referral to the psychologist, stating *"In the hospital we've got pastors. We negotiate with the pastors [to at least debrief them], and then we refer them to the psychologist for support".* **(RH4**).

However participant P6 clarified that the process by internal stakeholders before referral, as indicated: *"If it is the nurses who are involved in this incident, whether they were physically or not physically involved, but working in one department, we normally refer them. After the manager [has interviewed] them, then they must refer them […] to the Employee Wellness Officer or manager for support*". **(P6).**

Participant PD1 mentioned that some of the involved staff were reluctant when their immediate managers referred them for counselling. It appeared that the staff perceived accepting a referral for counselling as a sign of weakness and preferred merely to have the information about the availability of such services provided to them so that they could think about it and decide on what action to take in their own time. She said: *"And we also have little pamphlets that are issued to the [involved] staff members; they can either be referred by the manager or they can do a self-referral***. (PD1).**

It emerged that some hospitals had predetermined time frames during which the involved staff member could take up the referral offer, however they could not request a referral after this time. This posed a problem for those staff members who needed more time to think over the offer.

Participant PD1 described the challenge of this process at the workplace as follows: *"With this, it usually [becomes a challenge], the [referral services for personnel] recommends that within 24 hours […] you need to have referred this [involved staff member] … because the incident is still new, and [the referral to the counselling session] will have more impact if you [refer them sooner]".* **(PD1).**

However, participant RH2 acknowledged the absence of variety when it comes to available services for the referral of involved staff members, which differed from the one mentioned above. The circumstances created a challenge when the management needed to refer the involved staff following adverse incidents, as illustrated below: *"The EAP is [available for the involved staff for referral], but its efficiency is questionable*". **(RH2).**

A few participants indicated that they mentioned the referral possibility to other entities and departmental structures for support to the involved HCPs. They stated that at two settings the [professionals] were not enthusiastic, suggesting that the possibility of referral was not well accepted by them. However, at another setting, the referral suggestion was welcomed. Participant P6 affirmed in the below. *"Normally the [involved staff] appreciate the referral, because they*

can open up [easily and communicate their fears and anxieties] to somebody who is not directly working with them". **(P6).**

Participants alluded on the attitudes of the involved HCP towards referral saying:
"Because some people always feel that I'm okay, I'm okay, only to find that actually [they're not], and only then the reality of the incident hits them and then they do realise that this is actually [more] serious than I thought. **(P1)**.
"Operational managers will recommend or refer the [involved] staff member to her, to that lady Mrs. XXX, then Mrs. XXX will help the staff nurse or the staff member the best way [possible]. Ja, they talk, and then if she can't help us, she does refer [the involved staff member] to the psychologist". **(P5).**

b) Management Role

The role of management assigned to the involved HCPs was detailed by the participants. While most of the participants were confident that guiding a HCP involved in an AE through the administrative procedures was sufficient, other participants made suggestions as described below.

Participant PD3 provided the view saying: *"And on the side of the nurses, they get that support from us as managers to make them feel free but aware of all the incidents that need to be reported. Because all – everything – needs to be reported, [as well as] whatever has happened to the patient or the staff members".* **(PD3).**
"We also support those staff members, depending on the type of AE that has occurred, so if they need additional counselling, we then counsel them. If they need to leave or go off duty because of the severity of the event, we do also support that, but we initially also ask for an incident report". **(P1).**
"We have employee assistance here … it's not used efficiently, but the systems are there in place. In fact, we do have a staff wellness clinic as well, okay… this staff wellness clinic, once a patient or a staff member comes to it, complaining that she's not feeling well or having psycholog[ical] [or] psychological effects, secondary to her situation, she is then assisted. **(RH11).**

"It's mostly nursing [staff involved in incidents that need our intervention]. We give them support and we get counsellors in for that. [The] support system starts from the person who is her superior – the sister in charge, matron, the deputy director, and the QA personnel; and this support is provided immediately. We can also call a counsellor if it's a thing that can

destroy [their confidence], [if] it's psychological, so we call a counsellor in for [the involved nurse]". **(RH8).**

"You will then have an IR in the ward whereby, it is just an internal one, where you look at what transpired, what we could have done different[ly], [ask if] the staff have enough knowledge on how to deal with what happened with the patient in terms of the patient's diagnosis, in terms of the level of training, and in terms of AEs. Were the staff members capable of dealing with such things?" **(P2).**

c) Follow Up and Reporting on Progress of Referral

Although most of the participants mentioned that the follow up was routinely conducted by the QA personnel, others stated that follow up involved other structures such as the employee assistance office. Participants stated that the process differed according to the setting where the AE occurred however the focus was on ensuring that the involved staff were able to find closure and move on irrespective of who was responsible for the follow up.

Participant PD6 affirmed the process saying: *"The Employee Wellness Programme (EWP) will feel that the person needs to be referred further they go to doctor, staff clinic doctor, [or the] occupational health and safety (OHS) officer. [The EAP report will guide us whether we need to remove this person, or whether the person is okay working in the very same ward. They normally give us a report after [the staff member has] with management and brings a report to me as an HR manager and the department's manager".* **(P6).**

"But you just follow up, even if [the involved staff member] refuses to go at that initial point in time. There is one specific person that comes to my mind now … I would just follow-up, can you believe it? She is now going to EAP. So, I am just grateful that [the] opportunity was there, and she [went and afterwards I did the] follow up". **(P2).**

However, participant RH11 had a different experience, as stated below:

"There's no follow up. There's nothing, and I'm sure [involved staff] need to get more support from management [to encourage them to accept and present self for referral]".

(RH11).

d) Mental Health Support

The participants mentioned the importance of mental health support for the involved staff following AEs. However, it emerged that few hospitals had organised or established efficient structures to provide this form of support, as evidenced by the participants' statements.

For instance, Participant P2 had this to say: *"We have a service provider which has a, what is this, it is not a toll-free number, we have the phone number for the service provider because the EAP is not there at night".* **(P2).**

"They assist sometimes when it happens, and when they're on-site we call them immediately and they come, and they do an immediate de-briefing [for] the staff". **(P1).**

Participant RH7 provided clarity on the various types of services rendered for mental health support of the staff that: *"For this help line, so that [the involved staff] can then get the psychological help [following AEs]. And the psychological help, there's Cares and then there's Isikala (types of external Mental health support services). They are available 24 hours a day, 365 days a week, and you just need to give them your [staff number], and it's not just for you, but also for your family".* **(RH7).**

5.2.4.4: Sub-theme 3.4: Barriers to receiving support

Participant RH2 identified one of the perceived barriers to supporting the involved HCPs as follows:
"So far, to be honest, there are no measures that are in place to support the nurses. The only thing is that the nurses can be helped […] with her incident reporting, and nothing further than that". **(RH2).**

5.3 DISCUSSION

The previous chapter reported that many HCPs who were directly involved in AEs suffered intense emotional distress after unexpected AEs. One of the recommendations that emerged was for hospitals to provide accessible and timely emotional support in a way that confirms previous research studies' findings.

The results of this phase of the study identified three themes namely: the policy and procedure, training and knowledge and support systems. This study's findings revealed the policy and procedures available for managing AEs. All but one participant affirmed that following AEs, involved HCPs were expected to report internally to their immediate supervisor, who can either be the matron in charge or sister in charge, immediately and within 24 hours. In our study it was clear the responses regarding the procedure for managing AEs in the settings were inconsistent. The intended path for the procedure was not followed by all the participants.

The internal reporting was made by the shift leaders either verbally or telephonically to inform the supervisors in charge at a given time. Overall, managers used a reactive approach, whereas literature (Christoffersen et al., 2020) indicate that a proactive approach to AEs by providing education as opposed to a reactive is ideal. It appears that most of the participants were unsure of the policy and procedure in place for managing events. The evident deviations in the procedure affirmed the inconsistency in managing events as confirmed in previous research (Ullstrom et al., 2014). Similar results were stated in other studies by Robertson and Long (2018), Kable et al. (2018), Rinaldi et al. (2016), and Mira et al. (2015).

The findings further revealed that the participants discussed the events with the involved HCPs, scrutinised the involved patients' file, and provided guidance on the writing of the incident report. In some instances, the patients' files were photocopied, and these copies forwarded to the relevant stakeholders who were to be among the team of investigators. The findings of the study revealed that during the internal reporting, all the involved staff were identified and asked to individually document the incident immediately or before the end of the shift. The rationale behind enforcing immediate individual documentation was to encourage involved staff to write their experience of how they witnessed the sequence of events and while the events were still fresh in their minds, thus preventing hearsay. Participants believed that the prompt documentation will enhance the avoidance of litigation.

The reports were subsequently submitted to the quality departments, who compiled a preliminary report within a seven-day period and submitted it to the Department of Health. Similar results were shown in previous research in which management enforced hospital rules and regulations following events without considering the involved HCPs. Consequently, the staff perceived these reporting and review sessions as platforms to apportion blame, and as a result the quality of nursing care deteriorated.

In this study's findings, participants commented on the role of the QA departments that differed per setting. Noteworthy here were the contradictory responses regarding the delegated authority responsible for informing the hospital's CEO and the GDoH head office. The South African Department of Health developed and published the National Policy on Quality in Healthcare in South Africa (2010), with one of the priority areas being AEs' reduction. This could be achieved by training staff on the expected care practices, monitoring for compliance, developing and implementing improvements, and ensuring that these were effective. However, the research literature indicates that this aim has not been achieved, instead the AEs are

reportedly increasing. The media reports regarding the rising AEs and the decline in quality care at the public hospitals in Gauteng prompted a media statement being released in the Spotlight newspaper in which the Member of the Executive Council for Health informed the public that the department had re-established committees and intensified the QA teams to assist in AEs' resolution and reduction (2020).

The redress and quality improvement following events was initiated and facilitated by the QA departments, while in other settings referrals were made to the social workers to initiate counselling. The process of redress started with the QA departments collecting the necessary documents and relevant information, including the patient's relatives and contact details. The families were contacted within a seven-day period, and the arrangements for a redress meeting was scheduled at the date and time suitable to these next of kin. Other participants referred to the redress as a debriefing session. Attendees were the hospital CEO, the QA manager, the clinician, and the matron from the involved wards, with the objective of clarifying what happened during the incident and offering an apology to the involved patients and their families. The HCPs who were directly involved were previously invited to such sessions. However, it emerged that with time the practice changed, and they were excluded from the redress and debriefing sessions citing avoiding confrontation with the involved patients as one of the reasons. What stood out for this researcher was the lack of redress or debriefing for involved HCPs.

Our findings revealed that the QA team members perform duties that differ from what is stated in the policy, which the researcher has noted has not been revised since the policy's inception. The QA team is assigned the internal investigation of AEs and provides a report to the relevant stakeholders. Kable et at. (2018) and Ullstrom et al.'s (2014) studies reported on the multidisciplinary approach to AEs, monitoring, and QA, but does not specifically assign this task to the QA team per se.

The findings noted that while some participants clarified that the QA personnel initiated the investigation process, most participants stated that the process was initiated externally by head office following their receipt of the preliminary incident report from the QA department. Another inconsistency was noted in the process and informal networks with potential to further events and damaging the involved HCP's ability to cope thereafter, as confirmed in previous research (Christofersen et al., 2020; Ullstrom et al., 2014; Schwappach et al., 2009).

It emerged that the measures to incorporate training and knowledge were implemented during the month-long orientation and induction programmes for all new employees at the various settings.

The programmes included the prevention of further incidents, the completion of the incident reports, the incident reporting process, the IRs, and process, and was repeated for the involved staff. Similar results were noted where the authors revealed the need for staff to receive training on incidents and the reporting processes, consistent with previous research (Christoffersen et al., 2020 & Davies & Coleridge, 2015). According to their reports, AEs were traumatic for HCPs as they were unprepared for them, and hence the necessity to train and prepare them (Leferink, Bos, Heringa, van Rensen & Zwart, 2018). The findings further revealed that providing in-service education of the involved HCPs in the process and the reporting processes to eliminate feelings of wrongdoing was necessary.

The post review awareness was conducted both internally by staff and externally by all the relevant stakeholders as per setting. The sessions concluded with the investigation processes and the ward reviews. Although the reviews were conducted internally, with some staff being delegated to prepare lectures on how best to prevent future incidents from happening, not all settings practiced this process. The focus was on the prevention of future incidents, with staff from both day and night shifts attending to ensure a learning environment.

Recommendations were made for improvement which included the need for structured support of the involved persons, the provision of resources and reviewing the incident review process. According to the findings, the current culture of punishment, blaming, isolation, and abandonment of the involved HCPs should be replaced by an accessible and effective supportive environment. Thus, there was a need for well-structured support programmes to meet the involved HCPs' needs. The support should be provided immediately following AEs to enable management of the intense emotions experienced, to weaken professional hesitancies, and to offer easy access to hospital procedures following events. The provision of such support should continue for as long as it is needed by the involved HCPs. The hospital management should focus on the developing, implementing, and evaluating accessible, efficient, and well-structured support programmes following AEs. What was worth noting was the lack of structure, necessitating a programme to support HCPs directly involved in AEs.

Systems were in place to support systems those involved in the events. While it was evident that the patients and families were given preference to avoid complications arising from the event, and avoiding litigation, the participants reported that following AEs, the involved patients were referred for assessment, and for those with visible injuries, further medical treatment was implemented. Those without obvious physical injuries were reassured, made

comfortable, and their next of kin was contacted to stay with them for moral support. The patients in need of counselling were referred to the relevant structures within the settings.

The resources for staff involved in the AE were identified in which some of the participants regarded as sufficient while others explained otherwise. The participants stated that the staff were referred internally as initiated by management and others to the psychologists on site in consultation with the QA department. However, this could not be confirmed by those managers in question because, according to them, the psychologist referral was reserved for the involved patients and not the involved HCPs. In addition, the Employee assistance program was also identified as a service reserved for the involved patients and not for staff. Another inconsistency in response as identified by the researcher. What was noteworthy in this study was that despite numerous reports of inadequacy and deficient support services, there was evident lack of support for the HCPs involved in AEs in the public hospitals, thus confirming previous research (Lee et al., 2019; Ullstrom et al., 2014).

Where the participants did mention the presence of support, such support was unstructured, informal, and unsystematic, which is consistent with Mira et al. (2015), Ullstrom et al. (2014), and Scott et al.'s (2009) findings. The lack of support resulted in prolonged emotional distress and anxiety with the possibility of further AEs occurring in the future. The learning opportunities at individual and service levels subsequently stalled. Additional research recognised similar results.

The findings revealed that many participants believed more could be done regarding to support the involved HCPs. The participants acknowledged the existing EAP in their respective settings, which some perceived as sufficient to provide counselling and psychological support for the HCP even though they were aware that the efficiency was questionable. When the support is unsystematic and inadequate, the healing process of the involved HCPs is delayed including the ability to diminish their stress and anxiety levels, consistent with previous research (Leferink et al., 2018; Ullstrom et al., 2014.).

Additionally, the involved HCPs lose their professional confidence, exhibit decreased self-confidence and resultant sadness in their daily personal and professional lives. A complete support system demands leadership's commitment and assurance, including allocating appropriate resources, consistent with reported research. Support should originate from a trusted, skilled person, and should be aimed at assisting the involved HCPs to cope with their

emotional distress to overcome their professional anxieties and give them access to information related to hospital processes to probe and learn from AEs as confirmed in previous research (Van Rensen & Zwart, 2018; Ullstrom et al., 2014).

When HCPs are supported following their direct involvement in AEs, the positive outcomes are staff wellbeing, low turnover, and willingness to provide quality patient care. Individual support offered to involved HCP is vital. The participants recommended the provision of administrative support to the involved HCP in addition to the emotional support needed consistent with previous research (Lee et al., 2019; Chan et al., 2017). However, a lack of support results in negative outcomes, for example, impaired health and reduced job satisfaction, consistent with previous research. What was noteworthy for the researcher was the evident lack of support, as expressed by the participants.

Proactive staff follow up, thoughtfulness, and support following AEs were recommended in reported research for better patient and staff outcomes. The participants were the first in line to interact with the HCPs directly involved in AEs. They can inform recommendations regarding the support programmes needed in their respective settings. The hospitals need to develop, implement, and evaluate support programmes for HCPs following AE involvement. Consistent with previous research, proactive procedures for guidelines and probes including a proactive approach to AEs in education and practice were suggested (Christoffersen et al., 2020 & Wahlberg et al., 2020).

In this chapter, the findings revealed inconsistencies regarding the policies and procedures for the management of adverse events. The participants had limited understanding of counselling for the involved HCPs. Prompt reporting and recording was enforced by the participants to avoid litigation. Measures to improve quality and redress were in place although insufficient. Training and knowledge were implemented through the orientation of newly employed staff while continuous professional development was staff ongoing. Participants recommended on efforts for improvement which consisted of structured support for the involved, the provision of resources and relook of the incident review process.

5.4 CONCLUSION

The purpose of this chapter, Phase 3 of the study, was to explore the mechanisms used to address the results of AE involvement. Data was collected from fifteen managers as (Table 5.1) and digitally recorded with their permission. Data was analysed using thematic analysis. Three

main themes were identified as follows: policy and procedures; training and knowledge; and support systems. The summarised themes and sub-themes were provided in Table 5.2.

In the next chapter, Phase 4 of the study, the focus is on developing a support programme for HCPs involved in AEs in these public hospitals. This was achieved following the WTM developed by Eagle et al. (1993).

CHAPTER SIX
DEVELOPING A SUPPORT PROGRAMME

6.1 INTRODUCTION

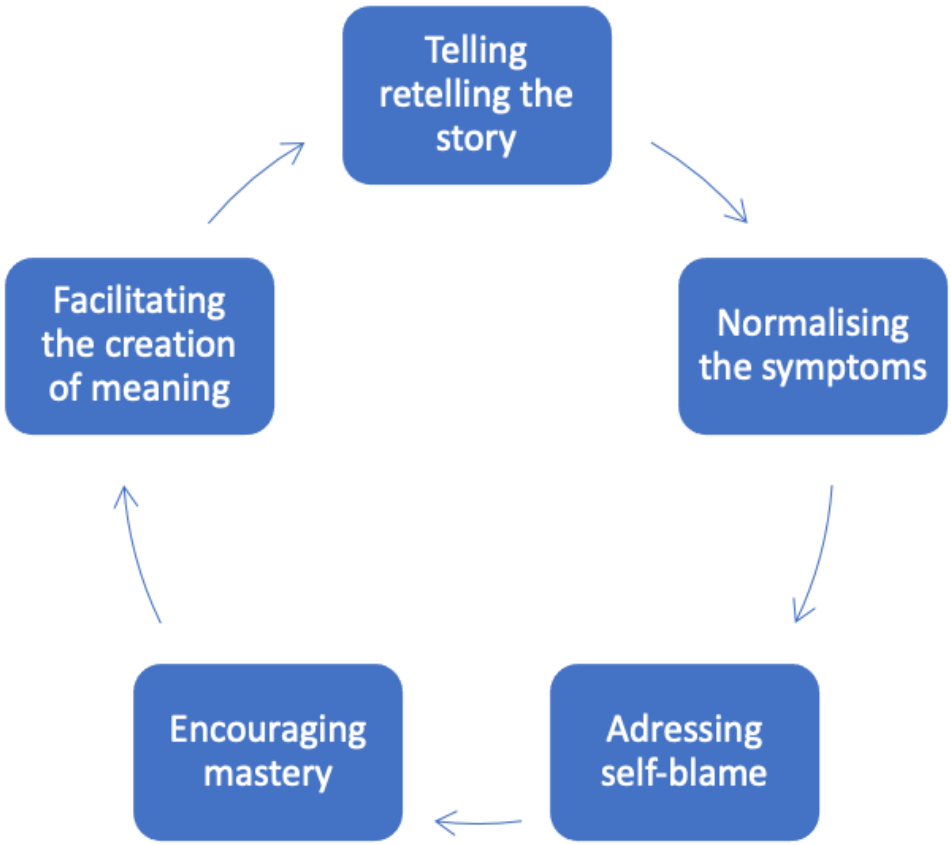
Eagle et al.'s (1993) WTM was used to guide the programme development. This model is described in chapter 2, but a summary is given here to assist with understanding the development of the programme. Following this, an explanation of how the model was used to guide development is given, preceded by analysis of the data during the iterative process followed and the details of the first draft of the programme. A detailed description of how the researcher envisaged the programme being implemented is also given.

6.2. THE WITS TRAUMA MODEL

The model published in 2000 by Eagle (2000) which has become known as the "Wits Trauma Model" in response to the increasing number of clients suffering from post-traumatic stress because of state repression in the 1980's and early 1990's. The model argues that an integrative psychotherapy approach is best suited to managing people with post-traumatic stress as it combines the relative strengths of both the psychodynamic and cognitive behavioural schools. Post-traumatic stress results in dysfunction both internally and externally. Eagle (2000) states that disturbances caused by trauma are manifested in recognizable cognitive, behavioural, and somatic symptoms. The researcher, in her previous dealings with second victims recognized that they indeed often, or even usually, exhibit such behaviours which result in changes of behaviour and functioning that impact on the quality of care the second victim can deliver after a serious adverse event. The researcher therefore used the model to guide the development of the framework.

As explained in chapter 2, the WTM comprises five phases that can be used interchangeably namely: a) telling or retelling the story; b) normalising the symptoms; c) addressing self-blame; d) encouraging mastery; and e) facilitating the creation of meaning. An illustration of the WTM is provided in Figure 6.1. XX

Figure 6.1. The Wits Trauma Model (Eagle, 2000)



6.3. Development of the programme

6.3.1 ITERATIVE PROCESS

An iterative approach was used to develop the framework. This is described as a general replication of a series of tasks performed in precisely the same manner numerous times to afford a greater awareness of the data and produce a degree of trustworthiness to the research (Mills, Durepos & Wiebe, 2022). In this study, the process commenced with the researcher and the supervisors reading through each transcript after each interview from which the initial codes were generated. The codes were classified into categories and the categories grouped into themes. Further iterative cycles followed for each transcript, interview generated into codes, coded to categories and themes till saturation was reached.

Srivastava and Hopwood (2009) explained the role of iteration in qualitative data analysis, not as a repetitive mechanical task but as a reflexive process – a key to sparking insight and developing

meaning. They further suggest asking three questions namely, 1. what are the data telling me? 2. What is it I want to know? and 3. What is the dialectical relationship between what the data are telling me and what I want to know?

The researcher therefore began by examining the data that she had gathered in phases one to three of the study. To do this, the researcher developed a table (6.1 below) summarising the findings of the three phases to answer the question, "what are the data telling me?" This is reflected in Table 6.1. as "lessons learned from the data."

Following this the researcher reflected on the research question for the study. The research question was, "How should healthcare professionals involved in adverse events in public hospitals in Gauteng best be supported to minimize the stress caused, and to continue to provide quality care after the event". In the final part of the iteration, the researcher, together with her supervisors, examined the relationship between the data gathered and the research question asked together with the Wits Trauma Model to develop a programme that was nested within the model while answering the research question.

During this process it became clear that many of the issues raised in the data related to practical problems or omissions in managing the process of dealing satisfactorily with an adverse event and unless suitable processes were put in place, the care of the second victims would be compromised. The pathway that was developed therefore deals with practical issues and processes which need to be put in place, based on the data, and related literature and a parallel process to assist the second victim in a response to the Wits Trauma Model. Some elements of the WTM did however apply to the processes as the data made it clear that the health professionals who were directly involved were not the only people who needed support and that the telling and retelling aspects of the model and normalizing the symptoms applied equally to others concerned and would assist in managing the adverse event, preventing more serious fallout, and preventing a similar occurrence in future.

6.3.2. Summary of the findings of phases 1,2 and 3

Table 6.1 Summarised findings

Scoping Review	Story telling	SSI
▪ HCPs are at risk of becoming second victims during their career. **(Article 26).**	▪ The impact of an AE on participants lasted a long time and compromised patient care. **(D2)**	▪ The hospitals will do everything to protect the evidence of incompetence and records of documented AEs. (**RH11)**
▪ The AE experiences are magnified by unsupportive work environments, which are characterised by increased hostility, blaming, and fears of punishment or reputational harm. (**Article 15**).	▪ It takes significant courage to accept one's incompetence and to voice it to a stranger. **(P7; P8)**	▪ Reporting and documenting the event was a priority in all settings before the end of a specific shift. **(RH6, RH7, RH8, P6, PD3)**
▪ The impact of AEs has been overlooked in many countries. (**Article 22**)	▪ Emotional reactions of these traumatic experiences included anger and sadness. **(P7)**	▪ The procedures for managing AEs varied significantly among all settings. At some settings, some managers gave different versions of managing AEs. **(P2; P5; PD1; PD3)**
▪ The involvement in AEs has a lasting effect on the second victims - both professionally and personally. **(Articles 29 & 30)**	▪ Clinical incompetence and lack of teamwork among participants led to some of the AEs. **(D4**)	▪ The patients' wellbeing was prioritised followed by their families after AEs. **(P6; PD3)**
▪ More studies focused on the doctors and few on nurses. (Articles **18 & 32**).	▪ Recalling the AEs during interviews awakened previously experienced emotional distress, anger, and sadness. **(RH1)**	▪ Many were aware of the absence of support programmes for involved staff. **(P5; P6; P12; PD1; PD3)**
▪ The hospitals did not invest adequately in second victim studies or programmes. **(Articles 1**).	▪ Incident reviews are conducted differently at each setting and have different objectives. **(P10)**	▪ There was no consistency or understanding on what the second victims needed and what was provided or in place. **(P5; P6; PD1).**
▪ (Three leading hospitals in the USA published evidence of support programmes	▪ The IRs were negatively experienced by most participants, before, during	▪ Most lacked knowledge on the review process and its objectives. At one setting

implemented. (**Articles 31 & 27**).	and after sessions**.** (**SRH1; D4; P10; P8; RH1)**	management were tasked to review the sessions for consistency. (**P1; P2; P5; PD5)**
▪ The Sub-Saharan countries' focus was not on the second victim's experiences but on the AEs in general. **(Article 23).**	▪ Many recommended a relook at and restructure of the IR process. (**SRH1; D4; P10; P8)**	▪ Some managers preferred ward reviews with their staff following AEs rather than subjecting them to the main hospital review. (**P2; P5)**
▪ There was overall evidence of either ineffective or inefficient support programmes in place internationally. **(Article 2).**	▪ Many participants were not supported by management after events. (**P4; P7; P8; P10; P13; RH2; RH3; SRH1; D4)**	▪ The orientation programme for newly employed staff routinely included information on AEs, incident reporting, and reviews at one setting, and none of the above in the other settings. **(P5; P6; PD3).**
▪ The hospitals need to understand, identify, and improve responses to the second victims' experiences, including the type of support provided. **(Article 9).**	▪ There was a lack of communication from hospitals regarding events, documentation, the reporting process, and way forward. Everyone was required to continue working without attention being given to how participants felt. **(RH1; SRH1)**	▪ The debriefing, redress, and counselling sessions following AE were solely for the patients and not the involved nursing staff. **(PD1; PD3; RH5).**
▪ Some managers experienced challenges and barriers in addressing the second victims' needs. **(Article 36).**	▪ Management prioritised the patients' emotional and physical wellbeing, while the involved nurses were left to suffer, hurting in isolation. **(PD4)**	▪ The QA departments were actively involved in AE management in contrast to the hospitals' management, and they knew more about the required processes. **(P5; P6; PD1; PD3)**
▪ Resistance from management was identified as one of the barriers to developing support programmes for the second victims in several countries. **(Article 2).**	▪ Self-blame, doubting their professional skills, and a decline in confidence evident in many. Thoughts of leaving the profession and even suicide were mentioned by some. **(P4; P7)**	▪ There were no support programmes in place for involved staff – recommendations for proactive staff follow up, development, implementation, and evaluation of support programmes. **(P12; RH2; RH5; RH11).**

▪ Less than one in four second victims had received support following AEs. **(Article 18).**	▪ Involvement in AEs affected participants years after it occurred.	▪
▪ Most hospitals did not have effective and efficient support programmes for the second victims. **(Article 10)**	▪ Recommendations made for hospitals to develop and implement support programmes for involved participants. **(P15)**	
▪ Collecting data from electronic databases required time, effort, and a great deal of patience. **(Article 6)**	▪ A lot of similar reactions to AEs, impact, and emotional experiences from most participants at all three settings. (**P4; P7; P8; P10; P13; RH2; RH3; SRH1; D4)**	

6.3.2.1 Identification of concepts

On reflecting on the summarized data and applying the first question suggested by Srivastava and Hopwood (2009) when engaging in iteration, i.e., what are the data telling me, concepts which needed to be applied in the support programme became clear. These were the importance of: 1. Having a framework to guide those involved 2. Reporting and documentation 3. Appreciating and lessening the psychological impact of the event on the second victim 4. Timing of the intervention 5. Clarifying roles of those involved.

