“It’s a Little Scar”: A Phenomenological Study of Nurses’ Responses Following Direct Involvement in a Nursing Error

A Dissertation Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

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December 2013

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DEDICATION

This dissertation is dedicated to my husband, Greg, and my two sons, Adam and Joshua. To Greg, you will never know how your endless love and patience during this long journey have provided the strength for me to make it to the end. To Adam and Joshua, thank you for understanding when Mom had to "do her homework." I will do my best to make it up to you guys. Also, a special acknowledgment to my parents, Dennis and Barbara Henson, who have taught me to always work hard and follow my dreams. Lastly, I want to specifically recognize my mother-in-law, Nora Mae Swift, and close friend, Wendy Scalf, for your prayers and endless words of encouragement throughout this process.

I love each of you dearly, and I can never say thank you enough
for all your love and support.

ACKNOWLEDGEMENTS

I would like to thank the registered nurses who so willingly took time out of their busy schedules to share their stories with me. I truly appreciate your caring attitudes and willingness to bring an increased awareness to the turmoil nurses face following involvement in a nursing error. I am humbled by your honesty and honored that you entrusted me to describe the meanings of your experiences with others.

I wish to acknowledge and thank Dr. Mary Gunther, my committee chair, for her unwavering guidance and support. Dr. Gunther has been a role model and mentor to me during this educational journey, and my success would not have been possible without her. I wish to thank Dr. Sandra Thomas for her passion for phenomenological research, which ignited a spark within me for qualitative research and helped propel me throughout this research study. I also wish to thank Dr. Marian Roman and Dr. Ralph Brockett for their encouragement and willingness to serve on my dissertation committee. Your expertise and knowledge are greatly appreciated and have played a significant part in the completion of my doctoral studies.

I would like to thank the members of the phenomenological research group for their time spent reading transcripts and their invaluable insight throughout this study. I also want to thank the UTK College of Nursing Scholarship Committee for providing funds to help support this research.

God placed the right people in my life during this challenging journey to provide the encouragement and strength I would need to be successful. I am eternally grateful to each one of you. I want to thank my entire family and close friends for their unconditional love and support over the past five years. You know who you are, and I truly could not have accomplished this

challenge without you. And lastly, I want to acknowledge a few former classmates, Robin Harris, Cindy Hollingsworth, and Nancy Thomas, for cheering me on and pushing me forward when I did not think I had the abilities or the energy to keep moving ahead in the doctoral program. I am so thankful you were there for me.

Abstract

The frequency of errors in the healthcare environment is staggering, and nurses are often responsible for potentially or actually inflicting unintentional harm on patients. The patient and family are the first victims of a nursing error, but the incident can be a traumatic experience for the nurse as well, establishing him or her as a second victim. The purpose of this phenomenological research study is to describe the lived experience of nurses as a second victim following involvement in an unanticipated nursing error. The study is grounded in the existential phenomenological philosophy of Merleau-Ponty and guided by research procedures developed by Thomas and Pollio (2002). The study answers the question: How do nurses involved in an unintentional nursing error perceive and describe their response to the experience as a second victim? The research design methodology included a purposeful networking approach to recruit participants. In-depth, unstructured phenomenological interviews were conducted with 12 nurses willing to be interviewed about their personal, direct involvement in an unanticipated nursing error, with or without patient injury. Participants ranged in age from 24 to 64 years, and length of nursing experience at time of the error ranged from one month to 30 years. Data analysis included reading and analyzing all transcripts for meaning units and global themes to develop the thematic structure. The researcher, Interpretive Research Group, and willing participants agreed upon the final thematic structure. An encompassing central theme of "*it's a little scar"* was woven throughout the interviews as participants described their experience. Four figural themes manifested within this central theme: (1) "*That was a traumatic experience*"; (2) "*My god, am I still competent?*"; (3) "*They did not treat me bad*" – "*I am being thrown under the bus*"; and (4) "*I still think about it.*" Study rigor was maintained through bracketing, data saturation, peer

debriefing, member checking, and the use of direct quotes to support findings. This research offers an intensified awareness of what it is truly like to live as a nurse following involvement in a nursing error. Findings add to the nursing literature and have implications for nursing education, practice, and policy.

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Chapter 1

Introduction

The Institute of Medicine's (IOM, 2000) publication over a decade ago of the landmark report, "To Err is Human: Building a Safer Health System," shed light on the magnitude of the medical error problem in the United States of America's (USA) healthcare system. This report estimated between 44,000 to 98,000 annual patient deaths could be attributed to errors, many of them preventable, at the hands of healthcare professionals (HCPs). Sentinel event statistics reported to the Joint Commission from January 2004 through December 2012 showed nearly 7,000 patients in the USA have suffered serious physical or psychological injury or death due to medical errors, such as wrong site surgery, delay in treatment, falls, blood transfusion errors, infection-related events, and medication errors (Joint Commission, 2013). Classen et al. (2011) reported adverse events occurred in one-third of all hospital admissions in the USA. Medication administration errors are the most frequently identified medical errors (IOM, 2000, 2007), but only an estimated 5% even get reported (Cohen, Robinson, & Mandrack, 2003). Worldwide, the World Health Organization (2007) estimated one in ten patients admitted to hospitals experience some form of preventable harm.

Extensive efforts have been made in the healthcare environment to address this medical error issue, and many effective error prevention strategies have been implemented across the country to help reduce the frequency of errors in order to improve patient safety. Strategies include computerized order entry systems, bar-coding medications, smart intravenous pumps, and time-out protocols completed before invasive patient procedures. Despite the increased public awareness and extensive efforts in defining the problems and initiating targeted

interventions, errors continue to occur at an alarming rate (Classen et al., 2011; Joint Commission, 2013; Zhan & Miller, 2003). The reality is that as long as humans are involved in providing care, perfection is unattainable; errors are an inevitable part of the healthcare system, and conscientious nurses are often responsible for unintentionally inflicting potential or actual injury while caring for patients (Armitage, 2009).

In addition to the effect errors can have on the patient and family members, known as the primary victims, researchers have found that these same errors can have a significant emotional impact on the healthcare professional involved in the mistake, making him or her the second victim (Christensen, Levinson, & Dunn, 1992; Scott et al., 2009; Treiber & Jones, 2010; Waterman et al., 2007; Wu, 2000). The impact on nurses as second victims has been overlooked, with limited research available focusing on the HCP's emotional response following involvement in an adverse patient event. In addition, limited organizational and social support is available to the erring caregiver following an error, which may contribute to the emotional distress and internal turmoil faced by the HCP (Schwappach & Boluarte, 2008; Waterman et al., 2007; White, Waterman, McCotter, Boyle, & Gallagher, 2008). These second victims may experience symptoms similar to those seen in acute stress disorders, such as but not limited to anxiety, depression, withdrawal, and frequent replaying of the event. They may also have intense feelings of guilt, shame, and self-doubt (Rassin, Kanti, & Silner, 2005; Schwappach & Boluarte, 2008; Wu & Steckelberg, 2012). These symptoms may last days, weeks, and even years, affecting the HCP's psychological well-being and ability to perform effectively in their personal and professional lives (Lander et al., 2006; Scott et al., 2009; Sirriyeh, Lawton, Gardner, & Armitage, 2010; Waterman et al., 2007).

Taking responsibility and disclosing errors is a crucial part in emotional healing after committing an error (Christensen et al., 1992; Crigger, 2004). The process of disclosure is often hindered, however, by the culture of blame prevalent in Western society today (O'Connor, Kotze, & Wright, 2011; Woodward, Lemer, & Wu, 2009). Errors are most often the result of system failures, not due to the incompetence or carelessness of individual healthcare providers, but HCPs often avoid disclosure due to fear of litigation and the perceived negative responses they anticipate from the patient, colleagues, administration, and potentially the media (Covell & Richie, 2009; Crigger, 2004; Wagner, Harkness, Hebert, & Gallagher, 2012). A blame-free mindset in healthcare is essential for second victims to successfully address errors in a healthy manner. When second victims are able to disclose the error and have an opportunity to apologize to those involved in the incident, they may be better able to mitigate feelings of guilt and move toward reconciliation and forgiveness (Crigger, 2004; Crigger & Meek, 2007; O'Connor et al., 2011).

Scope of the Problem

Medical errors pose a significant problem in healthcare worldwide, and although there are no statistics in the literature specifically noting the number of errors attributed to nurses, there is sufficient evidence, particularly related to medication errors, indicating nurses are involved in mistakes and are emotionally impacted by these nursing errors (Arndt, 1994; Rassin et al., 2005; Treiber & Jones, 2010). Based on the number of errors reported in the literature, there are numerous nurses in the healthcare environment who have suffered emotionally after involvement in a nursing error. As mentioned in the introduction, the patient and family are the obvious first victims of a nursing error, but the adverse event can be a traumatic experience for

the nurse as well, establishing him or her as a second victim from the same error (Wu, 2000). Since research efforts have focused mainly on the reduction of errors instead of on the healthcare professionals involved, little is known regarding the nurse's perception as a second victim. Literature does indicate, however, that guilt is the most commonly reported emotional response among nurses following involvement in a nursing error (Rassin et al., 2005; Treiber & Jones, 2010; Wolf, Serembus, Smetzer, Cohen & Cohen, 2000). The problem explored in this study is this lack of empirical evidence available in the nursing literature related to the nurse's response after having committed a nursing error.

Philosophical Basis

Phenomenology, which focuses on "describing what all participants have in common as they experience a phenomenon" (Creswell, 2007, p. 58), was the qualitative inquiry utilized in this study. Specifically, the tenets of existential phenomenology as developed by Merleau-Ponty guided the study. This approach appeared well suited for the exploration of the second victim phenomenon because existential phenomenology acknowledges the important role emotions play in people's lives and is interested in their meanings (Thomas, 2005).

Merleau-Ponty's philosophy is a "phenomenology of perception…that opens us to reality, providing a direct experience of the events, objects and phenomena of the world" (Thomas, 2005, p. 69). To fully understand a person's perception, one must consider the four major grounds of human experience: Body, Time, Other People, and World (Thomas & Pollio, 2002). Merleau-Ponty (1945, 1962) saw the individual as the body itself, located at a specific place and time, and acting with others in the world in which he or she lives. It is only through this subject body that an individual can be in the world and relate to others and objects.

Applying Merleau-Ponty's philosophical stance to this study, I wanted to focus on individual nurse's perceptions of their world, specifically on the meanings attributed by the nurse's consciousness in their experience as a second victim and on the meanings of the relationships with patients, families, colleagues, and others at the time the nursing error occurred. This approach helped provide a description involving feelings and thoughts about the reality experienced and its impact on each nurse's life. It is vital to first review these experiences of second victims in the lived world in order to construct meaningful nursing knowledge, and using existential phenomenology provided an effective way to engage in dialogue with nurses involved in a nursing error to obtain rich descriptions of their emotions from their point of view (Thomas, 2005).