The researcher established that AEs are common in healthcare and should not be regarded as disasters but as events to be managed on a regular basis (Phase 1). An AE can initiate panic and pandemonium among those directly or indirectly involved. Managing AEs regularly will ensure that all managers assigned to handle AEs can adhere to a similar uniform process without causing emotional distress to the involved HCPs as indicated in the findings.

The system for managing AEs must be built into the normal hospital activities, and because an event is a system issue, remediation must be considered in this light (Phase 3). Any new event tends to reactivate wounds of a previous incident, which is another reason to ensure that each AE is managed as completely and comprehensively as possible (Phase 2). The findings revealed that at some institutions it was work as usual after an AE, and unfortunately when another event occurred the reaction was more traumatic than the previous event. The second victims explained

that because they did not receive closure on previous events, subsequent AEs, irrespective of how minor, made them react irrationally as the previous AE resurfaced, because it had not been completely and comprehensively managed. Those assigned to manage AEs should ensure that the process is complete and comprehensive no matter how long it takes to confirm that closure is achieved by the second victim.

Communicating with everyone involved in AE is key (Phase 2 & Phase 3). Therefore, it is essential to establish the reasons for AEs thoroughly and to encourage those involved to be truthful rather than defensive. Where second victims experienced blaming and hostility from those managing AE, it emerged that the second victims experienced shock and disbelief and were afraid of revealing the truth. This could lead to concealing the truth or not reporting AE at all. It would also leave the patient suffering in silence. However, where second victims were questioned about the sequence of events leading to AE with empathy and without judgement or blame, they were able to reveal the truth of what, how, and why the AE might have occurred. Other people managing the support need to be non-judgmental and the institutions should not be regarded as punitive (phases 2 and 3).

The patient and family support must be part of the system for them to review and recover from AE. The standard response to an AE is attending to the patient as a priority, hence the physical and emotional first aid provided following the AE (phases 2 & 3). The PIC of the hospital should notify the family of AE without going into significant detail. When one has a relative admitted to hospital the last thing on their mind is injury of that relative during their stay, thus in most instances when the family is telephonically notified about AE, their initial reactions to the news are often shock, disbelief, and panic. As a result, following an AE and notification thereof, the family are routinely given access to the hospital to facilitate them spending time with the patient; and reassured and offered emotional support where necessary, as affirmed by the second victims (Phase 2).

The procedure for managing AEs must be standardised in the public sector, at least at provincial level, if not countrywide, and should include private settings at a later stage (phases 1, 2, & 3). This will ensure that HCPs working in the province are secure in the knowledge that these events will be managed. The findings presented in phases 1 and 2 illustrate that AEs are managed differently in the various provinces, posing a challenge for nurses who are deployed elsewhere for operational or promotional matters.

All health professionals, nurses, and doctors should be subject to the same AE management process (Phase 1). The nurses should report to their immediate senior person, i.e., the UM who renders physical and emotional first aid to the patient. The recording is done before the second victim goes off duty, irrespective of the time of day (Phase 2).

When a doctor is involved in an AE, the UM, as the custodian and advocate for the patient, is notified but not involved in further management of AE. Instead, the documentation is concluded jointly by the doctor and those team members from the same discipline who witnessed the AE at their own pace, and time allowing, and forwarded to the unit head, who is the senior physician. The head of the unit (HOU) schedules an M&M session for AE to be dealt with to ensure that most doctors from the same discipline can attend. Some representatives from the nursing personnel are invited to the sessions as observers.

The objective of the session is for the second victim (doctor) to provide a power point presentation of AE regarding what happened, how it happened, and the way forward. Those team members who were present when the AE occurred shared their views in the presence of the HOU. Thereafter, The HOU documented the recommendations, and the session was concluded. No blame was assigned, no punishment administered, and no fear was observed, instead it was a learning experience for all those present, and counselling was proposed, leaving it to the individual to decide whether they are interested in accepting the offer. The UM was assigned with the responsibility of notifying the family.

6.3.2.2. Importance of Reporting and Documentation

Reporting and documentation are an important aspect of the entire process. It emerged that these were the most crucial aspects of the whole event from the managers' perspectives (Phase 3). The guidance of the immediate supervisor was imperative, especially if the second victim had not previously received training on reporting and documentation protocols of AEs. Some hospitals provide in-service education and training to newly employed staff on the process for reporting and recording of events. Others provide the training sessions routinely following IR sessions as well as M&M sessions. When the communication was conducted empathetically to understand the truth of the AE, the reporting and recording thereof was comprehensive and complete. However, conversely, where there was blaming, hostility, and judgmental questioning, the reporting and recording was inconsistent, causing emotional distress to the patient and the second victim, and escalated reputational harm to the hospital. Adherence to the reporting and recording

timelines is important to facilitate other processes that need to follow. The HCPs will be familiar with the process for reporting and recording AEs because they will have received regular guidance and observed how AEs are managed.

6.3.2.3. Importance of appreciating and lessening the psychological impact of the event on the second victim

According to the findings presented in phases 1 and 2, the experiences of AEs can have lasting psychological impacts on the victim, and have the potential to end their careers, hence the importance for their efficient management to prevent them from reoccurring. The findings reveal that the degree of patient harm from AEs and the support provided to second victims determine the AEs' impacts. Where the support level was perceived as insufficient or inefficient, the impacts on second victims was experienced as high and long lasting. Those who were not sufficiently supported began to second guess their career choices while others initiated the process of terminating their career following AEs in which they'd been involved.

The HCPs involved in AEs must be regarded as victims and not as perpetrators thereafter (Phase 2). The Cambridge English Dictionary describes as "an offender, an offender, and a criminal". However, Tartaglia and Matos (2020) define second victims as "HCPs who are involved in unanticipated adverse patient events, in medical errors and/or a patient related injuries and who become victimised in the sense that the providers are traumatised by AEs. Frequently, these individuals feel personally responsible for the patient outcomes. In this study the second victims were health professionals consisting of nurses, doctors, and managers who were directly or indirectly involved in AEs. These HCPs felt responsible and experienced emotional distress due to their involvement.

6.3.2.4. Importance of the Timing of intervention

When AEs occur, they should be managed immediately, with the focus on remedial action rather than punishment, hence AE remediation should be seen in this light. In this way staff will learn from the AEs rather than experiencing anxiety, being stressed about reporting it, and are then unlikely to blow it out of proportion. Unsupportive work environments exacerbate negative experiences of AEs, so those managing them should ensure the absence of hostility, blaming, fear of punishment, or reputational harm (phases 2 & 3). Findings revealed that a supportive environment before, during, and after an event, had the potential to make the second victim feel wanted and valued, while those who were not supported verbalised feeling demotivated, unvalued, isolated, and disappointed in their supervisors. No matter how major or serious the AEs, the

support provided made a huge difference in the lives of the second victims and their experiences of anxiety and accompanying emotional distress decreased. Where the support was efficient and immediate, irrespective of the degree of harm to the patient, the impact was low. The focus of support should be on second victims to ensure that they receive the required support.

6.3.2.5. The importance of clarification of roles of those involved.

From a manager's perspective it is critical to decide on the roles of those involved, namely the unit manager (UM), institutional manager, and the QA department (Phase 2). An event has the potential to be a disaster, and management can be equally chaotic, causing pandemonium in the area where the AE occurred, as claimed by the second victims (Phase 2). However, with regular management and simulations conducted to sensitise all stakeholders, each should be familiar with their role, and respond effectively and according to the specified role when an AE occurs.

Role clarification ensures that order is maintained, and that the AE management process is concluded as efficiently as possible without any complications. Among the experiences stated were a lack of policy and governance that clearly clarified the roles of the responsible stakeholders assigned to management; and as the managers mentioned this aspect, it should receive attention (Phase 1 & Phase 2). The second victims stated that they preferred talking about AEs to someone empathetic, someone they could trust, and who would neither judge nor blame them for the AE. Hence the PIC of the hospital should ensure that the GK has the necessary skills to ensure that the second victim can tell the truth of the AE in a safe and trusting space. Role clarification must be accomplished, and everyone involved in the management should ensure that the AE is managed completely and comprehensively. Each one of them needs to acknowledge and respect the other's boundaries, adhere to the tasks as indicated, and complete all documentation comprehensively where necessary to avoid repeated contact with the second victim for clarity, as stated by the managers (Phase 3).

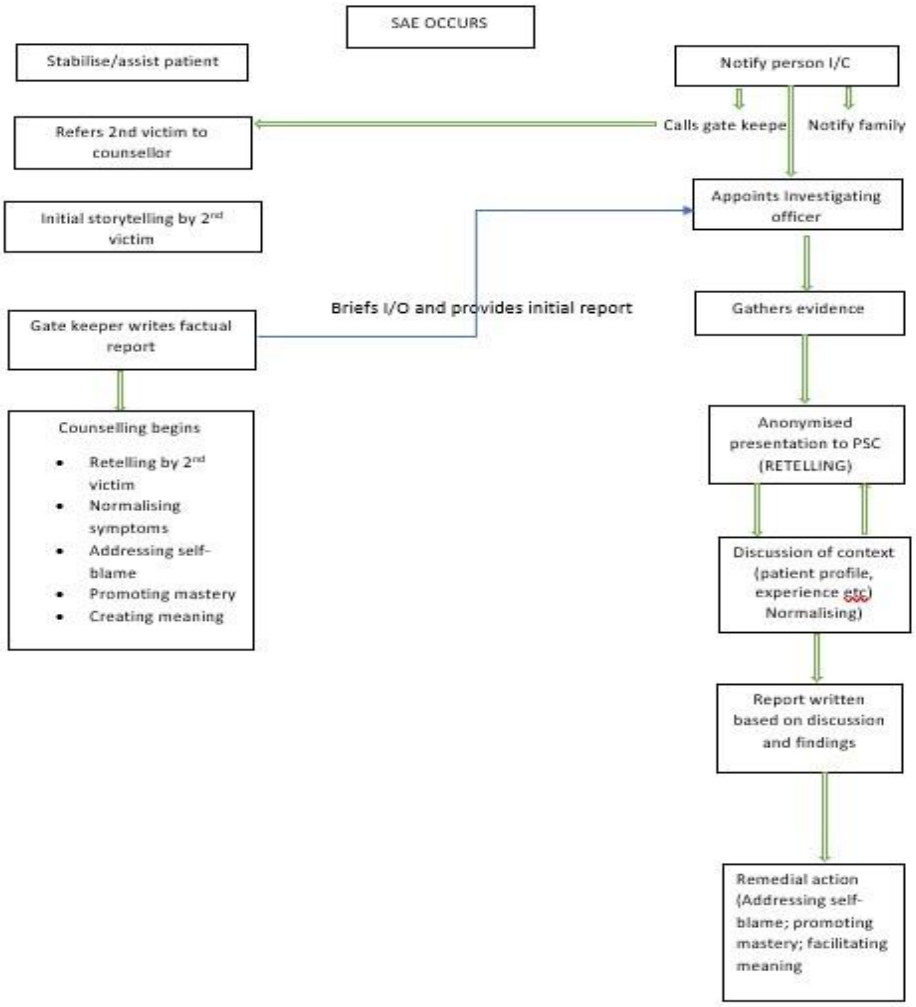
6.3.3. Presentation of the first draft of the programme

The third question that Srivastava and Hopwood (2009) suggest asking is "what is the dialectical relationship between what the data are telling me and what I want to know? The researcher wanted to know how best to support second victims and combined the results of the iterations explained above with the ideas underpinning the Wits Trauma Model. It needed to provide a structure,

identify roles of people involved, ensure documentation and reporting was done appropriately and that the timing of the interventions was optimum while appreciating and lessening the psychological impact of the event and providing support to the victim as per the Wits Trauma model.

Figure 6.1. illustrates the first draft of the programme developed to meet these requirements and is followed by explanations of the roles of people who would be involved in the framework followed by a detailed explanation of how it was envisaged to be implemented. This first draft was provided to the participants of the Delphi study and the subsequent focus group for validation.

Original Programme for the Management of Adverse Events



Based on this study's findings and considering the process of the WTM, the original programme for the management of AEs in Gauteng public hospitals to support second victims was developed**.** The structure of the programme is described, followed by the discussion of the process on how the AE can best be managed.

a) Summarised Structure for the Management of an Adverse Event in Gauteng Public Hospitals

The table below is a summarised structure for AE management in Gauteng public hospitals. The people involved are the following: the UM; the CEO, as the PIC of the hospital; the GK; the investigating officer (IO); the PSC; the counsellor/psychologist; and the second victim. A discussion is provided in terms of the involved people, the reason for their appearance, and their respective roles in the programme in **Table 6.3.**

UM	A person responsible for co-ordinating patient care activities in a designated patient care unit and ensuring patient safety and quality care. Rotates monthly according to the on-call list of the PIC of the hospital after office hours, during weekends, and on public holidays.	The first person that all the second victims inform of the AE. (Initial storytelling by second victim).
CEO in charge of hospital	Person responsible for developing hospital policies, protocols, guidelines, and procedures, and for ensuring adherence to hospital standards including patient's safety. Oversees the smooth running of the hospital on daily basis in	To facilitate the management of the AE, by notifying relevant people and appointing those who will conduct the investigation of the event.

	conjunction with the managers in different units. UMs reports to the PIC. Works normal working hours and is the PIC over weekends, at night, and on public holidays.	
GK	A person included in the list of those who are appointed by the PIC of the hospital. Someone who has received in service training and has communications skills to that effect, which the second victim can trust, confide in, and relate their story of the AE without fear of being judged. Receive training on the WTM.	Provide time and safe space for the second victim to tell their story accurately without disturbances. Listen to the second victim telling their story of the AE.
PIC	An external person appointed by the hospital on a contract basis. Has received training on legal issues and is not an HCP	To investigate all AEs.
Patient Safety Committee (PSC)	A group made up of nurses, doctors, QA, and safety representatives. Specific expertise such as radiology and physiotherapy can be seconded if needed.	To listen to the discussions of the context presented by the PIC, complete the report from the findings, and forward to the counsellor. (Normalising the symptoms).
Counsellor	A trained peer counsellor/ psychologist employed by the hospital	To provide emotional support to the second victim.

Second victim	The HCP who experienced emotional distress following an AE.	The event occurred while they were attending to the patient.

The summarised structure for the management of AEs was provided above. Below is a discussion on the process for AE management based on the programme provided.

6.4 THE PROCESS FOR MANAGING ADVERSE EVENTS

6.4.1 Mobilising Resources

When an AE occurs, the PIC of the area/ward is notified, and the patient is assisted and stabilised. In a case of a deteriorating patient's condition, an internal transfer to the ICU for further medical management may be warranted. The family is notified and invited to go to the hospital to support the patient. Where the event has resulted in death, the hospital psychologist/psychiatrist/minister of religion, is notified to commence with immediate bereavement counselling of the family. The PIC notifies the GK of the event, who on arrival, accompanies the second victim to a safe place away from the ward where AE occurred. A rapport is created with the 2nd victim and the GK calmly asks the 2nd victim to provide an account of AE from their perspective, to which the GK listens attentively (initial **storytelling** by second victim). The 2nd victim is reassured and treated with sensitivity and empathy. A report is written by the GK, and 2nd victim is referred for counselling.

6.4.2 Counselling component

The counselling begins with the 2nd victim retelling the story of the AE in detail and in sequence (second victim's retelling). Expression of emotions is encouraged including the thoughts related to the AE, with active listening by the counsellor, asking suitable questions respectfully, and empathising with the distress resulting from the AE. The feelings and experiences of the second victim discussed comprehensively, with empathy, reassuring victims that their reactions are a normal response to an abnormal event **(normalising the symptoms).** The counsellor explains that these symptoms are likely to fade over time, especially after counselling, informing the victim of other feelings and reactions to expect after exposure to a traumatic event, to mentally prepare and to reduce or dispel the thoughts that they are "going crazy".

The counsellor asks questions to explore whether there is self-blame, which is often related to a retrospective desire to undo the AE (**addressing self-blame**). The 2nd victim is assisted to

overcome recurrent feelings of helplessness linked to the AE, and to attend to symptoms of self-blame. To elicit feelings of self-blame, the victim is asked questions such as: How do you feel you handled the situation? Looking back, is there anything you would have done differently? The goal is to assist them towards self-reconciliation and to restore their self-esteem. Support is provided for the victim to persevere with the task of daily living to facilitate their return to previous levels of coping and performance (**promoting mastery of traumatic symptoms**). The counsellor urges them to identify and use existing support structures, such as family members, friends, or both, to assist them to complete any assigned tasks. This gives them the opportunity to vent about AE and the experienced emotions to someone they trust.

The counsellor suggests other techniques, such as training in relaxation exercises, anxiety reduction, and anger management to assist in coping and to help them experience an increased a sense of control, pending their acceptance. The creation of meaning will only be pursued to derive meaning from the AE experiences, only if the 2nd victim wants to. The second victim is aided to engage with their existing belief system **(creation of meaning)**. The counsellor walks the journey with them, so that they are directed towards experiencing a sense of a "new self", having confronted the incident, conquered the symptoms, and emerged as a survivor. They are urged to engage in reinforcing constructive actions, such as becoming a role model for others (Eagle, 1998).

6.4.3 The Investigation component

The IC appoints the IO to initiate the investigation process after receiving a brief and initial report from the GK. The IO's duty is to gather and consolidate evidence concerning the incident. A presentation is made to the PSC, when the names of the involved individuals are kept confidential **(retelling the story)**. The context is provided during the presentation, that is, the internal and external factors influencing the second victim's performance on the day the incident occurred. Which could have contributed to the AE, such as the policy on skills distributions, the number of staff on duty on the day of the AE, the delegation and procedure manuals, availability, accessibility, usage, and review dates. The patient's profile is taken into consideration, with the focus on the diagnosis, allergies, demographic data, their medical condition prior the AE, the unit in which AE occurred, and how many AEs have been recorded in the same unit within the past thirty days or calendar month. There is a team deliberation, in which, considering the discussion, the AE is regarded as normal (**normalising**). A report is written based on these findings and discussions and forwarded to the counsellor to keep them updated regarding the incident and processes followed.

Remedial action is initiated within the hospital to counteract the second victims' helplessness by correcting any system failures that could have contributed to the adverse events. The present policies regarding staff allocation are reviewed towards the provision of adequate human resources with the appropriate skills in specialist areas. A review of the scheduling methods utilised by each hospital, suitability, and practicality. The duty delegation is evaluated to ascertain the application and adherence to the duty delegation process; in-service training for second victims. This includes the identification of training needs for all staff including and not just the second victims and the need to implement in-service training towards the early detection and prevention of adverse events in future. (**Promoting mastery**)

6.5 MODEL OUTCOMES

The model's success depends on the counsellor accompanying the second victim through all the steps of their traumatic experiences and the impact thereof. The outcomes per phase are described hereunder.

6.5.1 Telling and Retelling the Story

Through telling and retelling the story, the second victim is not left traumatised, they interact with fellow colleagues, have control over AE, their emotional distress is reduced, and healing is achieved. The second victim emerges as a happy and empowered individual, who conquered the AE. The institution knows the causes of the AEs and implements measures to prevent their recurrence, develops remedial actions regarding the system issues that predisposed the second victims to AE, and institutional communication regarding the process and AE management is restored. The institution neither judges nor punishes the second victim for AE, instead it acknowledges flaws in the procedures that need attention. Everyone's needs are understood.
However, where AE is found to have occurred due to the second victim's gross negligence, the matter is referred to the relevant sector while the hospital provides needed guidance and support.

6.5.2 Normalising Symptoms

The second victim is mentally prepared to eliminate fear of future AEs and is comfortable with their career choice. There is no self-doubt, and the second victim affirms self-management, without feelings of shame. The institution allocates the second victims to various units to acquire

knowledge without doubting their application of expertise or anticipation of events. Adequate, efficient personnel are allocated to areas for debriefing.

6.5.3 Addressing Self-blame

The individual has their self-respect restored and is freed from self-criticism after addressing self-blame. The institution identifies events as system issues that warrant attention and does not blame the second victim. Staff development programmes educate all on AE management and processes. Policies and strategies are developed in the institution to minimise emotional distress of all following events.

6.5.4 Encouraging Mastery

Through encouraging mastery, the second victim copes and works better. The second victim maintains a healthy diet to restore their physical energy. Support from the family and friends is, achieved. The second victim is less anxious, relieved, and experiences an enhanced sense of control. The feelings of helplessness and powerlessness disappear. The second victim is strong and feels liberated.

6.5.5 Facilitating the Creation of Meaning

The second victim is healthy and able to engage with everyone. They can also use the AE to empower others who might be victims and show that it is possible to emerge from the AE as a healthy individual, and it neither necessary to resign nor change employer.

6.6 CONCLUSION

In this chapter relating Phase 4 of the study, the researcher provided a summary of lessons learn from phases 1, 2, and 3. An overview of the programme was detailed and was followed by a description of how the programme should be implemented. A summarised structure and the process for AE management with the relevant individuals involved in the programme were presented. Chapter Seven follows, presenting Phase 3 in which the programme's confirmation and validation is detailed.

CHAPTER 7
CONFIRMATION AND VALIDATION OF THE SUPPORT PROGRAMME

7.1 INTRODUCTION

In the previous chapter describing Phase 4 of the study, the findings of phases 1, 2, and 3 that informed the development of the programme for supporting HCPs involved in AEs at public hospitals in Gauteng were explained. Eagle et al.'s (1993) WTM was used to guide the development of this programme. A summary of lessons learnt from the study's phases 1, 2, and 3 were presented, including describing the purpose and results of each of the model's phases. Thereafter an overview of the programme was presented, followed by a detailed description of how the programme should be implemented.

In this chapter the focus is on the design and implementation of the Delphi study that was used to validate the programme. Phase 5.2, which is the focus group, is also included and detailed.

7.2 DESIGN OF THE DELPHI QUESTIONNAIRE: PHASE 5.1

The purpose of the web-based Delphi study was to evaluate the programme's content and face validity. Colton and Hatcher (2004) suggest that a web-based Delphi procedure has the potential to "offer a more rigorous validation of … content than traditional paper-based Delphi procedures".

7.2.1 Questionnaire Construction

The instrument was constructed to meet the objective of Phase 5 of the study, i.e., to confirm and validate the support programme for HCPs involved in AEs in public hospitals in Gauteng. The programme was discussed in the previous chapter.

The questions for the Delphi technique were based on the structure, the process, and the outcomes of the management of AEs in Gauteng public hospitals. In this phase, a group of individuals that needed to be included in the programme were identified, indicating who they were and why their involvement was necessary in the programme. To achieve this phase objective, the survey was divided into four sections. In the first round of the Delphi, the questionnaire (Annexure D) comprised three sections. The first section required the following: an expert information sheet; a consent form; and demographic details. An attachment entitled *Programme Support Programme*

for Adverse Events was provided. In the first section, Study Questions, Section A, a total of six statements was included, asking respondents to indicate to what extent they agreed that the roles of those mentioned were valuable in achieving the programme's outcomes. This survey section was presented in a 5-point Likert scale format to show the response variations, where Strongly Agree = SA; Agree = A; Neutral = N; Disagree = D and Strongly Disagree = SD.

Sections B, C, and D each consisted of 13 statements in which the experts were asked to comment. Each of the criteria, namely clarity, feasibility, and relevance, were dichotomous questions. Refer to Table 7.1 below. On completion of the questionnaire, instructions were provided for the experts to click the submit button and close the survey.

Table 7.1:

STATEMENT 1: To what extent do you agree that the role of the following people is valuable in reaching the outcomes of the framework?						
	Rating Scale					
Responsible person	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Comments
1. Gatekeeper						
2. Investigating Officer						
3. Counsellor						
4. Patient Safety Committee						
5. Second victim						
6. Person in charge [I/C]						

Table 7.2 Questionnaire statements for confirmation of the programme

QUESTION 1: Are the following aspects of the process are clear, relevant, and feasible?

Aspect of the process	Clarity		Relevance		Feasibility		Comments
	Yes	No	Yes	No	Yes	No	
1. Notify the person in charge							
2. Call the gatekeeper							
3. Gate keeper refers the second victim to counsellor							
4. Initial storytelling to gatekeeper by second victim							
5. I/C Appoint an investigating officer- I/O							
6. Gatekeeper briefs I/O and provides initial report							
7. I/O gathers evidence							
8. Anonymised presentation by I/O to Patient Safety Committee (Retelling)							
9. Discussion of context (patient profile, experiences) [normalising]							
10. Report writing based on discussion and findings							
11. Report sent to counsellor							
12. Counselling begins (Retelling by second victim, normalising symptoms, addressing self-blame, promoting mastery, creating meaning)							
13. Remedial action (addressing self- blame, promoting mastery, facilitating meaning)							

7.2.2 Respondent Selection

The following respondents were selected: nursing services managers; OMs; QA managers; medical doctors; counsellors; and psychologists with at least five years' experience in managing people involved in serious AEs. In addition, professional nurses who were directly involved in AEs were selected. Employees were selected from the Office of Health Standards Compliance, whose function is to act on behalf of the public to guide, monitor, and enforce health and quality standards in health establishments. Finally, representatives from GDoH, whose role is to investigate AEs in public settings and redress families of involved patients, were selected.

An email link was sent through REDCap to the 42 people who responded positively to the invitation email on the 28$^{th\ of}$ June 2021. Three responses were received after three weeks. Weekly reminders were sent every Monday to follow up and minimise the response dropout. Following the reminders, 19 more responses were received, while a further four reported challenges related to accessing technology and device availability. These respondents were given printed hard copies

of the survey and afforded the opportunity to complete the same. The data was collected through REDCap, a web-based programme over a 10-week period from 28th June to 2nd September 2021. From the 42 experts invited to participate in the Delphi survey, a total of 26 participants completed this first round.

7.3 FINDINGS

7.3.1 Respondents' Demographic Characteristics

The demographic characteristics of the HCPs involved in AEs in public hospitals in Gauteng are presented in Table 7.3. The characteristics include gender, age, profession, years of profession, and their involvement in AEs.

Table 7.3: Demographic characteristics

Gender	Male	5	19.2%
	Female	21	80.8%
Age	<30	1	3.8%
	30-39	6	23.1%
	40-49	10	38.5%
	50-59	5	19.2%
	60+	4	15.4%
Profession	Manager	14	53.8%
	Professional Nurse	10	38.5%
	Lecturer	1	3.8%
	Doctors	1	3.8%
Years in the Profession	1-5	0	0%
	6-10	6	23.1%
	11-15	9	34.6%
	16-20	5	19.2%
	21-25	3	11.5%

	26-30	1	3.8%
	31-35	1	3.8%
	36-40	1	3.8%
AEs Involvement	Managing the event	10	38.5%
	Involved in the event	16	61.5%

Source: Field Data (2021)

Findings from Table 7.3 indicate that the majority (80.8%) of the respondents were female and the remaining 19.2% were male. Regarding age, 3.8% were between the 20-29 years age range, while 23.5% were within the 30–39-year age bracket, 38.5% of respondents were within the 40– 49-year age bracket, 19.2% of the respondents were within the 50–59-year age group, and 15.4% of the respondents were above the age of 60 years. The survey results revealed that 17 respondents were aged below 50, while nine were aged 50 years and above.

The results indicate that 14 (53.8%) of the respondents were involved in managerial roles in the hospital. The next largest group were 10 professional nurses (38.5%), with one doctor (3,8%) and one lecturer (3.8%). The study revealed that the minimum years of service ranged from 6-10 years, representing 23.1% of the respondents. Nine (34.6%) of the respondents had been practicing professionals for 11-15 years, five (19.2%) had been in the profession for 16-20 years, and three (11.5%) of the respondents had been in the profession for 21-25 years. Eleven point four of them have been in the nursing profession for longer than 26 years.

Regarding their involvement in AEs, the study shows that 10 of the respondents (38.5%) had managed AEs in the past, while 16 of the respondents (61.5%) and been directly involved in one or more AEs. Nine participants were from Site A, eleven from Site B and six from Site C.

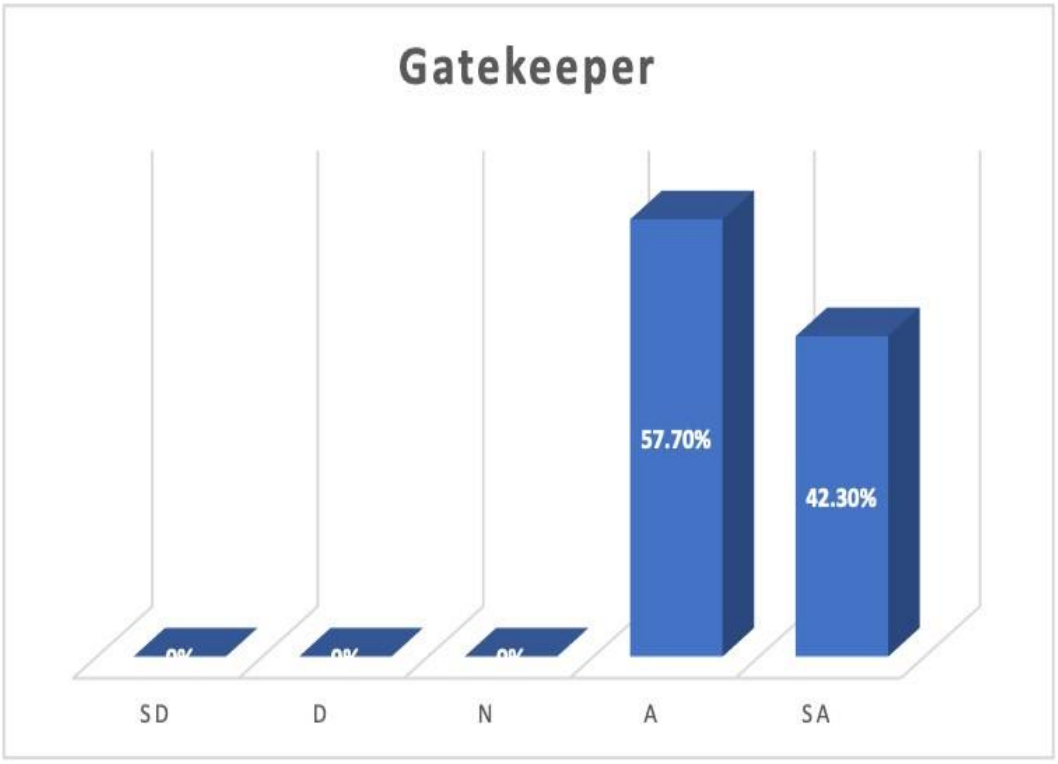
7.3.2 The Delphi Survey Results - Phase 5.1

This section describes the results of the Delphi survey in response to the questions asked relating to whether the participants agreed to the role of various stakeholders viz.: the GK; the IO; the counsellor; the PSC; the second victim, and the PIC.

7.3.2.1 Gatekeeper

The results show that respondents agreed that the GK should play a role in achieving the programme's outcomes, as indicated in Figure 7.1. Thus, 57.7% of the respondents agreed with the GK role criteria, while 42.3% strongly agreed. None of the respondents were neutral or had any disagreement with the role of the GK. This implies that the GK plays a major role in AEs and must be involved in the programme.

Figure 7.1: Gatekeeper

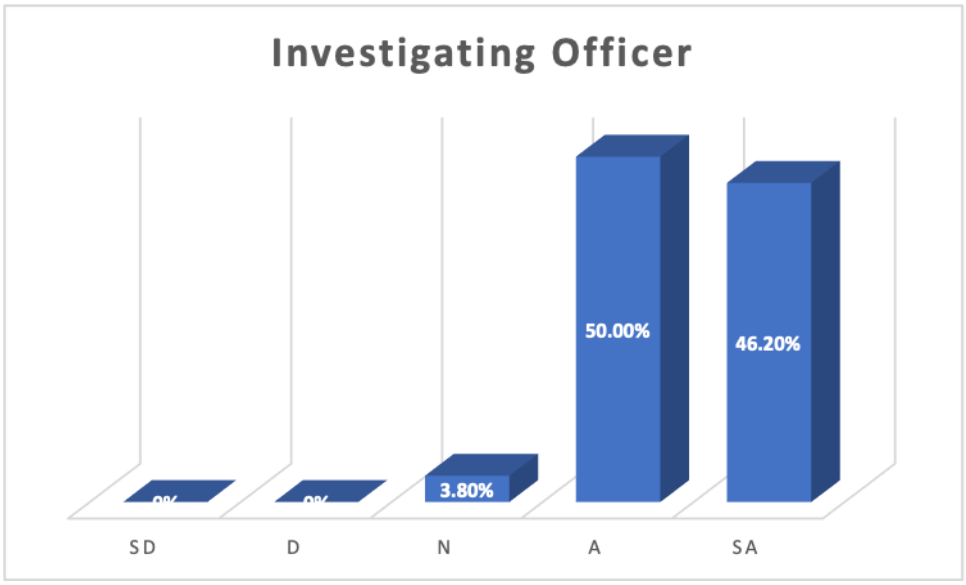


7.3.2.2 Investigating officer

Regarding respondents' opinion about the role of the IO, the results in Figure 2 illustrate that most respondents agreed that the IO's is valuable in achieving the programme outcomes.

According to Figure 2, about 50% of the respondents agreed that the IO's role aids in achieving the programme outcomes, while 46.20% strongly agreed. While none of the respondents showed any level of disagreement, 3.8% of them were neutral. The results illustrate that the IO plays a major role in managing AEs. Hence, respondents agreed that this role should be included in the AE management process.

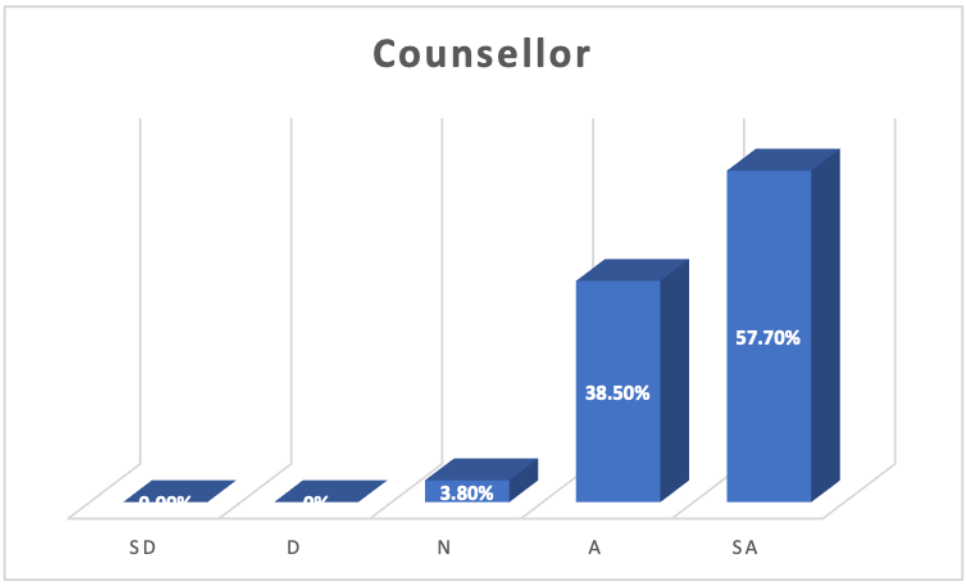
Figure 7.2: Investigating Officer



7.3.2.3 Counsellor

Another role that is believed to support the achievement of the programme outcomes is that of a counsellor. According to the survey results, most of the respondents, 57.70%, stated that the counsellor's role is valuable in achieving the programme's outcomes, 38.50% strongly agreed with this statement. However, 3.80% of the respondents were neutral. There was no level of disagreement. The survey response is provided in Figure 3 below. This result affirms the proposal that a counsellor must be involved in the programme due to their significant contribution in managing AEs.

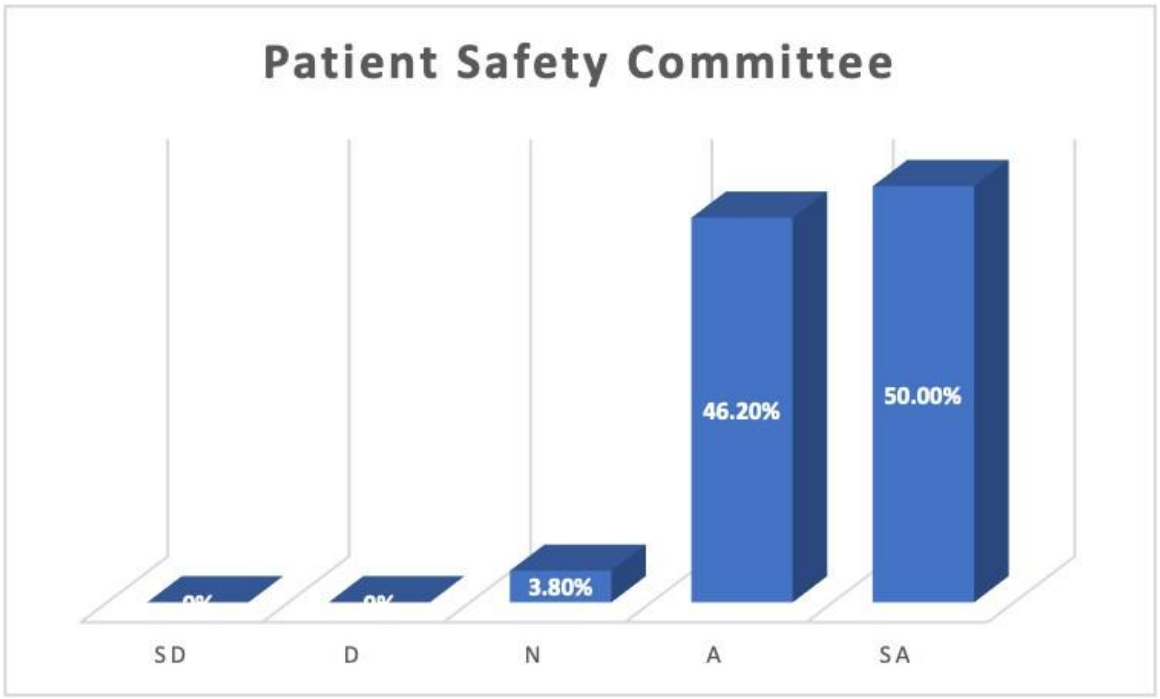
Figure 7.3: Counsellor



7.3.2.4 Patient Safety Committee

The result from the survey is depicted in Figure 4. According to the survey, most of the respondents, representing 50%, strongly agreed that the PSC must be involved, as their roles are valuable in achieving the programme's outcomes. About 46.20% also agreed with this statement, while 3.80% of them were neutral. None of the respondents disagreed with the PSC's role. This implies that the PSC's role is vital in achieving the programme's outcomes.

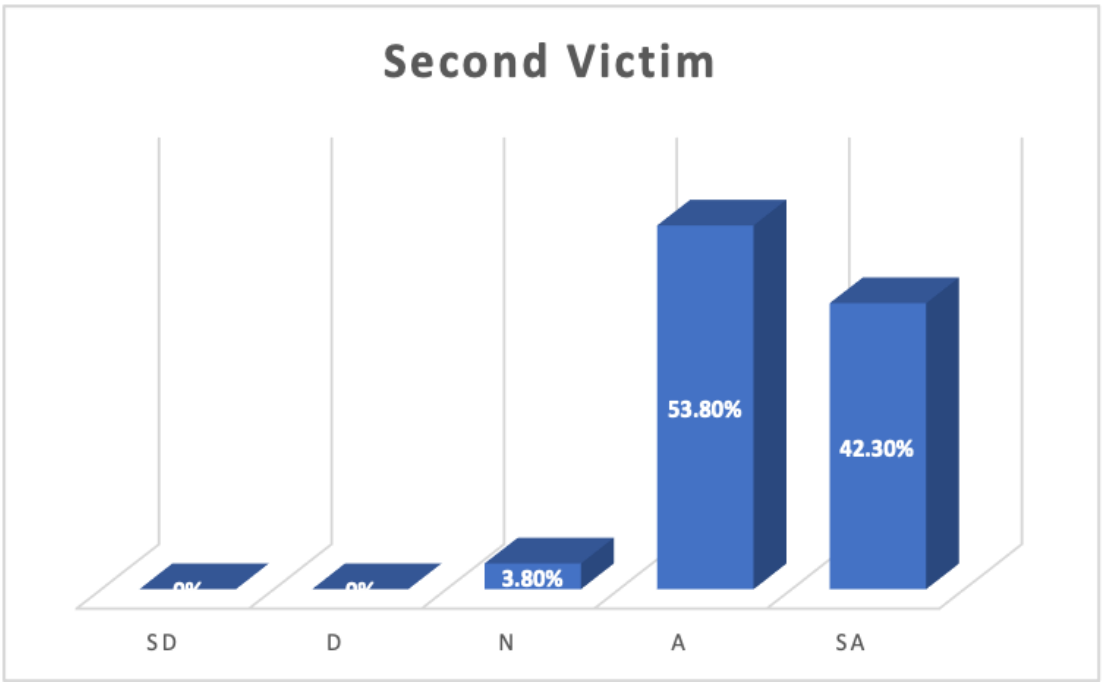
Figure 7.4: Patient Safety Committee



7.3.2.5 Second Victim

Another important role that was considered was that of the second victim. These respondents indicated that the second victim plays an important role in achieving the programme's outcomes, and therefore must participate in the support programme for HCPs involved in adverse effects. This claim was validated by more than half of the respondents (53.8%) who agreed to the role of the second victim in achieving the programme's outcomes. In comparison, 42.30% of the respondents strongly agreed, while 3.80% were neutral as to their role. The response shows that most of the respondents supported the argument that the second victim influences the achievement of the programme outcome.

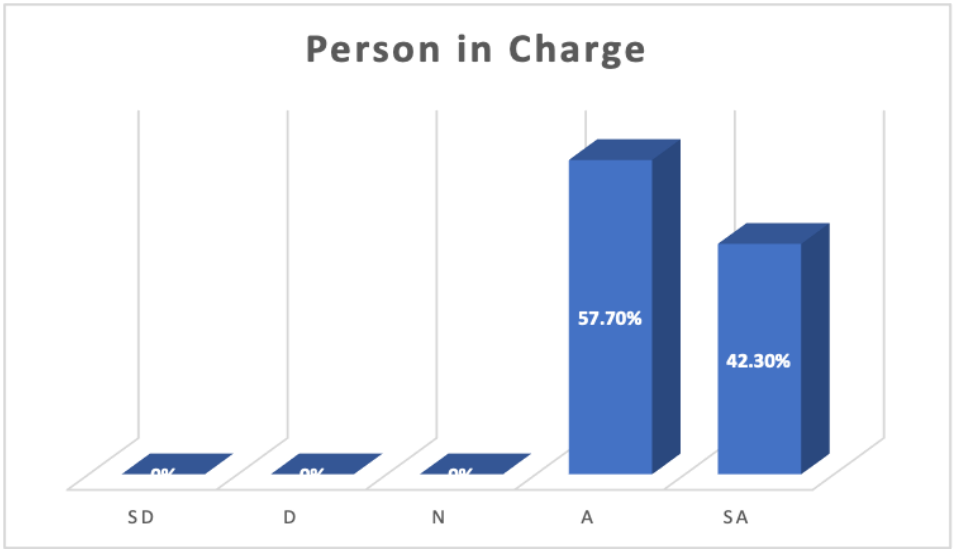
Figure 7.5: Second Victim



7.3.2.6 Person in charge

Another important role in achieving the programme's outcomes is the PIC. This role was included to establish their relevance in the support programme. It was found that most of the respondents (57.70%) agreed that the PIC of the hospital was important in achieving the programme's outcomes, 42.30% of the respondents strongly agreed to this fact, while none of the respondents had a neutral response or expressed their disagreement.

Figure 7.6: Person in Charge



7.3.3 Summary of Respondents' Opinions on the Programme Outcomes

Table 7.3 provides a summary of the respondents' opinions regarding the programme outcomes explained in Figure(s) 7.1 to 7.6. The table reveals the total frequency and percentages for each item. Ninety percent of the respondents agreed with stakeholders' roles in achieving the programme's outcomes. In addition, each factor that was considered had a mean value above 4.3, indicating an acceptance of these factors in terms of achieving the programme's outcomes. This is consistent with the results presented in Figure(s) 1 to 6. Hence, they agreed that stakeholders' roles are valuable in achieving the programme's outcomes.

Table 7.4 Respondents' Opinions

GK	0(0%)	0(0%)	0(0%)	15(57.7%)	11(42.3%)	4.42
PIC	0(0%)	0(0%)	1(3.8%)	13(50.0%)	12(46.2%)	4.42
Counsellor	0(0%)	0(0%)	1(3.8%)	9(38.50%)	15(57.7%)	4.42
OM	0(0%)	0(0%)	1(3.8%)	12(46.2%)	13(50.0%)	4.46
Second Victim	0(0%)	0(0%)	1(3.8%)	14(53.8%)	11(42.3%)	4.38
PIC	0(0%)	0(0%)	0(0%)	15(57.7%)	11(42.3%)	4.42

Source: Field data (2021)

7.3.3.1 Combined aspect of the process according to clarity

To address any AE in the hospital, the programme suggests a procedure that must be followed. This procedure has 13 steps, which have been outlined in Table 3. Figure 7.7 also provides a pictorial understanding of the survey response. This was provided to ensure that the procedures developed in managing any AEs in the hospital are sufficient. Therefore, respondents' opinions regarding the clarity of these steps were considered. According to the results of the process in Table 7.3, 90% of the respondents agreed that there is clarity in each aspect of the process (Cronbach Alpha). The survey results reveal that the respondents agreed that there is maximum clarity in terms of aspects such as notifying the PIC, calling the GK, the IO gathering evidence, discussing the context, writing the report, and taking remedial action. Other aspects such as the second victim's initial storytelling to the GK, and the IC appointing the IO received a response rate of 92.30%, showing a high level of clarity, while 96.20% of the respondents agreed that clarity

was evident in other aspects of the process. In general, 90% of the respondents agreed that each aspect of the procedure was clear to manage any AEs.

Table 7.5: Clarity of the Process

	Freq.	(%)	Freq.	(%)
Notify the PIC	26	100%	0	0.00%
Call the GK	26	100%	0	0.00%
GK refers the second victim to counsellor	25	96.20%	1	3.80%
Initial storytelling to GK by second victim	24	92.30%	2	7.70%
PIC appoints an PIC	24	92.30%	2	7.70%
GK briefs I/O and provides initial report	25	96.20%	1	3.80%
I/O gathers evidence	26	100%	0	0.00%
Anonymised presentation by I/O to Patient Safety	25	96.20%	1	3.80%
Discussion of context (patient profile, experiences)	26	100%	0	0.00%
Report writing based on discussion and findings	26	100%	0	0.00%
Report sent to counsellor	25	96.20%	1	3.80%
Counselling begins	25	96.20%	1	3.80%
Remedial action	26	100%	0	0.00%

Source: Field data (2021)

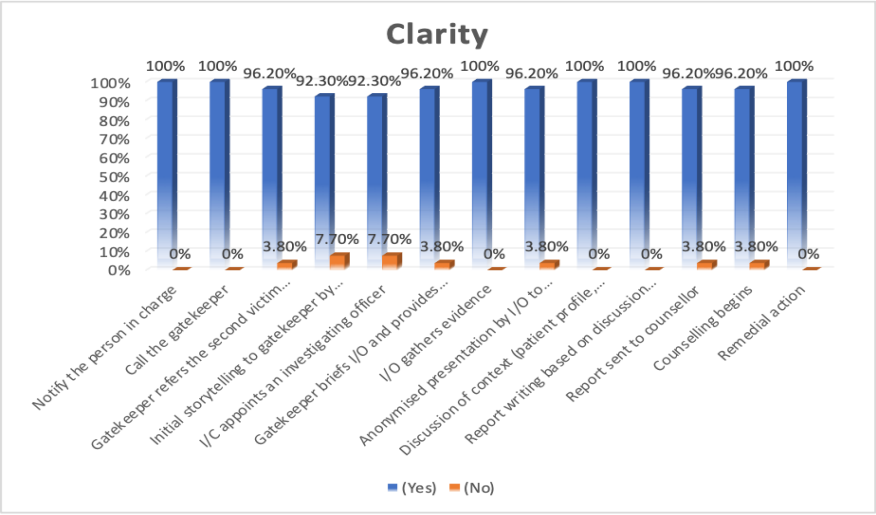


Figure 7.7: Clarity Process

7.3.4 Individually Presented Aspects of the Process according to Relevance

The respondents were also asked to assess the relevance of the outlined process to manage AEs in hospitals. The responses for each step are provided hereunder.

7.3.4.1 Notifying the PIC

The first aspect of the process begins with notifying the PIC. The results from Figure 7.8 indicate a high level (100%) of agreement regarding the relevance of this first step. No respondents disagreed with its relevance. This indicates that all the respondents agree that the PIC must be involved because they play an important role in managing any AE.

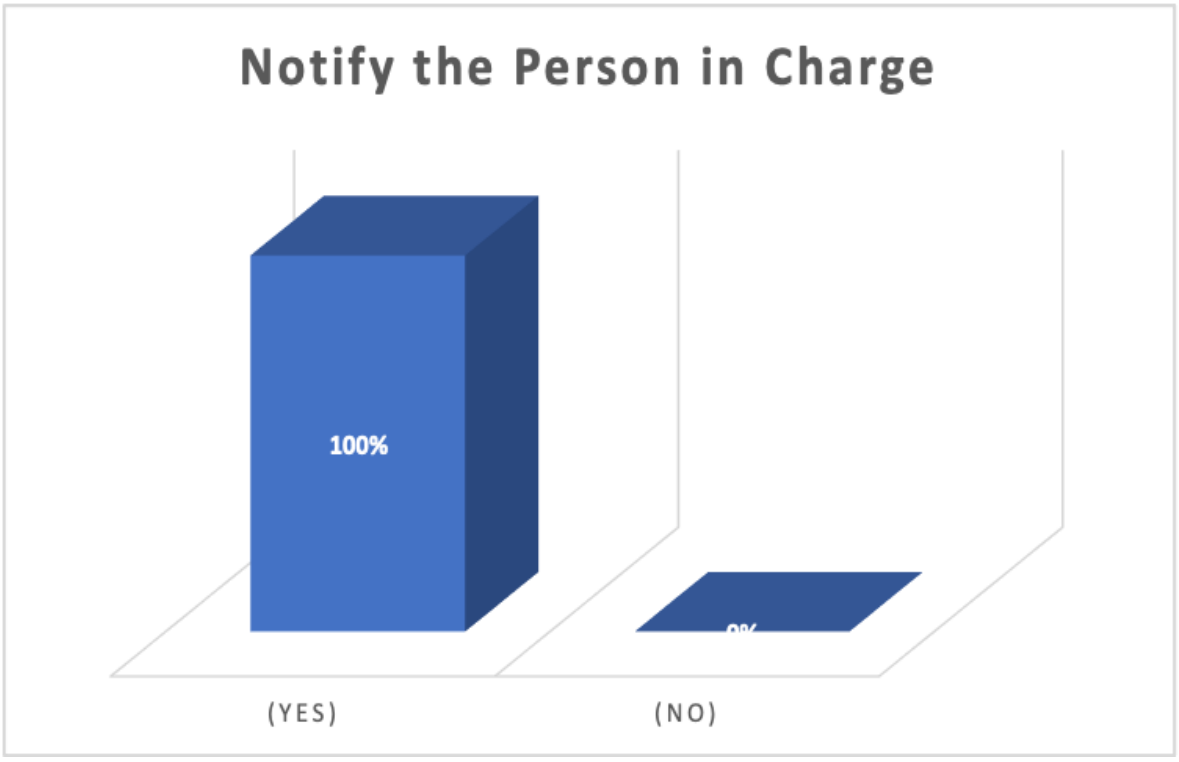


Figure 7.8: Notify the PIC

7.3.4.2 Call the GK

The second step is to call the GK. According to Figure 7.9, 100% of the respondents agreed that the GK must always be called in AEs.

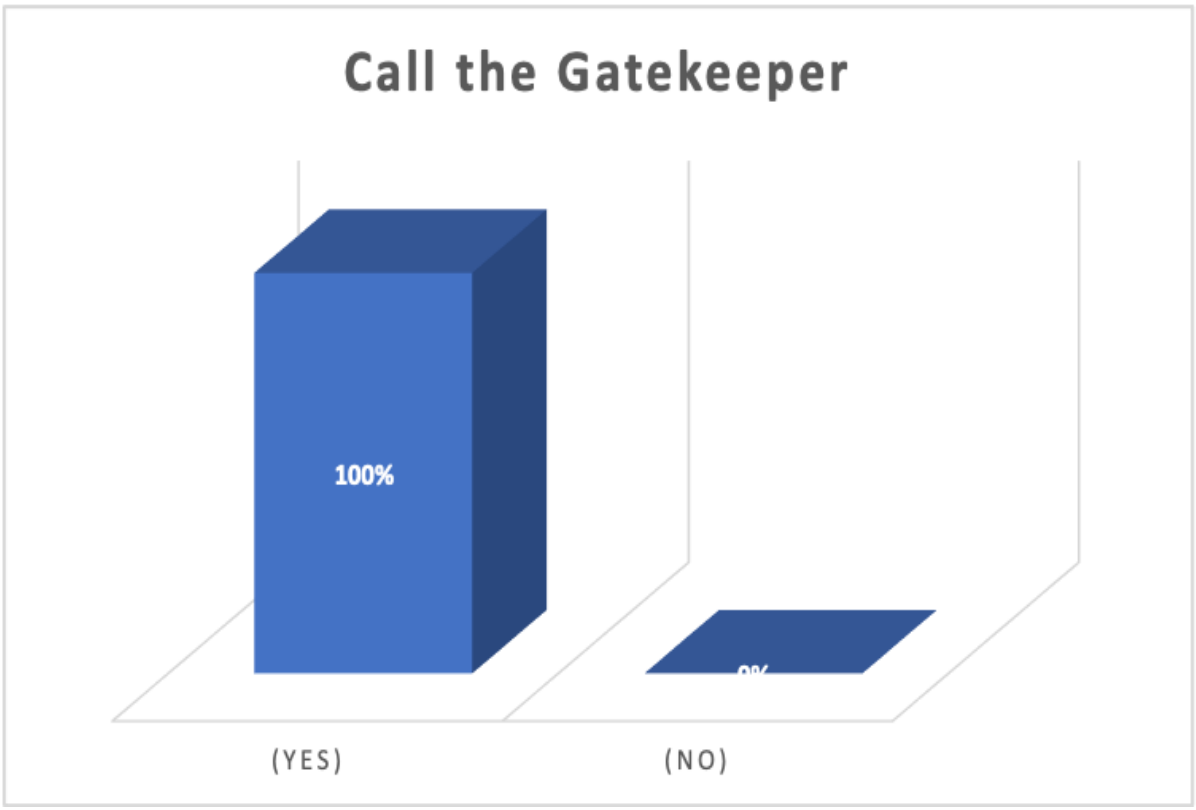


Figure 7.9: Call the GK

7.3.4.3 GK referring the second victim to a counsellor

Only 1(3.80%) of the respondents indicated that this step was irrelevant. On the other hand, the majority, that is 25 respondents (96.20%) agreed that the GK should refer the second victim to a counsellor.