Purpose and Question

The purpose of this phenomenological research study was to describe the lived experience of nurses as a second victim following involvement in an unanticipated nursing error. Research is needed to help the nursing discipline understand the experience of being a second victim and the role emotions may play in this phenomenon. The specific research question for this study included: How do nurses involved in an unintentional nursing error perceive and describe their response to the experience as a second victim?

Definitions of Terms

The key terms in this study include nursing error, second victim, guilt, shame, reporting, and disclosure.

Nursing Error

In the literature, the terms mistake, error, and adverse event are used interchangeably when discussing errors in the healthcare environment, and all three of these were used in this study. The word 'mistake' means "to blunder in the choice of" (Mistake, 2012), and 'error', a synonym frequently used for mistake, has a similar root meaning: "to go astray" (Crigger, 2004). Mistakes are usually unintentional, so malicious acts were not considered in this study. The definition of nursing error stated by Johnstone and Kanitsaki (2006) was used, which states that a nursing error is:

> A discipline-specific term that encompasses an unintended mishap made by a nurse and where a nurse is the one situated at the sharp end of an event that adversely affected, or could have affected, a patient's safety and quality of care. (p. 369)

The most widely recognized way to categorize errors in healthcare is to determine whether the error is an act of commission or one of omission (Crigger, 2005). The nurse either provides care incorrectly, or he/she fails to perform a task according to standard nursing procedures. According to Benner et al. (2002), nursing errors fall into at least one of eight identified categories: (a) lack of attentiveness, (b) lack of moral agency or fiduciary concern as the patient advocate, (c) inappropriate judgment, (d) medication errors, (e) lack of intervention on patient's behalf, (f) lack of prevention, (g) missed or mistaken orders, and (h) documentation errors.

Mistakes are also often categorized by cognitive reasoning: skill-based, rule-based, and knowledge-based (Parker, Claridge, & Lawrie, 2009; Reason, 1992). Skill-based errors happen when sufficient preparation has occurred but actions do not go as planned, such as failure to

administer the correct medication dosage due to a drug calculation error. Rule-based mistakes happen when nurses choose not to follow protocols when making a decision, such as when allowing a confused patient to consent for an invasive procedure. Knowledge-based errors result from a nurse's lack of knowledge or inaccurate assessment skills; for example, administering a medication by the wrong route or by failing to communicate with the physician regarding a change in patient status (Reason, 1992).

Second Victim

Although patients are the principal victims following an error, nurses and other healthcare professionals who have committed the mistake often feel responsible and frequently experience emotional trauma (Clancy, 2012). Emotional trauma refers to a disordered psychic or behavioral state that results from some type of mental or emotional stress (Trauma, 2013). While interviewing Dr. Donald Berwick on the topic of second victims, Denham (2007) recorded:

> You carry into work- as a nurse, or doctor, or a technician or pharmacist- the intent to do well. And when something goes wrong, almost always you feel guilty, terribly guilty. The very thing you didn't want to happen is exactly what happened. And if you don't understand how things work, you feel like you caused it. That creates a victim. My heart goes out to the injured patient and family, of course. That's the first and most important victim. But health care workers who get wrapped up in error and injury, as almost all someday will, get seriously hurt too. And if we're really healers, then we have a job of healing them too. That's part of the job. It's not an elective issue, it's an ethical issue. (Denham, 2007, p. 109)

For this study, second victims are defined as "health care providers who are involved in an unanticipated adverse patient event, in a medical error and/or a patient related injury and become victimized in the sense that the provider is traumatized by the event" (Scott et al., 2009, p. 326). For clarification in this study, a traumatic event is "an experience that causes physical, emotional, and/or psychological distress. It is an event that is perceived and experienced as a threat to one's safety or to the stability of one's world" (Traumatic Event, 2010).

Guilt and Shame

Most theories of emotion make a distinction between guilt and shame, and it is important to distinguish between these two concepts. Guilt is an individual's feeling that they have violated their own personal moral standards, while shame is caused by the feeling that one has breached some social norm (Woodward et al., 2009). In other words, guilt is a result of a "violation of a moral code that involves crossing a line. Shame, by contrast, results from falling short of a line by failing to measure up to a social standard" (Katchadourian, 2010, p. 18). A Darwinist point of view differentiates between these two concepts based on their relationship to public exposure. Guilt arises from within the person, is established in the conscience, and involves private feelings of repentance and self-reproach. Shame, on the other hand, arises from exposure to an incident that harms the individual's public image (Katchadourian, 2010). It is certainly possible for a nurse involved in a nursing error to exhibit both guilt and shame after an adverse patient event.

Reporting and Disclosure

In the literature, there was a distinct difference between the terms reporting and disclosure as they relate to errors. In this study, reporting of errors was defined as "verbal,

written, or other form of communication and/or recording of near miss and patient safety events" (Wolf & Hughes, 2008, p. 863). Disclosure is defined as:

> A communication between a health care professional and a patient, family members or the patient's proxy that acknowledges the occurrence of an error, discusses what happened and describes the link between the error and outcomes in a manner that is meaningful to the patient. (Mayer & McDonald, 2011, p. 1)

Personal Perspective

My interest in this topic was initially inspired after reading about a profiled case that occurred in 2006 involving a highly trained labor and delivery nurse who committed a medication error resulting in the death of a young mother. A second incident in 2010 involving a high performing pediatric intensive care unit (PICU) nurse with 27 years experience made a significant impact on me as well. In this adverse event, the PICU nurse incorrectly mixed and administered a medication that may have contributed to the child's death. I was heartbroken for the families involved in both situations, but I realized for the first time the potential impact of errors on the nurses who committed them. I was intrigued that despite the traumatic experience, the labor and delivery nurse was now thriving as a spokesperson for patient safety initiatives, while the PICU nurse sadly ended her own life reportedly due to the guilt she experienced following the death of her young patient.

As a registered nurse for more than 21 years, I have personally made several unintentional nursing errors and experienced guilt and other emotions following these mistakes. Fortunately, none of my patients suffered permanent injury, although the potential was there. Even though no patient harm resulted, as a very conscientious and caring nurse, I was devastated.

After each incident, I questioned my nursing abilities and wondered if I had pursued the correct occupation.

After an incident in which a medical resident wrote orders on the wrong patient chart and I gave three medications to the wrong patient, I wrote the following in my journal:

> I am relieved that I discovered the error before giving the insulin, but I am so upset with myself and embarrassed by what others are thinking of me, even though the doctor made the initial error. I feel so guilty for letting my patient down, and I hate this sense of dread that something could still happen to the patient. I am nauseated, my chest hurts, my legs are tense, and I am glad I can now shed the tears that I tried to hold back while still at work. I keep playing the situation over and over in my mind, and I feel so incompetent. (S. Swift, personal communication, January 28, 2011)

In addition to my personal involvement in nursing errors, as a nurse manager for twelve years I addressed specific errors with staff nurses and was responsible for counseling and completing appropriate disciplinary action. I was also involved in root cause analysis to determine the cause of the errors and ways to prevent the same type of occurrence in the future. As I reflected on these past experiences, I was disturbed at the lack of support I received following the nursing errors I committed, as well as the lack of support I provided to fellow nurses as a nurse administrator. As a caring profession, the nursing discipline has an obligation to not only care and support patients and family members but to support the nurses who strive on a daily basis to provide safe care. I hope that knowledge gained through this study will help develop effective nursing practices that will ensure erring nurses no longer have to cope alone with the emotional distress they may face following involvement in a nursing error.

Assumptions

Based on my previous experiences related to nursing errors and the review of the literature related to this topic, the following assumptions were identified for this study:

- Nursing errors can happen to *any* nurse, not just poor performers.
- Few in the nursing discipline are aware of the term *second victim* or have procedures in place to support nurses involved in nursing errors.
- Guilt and other emotions can have both adaptive and maladaptive results.
- Since guilt is the most common emotional response noted in the literature concerning nursing errors, addressing feelings of guilt soon after the adverse event could help ensure a healthier emotional outcome for the erring nurse.

Limitations

There are several limitations to mention regarding this study. First, using interviews as a data collection method carries certain limitations. For example, not all individuals were equally articulate or perceptive; also, the researcher's presence may have biased participant responses (Creswell, 2009). Second, the nonprobability sampling method used to recruit participants may not have provided a large degree of representation from the nursing population. The perceptions of those interviewed for the study may not reflect those of a larger, more demographically heterogeneous sample.

Delimitations

This study aimed to include a sample of currently practicing nurses, retired nurses, and/or individuals who were once nurses but have left the nursing profession. Criteria for inclusion were limited only by the participant's interest in being interviewed about their personal, direct

involvement in an unanticipated nursing error, with or without patient injury. Interviewees had to specifically acknowledge having experienced some type of response following involvement in a nursing error. Based on current literature discussed in Chapter Two, I anticipated that guilt would be a part of the participants' emotional response, but I wanted to see if this emerged during the interview instead of introducing the concept of guilt prior to beginning the study.

Significance of the Study

Second victim is a relatively new concept to the nursing literature. It is an area of particular interest for the nursing profession because on a frequent basis, well-meaning nurses working in challenging clinical environments face the unfortunate reality of an unintentional nursing error and possible negative patient outcomes (Scott et al., 2010). Emotional effects and feelings of guilt after committing an error, whether or not a patient was harmed, can last months to years; sometimes even a lifetime (Rassin et al., 2005). Even minor errors reported by nurses resulted in strong emotions, and although nurses did not always recall specific details of the error, they remembered how it made them feel when they realized a mistake had been made (Treiber & Jones, 2010).

Feeling responsible for a nursing error may start a vicious cycle by contributing to burnout, depression, suicidal thoughts, and diminished empathy for patients, which in turn often results in poor patient care and increases the odds for making additional errors in the future (Schwappach & Boluarte, 2008). By addressing the nurses' emotional response following an error, the nursing profession could help ensure a healthier nursing workforce, which could contribute to more positive patient outcomes, decrease the cost of healthcare, and decrease nurse attrition rates.

Exploring the guilt feelings and other emotions experienced by nurses following involvement in an error can also have practical implications, such as ways of providing the best support to benefit the traumatized nurse and the healthcare organization as a whole (Rassin et al., 2005). This is significant to the nursing profession because without understanding grounded in the perceptions of nurses who have experienced being a second victim and willing to describe the various outcomes, researchers do not have a basis for intervention development that could positively impact the emotional recovery of nurses involved in nursing errors. Currently, there is minimal organized support available to nurses after a nursing error has been made, even though involvement "threatens the professional self, jeopardizing both identity and livelihood" (Treiber & Jones, 2010). Nursing leaders need additional knowledge that this study provides to help them take a proactive approach to helping nursing staff effectively deal with this type of traumatic event. The erring nurse's emotional recovery and future performance could be compromised without prompt emotional support following a mistake; however, if the situation is addressed appropriately, the negative impact of the adverse event could be reduced allowing for a healthier recovery (Scott et al., 2010).