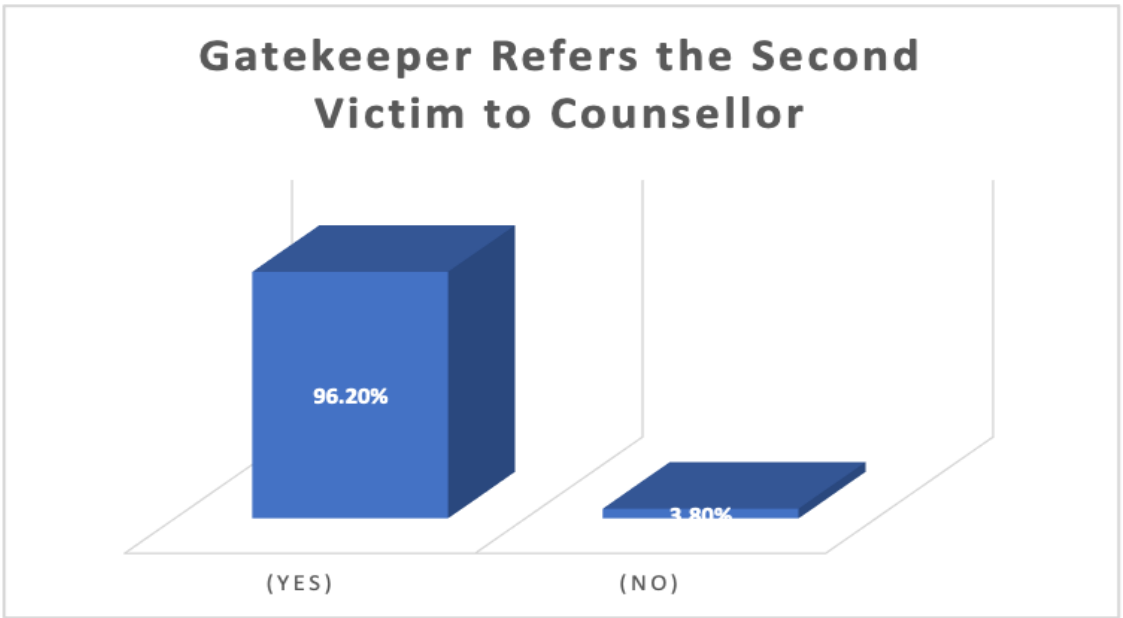
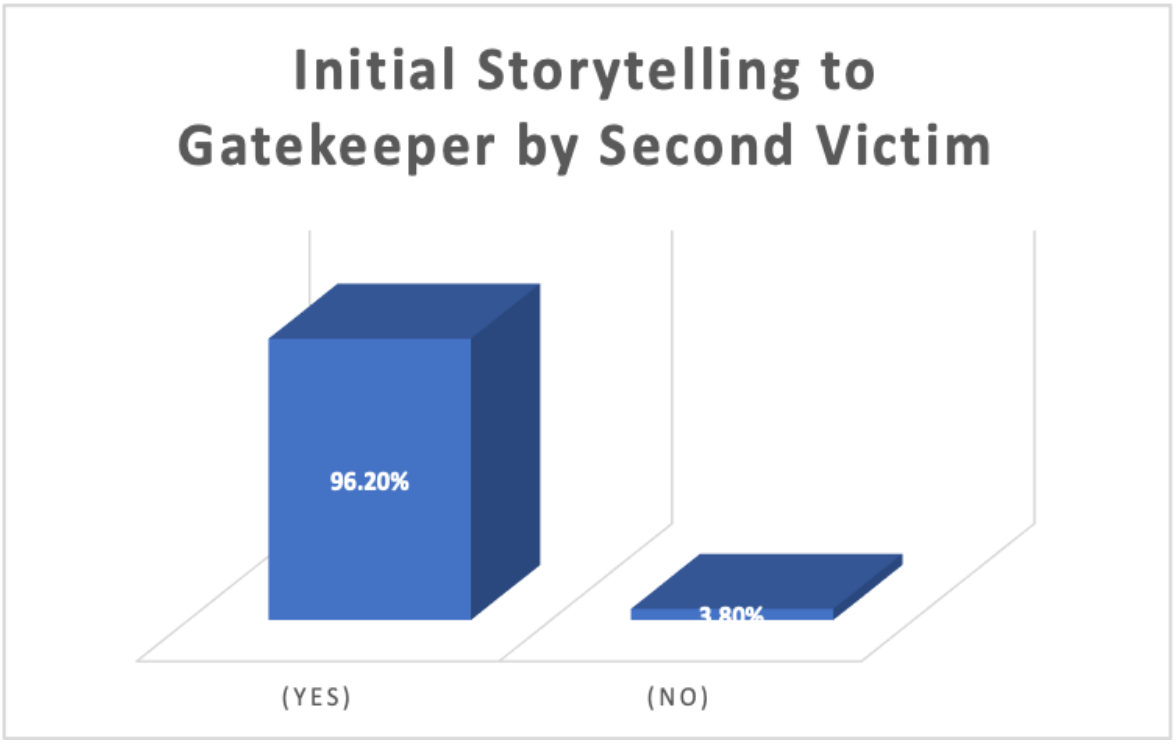


Figure 7.10: GK referring the second victim to a counsellor

7.3.4.4 The second victim's initial storytelling to the GK

Ninety-six of the respondents (96.20%) indicated that the second victim's initial storytelling to the GK was relevant in managing AEs. Only 3.80% of respondents disagreed with its relevance.

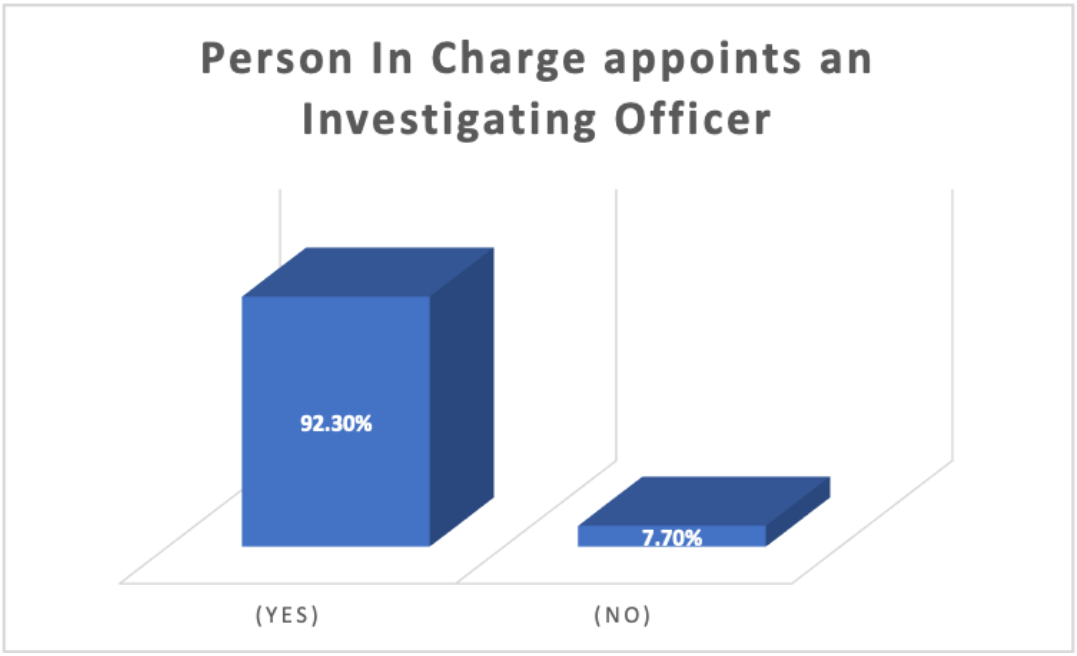
Figure 7.11: The second victim's initial storytelling to the GK



7.3.4.5 The person in charge appoints an investigating officer

According to the survey results, 24 of the respondents (92.30%) agreed that this step was relevant in achieving the programme's outcomes, while 2 respondents (7.70%) disagreed that the IO needed to be involved. The rationale was that no budget was available to enable appointing an IO. Hence, two respondents suggested that the PSC should appoint an IO. The PSC should be led by a clinical manager/director, and such appointment should be based on the skills required on the AE, and not by the PIC.

Figure 7.12: The PIC appoints an investigating officer



7.3.4.6 GK briefs the investigating officer and provides the initial report

Regarding the GK briefing the IO, all the respondents agreed to the relevance of this step. There was no disagreement from the respondents. The results in Figure 7.13 indicate that this step must be included in managing any AEs. This step includes providing an initial report to the IO regarding the occurrence of the AEs and necessary action that needs to be taken.

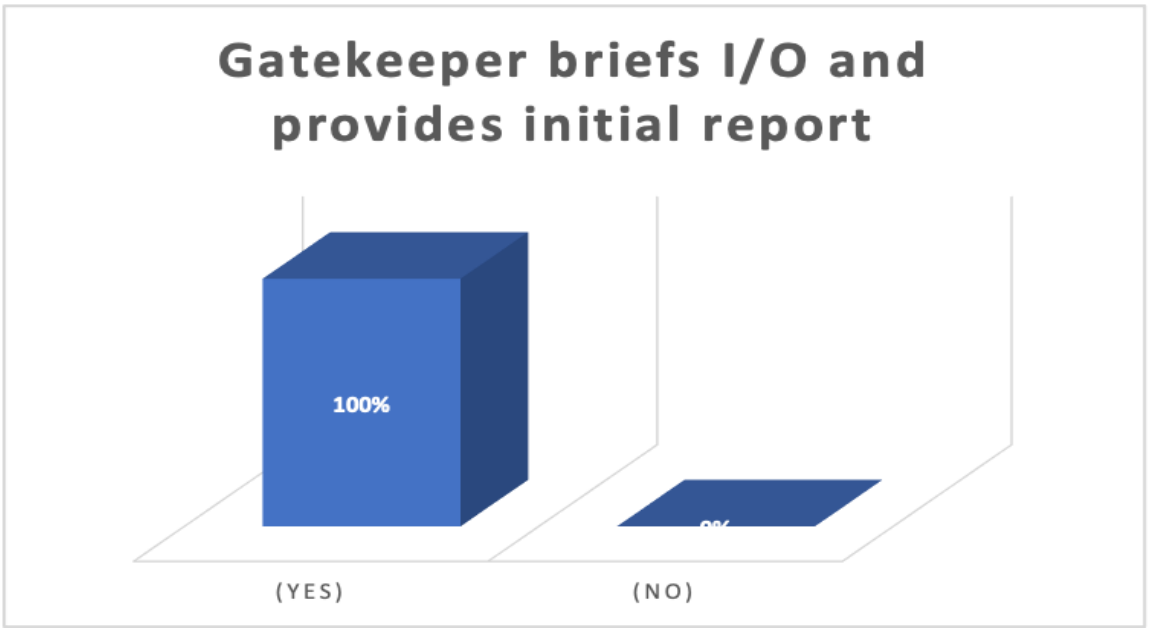
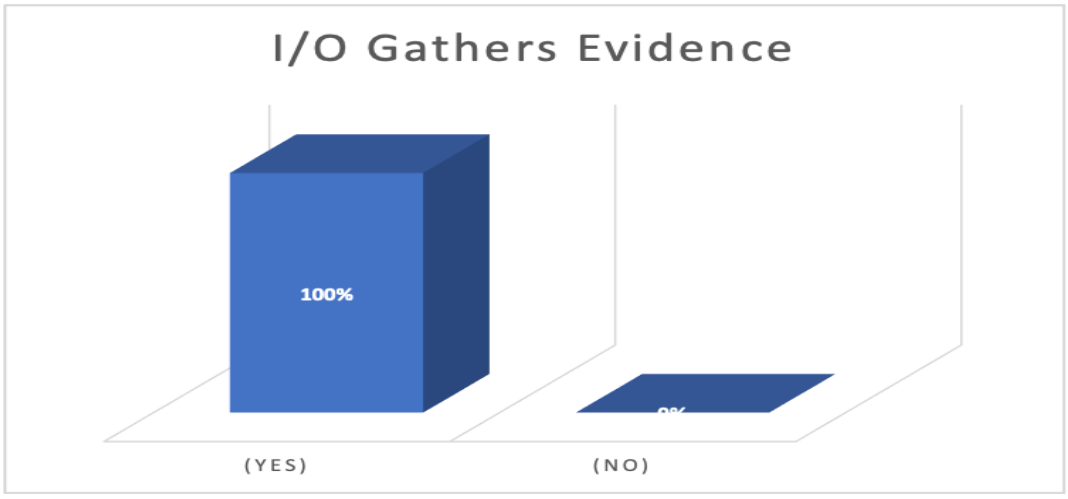


Figure 7.13: GK briefing the investigating officer and providing the initial report

7.3.4.7 The investigating officer gathers evidence

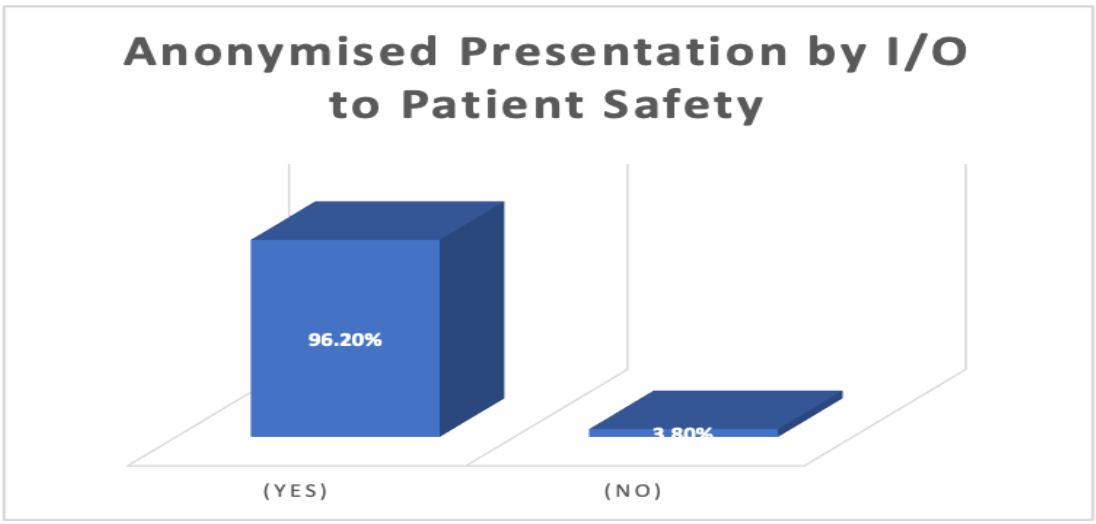
The respondents were unanimous in their agreement that the stage where the IO gathers evidence is relevant. This step provides further information regarding the AE in the hospital and helps the IO to recommend appropriate measures necessary to ensure patient safety. The results are provided in Figure 7.14.



7.3.4.8 The investigating officer's anonymised presentation to the patient safety committee

Figure 7.15 presents the survey results regarding the IO's anonymised presentation. The results show that 96.20% of the respondents agreed that this stage was relevant and must be involved in the AE management process. Four of the total sample (3.80%) disagreed with this step; they suggested that the second victims should be held accountable for their involvement in the AE. Hence the IO's presentation to the OM cannot be anonymous.

Figure 7.15: The investigating officer's anonymised presentation to the PSC



7.4 DISCUSSION OF THE CONTEXT OF THE ADVERSE EVENT

The respondents were unanimous in their agreement that the context of the AE should be discussed. This stage provides more information about patients' profiles and experiences regarding the occurrence of AEs.

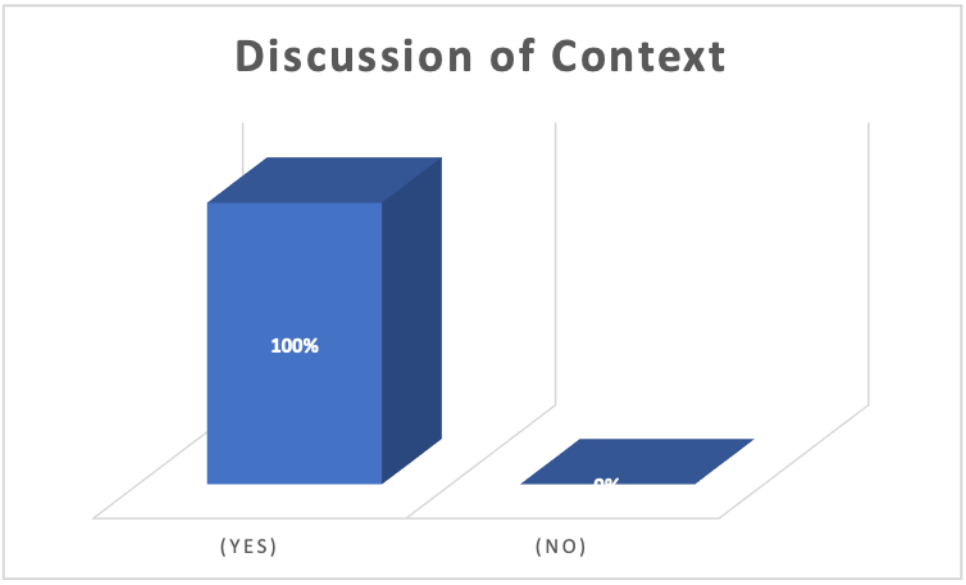
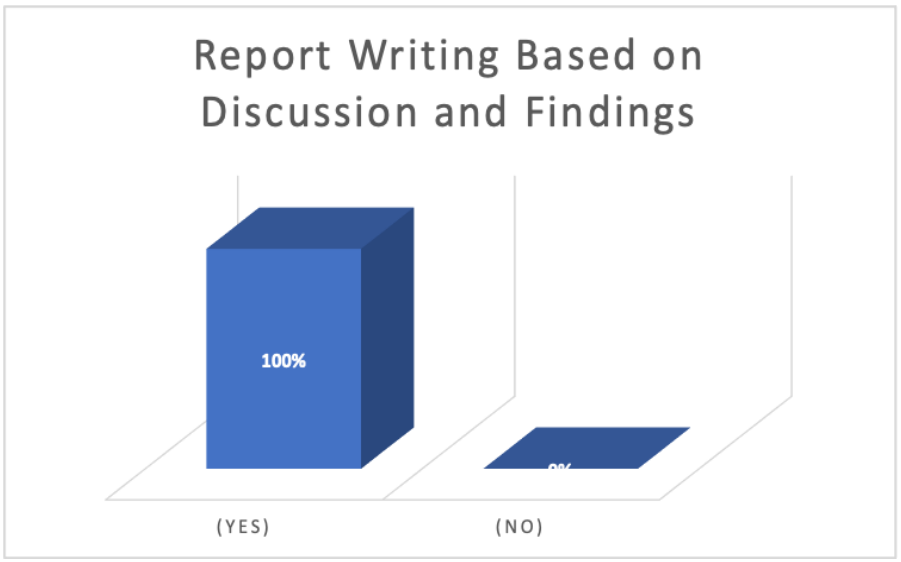


Figure 7.16: Discussion of the context of the adverse event

7.4.1 Report Writing

According to the survey result in Figure 7.17, all the respondents agreed that report writing was essential in managing AEs. None of the respondents disagreed with its relevance.

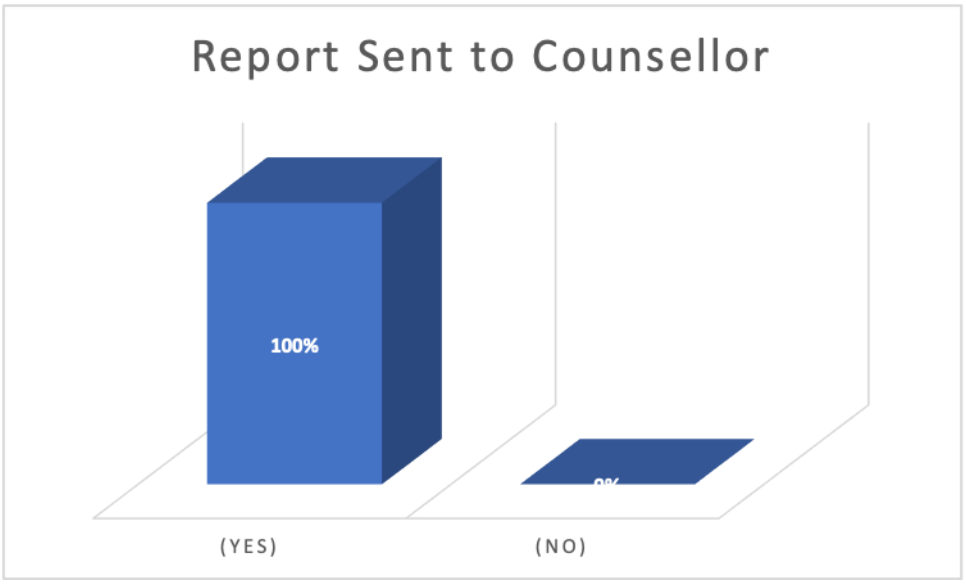
Figure 7.17: Report writing based on discussion and findings



7.4.2 Sending the Report to the Counsellor

Another step that received consensus from the respondents was submitting a report to the counsellor. None of the respondents suggested that it was irrelevant, as a report gives a counsellor relevant information to provide effective counselling. However, one respondent disagreed, suggesting that the even though the GK submits a summary, the counsellor should formulate their own report based on the interview with the second victim, and should not rely on the GK's report.

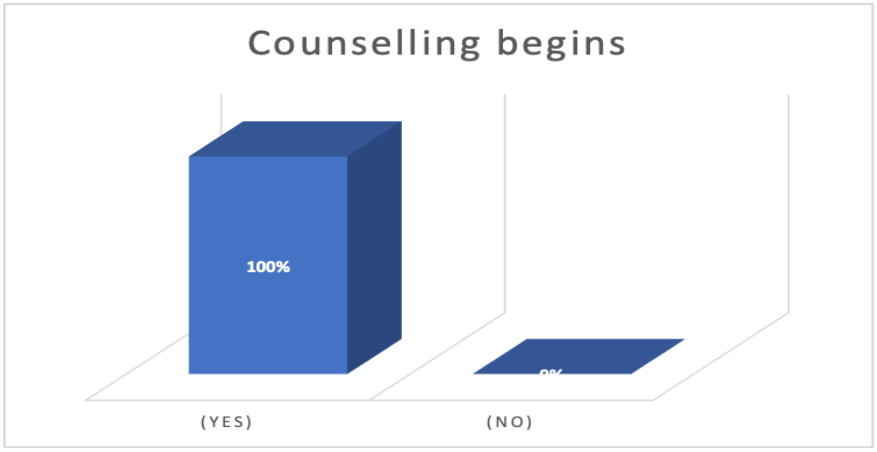
Figure 7.18: Sending a report to the counsellor



7.4.3 Counselling Begins

This aspect also obtained a score of 100% from the respondents. This shows that including counselling the programme is relevant.

Figure 7.19: Counselling begins



7.4.4 Remedial Action

The final aspect of the AE management process is taking remedial action. The results in Figure 7.20 indicates that all 26 of the respondents (100%) agreed with the criteria of relevance.

Figure 7.20: Remedial action

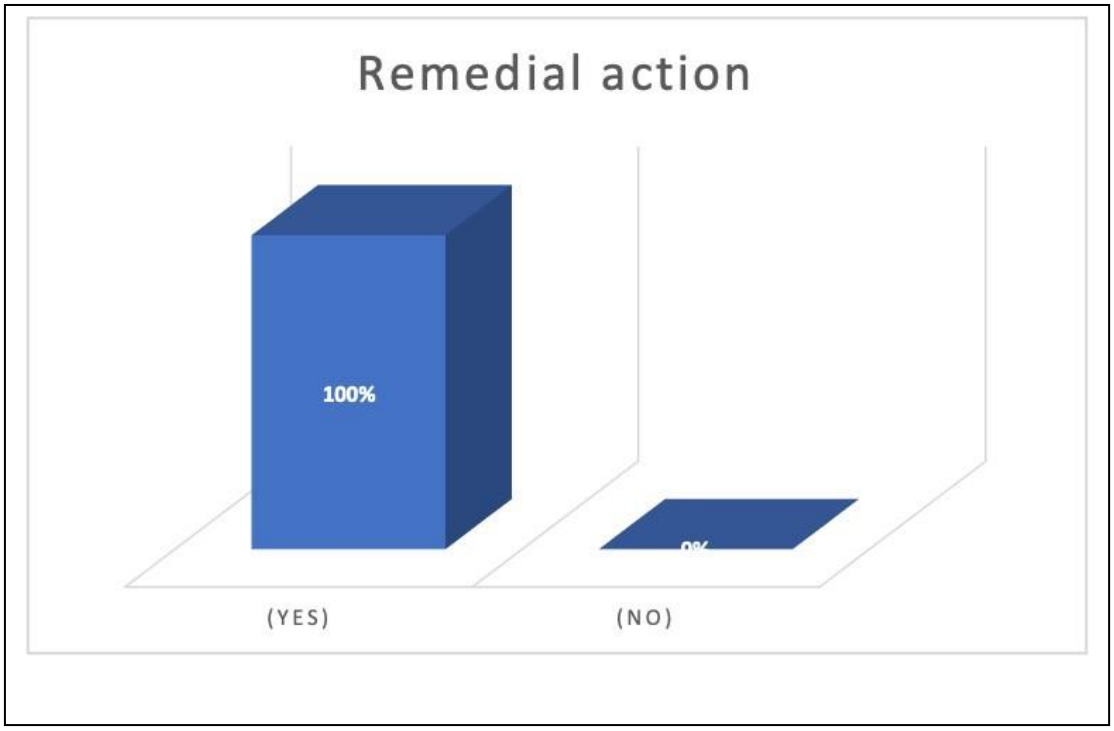


Table 7.5 provides a summary of the responses regarding the relevance of the entire process in managing AEs. A higher percentage of the respondents agreed to the relevance of each aspect of the programme; therefore, it must be included in managing any AE in a hospital.

Table 7.6 Summary of relevance

	Freq.	(Yes)	Freq.	(No)
Notify the PIC	26	100%	0	0%
Call the GK	26	100%	0	0%
GK refers the second victim to counsellor	25	96.20%	1	3.80%
Initial storytelling to GK by second victim	25	96.20%	1	3.80%
PIC appoints an PIC	24	92.30%	2	7.70%
GK briefs I/O and provides initial report	26	100%	0	0%

I/O gathers evidence	26	100%	0	0%
Anonymised presentation by I/O to Patient Safety	25	96.20%	1	3.80%
Discussion of context (patient profile, experiences)	26	100%	0	0%
Report writing based on discussion and findings	26	100%	0	0%
Report sent to counsellor	26	100%	0	0%
Counselling begins	26	100%	0	0%
Remedial action	26	100%	0	0%

Source: Field Data (2021)

7.4.5 Process According to Feasibility

Table 7.7 Feasibility

	Freq.	**(Yes)**	**Freq.**	**(No)**
Notify the PIC	26	100%	0	0.00%
Call the GK	25	96.20%	1	3.80%
GK refers the second victim to counsellor	23	88.50%	3	11.50%
Initial storytelling to GK by second victim	24	92.30%	2	7.70%
PIC appoints a PIC	23	88.50%	3	11.50%
GK briefs I/O and provides initial report	25	96.20%	1	11.50%
I/O gathers evidence	25	96.20%	1	11.50%
Anonymised presentation by I/O to Patient Safety	25	96.20%	1	11.50%
Discussion of context (patient profile, experiences)	26	100%	0	0.00%
Report writing based on discussion and findings	26	100%	0	0.00%
Report sent to counsellor	24	92.30%	2	7.70%
Counselling begins	24	92.30%	2	7.70%
Remedial action	25	96.20%	1	3.80%

One of the criteria investigated was the feasibility of the steps in managing AEs. It was necessary to identify whether the 13 aspects of the process could reasonably be achieved within a timeframe. Each step in the process was considered based on a 'yes' or 'no' answer. Table 7.5 provides the survey response regarding the feasibility of the process, which is further illustrated in Figure 7.20. The result from the table indicates a high level of consensus from the respondents regarding the feasibility of the process. All 26 of the respondents (100%) agreed to the feasibility of these aspects: notifying the PIC; discussing the context; and writing a report based on the discussion and findings. Additionally, 96.20% of the respondents agreed to the feasibility of the following aspects: calling the GK; GK briefing the IO and providing an initial report; the IO gathering evidence; the IO making an anonymised presentation to the PSC; and taking remedial action. The GK referring the second victim to a counsellor had the lowest response, however, about 88.50% of the respondents agreed to feasibility thereof. In summary, the process outlined in Table 7.4 received a high level of agreement from the respondents, suggesting that this process is something that can be followed to manage any AEs in a hospital.