Summary

Errors involving patients occur at an alarming rate in the healthcare environment, and the impact these mistakes have on the healthcare professional involved is usually overlooked. While it is important to focus on the causes of errors and strategies to prevent them, it is unrealistic to think that all errors can be eliminated. In light of this fact, the nursing discipline has a responsibility to better understand what it is like to be a second victim and devise effective nursing practices to assist and care for nurses following an adverse patient event. This study

aimed to bridge the gap in nursing knowledge related to the second victim phenomenon by describing the lived experience of nurses who have been personally affected from involvement in a nursing error.

Chapter 2

Literature Review

In this chapter I will present a review of the available literature related to the second victim phenomenon and the impact involvement in a medical or nursing error has on healthcare professionals. I will begin by describing the search method I used to find relevant literature for this study and then introduce the themes and subthemes supported in the literature. Relevant literature related to the emotional responses of second victims following involvement in a health care error will be examined and critiqued. Gaps in the literature will be identified and an explanation given on how this study helped address these knowledge gaps.

Methods of Literature Search

To prepare this review I conducted a systematic search of PubMed, CINAHL, and PsycINFO databases for peer reviewed research articles, literature review articles, and opinion articles on healthcare professionals' involvement in medical errors. Key terms used included: second victim, medical error, medication error, nursing error, treatment error, adverse patient event, patient injury, patient harm, guilt, emotions, and emotional response. No time limits were placed in the search engines to ensure all relevant articles were retrieved. Articles were accepted if the following criteria were met: (a) research article, literature review, or opinion article that reviewed or studied healthcare professionals' involvement in a medical error; (b) journal articles published in English; and (c) peer reviewed with abstracts available. My search revealed approximately 450 articles. Initially, I reviewed article abstracts to determine relevance to this study, reducing the number of retained articles to 105. Reference lists from pertinent studies were reviewed for additional articles related to this phenomenon. After a final review, 53 were

found to be relevant to this study. Publication dates for empirical studies reviewed ranged from 1991 to 2012.

Five themes related to involvement in a medical error were identified in the literature review: (a) Second Victims, (b) Emotional Response of Second Victims, (c) Blame and/or Responsibility for Error, (d) Disclosure, Apology, and Amends, and (e) Support and Healing. There are three subthemes for Second Victims: Definition, Five Rights of the Second Victim, and Trajectory. There is one subtheme in this study for Emotional Response of Second Victims: Guilt.

Second Victims

The Latin phrase *Primium non nocere,* meaning "First, do no harm", is a well-known standard among healthcare professionals, and this moral imperative has contributed to the expectation of perfection in the healthcare environment (Paparella, 2011). However, the Institute of Medicine (IOM) report *To Err is Human* (2000), which estimated up to 98,000 deaths from medical errors per year in the USA, shocked the healthcare environment and shed light on patient safety issues and the need to reduce the number of errors. Patients and family members are the indisputable primary victims of mistakes, but healthcare professionals endure emotional distress as well from the same errors, becoming what Wu (2000) coined the *second victims*. Second victims feel responsible whether negative patient outcomes occur or not, and they perceive they have failed the patients who have been entrusted to their care (Scott et al., 2010; Treiber & Jones, 2010).

Definition

As mentioned in the definition of terms in Chapter One, the concept *second victim* is referring to the HCP who is traumatized after direct involvement in an unintentional patient error. Second victims may become distressed whether or not a patient is harmed from the error (Scott et al., 2009). Healthcare professionals directly responsible for unanticipated errors may experience a number of emotions, including guilt, shame, anger, anxiety, self-doubt, loss of integrity, and/or fear of retribution; however, guilt is one of the most common emotional responses noted by second victims (Crigger & Meek, 2007; Rassin et al., 2005; Wolf et al., 2000). The eventual ramifications of being a second victim can potentially include the following: decreased professional identity, decreased empathy toward others, depression, a change in profession, family difficulties, fear, burnout, job loss, post traumatic stress disorder, and suicidal thoughts (Arndt, 1994; Denham, 2007; Rassin et al., 2005; Schelbred & Nord, 2007; Schwappach & Boluarte, 2008).

Five Rights of the Second Victim

Dr. Charles Denham, an active leader in the patient safety community in the USA, proposed the Five Rights of the Second Victim (Denham, 2007). These rights were presented to hospital leaders in an attempt to prevent or minimize negative consequences for HCPs involved in a medical error. These rights included: (a) a fair, non-punitive approach to the erring caregiver; (b) treating those involved with respect and by the "golden rule"; (c) showing compassion and understanding; (d) providing psychological support; and (e) encouraging transparency, disclosure of errors, and allowing the involved HCP an opportunity to play a contributing role in development of a solution to prevent future errors.

These five rights emphasize the significance of a non-punitive approach to errors that focus on system failures as well as the importance of respectfully treating the erring individual during this stressful time. The HCP needs compassion from colleagues and leaders to assist in the healing process, and supportive care services should be made available. Reporting and disclosure of errors is vital in improving patient safety, and encouraging the HCP in developing a solution to the error gives them a chance to contribute to the prevention of future events and may help in their emotional recovery (Denham, 2007). Since publication of these five rights, several authors in the patient safety literature have cited Denham's work when discussing second victims or when developing support care systems for erring caregivers (Scott et al., 2009; Scott et al., 2010). There is no indication that empirical studies were used in the development of these second victim rights, and there are no additional empirical studies completed since publication that specifically focus on these five rights.

Trajectory

Six distinct second victim trajectory stages were identified by Scott et al. (2009) in an American-based study exploring the experiences and recovery course of 31 second victims. The purposive sample of multidisciplinary healthcare professionals completed private, semi-structured interviews describing the specific error, symptoms experienced, and suggestions for improving organizational support. The six stages included: (a) chaos and accident response, (b) intrusive reflections, (c) restoring personal integrity, (d) enduring the inquisition, (e) obtaining emotional first aid, and (f) moving on.

In the first stage, the HCP involved in the error experiences turmoil, both internally and externally, when he or she becomes aware that an error has occurred. The erring clinician may

be attempting to manage a potential patient crisis while at the same time berating oneself for committing an error. In the intrusive reflection stage, the HCP exhibits feelings of inadequacy, replays the event over and over, and tends to isolate themselves from others. The second victim begins trying to restore personal integrity in the third trajectory stage by seeking assistance from someone they trust and who can relate to the traumatic experience. In the fourth stage, the clinician is worried over possible consequences of the error, including job security, loss of professional licensure, and potential litigation. The second victim begins actively searching for emotional support in stage five, such as employee assistance programs or specific help from coworkers and/or supervisors. The final stage of this process involves moving on by either "dropping out, surviving, or thriving" (Scott et al., 2009, p. 330). *Dropping out* involves the erring clinician changing professional roles, transferring to a different practice area, or exiting the nursing profession. The second victim is said to be *surviving* when they are "doing okay," but they continue to be impacted by the traumatic experience. These clinicians are coping but continue to suffer from intrusive thoughts and unrelieved sadness. Individuals who have learned from the error and able to move forward are identified as *thriving*. These second victims are maintaining a life and work balance and are striving to turn a negative experience into something positive (Scott et al., 2009). Although there is no indication that this study was theory-driven, it has provided meaningful knowledge to the second victim phenomenon.

Emotional Response of Second Victims

Medical errors have been discussed in the health science literature for many years. However, the second victim concept and research on the psychological effects of involvement in errors on healthcare professionals is a relatively new topic, particularly in nursing. Until

recently, the majority of empirical evidence regarding the emotional response following an error was found in the medical literature as it related to medical residents and physicians. I will begin this portion of the literature review by examining formative studies published in the medical literature. I will conclude this section by reviewing pertinent nursing studies conducted that include findings specific to the emotional response of nurses following direct involvement in an adverse patient event.

Wu, Folkman, McPhee, and Lo (1991) surveyed 254 internal medicine house officers affiliated with three academic training programs. The 114 respondents to the mailed questionnaire, which was developed from review of the literature and pretested, answered questions on the types and causes of mistakes made, the outcomes of these mistakes, and individual and organizational responses to the errors. Respondents shared that emotional distress was experienced in reaction to the errors, and several respondents admitted suffering from persistent negative psychological effects from involvement in the mistake. House officers reported feelings of remorse (81%), anger at themselves (79%), guilt (72%), and inadequacy (60%) following an error.

The emotional and behavioral responses of 43 emergency department residents to self-perceived medical errors were examined (Hobgood, Hevia, Tamayo-Sarver, Weiner, & Riviello, 2005). The majority of residents reported experiencing negative emotions due to involvement in an error, including remorse (68%), inadequacy (58%), frustration (55%), and guilt (53%). Findings also showed that residents who attributed the cause of the error to a lack of experience reported stronger negative emotions than those who attributed the cause to inadequate knowledge or to overlooking patient warning signs.

In a retrospective survey study conducted by Lander et al. (2006), otolaryngologists were asked to describe their most recent error, the consequences of that error, and any disciplinary action taken following the error. Of the 210 respondents, 22 of them reported an emotional reaction to the error, despite the fact the researchers did not specifically ask about negative reactions on the survey. The most frequent emotional responses reported included regret, embarrassment, guilt, and anxiety. Lander et al. suggested that further exploration regarding emotional responses following an error is warranted due to the intensity of some of the physician's responses.

Distress following involvement in a medical error as well as near misses was common among 2,909 physicians surveyed from the United States and Canada (Waterman et al., 2007). This study examined the impact of errors on work and life domains of those involved directly in an error. Following a review of available patient safety instruments and conducting interviews with physicians, patient safety and survey design experts developed a questionnaire that was mailed to almost 5,000 physicians. Specific questions assessed whether job satisfaction, self-confidence levels, professional reputation, anxiety level regarding future errors, and ability to sleep had been affected by involvement in reported errors. In addition, the physicians were asked if they were interested in receiving counseling, whether they had disclosed the error to the patient, and how satisfied they were with the outcome of disclosure.

Based on chi-square analysis, physicians who were involved in a serious error were significantly more likely to report that the error affected their lives than physicians involved in minor errors or near misses. Anxiety about future mistakes were reported in 66% of physicians who had serious errors compared to 55% involved in minor errors or near misses; decreased self-

confidence levels were reported in 51% (serious) compared to 35% (minor/near miss); job satisfaction suffered in 48% (serious) compared to 33% (minor/near miss); and, sleep disturbances were reported in 48% (serious) compared to 33% (minor/near miss). In addition, respondents were significantly more likely to report higher levels of distress when they feared litigation, when they felt unsupported following the error, when they were dissatisfied with error disclosure to patient, and if they were female physicians. The finding that female physicians reported higher levels of distress may be an important finding for the nursing discipline due to the fact that the nursing profession is predominantly female.

Two additional quantitative studies, one including medical residents and the other involving surgeons, used validated instruments to measure quality of life (QOL), burnout, and depression. In a prospective longitudinal study by West et al. (2006), 184 internal medicine trainees involved in a medical error had a subsequent decrease in QOL, higher incidents of burnout, reduced empathy toward patients, and screened positive for depression more often than residents who had no self-reported errors. Residents completed surveys electronically throughout their training period with self-reported medical errors assessed quarterly. Validated instruments were used to measure QOL every three months, and burnout, empathy, and depression every six months. Shanafelt et al. (2010) also observed a strong relationship between perceived medical errors and distress among American surgeons, supporting results of the West et al. (2006) study. The cross-sectional survey study included 7,905 surgeons, of which 700 reported having had a perceived medical error within the three previous months of the survey. Reporting a medical error had a strong association with the surgeon's QOL, burnout, and symptoms of depression.

Two relevant qualitative studies involving medical students/residents explored perceptions of unintentional errors. Emotional responses reported during semi-structured interviews of 26 resident physicians from a single teaching hospital in the USA fell into mainly three categories: distress, guilt/self-doubt, and frustration/anger (Engel, Rosenthal, & Sutcliff, 2006). More than half (62%) of the residents reported being distressed following the error, while 38% expressed feeling guilty. Approximately 33% of residents expressed being frustrated and/or angry, mostly toward other health care providers' unsupportive reactions following the incident. Confusion/fear and isolation were two additional negative emotions noted by participants. The emotions exhibited by the residents were strongly affected by the patient outcome and the level of personal responsibility for the error by the doctor. "Poor patient outcomes and greater perceived personal responsibility were associated with more intense reactions and greater personal anguish among residents" (Engel et al., 2006, p. 92).

As part of a required medical ethics course, 172 medical students were asked to write an essay describing a significant medical error they were involved in or had witnessed (Martinez & Lo, 2008). Researchers analyzed the essays (147) using thematic content analysis. Descriptions of committing an error were noted in 18% and witnessing an error in 76% of the essays. Emotional distress was noted in 16% of the total descriptions, with more distress for committed errors (46%) versus witnessed errors (10%). One student wrote, "The consequences for me was feeling like the sky was falling…overwhelming guilt and shame and the first gut realization that my lack of attention could cause real harm" (Martinez & Lo, 2008, p. 737).

There was one published research study using a multidisciplinary approach related to this topic. Wolf et al. (2000) used Hughes (1951) mistakes at work theory in a study that included

402 physicians, nurses, and pharmacists, although it is not clear exactly how the theory actually guided the research. This descriptive, correlational study investigated the emotional responses of healthcare professionals after involvement in a serious medication error and estimated patient injury from the reported errors. Descriptive and inferential statistics were used to analyze quantitative data, and content analysis was utilized to identify themes and meanings reported in open-ended question items.

Among the multidisciplinary group, feeling guilty (98.5%), being worried (97%), and nervousness (97.3%) were the highest ranked emotional responses following involvement in the medication error, while fear for the patient, fear of disciplinary action, and fear of punishment ranked as the highest concerns. A weak correlation was found between the severity of errors and emotional responses and concerns noted by the participants. This finding differs from Engel's et al. (2006) study that suggested emotions were strongly influenced by patient outcomes following the error. Also in this study, nurses reported more guilt, more worry, and more embarrassment then either pharmacists or physicians. In addition, nurses were also more concerned about patient safety, discipline, and punishment than other healthcare professionals. Since the nursing profession is made up of a high percentage of women, the finding in Waterman's et al. (2007) study regarding more distress among female physicians may help support the findings in this study.

Nurses' experiences with errors involving patient care and the emotional responses that result from these errors are limited in the nursing literature. The earliest study found in the nursing literature used discourse analysis within an interpretive research design framework to examine nurses' involvement with medication errors (Arndt, 1994). Interviews (12 nurses) in

Scotland, two group discussions (8 nurses in Germany and 6 nurses in Scotland), six written self-reports of errors, and six medication error case documents provided textual data for the analysis. Three key issues were described in this study: (a) subjection and power: identification and change; (b) guilt and shame: reconciliation with human precariousness; and, (c) learning from mistakes: teaching and learning ethics in nursing education. According to Arndt (1994), nurses identified themselves as being accountable for the welfare of patients and of being responsible for individual actions. In addition, since nursing practice is guided by codes of ethic, policy and procedures, and certain guidelines, nurses felt that a "certain order has been broken" (Arndt, 1994, p. 524) after a medication error occurred. This resulted in intense feelings of guilt, humiliation, and embarrassment.

To effectively cope with the mistake, the feelings of guilt had to be reconciled in some way. Realizing other nurses had experienced the same type of event helped nurses place themselves "within the sphere of human fallibility" (Arndt, 1994, p. 524). Recognizing they were human and that everyone makes mistakes helped the participants come to terms with the medication error. A second part of the reconciliation process included trust, not only from others, but the nurse's self-trust. Trust from colleagues helped the nurses regain self-confidence and move on after the incident, while self-trust in one's own abilities allowed for forgiveness of self. The disciplinary action was also viewed as helpful in the reconciliation process, allowing for the restoration of the moral order between the nurse and his or her patients. The third key issue used in conversation related to learning from the mistake. During interviews, nurses discussed how their experiences with medication errors changed nursing practice in valuable ways at personal, departmental, and organizational levels. At a personal and departmental level,

the experience helped nurses become more assertive, such as in understaffing situations. Changes in policies and work structures often resulted at the organization level.

In a 2005 Israeli study, Rassin et al. (2005) aimed to examine the impact of medication errors on the mental and social state of nurses involved. A convenience sample of 20 nurses participated in the in-depth interviews. Inclusion criteria were restricted to participants who had committed their first and only medication error during their professional career. Using content analysis, data were placed in chronological order around three time periods: (a) day the error occurred and events preceding, (b) first month after the error, and (c) months later.

All participants in the study displayed negative emotions after realizing an error had been made, including anger, guilt, shame, and loss of confidence. Fear of punishment and seeking support, mainly from family and friends, was the focus during the first month after the error. Reactions from physicians and other colleagues were not always supportive. One nurse stated:

> The doctors, for instance, thought I was making something out of nothing. And there were staff members who thought that 'she, with all her academic degrees and smooth talking, isn't so smart after all…' and the fear, eventually, is to lose the respect of those important to you. (Rassin et al., 2005, p. 881)

Of the 20 participants, only three disclosed the error to the patient. One participant reported:

> The patient asked me why I measured her blood pressure all the time. Conscientiously, I wanted to tell her the truth. I asked for forgiveness. I've explained [to] her that these things can happen during pressure at work. The funny thing was, eventually she calmed me down. (Rassin et al., 2005, p. 881)

Involvement in a medication error had emotional effects on the participants of this study even months after the incident. Two nurses reported having reoccurring thoughts and dreams of the error for several months, and one nurse had difficulty sleeping because of the error. Emotional outbursts during the first three months was reported by two participants, and even after six months, several nurses still exhibited strong negative emotions surrounding the event. One year following an error, a participant stated:

> Time went by and it still lingers on. For a few months I was very nervous, I had difficulties falling asleep, because most of the time my mind kept busy thinking about it. It's hard even today, it left me deeply traumatized. I can't forgive myself. (Rassin et al., 2005, p. 882)

This continued emotional distress experienced by some of the participants in this study was similar to symptoms seen in Post Traumatic Stress Disorder (PTSD), which is an anxiety disorder involving physical and psychological symptoms that develops in some individuals after a traumatic event (American Psychiatric Association, 2013).

A Norwegian study was conducted using in-depth interviews with 10 nurses who had committed a serious medication error in an effort to describe the experience, the meaning the experience carried, and the help and support the nurse received after involvement in the error (Schelbred & Nord, 2007). In this explorative, descriptive study, the researchers discovered that nurses are impacted, both personally and professionally, by serious medication errors. Nurses usually accept responsibility for the errors they make, and although most errors did not result in permanent harm, the participants reported the incidents as "deeply traumatic" (Schelbred &

Nord, 2007, p. 319). Emotional responses included feelings of guilt and shame and feelings of betraying patients and co-workers.

Findings in this study supported results found in the Rassin et al., (2005) study. Feelings of depression were experienced years after the error by two participants; one because of the inability to forgive herself, and the other due to how the situation was handled by administration. Both of these nurses admitted to thoughts of suicide. Reports of insomnia, nightmares, and reliving the adverse event even years later pointed to posttraumatic stress syndrome among several of the participants. Participants also described experiencing a lack of self-confidence, self-image issues, and the fear of making another mistake, which led to self-doubt and mistrust. Reactions from physicians, colleagues, and managers were central to the final outcome for nurses following the incident, and these responses often varied. Supportive reactions, such as comforting them or sharing mistakes they had made previously, "helped in dealing with feelings of guilt and shame, fear and loss of clinical confidence" (Schelbred & Nord, 2007, p. 320). When colleagues minimized the mistake, erring nurses felt their needs for help went unnoticed. One nurse permanently left the nursing profession due to the strong, negative reactions exhibited by nursing administration.

After interpretive analysis of 158 descriptions by nurses involved in self-reported medication errors, Treiber and Jones (2010) recognized deep-rooted reactions among nurses, even for minor errors in which no harm was inflicted. The emotional trauma exhibited did not always correlate with the severity of the error, which differs from results discussed in the study involving resident physicians (Engel et al., 2006). This article examined how nurses described specific errors, feelings about making them, and how they coped with the mistake. Six themes

were revealed in the analysis: (a) "I'm to blame, but…" (Treiber & Jones, 2010, p. 1331); (b) being new; (c) devastating reactions; (d) dealing with fear; (e) frustration with technology and regulations; and, (f) lessons learned.

Following an error, nurses generally blamed themselves, but they also looked to external causations, such as an understaffed unit, high acuity patients, or lack of patient information, to help diffuse blame to a certain extent. This mechanism of casting both internal and external blame made the error seem more understandable and easier to forgive. When describing errors, nurses frequently attributed blame to inexperience, often sharing errors they made with either students or new graduates. "These memories of early mistakes were often visceral and long lasting" (Treiber & Jones, 2010, p. 1333) and are described under the *being new* theme.

The level of devastating emotional responses associated with involvement in a medication error was one of the most common themes in Treiber and Jones' (2010) study. Nurses reported painful emotions to both minor and serious mistakes, and nurses described feelings of guilt whether or not a patient was harmed, supporting results in Schelbred and Nord's (2007) research. There did not appear to be any time constraints on the strong emotional reactions related to these errors. "These responses were what they recalled in conjunction with the act, no matter how minor the error and no matter how long ago" (Treiber & Jones, 2010, p. 1334).