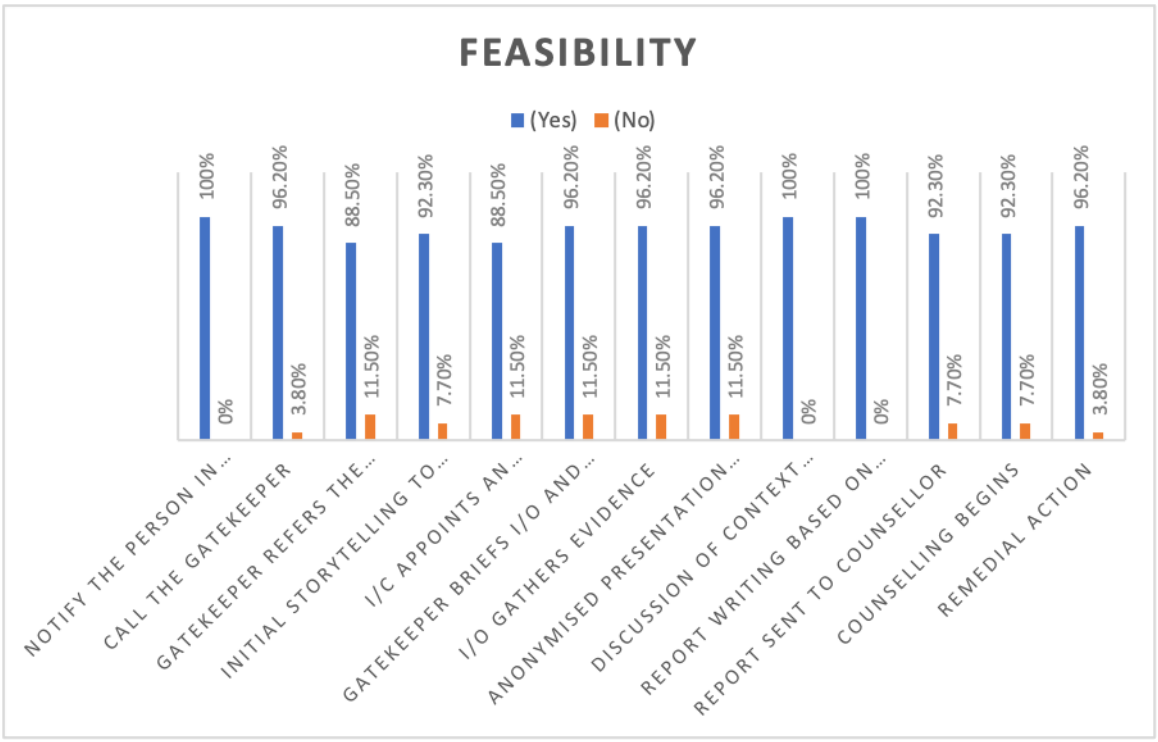


Figure 7.21: Feasibility

7.4.6 Reliability Statistics

Table 6 provides the reliability statistics of the programme outcome, clarity, and relevance, and the feasibility of the process used in managing AEs. The programme outcome, which identifies the roles of the GK, IO, counsellor, PSC, second victim and PIC IC had an alpha value of 0.872.

In terms of the process used in managing AEs in the hospital, feasibility had the highest alpha value of 0.906, while clarity and relevance had an alpha value of 0.598 and 0.671, respectively.

Table 7.8 Cronbach Alpha result

Outcome of the programme	6	0.872
Clarity	13	0.598
Relevance	13	0.671
Feasibility	13	0.906

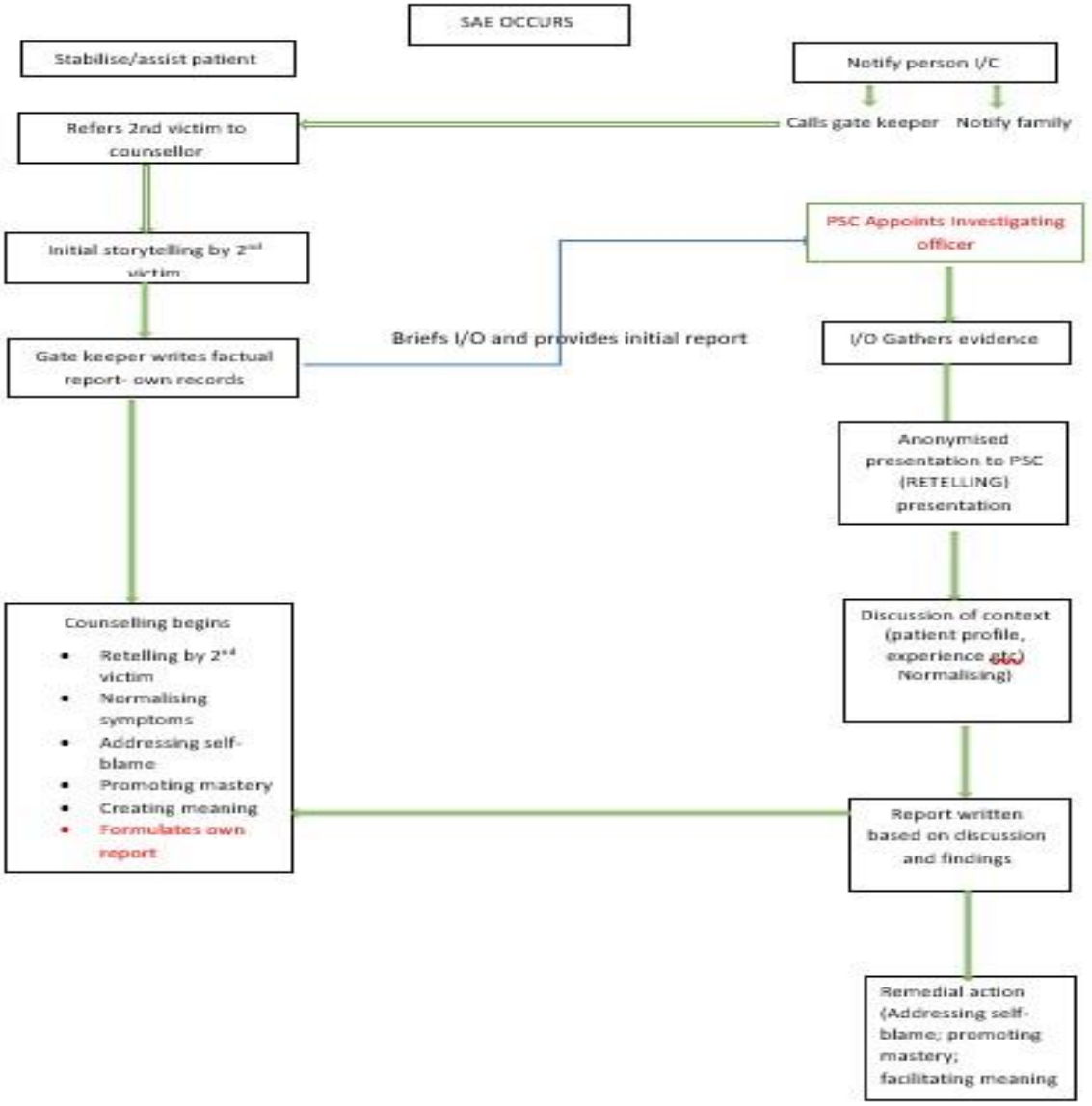
7.5 DISCUSSION

The Delphi survey revealed a consensus among the experts who unanimously agreed on the development of a support programme for HCPs involved in AEs in public hospitals in Gauteng. The results of this phase however had limitations in that the participation level was poor. The findings confirmed that the respondents were too compliant, which the researcher aimed to address. Some of the respondents mentioned that the information sheet was complicated and long, which was evident from the number of reminders that were forwarded to urge them to complete and submit the survey. Others stated that they experienced challenges with internet accessibility, which delayed the submission process, hence the researcher provided them with hard copies of the survey, which were later completed and submitted.

The respondents stated that the developed support programme was labour-intensive, and therefore they might find it challenging to implement it at their various hospitals. It also emerged that there was no flexibility in assuming certain roles in the various hospitals, as mentioned. This was apparent from the responses in which the respondents affirmed that there were no trained counsellors at some of the hospitals due to financial constraints. However, none of the experts were willing to assume that role and provide counselling or debriefing to the second victims, even when they had the experience that qualified them to do so.

The responses resulted in the amendment of the original programme. Below is the modified programme from the input of the Delphi group (See Annexure F: Modified Programme from Delphi Group).

Figure: 7.22 Modified programme from the Delphi group



7.6 PHASE 5.2: FOCUS GROUP

The researcher was concerned that the participants in the Delphi group had agreed with most of the questions provided in the questionnaire and may not have been sufficiently critical in their responses. It had also been exceptionally difficult to reach the participants who indicated their unwillingness to be involved in a second round. Therefore, the researcher added a focus group,

and experts were invited to review the amended programme following the input from the Delphi group.

The study methodology was explained by means of a 10-slide PowerPoint presentation to the experts who have in-depth expertise and knowledge in managing AEs and were invited to review the modified programme following the Delphi. This was carried out to facilitate familiarity with the discussion for the meeting. Two copies of the original programme forwarded to the Delphi group as well as the modified programme following the group's input were handed to the experts to commence the discussion. The concepts the experts were asked to review were: clarity; relevance; and feasibility**.** The researcher developed the interview guide for the experts, and this guide was used to facilitate the discussion. (See Annexure G**).**

Clarity

- What do you think of the programme's clarity?
- In your opinion, what should be included to ensure the programme is clear?
- What other comments can you share prior to the introduction of the programme?
- Have we exhausted all suggestions related to clarity?
- What do you think of the programme's relevance?
- In your opinion what should be included to ensure the programme is relevant?
- What other comments can you share prior to the introduction of the programme?

Relevance

- What do you think of the programme's relevancy?
- In your opinion what should be included to ensure the programme is relevant?
- What other comments can you share prior to the introduction of the programme?
- Have you exhausted all suggestions related to the programme's relevancy?

Feasibility

- What do you think of the programme's feasibility?
- In your opinion what should be included to ensure the programme's feasibility?
- What other comments can you share prior to the introduction of the programme?
- Have you exhausted all suggestions related to the feasibility aspect?

7.6.1 Findings and Narrative – Phase 5.2

7.6.1.1 Clarity

The focus group commenced with a conversation on clarity, and it encompassed most of the discussions as the deliberations related to the modified programme were wide-ranging. This

concept was discussed at length, with the experts asking questions to clarify the programme's aspects. When asked to provide their opinions regarding the clarity of the programme, all the experts were unanimous in their opinion that the programme did not have the required clarity.
The issues that arose from clarity were as follows:

7.6.1.2 Role clarification

The experts needed clarity on the individuals included and the various roles of stakeholders as they appeared in the programme. One of the experts sought to confirm the role clarification: *"So, the first victim is the patient? And the counsellor is like psychological? What I am trying to understand then, who is the GK? So, how does the CO come to know about it (meaning the AE). I think the PIC needs to inform the GK, the family, and the PSC at the same time*". **(Expert 1).**

Another expert added: "*Yes because I was also wondering how they are going to find out. Because the first part was not clear, and we made some changes".* **(Expert 2).**

Upon realising that the experts needed clarity regarding the stakeholders' roles in the programme, the researcher described the roles of everyone in the programme for the experts to understand who they were and why they were included. Following this explanation, all the experts advised that the PIC should be the first person to: become aware of the event and notify the UM; stabilise the patient; and notify other people. The researcher included them in the amended and final programme. All the experts proposed that the situation should be managed to stabilise the patient as per the emergency guidelines that are included in the Gauteng National Guidelines or Complaints Policy.

One of the experts said: *"The UM is the one that gets notified about the incident. This person notifies the PIC… and stabilises the patient that is … go to emergency procedures of the ward if this exists, and then will notify the GK, the family, and the PSC".* **(Expert 1)**

7.6.1.3 Funding

Funding within the GDoH was mentioned as an issue for deliberation. Regarding the appointment of an IO, all the experts agreed that in view of the GDoH having insufficient funds, it would be appropriate to appoint a person to move between different hospitals to investigate AEs.

The experts made the following statements:
"My concern is would there be funds for getting anyone in on a consultancy basis?" (**Expert 1)**.

"*Another challenge that I have seen, for each problem, you think about a person for the position. So, I would say, you know, if we can … make sure that we do not add, because of people in the system, that we are able to use people that we have…".* (**Expert 3).**

"It is a good idea, to have an interchange between hospitals". **(Expert 2).**

7.6.1.4 Time frames:

The experts suggested that time frames should be specified for reporting the AEs to relevant stakeholders, which the researcher has included in the programme.

"My question is now, with the amended one, is if the PSC is appointing the IO, when is this going to happen? There is going to be a gap. We need the PIC…immediately". (**Expert 2).**

All the experts recommended that when an AE occurs, there should be immediate notification of those in charge to ensure that the involved patient is stabilised as soon as possible and to prevent complications. This should be followed by reporting to relevant stakeholders to facilitate appointing an IO to commence with the investigation.

"In the report, why do we not put a 'within 24 hours, or 48 hours' or something, so that they get time to catch their breath". **(Expert 2).**

"*We say the health establishment must report within twenty-four hours after they became aware of the incident, so the PIC is the one that is supposed to report the incident to us after they became aware".* **(Expert 3).**

7.6.1.5 Investigating Officer

The experts deliberated on one of the comments from the Delphi group that the IO be appointed by the PSC rather than the IC to prevent bias. Experts agreed by making the following statements: "*It is now the PSC that is going to appoint the PIC*". (**Expert 1**). "*Yes, because we do not want the PIC to appoint because of bias. The PSC is a committee*". (**Expert 3**).

However, one expert suggested a replacement to the word 'appointment' as affirmed by the following statement: *"Yes. Assignment is a better word*". (**Expert 2**). The researcher included this in the programme process.

One of the experts asked for clarity regarding the IO's qualifications/skills/expertise, asking whether the person should have knowledge of health-related matters.

*"Talking about IO'. I am not sure, you said it should be someone with a health background?" (***Expert 3**).

7.6.1.6 Report writing

The experts advocated that following the **IO's** anonymised presentation to the PSC, resolutions and decisions should be made. All the experts agreed that the report should be written on preventing a recurrence, according to the principles of the Just Culture. One of the copies should be submitted to the GDoH, at the provincial QA office, and the other copy to other health facilities so that staff can learn from them to prevent a reoccurrence, and within a specified timeframe.

In case where the IO and the PSC found evidence of the second victim's negligence, two of the experts recommended that the report be forwarded to the higher authorities for attention, and that action be taken as per the principles of Just Culture. Experts made the following statements:
*"Some reports might have to go to higher authorities. where serious action". (***Expert 2).**
"*Maybe we can bring in the Just Culture*". (**Expert 1**).

The experts advised that the GK should not give the counsellor a report, but rather the counsellor should generate their own report following the counselling session with the second victim.
"And also, we said the GK's report does not go to the counsellor ". (**Expert 1**).

7.6.1.7 Remedial Action

Experts suggested that remedial action be implemented by the health facility to include staff training. Furthermore, they advised that the facilities provide adequate resources related to staffing, equipment, and consumables to enable the staff to provide quality patient care with sufficient resources. The steps of the WTM will remain in the programme to ensure that self-blame is addressed, to promote mastery, and to create meaning.

7.6.1.8 Social Worker/Counselling Psychologist/Counsellor

Experts agreed with the Delphi group input that the GK refer the second victim for a counselling session. However, they proposed that there should be a qualified social worker/counselling psychologist, who has been trained and who is regarded as competent; and who is familiar with guidelines for assisting second victims to write incident reports, saying, *"So, the first thing that happens is someone now sits down with them and helps them, that is according to guidelines. And then refers to the counselling. There need to be guidelines for the social worker/ Counsellor. Yes. Guidelines for this person, yes. For them to assist the second victim to write the incident report*

with timelines so they don't forget the details" *Counselling psychologist. They have got four years training:* **(Expert 2).**

One expert mentioned that the counsellors adhere to the principles of confidentiality according to their code of conduct. It was noted that their profession prevents them from divulging reports from counselling sessions, unless the client gives permission.

"*By oath they are not allowed to let any of that information go. So then, you find a Catch-22, because you can ask the second victim to sign a release. But then, if I am going to sign a release, I am going to be very careful what I tell the counsellor. The counsellor report stays confidential I think the counsellor can possibly say he needs further counselling. He needs to see a psychiatrist. He needs to be booked off".* (**Expert 1).**

"*The counsellor can make recommendations".* **(Expert 2).**
Based on the input above and following lengthy deliberations, the experts agreed that the issues related to clarity were resolved.

7.6.2 Relevance

The experts were asked questions related to the programme's relevance. They agreed that the relevance of the programme relied on management's understanding of the principles of the Just Culture. They recommended that leadership at health facilities should not punish second victims hastily following involvement in AEs but should rather focus on providing counselling, support, and education. *"If the COs, and even the province, are aware of this concept, although you say it is in the policy. Because they might be aware, I am not aware, but I certainly think people need to understand or to be taught that the concept is also to be not punitive necessarily, but address the situation, and I do not know if they, one, know what it is, and two, what the attitude is, because I think at the moment it is crack the whip". (***Expert 1).**

"*It would only be relevant if there was some preparation or conscientisation of the institutions about just culture. And if there was, then it would be relevant". (***Expert 2).**

"*And not only the institution, but the provincial government as well, and national*". (**Expert 1**).
"*Exactly. You talk about just culture, but at times there is no support*". **(Expert 3)**
An expert commented that the developed programme was relevant and its inclusion in the 2017 issue of the *Patient Safety Incident Guidelines and Learning*, which the NDoH is in the process of

revising, will be beneficial in both provincial and national government spheres. It emerged that the previously implemented 2015 policy encouraged Just Culture without putting emphasis on second victim support.

*"The NDoH is in the process of even revising the 2017 one, and they do not have this programme. If you look at it, they do not have this. They are talking about just culture, but they are not giving people any guidelines. Just to check whether they cannot use your programme to include in the process. Because it is a process of two years. It is only now that they are going to be starting, they might even be able to insert it". (***Expert 3**).

It emerged that most of the experts' input related to relevance of the programme was based on Just Culture.

"*That is also the thing with just culture. It divides them into aspects of responsibility, and they only punish them for gross negligence, otherwise it is counselling, support, education, or, if it is a minor lapse, then they actually, in that programme it says support. So, there is no question of discipline". (***Expert 2**).

One of the experts stated that this final and amended programme under discussion will be beneficial for implementation at the public hospitals in Gauteng with no evidence of efficient EAPs and those whose available support structures were unknown to staff.

"You were talking about the relevance and practicality. I would say this is very relevant, the reason being that when you go to a health establishment now, they do not have employee wellness programmes or EAPs, where people that have been traumatised in the work environment, they cannot get any assistance. So, this programme is going to assist them".
(Expert 3).

Following the discussion, the experts agreed that the programme would be relevant provided the recommendations/inputs made are forwarded to the related stakeholders and implemented. Thus, the issues related to relevance were resolved.

7.6.3 Feasibility

The experts were asked questions related to the programme's feasibility. Most of them agreed that the programme feasibility depended on reducing the costs, as HR funding was a challenge in the health sector.

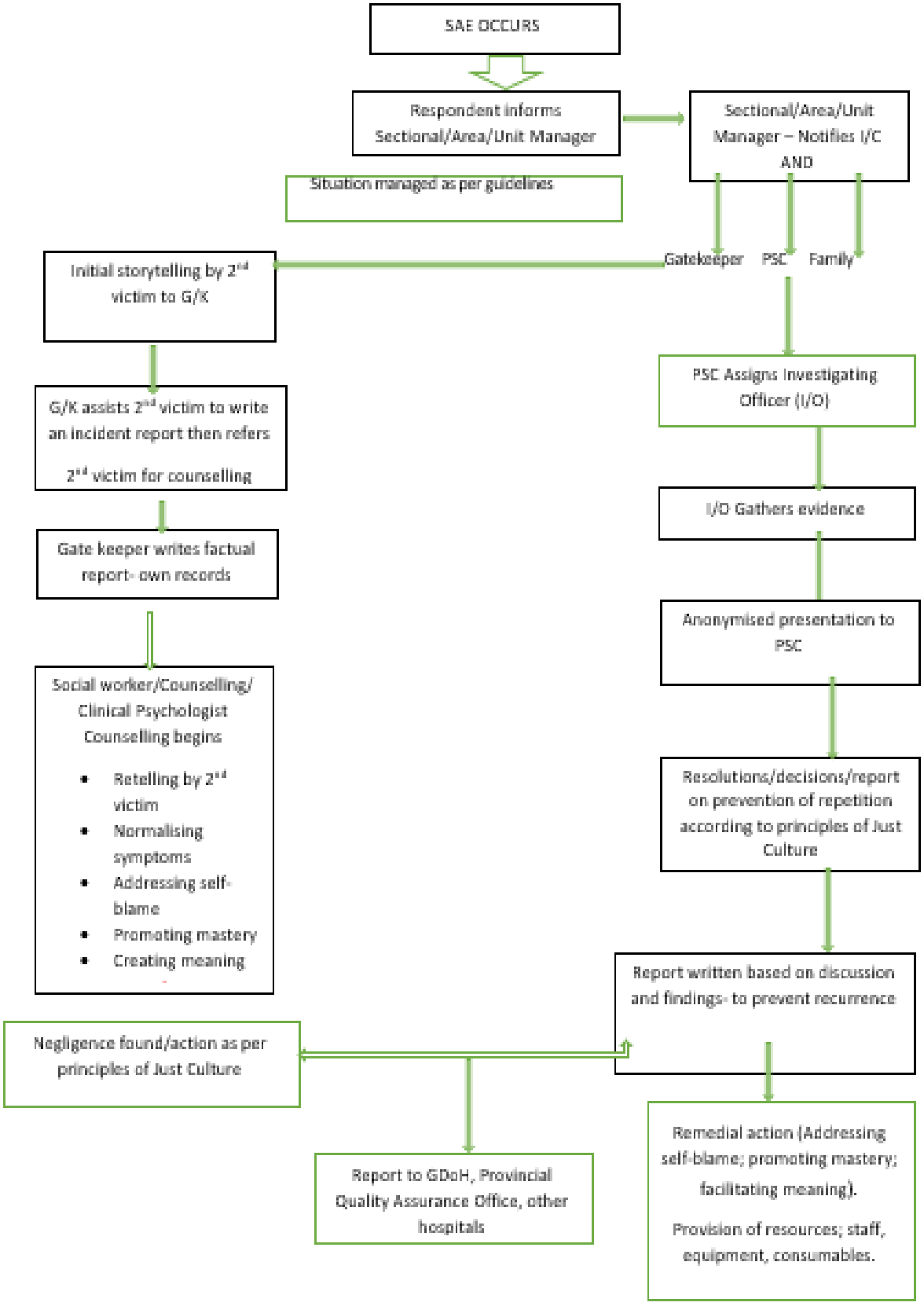
*"I think the fact that inter-hospital appointments make it feasible. Because if there is no budget, that should be one of the highlights". (***Expert 1**).

"I think it is feasible. We can do nothing about if there is buy-in, but that you cannot do here. I do think it is feasible". (**Expert 2**).

"*I also think it is feasible, as long as there are no additional resources, especially HRs. And when we were talking about counselling psychologists, I was even saying we should not even restrict ourselves by saying psychologists, whether it is clinical or whatever*; *counselling psychologist, or another psychologist, social worker, whoever is capable*". (**Expert 3**).

"As a researcher, your recommendation is going to be that it is managed within the institution and when this report is ready, it goes to the department of health". (**Expert 2).**

Following the discussion and input from the experts, the feasibility was addressed and resolved. Below is the final modified programme. (See Annexure H) from the expert input. Figure 7.22 below).


SAE OCCURS
Respondent informs Sectional/Area/Unit Manager
Sectional/Area/Unit Manager – Notifies I/C AND
Situation managed as per guidelines
Gatekeeper
PSC
Family
Initial storytelling by 2nd victim to G/K
PSC Assigns Investigating Officer (I/O)
G/K assists 2nd victim to write an incident report then refers
2nd victim for counselling
I/O Gathers evidence
Gate keeper writes factual report- own records
Anonymised presentation to PSC
Social worker/Counselling/ Clinical Psychologist Counselling begins
Retelling by 2nd victim
Normalising symptoms
Addressing self-blame
Promoting mastery
Creating meaning
Resolutions/decisions/report on prevention of repetition according to principles of Just Culture
Report written based on discussion and findings- to prevent recurrence
Negligence found/action as per principles of Just Culture
Report to GDoH, Provincial Quality Assurance Office, other hospitals
Remedial action (Addressing self-blame; promoting mastery; facilitating meaning).
Provision of resources; staff, equipment, consumables.

7.7 SUMMARY

The original programme (Annexure D) was sent to the Delphi panel to confirm and validate the programme, and they provided their input and concerns. The researcher acknowledges that the attempts at validation were of limited success. This led to the amendments resulting in the construction of a modified programme (Annexure F). However, in view of the concerns arising out of the Delphi group input, a modified programme for review was forwarded to a focus group comprising another group of experts. These experts provided positive input resulting in the final modified programme (Annexure H). The researcher acknowledges that the focus group provided additional data rather than validate the programme.

The focus group agreed that this final modified programme was significant for the GDoH.

7.8 CONCLUSION

Chapter seven provided an overview of the questionnaire design and the Delphi findings and dealt with Phase 5.1 of the study. Phase 5.2 was discussed and dealt with the focus group where the concerns from the Delphi group were addressed.

Chapter Eight follows in which the study overview, the limitations, recommendations, and conclusion are deliberated.

CHAPTER EIGHT
STUDY OVERVIEW, LIMITATIONS, RECOMMENDATIONS, AND CONCLUSION

8.1 INTRODUCTION

Chapter Seven dealt with the confirmation and validation of the programme to support HCPs involved in AEs in public hospitals in Gauteng. Chapter Eight provides a summary of the study's findings, presents its strengths and limitations, draws conclusions, and makes recommendations. The study sought to respond to the question: "How can a support programme for HCPs who have been directly involved in AEs in public hospitals in Gauteng be developed?" The study was conducted in five phases, and each had its distinctive objectives:

Phase 1: To explore the influence of AE involvement on HCPs in international literature.
Phase 2: To explore the influence of AEs on HCPs in public hospitals in Gauteng.
Phase 3: To explore the coping mechanisms after involvement in AEs.
Phase 4: To develop a support programme for HCPs involved in AEs.
Phase 5: Validation of the developed programme (Delphi and focus groups).
The development process followed the WTM. The study utilised a sequential multimethod research design.

8.2 SUMMARY OF FINDINGS

8.2.1 Phase 1: Objective One - To Explore the Influence of Adverse Events Involvement on Healthcare Professionals in International Literature

This objective explored the impact of AEs involvement on HCPs as described in international literature and sought how best to support these professionals. Arksey and O'Malley's (2005) five-stage methodological programme for a scoping review by was used to achieve the objective.

Literature was identified and appraised from three electronic databases namely PUBMED, EBSCOHOST/CINHAHL, and EBSCOHOST/ERIC published between January 2010 and December 2020, using three search terms: AEs AND second victim; AEs AND influence; and second victims AND support.

The Boolean technique was used to narrow, widen, and combine the literature searches, resulting in a total of 55 articles being included for the final review. The review helped to establish how best a second victim could be supported to reduce the stress caused by their involvement in an AE, and how to enable them to continue providing quality nursing care. The findings revealed that these second victims experienced intense psychological, physical, emotional, and professional distress following their involvement. It was reported that for some second victims, the distress was long-lasting, and prevented them from performing their duties as expected. There were reports of support programmes developed and implemented in certain countries. While some countries described the tools available that were, designed to assist in developing the support programmes, others related to interventions to accomplish that the same result.

8.2.2 Phase 2: Objective Two - To Explore the Influence of Adverse Events on Healthcare Professionals in Public Hospitals in Gauteng

The Smith and Liehr' (2006) storytelling method of data collection assisted the researcher to realise this objective. One question was, asked of participants to capture their experiences, namely, *"tell me a story about when you were involved in an AE. Tell me what happened, how you and others dealt with it, and how it made you feel*". The participants were, asked follow-up questions as stated hereunder:

- Tell me how you would have liked the AE to be different?
- How or what would you change if you had the experience again?
- Thinking back on the experience, how do you feel about it?
- What impact did it have on you and others involved in the experience? (See Annexure B)

Interactive communication clarification techniques were, implemented throughout the storytelling. The collected data was analysed using Braun and Clarke's (2006) thematic analysis method. Measures to ensure trustworthiness were, defined in accordance with Amin et al.'s (2020) method that promotes the qualifying criteria of credibility, transferability, dependability, and confirmability.

The three main themes that emerged were:
i) the impact of AEs involvement, which involved the initial reactions, subsequent reactions and the lessons learnt by the HCP; ii) the types of experiences before, during, and after the review process.

iii) the third and final theme highlighted the support systems available after AEs, i.e., the types of support received, the participants' perception of helpful support, overlaps between the two and the recommendations by the involved HCPs.