Nurses described frustrations regarding technologies designed to reduce medication errors and anger toward rules and accrediting bodies, such as Joint Commission, in the error accounts in this study. Technology was viewed as a "double-edged sword" (Treiber & Jones, 2010, p. 1337) because it could be helpful at times, but at other times it was found to contribute

to errors, especially with inadequate training. Rules and regulations were sometimes seen as unrealistic and lacked patient focus, which nurses felt increased the chance for errors. The final theme focused on things nurses had learned to help avoid making future errors. Increased vigilance using the five-rights when administering medications was often mentioned. Lessons learned were more individualistic than system-level in nature, and they helped the nurses view that something positive came out of a negative situation which allowed them to move on in a more productive way (Treiber & Jones, 2010).

In a descriptive, correlational study by Chard (2010), 158 perioperative nurses from across the USA responded to a questionnaire examining their emotional reactions to intraoperative nursing errors and changes in their nursing practice due to involvement in the mistake. A majority of participants (87%) indicated experiencing some amount of emotional turmoil, including anger at themselves (73%), feelings of guilt (59%), embarrassment (48%), and feelings of inadequacy (42%). A high percentage of respondents (76%) also agreed either somewhat or strongly that they "felt devastated" (p. 139) that they potentially injured a patient. Changes in individual nursing practice included both constructive and defensive changes. A strong relationship was found between the nurse accepting responsibility and defensive changes, such as an increased mistrust of others and increased worrying. A weak relationship was discovered between accepting responsibility for the error and constructive changes, such as paying closer attention to detail when caring for patients. In addition, there was also a strong significant relationship between a negative response from a nurse manager and defensive practice changes, and a significant negative association between positive manager support and defensive practice changes.

Three more recent studies also support that nurses experience negative emotional responses to nursing errors. Karga, Kiekkas, Aretha, and Lemonidou's (2011) prospective, correlational study in Greece included 536 nurses from various hospital departments. A validated, structured questionnaire using a Likert-type scale was used to investigate if nurses experience the following internal and external emotional responses: depression, anger at self, guilt, embarrassment, professional inadequacy, anger at others, fear of patient outcome, fear of repercussions, and fear of losing colleagues' trust. Nurses in this study reported having more internal negative emotions, particularly depression, anger, and guilt. Abusalem and Coty (2011) discovered among 192 home health nurses in a southeastern state in the USA that half the sample experienced anger at themselves, guilt, and remorse following a nursing error. In contrast, the remainder of this sample of nurses moderately disagreed that they experienced emotional distress following an error. This finding is inconsistent with other studies reviewed, and this difference may be related to the home health practice setting of this study compared to the other studies which where all hospital-based. The final study by Maiden, Georges, and Connelly (2011) was conducted to examine moral distress, compassion fatigue, and perceptions about medication errors among critical care nurses. Although this mixed method study was not specifically investigating emotions, during the focus group interview, participants raised a theme centered on negative emotions they had experienced following involvement in medication errors. These negative emotions were so strong that nurses considered leaving the nursing profession.

To summarize, the studies discussed above from both the medical and nursing literature support that healthcare professionals experience an emotional response following involvement in a medical or nursing error. Internal negative emotions including remorse, guilt, anger,

inadequacy, depression, and embarrassment were most often reported, although none of the studies focused on the meaning of these emotions as it relates to being a second victim. Results in two studies in the medical literature suggested that involvement in errors may affect both work and life domains among members of the medical profession, contributing to burnout, depression, and overall job dissatisfaction; however, no such studies exist in the nursing literature. The impact of medication errors on nurses was the major focus of the nursing studies examined, and nurses in all but one study reported experiencing emotional distress after committing an error.

Guilt

Based on the literature review, guilt is a common form of emotional distress among healthcare professionals following involvement in a medical error. Guilt is highly individualized and based on personal morality (Woodward et al., 2009). In healthcare, the word guilt may be interpreted two different ways. The first is the subjective emotion of *feeling guilty* after involvement in an error, which is the main focus of this study. The second is the state of actually *being guilty* of a wrongdoing, which is central to blame, taking responsibility, and disclosure. In order to effectively deal with guilty feelings, one must also address the issues of blame, responsibility, and disclosing of the error.

Pask (1994) described guilt the following way when considering its influence within nursing practice:

> Guilt may be described as an emotion of self-assessment, since it is derived from the belief that a rule or law, which carries certain authority, has been transgressed or broken. In order to feel guilty it is necessary for people to think of themselves as having transgressed a rule while remaining fundamentally the same. For it is the comparison of

> the real self with the less admired self that produces the feelings of guilt, a feeling that is qualitatively different from the guilt that may be associated with fear of punishment or disapproval. While these two types of guilt are qualitatively different, they do seem to indicate a particular moral climate within nursing, which rests predominantly upon rules and notions of guilt when rules are broken. (Pask, 1994, p. 81)

It is important to bear in mind that guilt can have both adaptive and maladaptive outcomes. From a society's perspective, moderate level guilt serves a positive social function by helping promote socially desirable behavior (Lazarus & Lazarus, 1994). It can serve as a warning flag to an individual and help them change their direction. It helps individuals consider shortcomings, acknowledge faults, make amends, and achieve forgiveness following a wrongdoing (Baumeister, Stillwell, & Heatherton, 1994; Katchadourian, 2010; Kugler & Jones, 1992; Pask, 1994). Guilt may also serve as a motivator guiding nurses to be more conscious of the potential for making mistakes, possibly helping prevent future errors (Treiber & Jones, 2010; Woodward et al., 2009). When nurses feel guilty, they are more likely to report lessons learned and change practice behaviors (Baumeister et al., 1994).

While feelings of guilt play an important role in the maintenance of behavioral standards, they may also have a debilitating effect. Self-esteem can be diminished, and the potential for personal development may be decreased (Pask, 1994). Excessive and unreasonable guilt can result in dysfunctional experiences and potentially lead to clinical disorders; it may also result in the nurse abandoning the nursing profession in order to avoid unpleasant feelings when in the hospital environment (Baumeister et al., 1994; Kugler & Jones, 1992). Guilt "robs life of its joys

and leads to social paralysis. It alienates us from society, making us feel isolated and vulnerable to punishment and exclusion" (Katchadourian, 2010, p. 23).

In summary, guilt plays several crucial societal roles in the nursing profession. It helps the nurse understand that a patient has been wronged, it generates a desire to rectify any harm caused to the patient, and it motivates the nurse to renew efforts to prevent errors in the future (Woodward et al., 2009). Unresolved guilt, however, may have a significant effect on a nurse's well-being and impede the emotional recovery of the nurse following involvement in a nursing error.

Blame and Responsibility for Error

Humans are not infallible; however, the general belief is that healthcare professionals are above making mistakes (Crigger & Meek, 2007), and perfection in the healthcare environment is expected (Wu, 2000). Crigger (2005) presented two explanatory models of the origin of errors to address the current attitudes toward who is to blame for errors in the healthcare system: the Perfectibility Model and the Faulty Systems Model. The Perfectibility Model expects perfection and blames individual healthcare providers when an error occurs. In this model, it is assumed that the healthcare professional involved in the error has failed at his or her duty and is at fault. In this type of environment, erring nurses are approached in a punitive manner, which "condemns and erodes the involved individual's self-esteem and negatively colors the attitudes that coworkers and others have towards that person" (Crigger, 2004, p. 572). This culture of blame results in decreased disclosure of errors, heightened fear of committing mistakes, and more intense emotional responses for nurses after making an error (Crigger, 2005; Wolf et al., 2000).

The Faulty Systems Model anticipates human error and helps determine causation factors of mistakes at both the individual and systematic levels. The nurse's responsibility for the error is not removed in this mistake model, but it provides a "balanced view of the factors resulting in error" (Crigger, 2005, p. 16). This type of blame-free, or *just culture*, encourages learning from mistakes and is crucial to voluntary reporting of errors, correction of system failures, and for providing the erring nurse an opportunity for reconciliation and a healthier emotional recovery (Armitage, 2009; Crigger, 2005; O'Connor et al., 2011).

Accepting accountability for a mistake was often accompanied by anxiety, guilt, and feelings of incompetence in health care professionals; however, taking responsibility was shown to be an important factor in making constructive behavior changes in practice and in learning from the error (Chard, 2010; Karga et al., 2011; Wu et al., 1991). In a questionnaire study involving internal medicine house officers, Wu, Folkman, McPhee, and Lo (1993) discovered that although accepting responsibility for a medical error created higher emotional distress initially, these individuals were more likely to report positive practice changes than those who denied responsibility.

In the literature, nurses frequently blamed themselves for errors and took complete responsibility for their actions (Arndt 1994; Schelbred & Nord, 2007). Meurier, Vincent, and Parmar (1998) conducted a study in London with the purpose of investigating whether nurses make more internal or external attributions following an error. After dividing into two groups of 30, nurses in the study were given a scenario involving an error and asked to complete a questionnaire. Half the group responded to a description of a mistake with a no patient injury

outcome while the other group answered questions to the same described mistake but with a serious outcome involving patient harm.

Of all nurses in the study, whether there was patient injury or not, 75% reported they would have blamed themselves if they had made the mistake described in the scenario. Nurses tended to blame themselves, despite potential environmental causes for the errors. More nurses in the patient injury outcome group blamed themselves for the error (26 compared to 19), and the nurses attached more importance to the error if the patient was harmed in some way. Nurses accounts in Jones and Treiber's (2010) study supported these results; they "judged themselves harshly" (p. 246) for errors they committed, and they made no effort to shift personal responsibility for making the error, even when external circumstances played a major role.

Three possibilities were offered to why nurses responded to errors in this manner (Meurier et al., 1998). First, professional nurses strive to consistently provide safe care and keep patients from harm, which may strongly influence the meanings nurses attached to making a mistake. If patients are injured, nurses may feel they have let their patients down resulting in feelings of guilt (Arndt, 1994); this may help explain the greater tendency toward self-blame in errors with serious outcomes. Second, nursing codes of conduct emphasize the expectation that professional nurses are to take responsibility for their own actions. Third, in situations where a serious outcome results following a mistake, the nurse may have no other choice but to report the error and accept blame for it.

Perfection in the healthcare environment is unrealistic, and historically nurses who have committed errors, no matter what external factors may have contributed, are blamed and subjected to punitive consequences. More recently, a just culture approach has been introduced

in order to encourage reporting of errors so faulty systems within organizations can be exposed and corrected. This type of non-punitive culture also provides an environment in which nurses involved in errors could be better supported toward a more positive emotional recovery. Nurses view errors as a serious offense toward patients and tend to blame themselves and take responsibility for their erring actions, whether or not the patient was actually harmed. Although accepting responsibility is often accompanied by distressful feelings, it is an important step for the nurse to successfully move toward reconciling the incident and making positive nursing practice changes.

Disclosure, Apology, and Amends

Disclosure, apology, and amends are the three components to an ethical response following an error (Crigger, 2004). Crigger (2004) described a paradox in which "what would appear to be negative, making a mistake, if handled properly can at the same time be a positive growth experience for the individual making the mistake as well as for others involved in the error" (p. 572). The first step toward healing and growth is for the nurse to admit that a mistake has been made which demonstrates honesty and integrity. The next step is to disclose the error to the patient involved and apologize for the mistake. "The apology is in itself painful but also cleansing and venerating" (p. 572). By taking responsibility, disclosing the error, and apologizing to the patient, the opportunity exists to make possible amends, which helps the erring nurse transform a negative experience into a positive outcome for those involved.

Disclosure of medical errors to patients and/or families varied in the literature. House officers in Wu et al. (1991) study disclosed mistakes in only 24% of cases. Nine out of ten nurses in Schelbred and Nord's (2007) study informed the patient and/or family about the error

that had been made. Some nurses disclosed the error because they felt a moral responsibility to tell the patient about the error, the potential consequences, and that they were personally responsible. Others disclosed but did not inform the patient of the possible ramifications or admit responsibility, mainly because the nurses claimed they were too "ashamed and disappointed in themselves" (Schelbred & Nord, 2007, p. 320).

When an error occurs, nurses have an obligation to report the mistake. Wagner et al. (2012) conducted a cross-sectional, descriptive survey study to explore 1,180 nurses' perceptions of error disclosure in the nursing home setting in Canada. Nurses who had experienced disclosing serious errors previously were much more likely to strongly agree that serious errors be disclosed to patients and families. In this study, fear of litigation was the main reason nurses reported not wanting to disclose. Nurses also feared disclosure because of risk of negative responses by colleagues, nursing administration, and the public (Crigger, 2004).

To better understand nurses' response to medication errors and to determine specific strategies that could improve disclosure, Covell and Richie (2009) used a concurrent mixed-method design. A convenience sample of 50 staff nurses from five different hospitals participated in the study. Data were collected using semi-structured interviews and the Medication Administration Error Questionnaire, which demonstrated good reliability (Cronbach alpha .69 to .87 on individual items) and content validity determined through pilot testing. A majority of participating nurses (71%) conveyed that less than 60% of all medication errors were reported on their units, mainly due to fear of adverse consequences from disclosing. Nurses in the study agreed that disclosure of medication errors helped: (a) ensure safe patient care, (b) allowed the nurses to address fears associated with the error, (c) helped them obtain emotional

support, (d) increased awareness and vigilance among colleagues, and (e) promoted positive changes related to medication administration. Loss of trust of the nurse by patients and/or family members, increased patient anxiety, and colleagues behaving differently toward them were considered negative consequences of disclosing the medication error.

Apology plays a vital role in the nurse's emotional recovery following an error because it helps him or her cope with the feelings of guilt and provides a way to express genuine concern for the patient involved in actual or potential harm (Leape, 2012). In a published essay written by a third year medical student involved in an error resulting in patient death, the student wrote, "…openly apologizing for my mistakes can be the balm that heals, both for the family and for me" (Sanford & Fleming, 2010, p. 166). Another example involved an anesthesiologist who was told not to have contact with the patient or family after a surgical error. He described his apology experience in this way:

> My profound sense of responsibility broke through my fear and compelled me to do the right thing. I chose to write the patient a letter of apology without informing the hospital and invited the patient to open communication if and when she was ready… When she surprisingly offered me forgiveness, I felt an incredible emotional release. I had my life back and I could talk openly about what had happened. (Van Pelt, 2008, p. 250)

When nurses take responsibility for an error, disclose the mistake to the appropriate individuals, and then apologize, the literature supports that emotional healing can begin and the situation reconciled. Although the outcome of the situation may still be negative, reconciling allows for some level of acceptance to the situation helping the erring nurse move forward toward healing (Crigger & Meek, 2007).

A grounded theory approach was utilized by Crigger and Meek (2007) to identify a process they called *Self-reconciliation After Making Mistakes in Hospital Practice.* The qualitative study "explored the psychosocial process that occurs when nurses perceive making a mistake and how they are able to reconcile their self-esteem and professional image after the mistake occurs" (p. 178). Taped interviews were conducted to collect data on the 10 nurse participants. Four categories of the process of self-reconciliation were identified: reality hitting, weighing in, acting, and resolving. Reality hitting was the first phase of the process of self-reconciliation, and it was during this time that nurses compared personal expectations of their nursing practice to the socially constructed ideal of what the nursing discipline, law, standards, and organizational policies expected. When the nurses' performance fell below either the personal or social expectations, such as after committing an error, the nurses were distressed and criticized themselves. During the weighing in phase, nurses decided whether the error was a real mistake or not and whether they should report the error. When deciding whether or not to report, nurses considered the likelihood of error discovery, the previous number of personal mistakes reported, certain patient factors, and whether the work culture safely allowed reporting without fear of punishment. If actual or potential harm occurred, nurses were more likely to report the error.

The acting phase was dependent on whether the error was reported or not. For reported errors, this stage included apologizing to the patient affected by the error. Nurses in the study reported that they "usually felt relief and a sense of closure" (Crigger & Meek, 2007, p. 181) after disclosure and issuing an apology. The final phase of self-reconciliation, resolving, involved the nurses' evaluation of the adverse event and the actual or potential injury that ensued

so they could move forward in life. Feelings of uncertainty were common regarding the guilt experienced and its lasting effects. For some nurses, resolution was incomplete, especially if they perceived they had harmed the patient in some way. In these situations, "recurrent feelings of pain, self-deprecation, and remorse" (Crigger & Meek, 2007, p. 182) were prevalent. This grounded theory study added to nursing science by developing a middle-range theory to help explain the process a nurse goes through following involvement in an error and by providing a potential framework for further research related to this topic.

To begin the healing process, Crigger (2004) posits that the nurse involved in an error must take responsibility, disclose the error, and offer an apology to those involved. Barriers to reporting and disclosure exist, such as fear of litigation and risk of negative responses from others in the workplace and potentially in the public environment. Disclosure and apology were specific steps noted in the process toward self-reconciliation in Crigger and Meek's (2007) grounded theory study.

Support and Healing

The potential positive impact of supportive coworkers and the need for institutional support are noted in the literature. Nurses can suffer intensely from unanticipated nursing errors, and emotional support is needed as soon as possible to help mitigate the negative consequences that can result (Scott et al., 2010). Support from coworkers was considered vital to emotional recovery (Aasland & Forde, 2005). Arndt (1994) stated "the decisions made and the way the situation is handled by peers and superiors will have a bearing on the future personal and professional development of those involved" (p. 520). Scott et al. (2009) study on the second victim trajectory stages discussed earlier in this literature review chapter included social support

as an invaluable part of the coping and healing process. Penson, Svendsen, Chabner, Lynch, and Levinson (2001) stated "openly sharing experiences helps defuse feelings of guilt" (p. 92), and "expressing regret to the patient and trusted colleagues starts the process of learning from the error, taking measures to prevent recurrence and facilitating emotional adjustment" (p. 97). The majority of hospitals and health care organizations, however, do not provide adequate coping support to healthcare professionals following a mistake (Schwappach & Boluarte, 2008; Treiber & Jones, 2010; Waterman et al., 2007).

In a systematic review from relevant medical literature published from 1980 to 2007, Schwappach and Boluarte (2008) found that physicians were four times more likely to experience increased anxiety after a serious error when the organization was perceived as unsupportive. They also discovered that active communication among colleagues and encouragement from coworkers appeared to play an important role in how the physician dealt with and learned from the incident. While this systematic review on physicians provides important knowledge related to the second victim phenomenon, no similar nursing studies have been conducted, and it is unknown whether results from physician studies can be generalized to nurses.

A few formal programs that support HCPs following an error are found in the literature, although there is no indication that a theoretical framework guided either program development and no research is yet published showing the effectiveness of these interventions. Scott et al. (2010) established the *forYOU Program,* which uses a three-tiered model to help the second victim transition through the six trajectory stages of emotional recovery (Scott et al., 2009). A 10-item Web-based survey was distributed to over 5,300 health system employees, and 898

HCPs responded; specific themes were identified to aid in developing the recovery plan. Based on the findings, second victims preferred organizational support at the departmental level, and they expressed that support networks should be easily accessible and provide trained counselors to aid the erring caregiver with their emotional trauma. In response to these findings, the Scott Three-Tiered Integrated Model of Interventional Support was developed (Scott et al., 2010). The first tier promoted "basic emotional first aid" (p. 236) at the departmental level. Colleagues, peers, and unit leaders who have received awareness training provide support to the second victim. The second tier provides counseling and positive encouragement to the HCP involved. Peer supporters that have received specialty training regularly evaluate coworkers for the need of additional support at this level. Tier three makes sure professional counseling and guidance are available promptly to second victims whose emotional distress is more severe than the peer supporters can manage.

A second support program is described in the literature (Van Pelt, 2008). Van Pelt is an anesthesiologist who was involved in a medical error during surgery in 1999. The patient in that incident, who almost died from the error, founded a non-profit organization known as *Medically Induced Trauma Support Services* (MITSS). The mission of this program is to support patients, families, and clinicians who have been impacted by adverse medical events. This mission is accomplished by creating awareness and providing education to the healthcare community regarding the emotional impact these errors have on those involved; it also provides support groups for nurses or other clinicians who may be struggling with the emotional toil after involvement in an error. Support is provided through confidential telephone support or by visiting the website to receive referrals to various resources (MITSS, 2009).

Support following an error may play a vital role in moving the HCP toward a healthy emotional recovery. Most of the literature related to support is anecdotal in nature and is either centered on physicians or groups all HCPs together. There are no research studies available specific to supporting nurses following involvement in a nursing error. The *forYOU* and MITSS programs provide support interventions to all HCPs at only a few hospital organizations within the USA, and no empirical evidence is available to indicate whether these programs are successful or not in supporting erring nurses.

Gaps in Knowledge

A review of the literature pertaining to errors in the healthcare environment and how involvement in a medical or nursing error impacts the HCP, or second victim, supports the idea that this phenomenon is an area of concern for the nursing discipline. The review also highlighted a number of gaps that exist related to this topic. One shortcoming is the failure of researchers to specify and/or use a specific philosophical lens or theory to guide their study. According to Depoy and Gitlin (2005), this is a necessity in order to conduct meaningful research. Two quantitative studies mentioned a theoretical framework, but in both studies it was difficult to understand exactly how each theory guided the study (Rassin et al., 2005; Wolf et al., 2000). Crigger and Meek's (2007) grounded theory approach was the single qualitative study that briefly described using the early traditional methodology of Glaser and Strauss to guide their study. Using the tenets of Merleau-Ponty's existential phenomenology for this current study provided clear guidance and helped begin to bridge this particular philosophical gap related to the second victim phenomenon.