8.2.3 Phase 3: Objective Three - To Explore the Coping Mechanisms after Being Involved in an Adverse Event

Semi-structured interviews were, conducted with the managers to explore the mechanisms used to cope with the results of AE involvement.

The researcher developed an interview guide in which the following questions were, asked:

- Please explain to me the procedure for managing AEs in this hospital.
- What support mechanisms are, used to assist people involved in the event, in relation to the patient, their relatives, and the affected staff member?
- Do you think any more could be done to support HCPs directly involved in an AE, and if so, what? (See Annexure C).

Data was analysed according to Braun and Clarkes' (2006) technique, which yielded three main themes as follows: 1) policy and procedure, which included the intended path for managing the A/E, deviations that occurred in the path, measures undertaken in avoiding litigation and the redress and quality improvement. The second theme of training and knowledge incorporated the orientation for the involved HCP, continuing professional development for implementation, post review awareness, insight into the A/E and recommendations made by the managers for improvement. While the third and final theme of support systems consisted of measures in place to support the patients and their families, the referrals systems used in the settings, the resources available for the involved staff and the barriers for receiving support.

8.2.4 Phase 4: Objective Four - To Develop the Support Programme for Healthcare Professionals Involved in Adverse Events

A summary of lessons learnt from phases 1, 2, and 3 of the study, and a description of the meaning of each phase of the model was presented in Chapter Six in Table 6.1. The WTM developed by Eagle et al. (1993) was, used to guide the programme development, and thereafter the programme overview was, described, followed by a detailed description of how the programme should be, implemented.

Based on the study programme and considering the elements of the WTM, a programme for managing AEs in Gauteng public hospitals was developed to support second victims of AEs (See Annexure D). The programme overview was, detailed and was, followed by a thorough description of how the programme should be, implemented. A summarised structure and the process of AE management with the relevant individuals involved in the programme were, presented.

8.2.5 Phase 5 - Objective Five - Validation of the Developed Programme (Delphi and Focus Group)

This phase was, sub-divided into two sections, as indicated hereunder, to ensure that the objective was, accomplished. A Delphi study and a focus group discussion were, conducted, as summarised below.

8.2.5.1 Delphi group to confirm and validate the programme

In this sub-section, an instrument was, constructed in response to Phase 5's objective, which was to confirm and validate the support programme for HCPs involved in AEs in public hospitals in Gauteng. A panel of experts for participation was, selected through purposive sampling and snowballing, and included psychologists, nurses, doctors, and other HCPs. The inclusion criteria comprised HCPs with five years of experience in managing people involved in SAEs, or HCPs who had themselves been directly involved in AEs. Only one round of the Delphi group was, conducted due to difficulties in conducting a second round as well as concerns regarding the quality of the input received in the first round. The concerns expressed by participants in the first round were used to modify the programme's first draft (Annexure F) was developed. The findings and results were presented in Chapter Seven. However, the researcher acknowledges that attempts at validation were of limited success.

8.2.5.2 Focus group to address the concerns of the first round of the Delphi group and to finalise the programme

An invitation letter was, sent to the experts who had been purposively sampled and snowballed. An interview guide (Annexure G) was constructed for the experts participating in the focus group discussion, to enable them to convene and address the Delphi group's concerns and to finalise the programme. The discussion participants comprised four experts with a minimum of a diploma qualification (SAQA Level 6), and who had more than five years' experience in having previously managing HCPs involved in AEs. The researcher commenced the discussion by presenting the study's purpose, its objectives, and the rationale for the meeting, by using the previously

mentioned communication techniques. The experts deliberated to establish a clear understanding of the study and then focused on the modified programme, following the Delphi group's concerns. The concepts under discussion were as follows: clarity, relevance, and feasibility. The focus group discussion lasted approximately two hours, during which time the group unanimously agreed that the programme was clear, relevant, and feasible for use by the GDoH. The researcher acknowledges that the focus group provided additional data rather than validating the programme. Following the focus group discussion, the programme was, amended and finalised (Annexure H) to address the study's final objective. The details were provided in Chapter Seven.

This research study is an original contribution to the body of knowledge in research practice for the reasons mentioned below:

- ❖ a distinctive and original programme was developed to assist nurse managers to support HCPs involved in AEs in public hospitals in Gauteng; and
- ❖ this programme is a unique contribution in line with global calls to support second victims following AEs, to reduce staff turnover, and to improve quality care.

8.3 LIMITATIONS

8.3.1. Theoretical limitations

While developing the proposal for this study, a decision was taken to use the Wits Trauma Model (WTL) to guide the study given that the purpose was to develop a support programme for health professionals directly involved in AEs at public hospitals. As the study evolved and data was collected, it became clear that there were practical issues that needed to be addressed to support the healthcare professionals and these issues fell outside the concepts of the model. All aspects of the model applied to the programme's counselling aspect, and therefore the support of the second victim, but not to the practical issues.

The researcher realized this and developed the programme in such a way that it addressed these important practical issues as well as considering the concepts in the model.

8.3.2. Methodological limitations

- Sampling

The purpose of this study was to develop a support programme for HCPs that are directly involved in AEs in public hospitals in Gauteng. As there are thirty-seven hospitals in Gauteng including complex academic hospitals (serving not only the Gauteng Province but other neighbouring provinces as well), regional hospitals providing selected specialist services,

district hospitals providing general hospital; services and specialized hospitals providing services to targeted groups of patients, it was difficult to sample the public hospitals to ensure adequate inclusivity. A decision was taken to purposively select one hospital from each type of hospital, all in the Johannesburg area. While this was a practical decision it may not adequately have represented healthcare professionals or taken into consideration variations in management of adverse events. The inability to access the selected academic hospital due, firstly to the pandemic and secondly to the closure of that hospital further compounded the problem. It will be essential to pilot the proposed programme and to rigorously evaluated its feasibility, acceptability, and efficacy prior to complete roll out of the programme.

With regards to the sampling in the scoping review, most of the studies in the scoping review focused on the physicians, doctors, and surgeons' experiences as second victims, with only limited such studies on nurses as second victims. Only articles published in English were accessed, thus it is possible that data published in other languages may have been missed. The researcher is aware of relevant studies in which support programmes were developed and implemented that had not yet been published at the time that the scoping review was conducted.

The use of snowballing sampling for the story telling phase inevitably resulted in some social desirability bias in terms of the participants selected for the study. Due to the nature of the study and therefore the difficulty of identifying healthcare professionals who had been involved in adverse events, and the very confidential nature of the management of such events, snowballing seemed the only way of accessing affected individuals.

- Data collection

Access to the settings was delayed due to the lockdown restrictions in force in the country at the time due to the Covid-19 pandemic. When restrictions were eased, it was evident that potential participants had been reassigned to other hospitals and therefore were unavailable for participation. Although data saturation was reached the researcher was concerned that, while the story telling included staff members who had been involved in an adverse event, the managers did not necessarily have long term or in-depth experience of adverse events management in the hospitals where the data collection took place. Additionally, some of the participants became emotionally distressed during the retelling of their story concerning their involvement in AEs, and their interviews were discontinued to allow for counselling referral, resulting in a loss of data.

This meant that those who had been particularly traumatised were excluded from the study, and therefore their potentially valuable information was lost to the study.

The interviews relied on self-reported data and there was no way of controlling known potential problems related to self-reported data which may include selective memory, and the recollection of events that occurred at one time as though they occurred related to the event in question. In the context of this study this issue was not considered a problem as storytelling relies on memory and however the participant remembers the event is his/her reality.

To validate the developed support programme, an online Delphi model was used through REDCap. The difficulty experienced was that most of the sampled experts had no knowledge of REDCap, nor access to their electronic devices, and thus faced challenges in completing the survey within the specified time frames. The lack of computer literacy amongst the participants had not been anticipated as they are all required to use digital data in the workplace. Even for those who did have access to their desktop and laptops in their respective workplaces, internet connectivity posed a challenge due to frequent electrical supply disruptions, which were prevalent in the country at the time.

The researcher attempted to distribute hard copies of the Delphi to mitigate this problem, but the return rate was relatively low (70%). This may have placed a constraint on result generation, and because the researcher hand-delivered many of the questionnaires, it may have increased the participants' social desirability, as they now knew the researcher personally.

- Data analysis and research outcomes

This study relied on cross-sectional data and the data was only collected once. Circumstances in the hospitals may change, and therefore affect the way in which second victims are managed. As it was only collected in selected hospitals in Gauteng the programme that was developed based on the analysis of the data may not be representative either of all hospitals in Gauteng, or for other public health facilities in the country. As mentioned in the section above, for this reason it will be essential to pilot the proposed programme and to rigorously evaluated its feasibility, acceptability, and efficacy prior to complete roll out of the programme.

8.3.3. Researcher limitations

The researcher embarked on this study because of concern she felt following an earlier study that indicated that health professionals were negatively affected by their involvement in adverse events,

and her certainty that they could be managed in an improved manner. Some of the assumptions that researcher had were that the managers were not supportive to the healthcare professionals following involvement in adverse events. This may have led to some bias on her part but by working clearly with her supervisors she was assisted to be objective while collecting and analysing data and developing the support programme. As the researcher was aware of her potential bias, she took steps to mitigate this effect. Tufford & Newman (2010) refer to bracketing as "a method … to mitigate the potential deleterious effects of unacknowledged preconceptions related to the research and thereby to increase the rigor of the project" but point out there is a lack of uniformity in the use of this term. Bracketing was imperative as an essential skill when conducting qualitative interviews as asserted by Sorsa, Kiikkala and Astedt – Kurki (2015).

Literature further affirms that thorough preparation for bracketing was vital prior the onset of data collection and data analysis in phenomenology (Chan, Fung & Chien, 2013). The methods the researcher used included keeping field notes, which included observational comments, which she reflected upon after interviews, and discussion of her observations and findings with her supervisors.

The limitation related to a longitudinal effect may have applied as this was a cross-sectional study, and data was only collected once. Circumstances in the hospitals may change, and therefore affect the way in which second victims are managed.

8.4 RECOMMENDATIONS

Recommendations are, made for education, practice, research, and policy implementation and management.

8.4.1 Education

Healthcare facilities need to intensify their orientation and training programmes for both newly employed and current employees to focus on preventing and reporting AEs, as well as the reporting processes. As seen in this study, the participants recommended the need for education and training regarding the reporting processes following a maternal death. Regular training dealing with the early identification of maternal complications was recommended. The reviewers should be trained on appropriate conduct during IRs to give the involved professionals a fair opportunity during the sessions. Participants themselves recommended that reviewers should receive training to ensure that they understand how to conduct themselves during a review.

Nurse managers should attend training on managing AEs at the workplace empathetically. Staff should receive regular drills and training on event identification and their management.

8.4.2 Practice

Support should be given to all staff members to implement the various programme aspects, and to recognise and understand the roles of the all the individuals involved in the programme, as indicated in Chapter Six - section 6.3. The process on how this should be implemented is detailed in Chapter Six, section 6.5.

The GK should support second victims to write complete and accurate incident reports within 24 hours of the AE, so that it is still fresh in their minds. This recommendation is made as participants indicated that second victims tend to forget the details of the traumatic event and may then rely on possibly distorted memories of the AE.

Staff members of the GDoH with the capacity to provide support according to the programme, should be utilised, rather than paid counsellors, as this will reduce the costs of programme implementation.

The system of M&M meetings conducted by the doctors should be expanded to include nurses, because the researcher observed that doctors' M&M meetings would benefit clinical staff, by enhancing their education, and thus result in improved patient outcomes. Unlike the nurses who experience blaming and shaming after an AE, doctors do not. Since all of them work as a multidisciplinary team, it is recommendable that they work together and learn from each other.

Resources should be provided to help reduce the frequency of AEs. In this study, three of the AEs occurred due to staff shortages. Possible options for resolving this problem are the installation of CCTV cameras and constant monitoring in the units. The employment of at least one advanced midwife (or specialist nurse as applicable) on each floor may assist as they could act as a consultant to lesser experienced nurses and midwives.

The principles of Just Culture should be applied in managing AEs. Reference to the Just Culture approach is contained in the NDoH' s guidelines of AEs, but it is not applied in all healthcare institutions. Fair reviews should be conducted with frequent feedback to involved staff as soon as

possible, focusing on learning from the AEs, Information from AEs managed at hospitals should be fed into the national database. This would require close cooperation between the provincial departments of health and the Office of Health Standards Compliance.

8.4.3 Research

The proposed programme should be piloted and rigorously evaluated with respect to its feasibility, acceptability, and efficacy prior to complete roll out of the programme. The pilot should take place at other hospitals in Gauteng and once found feasible, acceptable, and effective it could be piloted in public hospitals in other provinces. The pilot should take place in the form of an intervention study. The effects of the timing and duration of managerial and hospital support to the second victims should be confirmed. The evaluation should include aspects of accessibility of support programmes for second victims and whether the programme, once implemented, inspire quality patient care, staff turnover and safety culture positively.

The performance and quality of second victim programs should be traced over time and results provided to enhance buy-in from other settings. Other researchers should identify the actions to be taken for reducing the duration of the symptoms for the second victims who take longer to recover from adverse event involvement.

Future efforts should clarify the roles of Quality Assurance and Risk managers, EAP counsellors and dedicated second victims support programme resources for responding to the needs of the second victims. Studies on training should be developed to the level of support to be offered.

Future studies are required focusing on detailed processes to develop effective organisational support programmes and specific training for those providing emotional support, including risk managers. Further research to identify what resources or types of co-worker support, emotional or otherwise best alleviate the emotional distress following an adverse event is necessary.

In future studies, it would be meaningful to quantify the extent of difficulties experienced by second victims and ascertain whether there is a difference in experience or opinion depending on the severity of such symptoms.
Other researchers should assess the level of psychological impact due to PSIs using measures such as Impact of Event Scale.

8.4.4 Policy Implementation and Management

The best practices relating to incident review processes learned in this study should be shared both in the form of peer reviewed articles foe the broad readership but also in the form of presentations and policy briefs for local consumption.

The developed support programme should be disseminated and discussed with the GDoH. The NDoH is in the process of even revising the 2017 policy, which should include an implementation programme.

Therefore, this support programme can be considered as the latest available scientific information used in second victim management. If considered, it can include a flow sheet, accompanied by additional steps. A programme is available which can be useful to those hospitals intending to implement it.

8.5 CONCLUSION

The purpose of this study in response to the research question on "How can a support programme for HCPs who have been directly involved in AEs in public hospitals in Gauteng be developed?" was achieved. The programme was developed; it included the summarised structure, and a detailed process on how to manage the AEs in public hospitals in Gauteng for hospital management to implement. This chapter confirmed the study's contribution by discussing the study's overview, purpose, and how the study objectives were accomplished. The limitations and recommendations for implementation of the programme were formulated for education, practice, research, policy implementation, and management.

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ANNEXURE A

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

E M NKOSI
38 Geduld Crescent
Ext 9 Ennerdale
1830

The Chief Executive Officer of ……. Hospital

RE: PERMISSION TO CONDUCT RESEARCH

Dear Sir/Madam,

I am Elizabeth Malefu Nkosi currently enrolled in the Doctor of Philosophy in Nursing Education at the University of the Witwatersrand. My supervisors are Dr Sue Armstrong and Dr Nokuthula Mafutha. As part of the programme requirements, I must undertake research. It is in this principle that I write to request permission to undertake research entitled "**Support programme for healthcare professionals involved in adverse events in public hospitals in Gauteng".** I would like to interview healthcare professionals previously and directly involved in adverse events (known as second victims) and others who have supported those involved in adverse events in the past, with a view to developing a program to better support health professionals involved in adverse events in the future. Only health professionals will be interviewed. This research does not include the patients or their relatives.

The former group i.e., those who have been involved, will be asked to tell the researcher about the impact of the event and the second group will be asked to explain what they were able to do or would have liked to do to support health professionals known as "second victims."

I am hoping to interview up to fifteen health professionals and fifteen managers/support persons spread over the four hospitals included in this study. A distress protocol has been developed to protect participants and no information which will identify people, or the institution will be included in the study. After contacting potential participants, and should they agree to participate, the researcher will set up a mutually convenient time, outside normal working hours and, off-site should they choose, for them to be interviewed. I would be grateful for your permission to do this.

Yours faithfully

Elizabeth Malefu Nkosi

Student number 1935946 Contacts 1935946@students.wits.ac.za Cell: +2729794064

ANNEXURE B: ETHICAL CLEARANCE

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

R49 Ms E Nkosi

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
CLEARANCE CERTIFICATE NO. M180809

NAME: (Principal Investigator)	Ms E Nkosi
DEPARTMENT:	School of Therapeutic Sciences Department of Nursing Education Medical School University
PROJECT TITLE:	*Support programme for healthcare professionals involved in adverse events in public hospitals in Gauteng*
DATE CONSIDERED:	31/08/2018
DECISION:	Approved unconditionally
CONDITIONS:	Approved study sites shown in Annex 1 hereto **Re-issued on 29/03/2021**
SUPERVISOR:	Drs S Armstrong and N Mafutha
APPROVED BY:	Dr CB Penny, Chairperson, HREC (Medical)
DATE OF APPROVAL:	25/01/2019

This Clearance Certificate is valid for 5 years from the date of approval. An extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office secretariat on the 3rd floor, Phillip Tobias Building, Parktown, University of the Witwatersrand, Johannesburg.

I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated from the research protocol as approved, I/we undertake to submit details to the Committee. **I agree to submit a yearly progress report**. When a funder requires annual re-certification, the application date will be one year after the date when the study was initially reviewed. In this case, the study was initially reviewed in **«Missing mail merge field»** and therefore reports and re-certification will be due in the month of **«Missing mail merge field»** each year. Unreported changes to the study may invalidate the clearance given by the HREC (Medical).

ANNEXURE C.1

WITS UNIVERSITY

STUDY INFORMATION DOCUMENT: STORY TELLING – HEALTHCARE PROFESSIONALS

Study title: SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

Greetings

Introduction:

I, Elizabeth Malefu Nkosi, under the supervision of Dr Sue Armstrong and Dr Nokuthula Mafutha, am conducting a research study on support programme for healthcare professionals involved in adverse events in Academic hospitals in Gauteng. Research is a process used in seeking new knowledge; thus, in this study we have identified that there are no support programs available in these hospitals, hence, to assist these professionals after their involvement, we would like to develop the programme.

I am inviting you to take part in this research study which involves using a sequential multimethod design to develop and evaluate a support programme for healthcare professionals who have been involved in adverse events in these hospitals. Your involvement will help facilitate the development of this programme.

The study will start in January 2019 and end in March 2022.

What is expected of you if you decide to participate in this study?

An information session will be held to explain the purpose of the study and answer any questions. If you agree to take part after the information session, I will then ask you to sign a consent form to confirm your agreement to participate. You will then be asked to tell a story in which you will describe your experience when you were involved in an adverse event in these hospitals and indicate how best you would have wanted to be supported to enable you to cope with the aftermath of the event. The storytelling, with your consent, will be audio tape recorded and will last for approximately 45 – 60 minutes. You will select the date, time, and venue, for the storytelling subject to your availability.

Risks of being involved in the study:
You may be exposed to stress during storytelling. Should this happen, arrangements have been made with a specific counsellor whose contact details will be provided to you.

Benefits of being in the study: As with most studies, there is no direct benefit to you. In this study a support programme for healthcare professionals involved in adverse events in these Gauteng hospitals will be developed and recommended. The longer-term objective is the implementation

of a support programme for the healthcare professionals after their involvement in adverse events to enable them to cope better thereafter.

Participation is voluntary. You do not have to participate. It is up to you to decide if you want to take part in the study or not. Should you not wish to participate there are no penalties involved. If you do wish to participate, I will describe the study and go through this information sheet with you. You may withdraw at any time without any penalty.

Reimbursements: No expenses will be expected from you nor any payment due to you for your participation**.**

Confidentiality: Personal information will be treated in the strictest confidence and will only be available to the Investigator (PI) and her supervisors. The only exceptions - and all of them are rare - would normally be:

1. Personal information may be disclosed if required by law
2. The Human Research Ethics Committees of the University may exceptionally require personal data to respond to a formal complaint, or for a compliance audit
3. The South African Health Products Regulatory Authority (SAHPRA), which is the successor body to the South African Medicines Control Council (SAMCC), might conceivably require access to personal data, if conducting an investigation into a drug trial.

Anonymity will be maintained by ensuring that your name is not recorded anywhere by me**.**

Contact details of researcher/s:

Investigator: Mrs Elizabeth Nkosi - elizabethn@uj.ac.za – telephone 011 559 6880

Supervisor: Dr Sue Armstrong - sue.armstrong@wits.ac.za – telephone 011 488 4061

Co –Supervisor: Dr Nokuthula Mafutha – nokuthula.Mafutha@wits.ac.za – telephone 011 488 3094

Outputs

The results of the study will be written into a research report which will be examined by external people who will have also not be able to identify your responses you have submitted. The results may also be published in a scientific journal. You will be given access to the study results should you need them by contacting me before hand to facilitate that.

Contact details of HREC administrator and chair – for reporting of complaints / problems.

This study has been approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg ("Committee"). A principal function of this Committee is to safeguard the rights and dignity of all human subjects who agree to participate in a research project and the integrity of the research.

If you have any concern over the way the study is being conducted, please contact the Chairperson of this Committee who is Professor Clement Penny, who may be contacted on telephone number 011 717 2301, or by e-mail on Clement.Penny@wits.ac.za. The telephone numbers for the Committee secretariat are 011 717 2700/1234 and the e-mail addresses are Zanele.Ndlovu@wits.ac.za and Rhulani.Mukansi@wits.ac.za Thank you for reading this Study Information Sheet.

ANNEXURE C.2

PARTICIPANT CONSENT SHEET

SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

1. I have been given a participant information sheet which explains the nature and processes involved in this study, which is attached hereto.
2. I was given time to read it, or had it read to me, in the language I best understand.
3. I was given time to ask any questions I wanted to and found any answers given to me to be reasonable and satisfactory.
4. I believe I fully understand why the study is being conducted and what the intended outcomes will be.
5. I understand that there will be no immediate benefit to me, should I agree to participate, nor will I receive any payment; conversely, participation will not cost me anything but my time.
6. I understand that, even if I initially consent to take part in the study, I may subsequently withdraw at any time and would not be required to give any reasons; if that happened, any data collected about me for the purposes of the study would immediately be destroyed, unless I give consent for it to be retained
7. I have been given a range of contact details, listed below. If I require further information or become concerned about any aspect of this study, I am free to speak to any of these contacts.

Contact details:

Investigator: Elizabeth Nkosi, on telephone number 082 979 4064 or by e-mail at elizabethn@uj.ac.za

Dr Sue Armstrong, Supervisor, on telephone 011 488 3094, or by e-mail sue.armstrong@wits.ac.za

Dr Nokuthula Mafutha, Co Supervisor, on telephone 011 488 3094, or by email nokuthula.mafutha@wits.ac.za

Name of Participant: _____
Date: _____
Place: _____
Signature or mark _____

ANNEXURE C.3

CONSENT FORM FOR AUDIO TAPE RECORDING OF STUDY PARTICIPATION:

SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

I hereby consent to audio tape recording of the interview.

I understand that:

- The recording will be stored in a secure location (a locked cupboard or password protected computer) with restricted access to the researcher and the research supervisor.
- The recording will be transcribed and any information that could identify me will be removed,
- The recordings will be erased within either (a) two (2) years of the publication of the research findings, or (b) six (6) years, if no publications arise from this research
- Anyone wishing to access this information in the future will first have to obtain the approval of the Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg
- Direct quotes from my interview, without any information that could identify me, may be cited in the research report or other write-ups of research.

Name of Participant: _____
Date: _____
Place: _____
Signature or mark _____

ANNEXURE D

SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

INTERVIEW GUIDE FOR HEALTH PROFESSIONAL PREVIOUSLY INVOLVED IN AN ADVERSE EVENT

First session:

Please tell me the story of an experience of an adverse event that you were involved in during your career. Tell me what happened, how you and other people dealt with it, and how it made you feel.

Second session:

- I am going to read you the story you told the last time we met, and I would like you to confirm it is as you told it to me, or, if not, please tell me how you would like it changed.
- Now I would like you to tell me how you would have liked the incident or experience to have been different.
- How or what would you change if you were able to have the experience again?
- Thinking back on the experience, how did you feel about it?
- What impact did it have on you and others involved in the assessment experience?

ANNEXURE E.1

SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

DISTRESS PROTOCOL AND CONTACT DETAILS OF SUPPORT PERSON

The following is a procedural protocol for assisting participants who may become distressed while being interviewed for the 'Support program for healthcare professionals involved in adverse events in public hospitals in Gauteng" research project.

If a participant becomes distressed or upset during interview:

1. The person will be asked if they would like to take a break and if they would like the researcher to switch off the recorder.
2. If the person continues to be upset, the person will be asked if they would like to end the interview and if they would like the researcher to call someone to spend time with them.
3. Before leaving, the person will be asked if it would be acceptable to call them later in the day or the next day to make sure they are OK.
4. In addition, they will be given the contact details of a counsellor. In any event, before leaving, the person will be handed the name of a local contact person who may be of help to them as she is a trained psychiatric nurse with experience in post-research counselling.

Adapted from: Galway Ethics Research Committee. 2009. Dealing with Distressed Participants Ethics Protocol. https://www.nuigalway.ie/media/staffsub-sites/researchoffice/files/Dealingwith-Distressed-Participants.pdf Accessed 18 July 2018.

ANNEXURE E.2

WITS UNIVERSITY

SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

CONTACT DETAILS OF THE COUNSELLOR

As mentioned in the information sheet, should this interview have caused you any distress you are welcome to contact Agnes Huiskamp at 011 488 4267. Please make an appointment with her and indicate when you phone that the request is in relation to this study.

Elizabeth Nkosi

ANNEXURE F.1

STUDY INFORMATION DOCUMENT: SEMI-STRUCTURED INTERVIEWS MANAGERS

Study title: SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

Greetings

I, Elizabeth Malefu Nkosi, under the supervision of Dr Sue Armstrong and Dr Nokuthula Mafutha, am conducting a research study on support programme for healthcare professionals involved in adverse events in public hospitals in Gauteng. Research is a process used in seeking new knowledge; thus, in this study we have identified that there are no support programs available in these hospitals, hence, to assist these professionals after their involvement, we would like to develop the programme.

I am inviting you to take part in this research study which involves using a sequential multimethod design to develop and evaluate a support programme for healthcare professionals who have been involved in adverse events in these hospitals. Your involvement will help facilitate the development of this program.

The study will start in January 2019 and end in March 2022.

An information session will be held to explain the purpose of the study and answer any questions. If you agree to take part after the information session, I will then ask you to sign a consent form to confirm your agreement to participate. You will then be interviewed in which you will describe your experience when you were involved in managing a healthcare professional involved in an adverse event in these hospitals and indicate how best you would have wanted to support them to enable them to cope with the aftermath of the event. These interviews, with your consent, will be audio tape recorded and will last for approximately 45 – 60 minutes. You will select the date, time, and venue, for the semi-structured interviews subject to your availability.

Risks of being involved in the study:
You may be exposed to stress during the semi-structured interviews. Should this happen, arrangements have been made with a specific counsellor whose contact details will be provided to you.

Benefits of being in the study: As with most studies, there is no direct benefit to you. In this study a support programme for healthcare professionals involved in adverse events in these Gauteng hospitals will be developed and recommended. The longer-term objective is

the implementation of a support programme for the healthcare professionals after their involvement in adverse events to enable them to cope better thereafter.

Participation is voluntary. You do not have to participate. It is up to you to decide if you want to take part in the study or not. Should you not wish to participate there are no penalties involved. If you do wish to participate, I will describe the study and go through this information sheet with you. You may withdraw at any time without any penalty.

Reimbursements: No expenses will be expected from you nor any payment due to you for your participation**.**

Confidentiality: Personal information will be treated in the strictest confidence and will only be available to the Investigator (PI) and her supervisors. The only exceptions - and all of them are rare - would normally be:

1. Personal information may be disclosed if required by law
2. The Human Research Ethics Committees of the University may exceptionally require personal data to respond to a formal complaint, or for a compliance audit
3. The South African Health Products Regulatory Authority (SAHPRA), which is the successor body to the South African Medicines Control Council (SAMCC), might conceivably require access to personal data, if conducting an investigation into a drug trial.