A second notable gap is that no studies are available in the nursing administration literature that focused on nurses involved in errors. Instead, the literature in this area of nursing is directed at the causes of errors, error reporting practices, and strategies to prevent errors from happening in the first place. Nursing ethics also provided only a scant amount of information on the effects of errors on the HCP, tending to focus instead on disclosure, a non-punitive culture, apology, and forgiveness. Although these topics are important and relevant to nursing management and ethics, it is also important that nurse leaders know how to respond to an erring nurse when a mistake does occur. This study increases awareness of the meaning of the second victim experience from nurses who have "lived it" and imparts vital knowledge needed by nursing leaders to respond in the most supportive manner.

Although negative emotions have been identified in the literature, there is a scarcity of knowledge exploring the specific emotional response among HCPs, especially among nurses. In addition, applying knowledge related to the emotional response generated in the medical literature to nurses may be questionable due to differences in education and tasks each profession performs with patients. It may also need to be considered that the medical profession is male dominated while the nursing profession is primarily female. Therefore, conducting a phenomenological study of the lived experience of nurses involved in nursing errors from their perspective is crucial in order to provide a framework for future studies. Findings may contribute knowledge needed to help develop specific and appropriate strategies and policies to help ensure the best emotional recovery possible for the nurse involved. These findings may also provide support for current interventions, which at the present time lack empirical evidence related to their effectiveness.

Chapter 3

Methodology

The purpose of this study was to describe the lived experience of nurses as a second victim following involvement in an unanticipated nursing error using a qualitative phenomenology approach. The central question was: How do nurses involved in an unintentional nursing error perceive and describe their response to the experience as a second victim?

As mentioned in Chapter One, the philosophical ground of existential phenomenology as developed by Merleau-Ponty was utilized to investigate this phenomenological question. This chapter will describe the qualitative research method and Merleau-Ponty's existential phenomenological approach in more detail. I will also discuss the sampling strategy employed, data collection and analysis procedures, ethical issues, and steps utilized to maintain rigor. The chapter will begin by discussing the specific research design method chosen for this qualitative study.

Research Design

This research study used a qualitative approach to inquiry. Qualitative methods provide a mechanism for exploring and understanding the meaning individuals or groups attribute to a social or human problem (Creswell, 2009). Qualitative research is appropriate when little is known about a topic or phenomenon or when the researcher does not know what variables need to be examined (Brink & Wood, 1998; Creswell, 2009). For this study, only a qualitative study was appropriate for answering the research question posed. In addition, a qualitative approach was warranted because little is known about the second victim phenomenon as it relates to nurses

following involvement in an unintentional nursing error. Lastly, although literature on this topic provides evidence that negative emotions, such as guilt, are frequently exhibited following this type of adverse event, no studies are available focusing on the meaning of these emotions from the erring nurses' perception.

Strategies of Inquiry

There are a number of specific qualitative strategies for inquiry available to researchers. The most commonly used in the social and health sciences include narrative, phenomenology, ethnography, case study, and grounded theory (Creswell, 2007, 2009). As previously mentioned, phenomenology was the chosen strategy for inquiry for this study related to the second victim phenomenon. The goal of phenomenology is to understand lived experience and the perceptions associated with these experiences (Polit & Beck, 2012). Phenomenology is an approach used when the researcher desires to understand individual's everyday life experiences, and subjective phenomena are investigated to search for the *essences*, or universal patterns of meaning of the phenomenon (Thomas & Pollio, 2002). Phenomenologists are interested in the aspects of space, body, time, and relations with others. They view "human existence as meaningful and interesting because of people's consciousness of that existence" (Polit & Beck, 2012, p. 495). Embodiment, or *being-in-the-world*, is a concept phenomenologists use to describe how individuals "think, see, hear, feel, and are conscious through their bodies' interaction with the world" (Polit & Beck, 2012, p. 495).

Phenomenology is grounded in a philosophical tradition developed by Edmund Husserl and Martin Heidegger. Husserl was a German mathematician and philosopher credited with founding phenomenology in the early 1900s. Using a Cartesian approach, Husserl proclaimed

that every source of knowledge must be questioned "in order to place philosophy on an unshakable foundation" (Delacampagne, 1995, p. 21). He believed the only absolute reality is our thoughts, or how phenomena are revealed in our mind. He defined the mind as "pure consciousness endowed with the capacity of 'seeing' essences in themselves, independently of any reference to a 'bracketed' world" (Delacampagne, 1995, p. 21). Husserlian phenomenology was expanded and transformed by Heidegger who was heavily inspired by Husserl's philosophy. Heidegger's primary focus was the question or meaning of *Being* and the nature of human existence. His most significant work entitled *Being in Time* (Heidegger, 1927) helped lay the foundation for the existentialism movement (Delacampagne, 1995).

Existential Phenomenology

Maurice Merleau-Ponty, a French philosopher during the mid-twentieth century, advanced the phenomenological methods of Husserl and Heidegger. His existential phenomenology method was used as the philosophical lens to guide this nursing research study. Existential phenomenology produces rich descriptions of human experience by combining phenomenology methods and the philosophy of existentialism, which focuses on the way humans find themselves existing in the world (Crowell, 2010; Thomas & Pollio, 2002). Emotions are viewed as a central part of life and of *being-in-the-world* within existential phenomenology, unlike other philosophies that often view emotions as "inferior to reason" (Thomas, 2005, p. 65). Existential phenomenology was appropriate for this study because it offered a way to encourage dialogue with nurses who had experienced emotional responses as a second victim following involvement in a nursing error. This dialogue provided intense

narratives helping unveil what it means from the nurse's point of view to experience negative emotions after committing a nursing error involving a patient.

Merleau-Ponty aimed to encourage people to question existing knowledge and "return to the world as we experience it" (Thomas & Pollio, 2002, p. 13). He suggested that phenomenology is the "rigorous science of the search for essences, and it is a philosophy that sees people in a world that already exists before any reflection" (Sadala & Adorno, 2002, p. 286). He sees individuals as *perceiving subjects*, at a place and time, acting in the world in which he or she lives (Sadala & Adorno, 2002). Perception, intentionality, embodiment, and relationships with others are major tenets of Merleau-Ponty's philosophy (Thomas, 2005), and these concepts are relevant to this study.

Merleau-Ponty placed perception as primary in his phenomenological stance because it is in perception that the sources of meaning, or essences, are found (Matthews, 2006; Thomas, 2005). Perception is direct contact with the world that actively engages individuals with events, objects, and phenomena; it is not simply passive receiving and interpreting of stimuli. This engagement with the world is not only cognitive or theoretical in nature, but it is in large part also emotional, practical, and imaginative (Matthews, 2006). Intentionality then, according to Merleau-Ponty, was the "essential interconnectedness" (Thomas & Pollio, 2002, p. 14) between individuals and the world (Thomas, 2005; Thomas & Pollio, 2002). Consequently, "person and world co-construct one another" (Thomas & Pollio, 2002, p. 14). These perceived experiences in the world have individual meaning and are always perceived as having a certain figural stand against some ground (Matthews, 2006; Thomas, 2005; Thomas & Pollio, 2002). To completely understand what stands out as figural to an individual when experiencing a phenomenon, one

must consider the four major grounds: Body, Time, Other People, and World (Thomas & Pollio, 2002).

Embodiment is defined as "experiencing and understanding the world by, and through, the body" (Thomas & Pollio, 2002, p. 12). Merleau-Ponty viewed the body as the "unwavering vantage point of perception" (Thomas, 2005, p. 71), and he made a specific distinction between the body as a physical object and the *body subject* that experiences life. Human beings are subjects as well as objects; "they are embodied, but they are embodied subjects" (Matthews, 2006, p. 51). According to Merleau-Ponty, the subjective view of the body is primary; one must have experience of the world before one can start developing knowledge of the world and generate an understanding of the objective world (Matthews, 2006).

The final major tenet of Merleau-Ponty's philosophy relevant to this nursing study is related to relationships with others. Individuals live and experience the world with others who share together in life's journey. *Being-in-the-social-world* is "being aware of the world as shared with other human beings who are subjects like ourselves, beings with whom we share the meanings given to natural and cultural objects, and with whom we can therefore communicate" (Matthews, 2006, p. 118). Relationships with others plays an important role in the daily life of a nurse, and when an unintentional error occurs, relations can be interrupted between patients, family members, coworkers, physicians, and others. Nurses find great meaning in these relationships, which may play a part in the negative emotional response experienced as a second victim.

Selection of Participants

For this study, participants could be currently practicing nurses, retired nurses, and/or individuals who were once nurses but had left the nursing profession. To be eligible for study inclusion, participants had to report English as their primary language and be willing to be interviewed about their personal involvement in one or more unanticipated nursing errors and the response they experienced following the error(s). Participants with differing characteristics were eligible for this study, including diversity in years and type of nursing experience, education level, cultural background, and degree of patient injury, ranging from no injury to death of patient. By incorporating a more heterogeneous sample, I hoped to identify common patterns of meaning across the variations to better understand the second victim phenomenon as a whole. This is important to understand in order to develop the most effective nursing practices and policies to assist nurses involved in a nursing error.

Sample sizes for phenomenological studies typically range from 6 to 12 participants (Thomas & Pollio, 2002), and I continued recruiting and interviewing participants until saturation or data redundancy was reached. A purposeful networking approach was used to recruit study participants. Following written approval by the University of Tennessee Office of Research, I sent an email to professional and personal contacts (see Appendix A) located in the Southern Kentucky and the East Tennessee region. I also emailed the president of several local nursing association chapters (see Appendix B) in the East Tennessee community, including the Smoky Mountain Chapter of the Emergency Nurses Association and the Smoky Mountain Chapter Association of Critical Care Nurses. The emails included a description of the study (see Appendix C). Contacts were invited to participate and asked to forward the information to other

potential nurse participants. My personal phone number and email address were included with instructions to contact me with any questions or if interested in being interviewed. I communicated with all individuals who contacted me regarding the study, and I explained the study purpose and answered any questions. A mutually convenient meeting date, time, and place were scheduled if inclusion criteria were met, and the individual wished to participate in the study. A total number of 12 nurses were recruited and interviewed.