Anonymity will be maintained by ensuring that your name is not recorded anywhere by me**.**

Contact details of researcher/s:

Investigator: Mrs Elizabeth Nkosi - elizabethn@uj.ac.za – telephone 011 559 6880

Supervisor: Dr Sue Armstrong - sue.armstrong@wits.ac.za – telephone 011 488 4061

Co –Supervisor: Dr Nokuthula Mafutha – nokuthula.Mafutha@wits.ac.za – telephone 011 488 3094

Outputs

The results of the study will be written into a research report which will be examined by external people who will have also not be able to identify your responses you have submitted. The results may also be published in a scientific journal. You will be given access to the study results should you need them by contacting me before hand to facilitate that.

Contact details of HREC administrator and chair – for reporting of complaints / problems.

This study has been approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg ("Committee"). A principal function of this Committee is to safeguard the rights and dignity of all human subjects who agree to participate in a research project and the integrity of the research.

If you have any concern over the way the study is being conducted, please contact the Chairperson of this Committee who is Professor Clement Penny, who may be contacted on telephone number 011 717 2301, or by e-mail on

Clement.Penny@wits.ac.za. The telephone numbers for the Committee secretariat are 011 717 2700/1234 and the e-mail addresses are Zanele.Ndlovu@wits.ac.za and Rhulani.Mukansi@wits.ac.za Thank you for reading this Study Information Sheet.

ANNEXURE F.2

SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

SEMI-STRUCTURED INTERVIEW GUIDE FOR MANAGERS

1. Please could explain to me the procedure for managing adverse events in this hospital?
2. What support mechanisms are used to assist the people involved in the event?

Probes: The relatives and/or patient?

The staff members?

3. Do you think any more could be done to support the health professionals directly involved in the adverse event and if so, what?

Probes: Feasibility and likely acceptability of suggestion to the authorities and the other staff members?

ANNEXURE G

STUDY INFORMATION DOCUMENT: STORY TELLING - EXPERTS

Study title: SUPPORT PROGRAMME FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

Greetings

I, Elizabeth Malefu Nkosi, under the supervision of Dr Sue Armstrong and Dr Nokuthula Mafutha, am conducting a research study on support programme for healthcare professionals involved in adverse events in Academic hospitals in Gauteng. Research is a process used in seeking new knowledge; thus, in this study we have identified that there are no support programs available in these hospitals, hence, to assist these professionals after their involvement, we would like to develop the programme.

I am inviting you to take part in this research study which involves using a sequential multimethod design to develop and evaluate a support programme for healthcare professionals who have been involved in adverse events in these hospitals. Your involvement will help facilitate the development of this programme.

The study will start in January 2019 and end in March 2022.

An information session will be held to explain the purpose of the study and answer any questions. If you agree to take part after the information session, I will then ask you to sign a consent form to confirm your agreement to participate. You will then be asked to tell a story in which you will describe your experience when you managed a healthcare professional involved in an adverse event in these hospitals and indicate how best you would have wanted to support them to enable them to cope with the aftermath of the event.

The story telling, with your consent, will be audio tape recorded and will last for approximately 45 – 60 minutes. You will select the date, time, and venue, for the storytelling subject to your availability.

Risks of being involved in the study:
You may be exposed to stress during storytelling. Should this happen, arrangements have been made with a specific counsellor whose contact details will be provided to you.

Benefits of being in the study: As with most studies, there is no direct benefit to you. In this study a support program for healthcare professionals involved in adverse events in these Gauteng hospitals will be developed and recommended. The longer-term objective is the implementation of a support program for the healthcare professionals after their involvement in adverse events to enable them to cope better thereafter.

Participation is voluntary. You do not have to participate. It is up to you to decide if you want to take part in the study or not. Should you not wish to participate there are no penalties involved. If you do wish to participate, I will describe the study and go through this information sheet with you. You may withdraw at any time without any penalty.

Reimbursements: No expenses will be expected from you nor any payment due to you for your participation**.**

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1. Personal information may be disclosed if required by law

2. The Human Research Ethics Committees of the University may exceptionally require personal data to respond to a formal complaint, or for a compliance audit
3. The South African Health Products Regulatory Authority (SAHPRA), which is the successor body to the South African Medicines Control Council (SAMCC), might conceivably require access to personal data, if conducting an investigation into a drug trial.

Anonymity will be maintained by ensuring that your name is not recorded anywhere by me**.**

Contact details of researcher/s:

Investigator: Mrs Elizabeth Nkosi - elizabethn@uj.ac.za – telephone 011 559 6880

Supervisor: Dr Sue Armstrong - sue.armstrong@wits.ac.za – telephone 011 488 4061

Co –Supervisor: Dr Nokuthula Mafutha – nokuthula.Mafutha@wits.ac.za – telephone 011 488 3094

Outputs

The results of the study will be written into a research report which will be examined by external people who will have also not be able to identify your responses you have submitted. The results may also be published in a scientific journal. You will be given access to the study results should you need them by contacting me before hand to facilitate that.

Contact details of HREC administrator and chair – for reporting of complaints / problems. This study has been approved by the Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg ("Committee"). A principal function of this Committee is to safeguard the rights and dignity of all human subjects who agree to participate in a research project and the integrity of the research.

If you have any concern over the way the study is being conducted, please contact the Chairperson of this Committee who is Professor Clement Penny, who may be contacted on telephone number 011 717 2301, or by e-mail on Clement.Penny@wits.ac.za. The telephone numbers for the Committee secretariat are 011 717 2700/1234 and the e-mail addresses are Zanele.Ndlovu@wits.ac.za and Rhulani.Mukansi@wits.ac.za. Thank you for reading this sheet.

ANNEXURE H

APPLICATION FORM REQUESTING PERMISSION TO USE THE WITS TRAUMA MODEL

Good morning, Ms Cockcroft

I am a student currently studying at Wits University for my PhD degree. My supervisors are Drs Sue Armstrong and Nokuthula Mafutha. My research topic is "Support Programme for healthcare workers involved in adverse events in public hospitals in Gauteng".

I learnt about the Wits Trauma Model as the psychotherapy intervention developed by the staff at the Wits Psychology department. As I intend to use the model for my study, I hereby humbly request permission to use the Wits Trauma Model for this purpose. Hoping my request is considered and awaiting your response.

Regards

Elizabeth Nkosi

Dear Elizabeth,

The model is not patented and a description of how it works is in the public domain in the form of a journal article. However, use of the model does assume some form of professional training in counselling skills and theory. I'm not sure quite how you propose to use it and whether you are just citing as a possible intervention or actually wanting to implement it in practice and evaluate it. If the latter, then I think it would be useful to get proper training in the model or to be sure that those who may be employing it have proper training.

Kind regards,

Gill Eagle.

ANNEXURE I - INVITATION TO PARTICIPATE IN THE DELPHI TECHNIQUE

Dear Sir/Madam

I am a student registered for Doctor of Philosophy in Nursing Education at the University of the Witwatersrand. The title of the study is: "**Support programme for healthcare professionals involved in adverse events in public hospitals in Gauteng**". The supervisors for this study are Dr Sue Armstrong and Dr Nokuthula Nkosi-Mafutha.

The purpose of this study is to develop, describe, and evaluate the implementation of a support program for healthcare professionals involved in adverse events in these public hospitals. The objectives of the study are as follows:

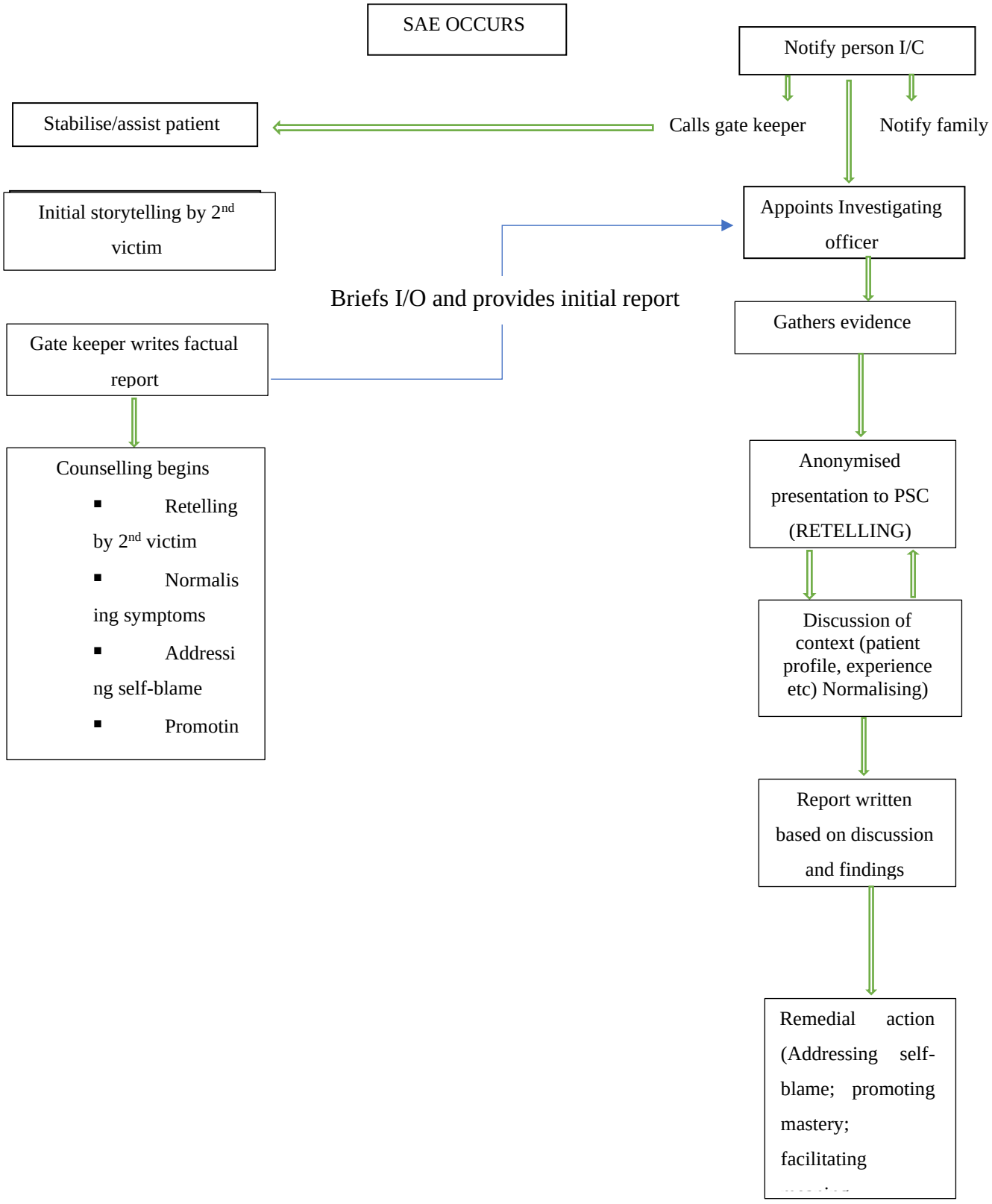
- To explore the influence of adverse events on healthcare professionals in international literature.
- To explore the influence of adverse events on the healthcare professionals who have been directly involved in adverse events in the Gauteng Department of Health hospitals.
- To understand what mechanisms have been used by the healthcare professionals to cope with the stress caused by their involvement in the adverse events.
- To develop a support program to assist healthcare professionals involved in adverse events.
- To determine content validity using expert opinion.

I am therefore writing to invite you to take part in this research study which involves a sequential multimethod design to develop and evaluate support program for healthcare professionals who have been involved in adverse event in these hospitals. As recognised experts in the management of people who have been involved in adverse events, or having been directly involved in the event, I am inviting you to confirm and validate the programme.

A Delphi technique was chosen for developing a consensus view of the experts in the management of adverse events. The participation requires that you spend time completing the rounds of the Delphi study which are estimated at approximately two to three rounds with each taking between 30 to 60 minutes to complete. Your confidentiality as study participants will be upheld when assessing the developed programme related to the structure, process, and outcomes. A picture of the programme is presented below followed by a detailed description of how the programme should be implemented. Please read through the document to enable you to respond. If you have any queries, please do not hesitate to contact me at 0829794064 or alternatively email at 1935946@students.wits.ac.za.

Kind regards Elizabeth Malefu Nkosi

ANNEXURE J – ORIGINAL SUPPORT PROGRAMME



ANNEXURE K – DELPHI QUESTIONNAIRE – REDCAP SUPPORT

Confidential

Support Program for HCP_Questionnaire

Thank you for making time to complete the survey below.

I do appreciate it a lot, Thank you!

Please find the information sheet

[Attachment: "EXPERT INFORMATION SHEET.pdf"]

PARTICIPANT CONSENT SHEET: EXPERTS

SUPPORT PROGRAM FOR HEALTHCARE PROFESSIONALS INVOLVED IN ADVERSE EVENTS IN PUBLIC HOSPITALS IN GAUTENG

1. I have been given a participant information sheet that explains the nature and processes involved in this study, which is attached hereto;
2. I was given time to read it, or had it read to me, in the language I best understand;
3. I was given time to ask any questions I wanted to and found any answers given to me to be reasonable and satisfactory;
4. I believe I fully understand why the study is being conducted and what the intended outcomes will be;
5. I understand that there will be no immediate benefit to me, should I agree to participate, nor will I receive any payment; conversely, participation will not cost me anything but my time;
6. I understand that, even if I initially consent to take part in the study, I may subsequently withdraw at any time and would not be required to give any reasons; if that happened, any data collected about me for the purposes of the study would immediately be destroyed, unless I give consent for it to be retained
7. I have been given a range of contact details, listed below. If I require further information or become concerned about any aspect of this study, I am free to speak to any of these contacts.

Contact details:

Investigator: Elizabeth Nkosi, on telephone number 082 979 4064 or by e-mail at elizabethn@uj.ac.za

Dr Sue Armstrong, Supervisor, on telephone 011 488 3094, or by e-mail sue.armstrong@wits.ac.za

Dr Nokuthula Mafutha, Co-Supervisor, on telephone 011 488 3094, or by email nokuthula.mafutha@wits.ac.za

[Attachment: "EXPERTS CONSENT FORM.pdf"]

I agree to be part of the study

- ◯ Yes
- ◯ No

Date of consent

_____

DEMOGRAPHIC DATA

Please indicate your age

_____ (Age)

Please select your gender

- ◯ Male
- ◯ Female

(gender)

Please indicate your profession

_____ (Profession)

ANNEXURE L – EXPERT INTERVIEW GUIDE

CLARITY

- What do you think of the clarity of the programme?
- In your opinion what should be included to ensure the programme is clear?
- What other comments can you share prior to the introduction of the programme?
- Have we exhausted all suggestions related to clarity?
- What do you think of the relevance of the programme?
- In your opinion what should be included to ensure the programme is relevant?
- What other comments can you share prior to the introduction of the programme?

RELEVANCE

- What do you think of the relevance of the programme?
- In your opinion what should be included to ensure the programme is relevant?
- What other comments can you share prior to the introduction of the programme?
- Have you exhausted all suggestions related to the relevance of the programme?

FEASIBILITY

- What do you think of the feasibility of the programme?
- In your opinion what should be included to ensure the programme is feasibility?
- What other comments can you share prior to the introduction of the programme?
- Have you exhausted all suggestions related to the feasibility aspect?

ANNEXURE M – EXPERTS POWER POINT PRESENTATION

Support programme for healthcare professionals involved in adverse events in public hospitals in Gauteng.

EM Nkosi
Supervisors Dr's: S Armstrong/N Nkosi Mafutha

WITS UNIVERSITY

PURPOSE

- To develop, describe, and evaluate the implementation of a support programme

OBJECTIVES

- To explore the influence of adverse events on healthcare professionals in international literature.
- To explore the influence of adverse events on the healthcare professionals who have been directly involved in adverse events in the Gauteng Department of Health hospitals.
- To understand what mechanisms have been used by the healthcare professionals to cope with the stress caused by their involvement in the adverse events.
- To develop a support programme to assist healthcare professionals involved in adverse events.
- To determine content validity using expert opinion

PROGRESS TO DATE

- Data collected at specific settings
- SSI – HCP & Managers
- Development of a support programme
- Delphi 1st round validate – invited 42 experts

PROGRESS TO DATE

- **Distributed on REDCAP & forwarded hardcopies**
- **10-week period : 28 June - 2 September 2021**
- **Weekly reminders – emails/phone calls**
- **26 complete questionnaires received**
- **Comments on the programme**

ASPECTS OF THE PROGRAMME FOR DISCUSSION

- **CLARITY**
- **RELEVANCE**
- **FEASIBILITY**

CLARITY

- What do you think of the clarity of the programme?
- In your opinion what should be included to ensure the programme is clear?
- What other comments can you share prior to the introduction of the programme?
- Have we exhausted all suggestions related to clarity?

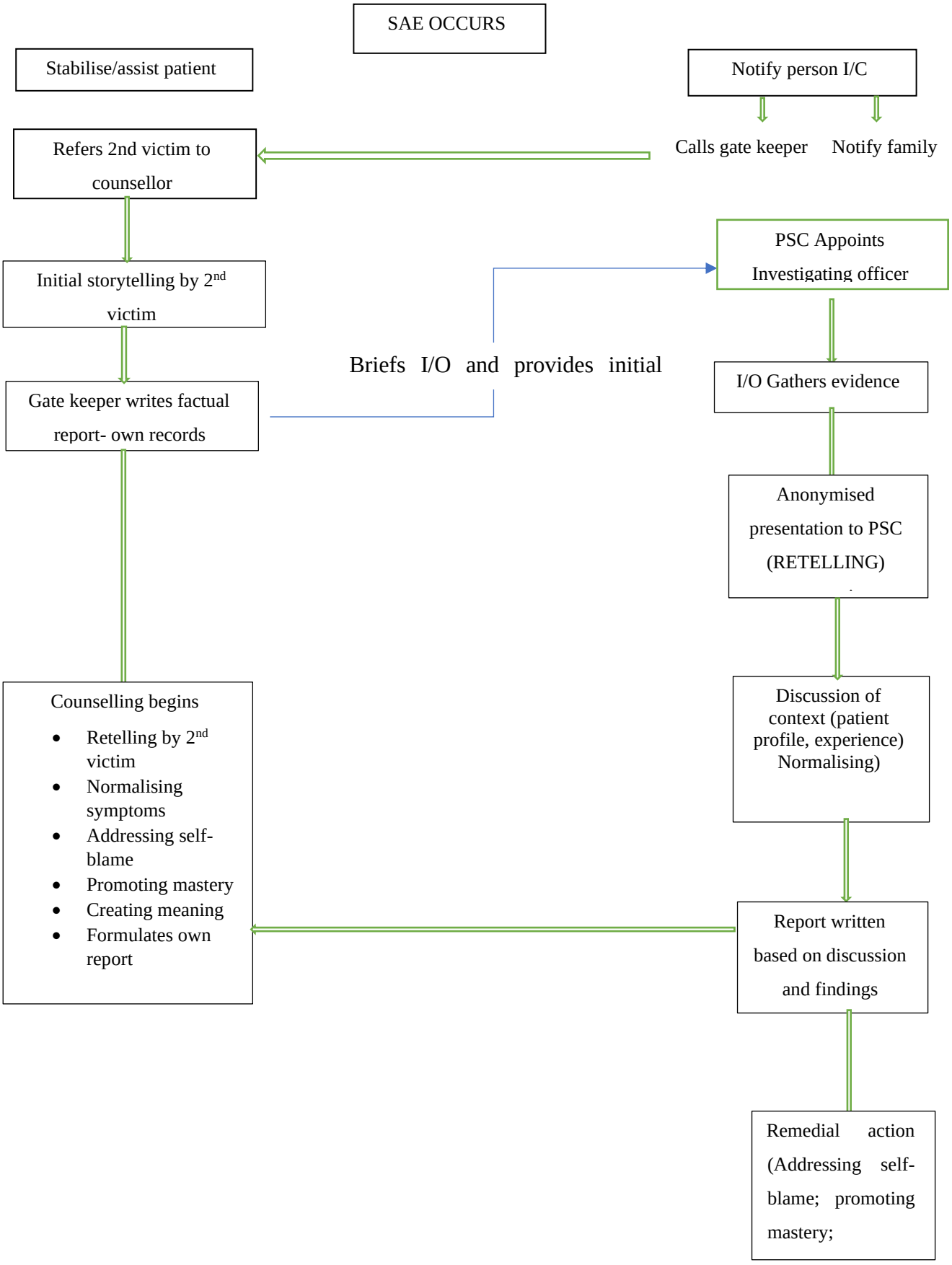
RELEVANCE

- What do you think of the relevance of the programme?
- In your opinion what should be included to ensure the programme is relevant?
- What other comments can you share prior to the introduction of the programme?
- Have you exhausted all suggestions related to the relevance of programme?

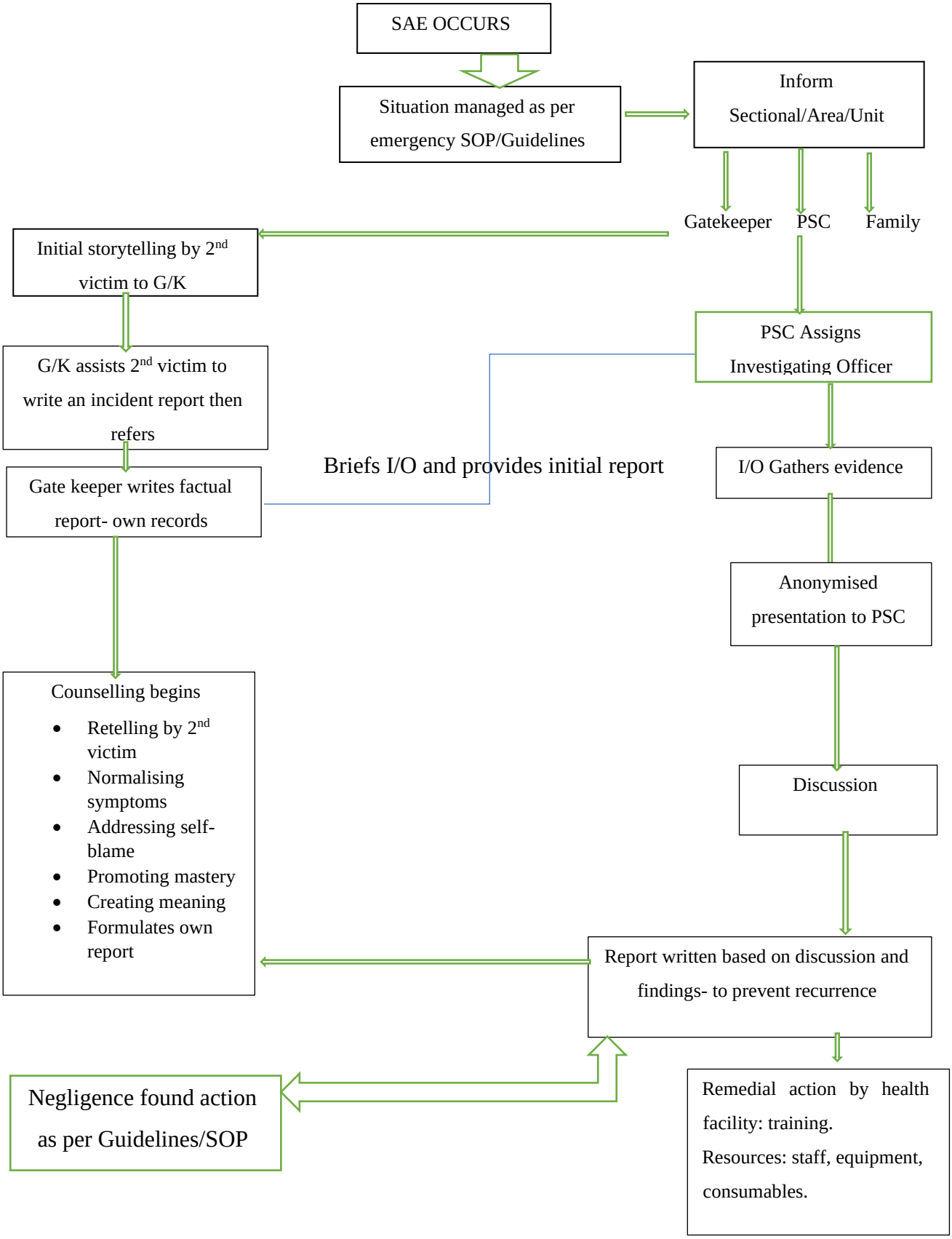
FEASIBILITY

- What do you think of the feasibility of the programme?
- In your opinion what should be included to ensure the programme is feasible?
- What other comments can you share prior to the introduction of the programme?
- Have you exhausted all suggestions related to the feasibility aspect?

ANNEXURE N – MODIFIED PROGRAMME AFTER DELPHI GROUP



ANNEXURE O – FINAL PROGRAMME AFTER VALIDATION BY THE EXPERTS



ANNEXURE P – TURNIT IN REPORT

16 FEB LIZ THESIS

ORIGINALITY REPORT

13%	11%	8%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	ujcontent.uj.ac.za Internet Source	3%
2	journals.lww.com Internet Source	1%
3	dl4.globalstf.org Internet Source	<1%
4	pubmed.ncbi.nlm.nih.gov Internet Source	<1%
5	onlinelibrary.wiley.com Internet Source	<1%
6	hdl.handle.net Internet Source	<1%
7	sigma.nursingrepository.org Internet Source	<1%
8	Submitted to University of Newcastle Student Paper	<1%
9	mspace.lib.umanitoba.ca Internet Source	<1%

ANNEXURE Q

SUMMARISED VERBATIM TRANSCRIPTION OF FOCUS GROUP DISCUSSION

DATE OF INTERVIEWS: 07/12/2021

VENUE: [redacted] BOARDROOM

TIME: 2 HOURS

LIZ: LIZ NKOSI

LIZ: Thank you. Good afternoon, everyone. The title of my thesis was Support programme for healthcare professionals involved in adverse events in public hospitals in Gauteng. I am [redacted]. My supervisors, [redacted].

P2: The gatekeeper should go ahead with the process. However, write the report and keep it to themselves. The counsellor, as soon as the counselling session starts with the second victim, the person who is being involved, should commence the counselling, go through it all, and then afterwards write their own. They can even compare at the end of it all, but the person should not be getting a report from the gatekeeper.

P1: So, the first victim is the patient? And the counsellor is like psychological-

P2: Who is the gatekeeper. Because these, the health professionals who are involved, land up being victimised, and it is in international literature, it is known that, because the hospital always blames the individual, and where it might be a systems issue, but equally they are trying to protect themselves.

P1: Can I just ask, the investigating office, must it not be somebody who is not a health worker?

P2: So, I do not know in detail, but I do think a system where, like we once did, when we had a problem at an academic hospital, then you get another academic hospital to come and do the investigation.

P1: It is a good idea, to have an interchange between hospitals.

P3: Another challenge that I have seen, for each problem, you think about a person for the position. So, I would say, you know, if we can be able to make sure that we do not add, because of people in the system, that we are able to use people that we have…already in the system.

P1: That is a good point. Then we use what we have, Make a top-heavy structure. So, the gatekeeper looks after the second victim immediately and sends them to some sort of support,

or counselling, rather than making them sit and write the reports, Yes. But not today. Not at the time- All right. Okay. I am clarified.

P2: My question is now, with the amended one, is if the PSC is appointing the Investigating Officer, when is this going to happen? There is going to be a gap. We need the Investigating Officer…Immediately.

P3: Because the gatekeeper is going to do an inspection-

P2: I think the person in charge needs to inform the gatekeeper, the family and the PSC at the same time, so you need to have three arrows there. The gatekeeper, the family, and the PSC. And I would put on top, because I was also wondering how they are going to find out [redacted] the Section, or the Area Manager will be notified. We have got notified there by the in charge.

P1: Thank you. The counsellor, is the counsellor going to be required to make the report available? Psychologists, and you get another category, a counsellor psychologist. By oath they are not allowed to let any of that information go. So then, you find a Catch-22, because you can ask the second victim to sign a release. But then, if I am going to sign a release, I am going to be very careful what I tell the counsellor. Patient Safety Committee went to the counsellor, not the other way around. So, the counsellor would then say, okay, this is what they have found, how can I help you deal with it? The counsellor's report, then-Stays confidential. But the counsellor can make recommendations, or not? I think the counsellor can possibly say he needs further counselling. He needs to see a psychiatrist. He needs to be booked off. But that is it, because it will influence the work even. Okay. That makes more sense.

P3: No. I am also thinking about, you know, Patient Safety Incident Guidelines and Learning, the revised one for 2017, because if you are the second victim, you should be able to write what has happened, so that, as a manager, you are also able to present that to your Nursing Service Manager or whoever, but the person who witnessed should be able to put that down as a report, you know. Because if it is verbal, then people might also interpret it differently. Already it is a legal document.

P2: If we have this series I have written there. There is the victim. Inform the Unit Manager. In the report, why do we not put a 'within 24 hours, or 48 hours' or something, so that they get time to catch their breath, because the union is also not going to tell them not to be truthful, possibly. I am jumping to conclusions. And then the counsellor is going to be a problem now. I do not have a good answer.

P3: We are also imagining the very same indicators of, you know, adverse events. But with us because we know that people they do not report immediately. We say the health establishment must report within twenty-four hours after they became aware of the incident, so the person in charge is the one that is supposed to report the incident to us after they became aware. You will find that, you know, the incident happened ten days ago, but they become aware today. So, that is when we are expecting them to report.

P1: Maybe this is a good example. I mean, the damage to the baby is only seen a few days later, so only then it becomes a case.

P2: So, we have got that tension between needing this incident report written quickly and trying to support…The second victim.

P1: I think it is quite important to support the second victim because, there are two things, in my experience. The one is, they say on the report what they think has happened, not what they saw did happen, whatever it is that they did. The second one is that they tend to forget the detail, but they put pressure on them to write a report without the patient record. So, I think there's some guidelines that should apply there as well, so that you do not get people writing from memory, which we all know is very bad, because we work with lots of patients.

P2: It is also, it depends how bad was the incident, but, I mean, all of these are pretty bad. You know, if you have slammed the baby's fingers in the door, maybe you will feel calmer about it, versus… And that is one of the very sad cases, sorry, guys, was also a baby was killed because her RN was negligent and a student nurse also got her suspended homicide, culpable homicide case, and you have a criminal record for the rest of your life, so the support of the second victim is very, very important.

P3: It is very important, and we cannot underplay that. Now, the National Department of Health they are revising even the 2017 PSI. With 2015, they were encouraging Just Culture, you know, instead of bringing the person who was involved. 2017 it was the same, even now, you know. The issue of Just Culture is something that they are not practicing because there are so many incidents that are happening that people are still not reporting. Instead, you know, they come and report to the health ombud.

P2: So, what I am seeing in our hospital, and it was not here, it was just somebody else. They are already quite thick in the [inaudible 00:27:18] and stuff, that the social workers did a lot of the counselling as well, because they do have quite a bit of skill, and they are all on site, because the psychologists are few and far between. So, what we are suggesting is that this counsellor is maybe a social worker, and, maybe, if I understand correctly, that social worker needs guidelines to assist the person to run the report, so the social worker actually needs to be important.

P1: And we can say the psychologist stroke psychologist counsellor / social worker, and maybe even start with social worker. Seeing as they are more available.

P2: Even the timelines of access to social worker and psychological counselling are also important because we do not want people to stay for a month or whatever waiting.

P1: That is why I was saying one should put in timelines that they work within. We need to cut the time when they write the report, because as much as they are not going to remember things, they are going to forget things as well.

P2: So, the suggestion is you write a timeline when this happens by and whatever

P1: There are two ways that you can actually do this. You can still have a what we call a flow sheet, a framework, accompanied then by, for people like us, a more detailed kind of framework where there need to be additional steps, but you can create a framework, and then a support then, what do you call it, a support of the framework, to clearly. What we should be doing in the guidelines. Because if you start adding guidelines here, it becomes quite clogged up. But how would it be? Because it must be there so people cannot have an excuse, "But you didn't say it there, so that's why I didn't do it."

P2: It would be quite clever where you do thing where you click on this, then it brings up, but I do not know if you know how to do that. That is also the thing with just culture. It divides them into aspects of responsibility, and they only punish them for gross negligence, otherwise it is counselling, support, education, or, if it is a minor lapse, then they actually, in that framework it says support. So, there is no question of discipline. So, if you, let us say you put soap on the baby and you dropped it, and you are mortified by this.

P1: Can I ask. What is the anonymous presentation? Does it mean the investigator can present the case, but they do not see who- And each hospital has got a Patient Safety Committee?

LIZ: Yes. Each one has got a Patient Safety Committee.

P2: The doctors use that approach, because they have their M and M meetings, and they present the case, and then I can be sitting there, and I come up with something stupid and no one is supposed to know who the-

P1: So, this remedial action, I think, you also thought it was to do with systems, not necessarily the person.

P2: That should not be there, I think. Because, I mean, it is four of many things that can happen. And under 'System' do you see 'Resources' there? And with the resources would be improved staff, equipment, and consumables. And training. Often people do not know how to

P3: It goes back to what [redacted] was saying in terms elaborating, because once you can be able to do that, then you will be able to follow in terms of content, because with reporting, it is not about numbers, it is about incident recurrence, so it would be important to know this.

P2: You are right, but ideally then, that report that comes out of this result ought to go to the [redacted] Quality Assurance office. That is what should happen.

P3: That is what should happen. Because, I mean, we are talking [redacted] Province, we do not want to see the same things happening. And, unfortunately, at some point it should be, you know, something that is from province to province. Other provinces they learn from [redacted] so that we are going to solve all these problems that are there in our health system.

P1: Because, actually, I think that might help, also, the [redacted] Department of Health feel sort of… You know, they are always worried about they are not in control of things. At least if they knew they were getting something out at the end of it, instead of muscling in. You know what happens, the MEC here is about and says go forth and investigate and deal with it. So, if this process is in place, they would say, ok in five days I am going to have a report.

P2: You know what political-social what-what requirement landed on that and then a lot of issues around social justice, etcetera. And then they would invite us and, when research is done and dusted, they will give like an hour feedback and they give you a little thing with the whole research basically summarised and, often, visually like this.

are happening under the carpet and the staff is complaining. And those area matrons need to come with takkies and scrubs. So, in terms of clarity, are we happy with this right-hand side one that the Investigating Officer gathers in evidence, does the presentation, and then there is discussion?

P3: Now, Ma'am, when you are talking about 'Investigating Officer'. I am not sure, you said it should be someone with a health background. Because we do not want to send lots of people-

P1: And, if it is a specialised area, you could go further. If it was in a heart transplant unit, you do not send an orthopaedic surgeon.

P2: Did we agree it is the Investigating Officer that comes from another hospital. My only worry is, how does this relate what is national and provincial policy. You know what I am saying? If [redacted] Health says they will appoint, then you can recommend… I suppose a research study will recommend to them. And then if they take it up or not, it is up to them. Hey, [redacted]?

P1: Yes. I think that [redacted] is suggesting that the hospital appoints this investigating officer from, now, another hospital. I think that would be the sum of it. But you are right, because, again, it is a political thing. Maybe if the Minister of Health hears about it, he is going to want [redacted] to come and investigate. And if the MEC of [redacted], he will also want to come and investigate. But I think the whole idea is to try and contain it within the institution.

P2: And for [redacted] it will be Jack Bloom who wants to investigate.

P3: I mean, we are living the world of the fourth industrial revolution. As the incident happens, people inform the minister. Most of the, you know, adverse events, now, they are even reported by the minister to the ombud before the health minister even knows about that. It is like,

investigate this, you know, WhatsApp message. Like now with [redacted] where a mentally ill patient stabbed another one to death. Whilst we were investigating, already the minister had, you know, instructed the health ombud to investigate.

P1: But we also need, well, I suppose I am talking about an ideal world where the minister knows where he should …

P2: But I think [redacted] is right. As a researcher, your recommendation is going to be that it is managed within the institution and when this report is ready, but there are timelines so that they know it is going to happen quickly. And if they ignore it, then…

P2: Counselling psychologist. They have got four years training.

LIZ: Okay. And then we mentioned that there should be guidelines for this person to assist the second victim to be able to write that report.

LIZ: Okay. Let us start at the beginning. The Unit Manager is the one that gets notified about the incident. This person notifies the person in charge…Stabilise the patient. And then will notify the gatekeeper, the family, and the Patient Safety Committee. And then after that, there is an appointment of Investigating Officer, who can be inter-hospital.

P2: You know, I think if there is still something to be done, you would go to emergency procedures of the ward, if this exist.

P1: Maybe it could say something like manage the situation.

P3: Just say SOP-stroke-guidelines.

LIZ: Guidelines. Okay.

So, we said the incident occurs. The Unit Manager is notified. Manage the situation according to the available guidelines or SOP. And then this Unit Manager will notify the person in charge who will notify the gatekeeper, the family, and the Patient Safety Committee. Following that, there is appointment of Investigating Officer.

P3: Because we do not want the person in charge to appoint because of bias. The PSC is a committee.

LIZ: It is a committee, yes. It makes sense that we understand that, that it is a committee that is going to be appointing that.

P3: Can we go back to the issue of policy and what is currently happening. If you say appoint or assign, you know, we are also talking about somebody coming from another hospital to investigate in another hospital. Is that person appointed or assigned or delegated? Because with us, appointment is like-

P2: Yes. Assignment is a better word.

LIZ: So, the PSC will appoint the Investigating Office. Will assign. Yes? And then after the Investigating Officer, is it clear now? Everything? We are just removing the experiences and

normalising. Did we say that? And then, that report that is written is the one that is going to go to [redacted] Department of Health with the timelines that are going to be mentioned.

P2: There need to be guidelines for the social worker-stroke- For them to assist the second victim to write the incident report. So, the first thing that happens is someone now sits down with them and helps them, that is according to guidelines. And then refers to the counselling.

P3: If I understood you well, you said this framework is going to be accompanied by…

P2: Can I ask… If the report is written, and now we feel this was a case of serious neglect. Because we are writing this to support the second victim but should our report… We said report for remedial action, but some reports might have to go to higher authorities. It feels to me, remedial action is one line, and then there should be another line, where serious action.

P1: Maybe we can bring in the, just culture. Then that arrow will go to a negative.

ALL: Yes.

P2: Because then it usually tells you who reports it to the authorities.

P1: But the second victim has still been through this counselling process regardless. And also, we said the gatekeeper's report does not go to the counsellor. The province are aware of this concept, although you say it is in the policy. Because they might be aware, I am not aware, but I certainly think people need to understand or to be taught that the concept is also to be not punitive necessarily, but address the situation, and I do not know if they, one, know what it is, and two, what the attitude is, because I think at the moment it is crack the whip.

P2: So, you are saying it would only be relevant if there was some preparation or conscientisation of the institutions about just culture?

P1: Yes. Absolutely.

P2: And if there was, then it would be relevant.

P1: It will make it more relevant.

P2: It is relevant.

P1: But it is relevant.

P2: But it must be sort of presented within the just culture, as a just way to manage this.

P3: The other day I was thinking, you know… Because now the National Department of Health is in the process of even revising the 2017 one, and they do not have this framework. If you look at it, they do not have this. They are talking about just culture, but they are not giving people any guidelines.

P2: They do not know how to [Cross-talking 01:06:11].

P3: Exactly. So, at some point we need engage with [redacted] She is responsible for all region safety incidents. Just to check whether they cannot use your framework to include in the process. Because it is a process of two years. It is only now that they are going to be starting.

P1: I do not necessarily mean, also to come back to the Cos, I am not meaning that she must go through the training. She must put in a report

P2: We will send you a presentation to make it easier for you.

LIZ: Okay. So, from the relevance point of view, we should conscientize the institution regarding just culture, because we are not talking punishment here. So, whatever needs to happen should not be punitive. It just makes sure that you address the just culture.

P1: And not only the institution, but the provincial government as well, and national.

P3: Exactly. You talk about just culture, but at times there is no support.

LIZ: Feasibility. Do you think the framework is feasible? What should be included to ensure the feasibility? What comments can we share to ensure the feasibility?

P1: I think the fact that inter-hospital appointments make it feasible. Because if there is no budget, that should be one of the challenges.

P2: I think it is feasible. We can do nothing about if there is buy-in, but that you cannot do here. I do think it is feasible.

P3: I also think it is feasible, as long as there are no additional resources, especially human resources. And when we were talking about counselling psychologists, I was even saying we should not even restrict ourselves by saying psychologists, whether it is clinical or whatever … counselling psychologist, or another psychologist, social worker, whoever is capable.

P1: I hope you have got it like that. It must say psychologist, and then clinical psychologist.

P3: So, it means psychologist, whether it is clinical or counselling psychologist, or other psychologist, social workers, anyone that has the capacity to do the counselling.

P2: The Social Work Board is very sensitive about what thingamajig is counsellor counselling and not. Because of that very thing, that people think anybody can do it, they have to have training, and I do not know if there would be, any or… You can maybe ask somebody for if what is the definition under the Social Work Board, because OTs do, and nurses do, a lot of psychology and psychiatry when they are trained, but that does not make us counsellors. So, I think… And if you want a lay counsellor… No. Because if you get three days training as counsellor, that does not make a counsellor.

P3: Now, the other thing. You were talking about the relevance and practicality. I would say this is very relevant, the reason being that when you go to a health establishment now. They do not have employee wellness programmes, or employee assistance programmes, where people that have been traumatised in the work environment, they cannot get any assistance. So, at least this framework- And the other thing is not being able to market the services that are there, and how we were saying if you can make sure that you market this, then it should be used. Because we develop these tools, then…

P2: You see, then what was also an accompaniment for general EAP, in that form, not incidents. They were saying that maybe the current social workers must take it over. We cannot do that because there… Say my husband clocked me yesterday. Now they want a normal social worker. We do not have enough social workers. So, the social worker said no, whereas this one is, I think, limited. You can imagine that somebody like …should have like ten EAP trained officers at any point in time.

P1: Great. That sounds as if we seem to have done well.

LIZ: Thank you so much. I appreciate your time.

ANNEXURE R CERTIFICATE OF EDITING

28 October 2022

To Whom It May Concern:

Dear Sir/Madam,

RE: CERTIFICATE OF EDITING – Elizabeth Malefu Nkosi

I hereby advise that I edited Elizabeth Malefu Nkosi's thesis "Support Programme for Healthcare Professionals Involved in Adverse Events in Public Hospitals in Gauteng" submitted in fulfilment of the requirements for the Doctor of Philosophy in Nursing degree in the Faculty of Health Sciences at the University of the Witwatersrand.

Kind regards

Isabella Morris M.A. (Wits)

ANNEXURE S – CODING REPORT

Coding was guided by) thematic analysis coding method and the following questions:

1. Please could explain to me the procedure for managing adverse events in this hospital?
2. What support mechanisms are used to assist the people involved in the event?
3. Do you think any more could be done to support the health professionals directly involved in the adverse event and if so, what?

Category	Sub-Category	
1. Procedure for managing adverse events	1.1 Similarities and differences in procedure for managing adverse event 1.1.1 Chain of reporting adverse event	
	1.1.1 Chain of reporting adverse event	***Internal reporting*** ***Staff Reporting to matron in charge*** ***"There's only Matron, will be the person who will be reported to. Then there's only Matron will then assess the situation. If it's a serious one they will follow the same procedure and report to the Manager Nursing telephonically and phone the CEO as well, or the Clinicians, Clinical Manager for that Department."(P6)*** ***"…if there's an adverse event that had happened,… then the… people that are on duty in that particular department will report to their matron and then***

		if it's after four, they report to the matron who is knocking off at seven, she's the zoning off..err....in the zoning office"(P5) ***"…depending whether an incident took place the people involved would inform the person in charge of the hospital that has been assigned either be a night supervisor or a day supervisor. Then the day supervisor will inform the matron who's on call then the matron on call will inform the …manager and the CEO."(PD1)*** ***"…operational manager will inform the assistant manager and then they will also complete then... the incident, the…the particular incident forms because each incident will have its own... incident form…"(P2)*** ***"Whenever there's an incident, what we do we in we do the investigations and also involve the staff that has been on duty…"(PD3)*** ***Quality Assurance Manager*** ***"And then all forms goes to our… patient safety incident registers which is at our quality assurance department…"(P2)***

		"And then when I've collected all the, the information or the incident reports from the staff members that is forwarded to our quality assurance manager that will be processing it further."(PD3) ***"Then after that, there are forms that needs to be filled. Then the registered nurse within the department will fill the incident form, which is the Serious Adverse Event Form, then after that the matter will be reported to Quality Assurance…"(P6)*** ***"…report to their Area Manager during office hours or to the Zoning Matron after hours. Then after reporting the Manager, the one who received the message is supposed to go to that particular ward and go and assess what happened, ask questions from all the nurses involved and the patient…"(P6)*** ***Writing of reports*** ***"And all the parties involved are mandated to write an incident report, we call it patient safety incidence…"(PD1)*** ***"All the staff members that are on duty they will have to write an incident report based on what has happened and I as a***

		manager, I reread all the, the incident reports that they've written and try to identify where the problem was…"(PD3) ***"…Then from there they will write the report sheet, you write the heading Investigations and Findings as a report and submit to Quality Manager…"(P6)*** ***External reporting*** ***"…another thing that I've left is that with the incident report writing it should be done within 24 hours."(PD3)*** ***"And within 24 hours the report should, a preliminary report should be written to quality assurance province…"(PD1)*** ***"…The Quality Manager will also do her rounds, go and look and see what happened to the patient or what happened in that department. Then she will also write her report. And if it's the serious one we have to report to our Manager, our Nursing Manager and the CO for them to report to Head Office…"(P6)*** ***"…then after that the matter will be reported to Quality Assurance, which the Quality Assurance will report it to... Head Office."(P5)***

		Reporting during weekends ***"…there's an incident during the night, the matter is reported to that particular matron and also during the night there are in-services that are conducted in prevention of incidents from happening…"(P5)***
Challenges		***"…the staff becomes despondent to say that you know what this incident happened and the patient maybe jumped because of there was no window or there was no burglar proofs so I think those are the challenges; finances and the willpower of managers…"(PD1)***
Awareness of incident and reporting		***"And after identifying where the problem is and then I then take a responsibility of making the staff aware that there in, the reporting of incident it's not about punishing them it's important and they have to be transparent and say what has happened, exactly what has happened. And they shouldn't write the hearsay and whatever incident report that the nurse has written should be an individual one."(PD3)*** ***"… to help the nurses see the seriousness of what's happening when the incident is there, to reduce err.. the number***

		of incidents and also to come to at least none of incidents not happening and also they…it's to conscientize them… that they should be aware, when they are on duty, they should be fully present in the departments; and also it helps us to see where did we go wrong and then so that even if you go they report the matter to SANC…" (P5) ***Orientation*** ***"…we do run the orientation before they are allocated in the wards. It is two weeks, one week is HR and one week is nursing where we teach them about everything that you have to know, all the qualities…"(P6)*** ***"…for every newly employed person, before they can go to the units that they will be allocated to, they go through an orientation… orientation period which lasts for a month. So, all of what is happening in the hospital, the reviews, how to report incidents, how to prevent, we have a curriculum on what is it that we're supposed to teach the people that are newly employed."(P5)*** **Quality improvement plan** ***"…if the incident had happened, that department is***

		tasked to prepare a lecture on how best was that incident supposed to be prevented…"(P5) **Departmental Reviews (Internal reviews)** ***"…they also do their own reviews at night, but also during the day, at in the morning around half past seven in the morning before night staff goes home…"(P5)*** ***"…the night matron will ask a slot at half past seven in the morning so that after they have reviewed the case; so that day staff also can learn from the incident…"(P5)*** ***"We also do incident reviews at night. So those internal reviews also occur at night. Then based on the interviews because at night there are two matrons that is working, so they will also interview, they will also refer the staff, same thing we do during the day…"(P2)***
Safety of patient		"***And if the incident has affected the patient physically or even emotionally, we make sure that the patient has been seen by the doctor the doctor comes and assess the patient and identify if there are any injuries to the patient."(PD3)***

		"…when there is an adverse event maybe in one of the wards of the unit the first thing that they must do is to make sure that the patient is safe, make sure the patient is comfortable…"(P6)
2. Support system with incident review	2.1 Support for healthcare professionals 2.2 Support for families	
	2.1 Support for healthcare professionals	***Internal support systems*** ***"… the staff member will go to emergency department to be seen but they are also then referred to employee assistance or employee wellness program for some form of support because it is very traumatic…"(P2)*** ***"if some members you know after the incident with us then if they would like to be referred to wellness centre, if they indicate they need to then we refer them to our internal but you find out that there are those that would feel that they are more comfortable speaking to someone else out there…" (PD1)*** ***"we refer them to Careways because what we use here is Careways and also our… we've got our nurse that is dealing with wellness so we refer them***

		so that they are, they get psychological help"(PD3) ***"If it is the nurses who are involved in this incident, whether they were physically or not physically involved but working in one department, we normally refer them, after the manager will interview them, then they must refer them, the people, to the Employee Wellness Officer / Manager for support"(P6)*** ***Self-referral*** ***"And we also have little pamphlets that are issued out to the staff members, they can either be referred by the manager or they can do a self-referral…(PD1)*** ***Support from managers*** ***"…And on the side of the nurses they get that support from us as managers to make them feel free but aware of all the incidents that needs to be reported. Because all… everything needs to be reported and whatever that has happened to the patient or to the staff members…"(PD3)*** ***"However, you do try in the ward then, you know when we go on our rounds, we go back to that person to say how are you feeling today, what else can we do for you, is there anything you***

		would like to bring forth and tell us how best we can then improve on how you fell or what we could have done in that case…"(P2) ***Time frame of referral*** ***"…With this it usually they recommend that within 24 hours you know you need to have referred this person so that you know… Because the incident is still new, and it will have more impact if you then refer……"(PD1)*** ***"And if there is some intimidation in the ward what we do we will reallocate them in other departments so that they are able to, to deal with what has happened."(PD3)*** ***Follow-ups*** ***"…there's always you know a contact with the person to find out are you coping, did the referral or the intervention yield any positive outcome from the individual. Because remember we are not the same, some people you know incidences with our threshold are not the same…"(PD1)*** OR

		"…But it's also important as a manager you know to make a follow-up on the officer to check whether they are coping or not. And if they need further referrals and we sometimes you know make use of our own doctors…"(PD1) ***"…And also they are being monitored by the, their representative from Careways that will be dealing with them sessional in sessions…"(PD3)*** ***"…the EWP will feel that the person needs to be referred further they go to doctor, Staff Clinic doctor, OHS Officer their report will guide us whether we need to remove this person or the person is okay working in the very same ward…"(P6)*** ***"…should the staff member not cope due to the incident, then there is a wellness… office where…"(P5)*** ***"…but you just follow up, even if they refuse to go at that initial point in time. There is one specific person that comes to my mind now… the I would just follow up, can you believe it, she is actually now going to EAP? So I am just grateful that opportunity was there and she follow up…"(P2)***

		Further referral ***"…OMs will….err…recommend or refer the staff member to her, to that lady Mrs. XXX, then Mrs. XXX will help the staff nurse or the staff member the best way. Ja, they talk and then if she can't help us, she does refer to psychologist…"(P5)*** **On-call support services** ***"We do have the psychologist on call and the psychiatrist on call in our emergency department… if the staff member is not coping maybe during the night or over the weekend, those people can also be conducted to come and help. (P5)*** ***"…we have a service provider which has a, what is this, it is not a toll free number, we have the phone number for the service provider because the EAP is not there at night."(P2)*** ***"…They assist sometimes when it happens and when they're on-site we call them immediately and they come and they do an immediate de-briefing of the staff…"(P1)***
	Attitude towards referral	***"…normally they appreciate the referral, because they can open up to somebody who is not***

		directly working with them…"(P6) ***"…there is this negativity around, if you go for employee wellness there is something wrong with you upstairs, of which there is nothing wrong, you know. So I think you have to make time really to say why do I need for you to go. I have had instances where even if you explain, you know you come down to, people still say I do not want to go. Then they have a right not to go…"(P2)***
	Reporting on progress of referral	***"They normally give us a report after she has met with Management and bring a report to me as an HR Manager and the Department's Manager."(P6)***
	2.2 Support for families	***Referral*** ***"…Then we also refer to social worker, to psychologist and we try then when we have multi-disciplinary meetings to get the feedback to say, post fall, what transpired and all that…"(P2)*** ***"…patients are referred to the social workers for counselling we will continue counselling and unfortunately that's what we have currently.…"(PD1)*** ***"We report to the Quality Managers, they are the one who***

		is dealing with the family, they will call the family and ask them when are they available to come and meet with them"(P6) ***"…I would say… they have been offered counselling in some instances if they needed some, but the hospital is willing to go lengthy to help them cope with whatever incident that might have happened…"(P5)*** ***Information for families*** ***"… family members are explained, and nothing is being hidden from them, the information is there for them so that they can deal with the situation best way…(P5)*** ***"…We also inform the family to say look, you relative fell, you can come to the hospital to come and see your relative…"(P2)***
	Enough support provided for HCP	"***You know with the resources available I don't think there's more that we could be done because then because we would have used our internal and if the person is not happy with the internal then we would even escalate to the external…"(PD1)*** ***"I think what we are offering it's enough for our nurses, because if the EWP Manager feels that this person needs to be***

		referred further, then they will refer the people to Staff Clinic, there is a doctor allocated only for staff. Then the person will be assessed by this doctor and referred further. If it's a psychiatry or whatever."(P6)
3. Outcomes of the event	3.1 Redress	***"….redress where now you would inform you know the staff to say that this happened, what systems can be put in place to ensure that it does …"(PD1)*** ***"…it's their quality assurance manager that continues with that and the staff members they are called in the ones that are involved they're called in to explain when they withdrew their, their, what is it for their redress."(PD3)***
	3.2 Training	"***And also if there is a need for training as well we, we train them, we retrain them and give them in-service training based on what has happened."(PD3)*** ***"We use our two Managers who are dealing with the reviews, they visit that ward and try and explain, teach them what is the review, why are we reviewing the cases."(P6)***
	3.3 Quality improvement	***"whenever we do ward rounds we… it's our responsibility and duty to observe, do observations and also check the records…***

		The way they manage the patients, if you see that there is a lack you can even do the on the spot teaching besides taking them as a group."(PD3)
4. Recommendations for incident review	4.1 Availability of resources	***"you find that the hospital does not have the means nor the willpower from management to say that let us move resources from this area to this one, so it becomes now a recommendation that does not carry…" (PD1)*** ***"So that is why I feel like for a woman in Lesotho to work in the corporate world is very challenging…" (p17)*** ***"…I have a very hectic role to play in my work life in that sometimes you have to work beyond working hours…" (p2)***
	4.2 Continuous training & support	***Training*** ***"I think the way that we can help them is to continue do a continuous training, do always give them in-service training on SAEs and how to deal with SAEs."(PD3)*** ***Support*** ***"…we need to make sure that they really get support because sometimes they even go the cases they go further to the South African Nursing Council and they've got a fear of losing their jobs. So but when they get***

		that support psychologically they will be free to voice out whatever that has happened…."(PD3) ***"I think there is more that can be done; rather than to deal with the situation as a whole, as a collective, maybe they should do this individually to hear people's opinion individually rather than to assume that everybody learned, everybody's okay with the incident and all because, we do not cope the same way when there's an incident…"(P5)***
	4.3 Consistency of the incident reviews meeting	***"…in some instances our incident reviews, at times they are not conducted in such a way that they provide learning or comfort to the staff… so if we can be consistent on how the incident reviews are conducted, then I think that will be more…that will bring more ease on our staff and then there will be more, how can I put it, they will be more willing to learn…"(P5)***
	4.4 Review process of the incident reviews meeting	***"…we were tasked to go as departments to go and think on to how this can be done. So, we are in a process in a way, because suggestions was that it shouldn't be people exactly that were involved there… because anyone can be involved in an incident…"(P5)***

	4.4 Counselling for managers	***"…recommendation in future to say, all the managers at least twice a year go for counselling. …"(P2)*** ***"…you have a choice, you can either go here to our EAP coordinator or you can go to the external, the external service provider that was appointed and it is paid for by our Government…"(P2)***

PRESENTATIONS ARISING FROM THIS STUDY:

NKOSI EM., ARMSTRONG S & NKOSI-MAFUTHA N. Healthcare professionals' experiences of reviewers' conduct during incident reviews at public hospitals in Gauteng, South Africa, *International Journal of Africa Nursing Sciences*, 15 (2021) 100349.

NKOSI EM. Nurses' Experiences of Adverse Events Management at a Public Hospital, Gauteng Province. *Global Journal of Health Science*, 12 (12); 2020. ISSN 1916-9736 E-ISSN 1916-9744; doi:10.5539/gjhs. v12n12p80.