Data Collection

In order to accurately describe how nurses viewed their emotional response as a second victim following an error, it was important that I bracket out my own experiences related to this phenomenon. The purpose of bracketing, which is also referred to as *epoche* or phenomenological reduction, is to identify and put aside any theories, preconceived beliefs, and opinions I may have regarding the second victim phenomenon in an effort to collect and analyze data from participants in the purest possible way (Polit & Beck, 2012; Thomas & Pollio, 2002). Merleau-Ponty argued that it is not possible to totally withdraw from the world during bracketing, but we can change the way we see the world through this reduction (Matthews, 2006; Merleau-Ponty, 1962; Thomas & Pollio, 2002). Before the first interview with a study participant, I bracketed my personal experiences related to involvement in nursing errors by asking another individual who was experienced with phenomenological methods to interview me. The interview was digitally recorded, transcribed verbatim, and then reviewed by the interdisciplinary Interpretive Research Group directed by Dr. Howard Pollio and Dr. Sandra Thomas at the University of Tennessee College of Nursing. During this review, I realized that I must bracket my assumption that good nurses always express a certain amount of guilt following

even minor nursing errors. If being involved in an error does not bother a nurse, I realized that I had little respect toward that nurse. Another assumption I had to bracket was that the nursing profession is not very empathetic toward nurses involved in errors and often overlooks the needs of the erring nurse. I believe that most nurses have made at least one mistake in their nursing career, therefore, nurses should be able to understand how it feels and be willing to help fellow nurses through the experience in a more positive way. Lastly, since I have personally been involved in several nursing errors, it was vital that I "unplug" from my situations and really listen to the participants in this study in order to accurately represent this phenomenon.

Pilot interview. Prior to beginning this research study, a pilot interview was conducted with a single participant who met inclusion criteria. This pilot interview helped determine any flaws, limitations, or other weaknesses in the study information provided to potential participants and in the interview procedure. Refining of the interview question and data collection procedures was completed based on this pilot interview before the official study commenced.

Interviews. I met with each participant in a quiet, private place that was mutually agreed upon. I suggested meeting in a private office or room at the University of Tennessee library and/or College of Nursing if the participant preferred. If the participant suggested meeting at his or her home, I asked the participant to arrange for someone to babysit any small children and/or tend to any animals during our interview time. I reimbursed the participant for any parking or babysitting fees accrued during the interview.

Informed consent was obtained (see Appendix D) from each participant prior to beginning the face-to-face interview. In phenomenology, the research interview begins with a broad query and proceeds in an unstructured format. In this study the initial question was:

"Think of a time when you were involved in a nursing error, and tell me about what you experienced after the error." To obtain "deeper and richer description of the first-person experience" (Thomas & Pollio, 2002, p. 43), I focused on "what" questions instead of "why" questions. Throughout each interview, I aimed to remain attentive and open to what was being said, listening closely and asking additional questions to clarify meaning. Several times during each interview, I verified my understanding by summarizing what the participant had said. I was careful to try and avoid leading questions or introduction of concepts not verbalized by the participant. When appropriate, I asked probing questions to encourage the participant to describe an issue or elaborate on an initial response. During several of the interviews, the participant became tearful, and I offered a tissue and asked if they wished to stop the interview, although all verbalized a desire to continue. I provided bottled water to all participants and offered a break during the interview if needed. No participant requested to terminate the interview.

Interviews lasted from 18 minutes to 100 minutes in length. The interview continued until the participant indicated that they had nothing left to say related to the phenomenon. The participant was given a $15 gift card and asked to fill out a short demographic data form (see Appendix E) at the conclusion of the interview. Specific demographic data obtained included gender, race, years of nursing experience, degree of patient injury, and whether or not the error contributed to any job or profession changes. In addition, the participant was asked to provide his or her age, occupation, and education level currently and at the time of the error occurred.

Field notes were written before each interview and as soon after each interview as possible. I documented observed nonverbal behavior of the participants, information on the

environment, and my thoughts regarding the interview. Any unusual events, such as interruptions or equipment failures, were also included in my field notes.

Data Analysis

Data analysis occurred using the existential phenomenological method derived from the philosophy of Merleau-Ponty and applied to nursing research by Thomas and Pollio (2002). Each interview was digitally recorded and transcribed verbatim as soon after the session as possible. A confidentiality pledge (see Appendix F) was obtained if someone other than me transcribed the interview. During transcription, all names of persons and places were changed to pseudonyms, and notes were added to indicate pauses, inflections, or to indicate certain words emphasized by the participant. Once transcribed, I read the dialogue while listening to the recording to ensure correctness with the transcription. Any errors were corrected before any data analysis began.

Once verified, the first participant interview was presented at one of the weekly Interpretive Research Group meetings after confidentiality pledges were signed (see Appendix G). This group and I interpreted the initial transcript together and identified meaning units, which served as the basis for themes. Over a two-month period, the Interpretive Research Group reviewed a total of four of the 12 transcripts for this study. I analyzed the remaining interviews myself by examining each transcript closely to gain understanding and a sense of the whole. I accomplished this by reading, reflecting, and intuiting on significant phrases, quotes, sentences, and/or paragraphs that pertained to the experience of the nurse as a second victim. These significant statements were grouped into larger meaning units to identify themes. I reflected on field notes during this analysis.

To assist in accuracy in development of the thematic structure, I brought preliminary findings and themes to the Interpretive Research Group for their assistance. Global themes were identified across all interviews and a thematic structure of the response of the second victim was produced based upon the participants' experiences. I, as the researcher, and the members of the Interpretive Research Group, agreed upon the thematic structure. Participants' own words were used to support findings. As a final step, I sent a summary of the thematic structure via email to all participants. All 12 participants had noted an interest in viewing the thematic structure when completing their demographic form. Each participant had the opportunity to provide feedback via email or phone on the overall findings and determine if the thematic structure accurately reflected his or her experience following involvement in a nursing error. Eight of the 12 participants reviewed the thematic structure and responded, and all eight agreed with the final themes with no recommendations or suggestions for revision.

Ethical Considerations

Researchers have a major responsibility in the protection of research participants' rights and must take action to make sure safeguards exist. Potential participants were informed of the study and asked to participate only after Institutional Review Board (IRB) approval had been obtained. Prior to any collection of data, the participant was given information regarding the purpose, benefits, and risks of the study. Each participant was given the opportunity to ask questions and then required to sign an informed consent document. Copies of the information sheet and the signed consent form were provided to the participant. Participation was totally voluntary, and there were no consequences to those who choose not to participate. No one who committed to participation decided to withdraw from the study.

I maintained strict confidentiality of all interviews, transcripts, research notes, phone calls, and emails. No identifying information was kept with any documents or recordings. Pseudonyms were used on all study documents and on my calendar when scheduling interviews. Any communication via phone between the participant and me occurred in a private area, and any text messages were immediately deleted after reading. My email account was password protected, and participant communications via email and email addresses were deleted from my mailbox to protect participants from risk of exposure via his or her email address. The original signed consent forms and demographic forms are in a locked cabinet in Dr. Mary Gunther's office where they will be housed for three years following the conclusion of this study and then destroyed. Digital recordings are stored in a password protected computer file and will be deleted under the direction of my advisor, Dr. Mary Gunther. Transcribed interviews will not be destroyed but will remain in a locked cabinet following the study. A secondary analysis of the data may be performed in the future with appropriate ethics committee approval.

All documents related to the study are on password-protected computers. Everyone who had access to study information signed a confidentiality agreement prior to access. Study data was available to me, my advisor, other members of my dissertation committee, and the IRB. Members of the Interpretive Research Group signed a confidentiality statement prior to reviewing any transcripts, and all transcripts were returned to me at the end of each meeting.

Thomas and Pollio (2002) noted participants often find benefits of the interview experience to be "catharsis, self-awareness, healing, and empowerment" (p. 25). I was concerned that the nurses participating in this study might find that reliving and describing their experience could cause emotional distress, especially if patient injury or death was involved.

Each participant was made aware of this potential risk during informed consent. Although several participants did become tearful during the interview, none appeared to be overcome with emotion or expressed an interest or need to seek counseling following the interview.

The protection of the researcher is addressed in this study because of the potential for negative emotional reactions related to the experiences described by participants. Journal writing and peer debriefing were two strategies used to help me effectively cope with any compassion stress (Rager, 2005).

Rigor

This research study incorporated several different strategies to ensure study rigor. In phenomenological research, reliability refers to the consistency of the thematic structure across different researchers and different studies on the same topic (Creswell, 2007; Thomas & Pollio, 2002). To strengthen the reliability of this study, I verified all transcripts and corrected any mistakes prior to beginning analysis of data. Using the Interpretive Research Group in helping identify meaning units, global themes, and the final thematic structure also supported reliability.

Qualitative validity means that certain procedures have been employed by the researcher to help ensure the accuracy of the study findings (Creswell, 2007). Multiple validity strategies were integrated into this research study and have been described including: (a) bracketing prior to interviewing and during entire course of study, (b) field notes to provide an audit trail, (c) data saturation to determine appropriate sample size, (d) peer debriefing associated with interpretive phenomenology research group, (e) use of direct quotes to support themes, and (f) member checking with participants after thematic structure determined.

"The value of qualitative research lies in the particular description and themes developed" (Creswell, 2007, p. 193). Generalizability of this proposed phenomenological study will be determined by the specific readers who gain insight and understanding from the results. Generalization may also be expanded if these readers apply what they have learned from the findings of this study to their current nursing practice (Thomas & Pollio, 2002).

Summary

Errors involving patients are a far too common occurrence in the healthcare environment. Nurses are often responsible for unintentionally causing, or potentially causing, injury to patients entrusted to their care. The nurses directly involved in the nursing error are referred to as second victims due to the trauma they may experience following the adverse patient event. The literature review supported that little is known about the experience of being a second victim from the nurse's perspective. The purpose of this study was to describe the lived experience of nurses as second victims following involvement in an unanticipated nursing error. The goal was a better understanding and awareness of the second victim phenomenon in order to provide meaningful knowledge to the nursing discipline. Findings of this study may assist health care organizations in the development of effective strategies to support nurses and aid them in a healthy recovery, possibly decreasing the potential for burnout, depression, attrition, and other negative responses.

A phenomenological research method using the tenets of Merleau-Ponty's existential phenomenology guided this study. A description of methods has been presented including specific sample strategies, data collection and analysis processes, ethical considerations, and

plans that helped maintain rigor in this study. The following chapter is devoted to the findings of this study.

Chapter 4

Findings

The purpose of this study was to describe the lived experience of nurses as a second victim following involvement in an unanticipated nursing error. Twelve study interviews were completed over a period of two months from February 1, 2013 to March 28, 2013. Participants, ranging in age from 24 to 64 years, were interviewed about their experiences of being involved in an unanticipated nursing error while practicing as a registered nurse. Study participants represented two different states in the Southeastern region of the USA, were female (11) and male (1), Caucasian (12), and currently averaged 19.5 years of total nursing experience, ranging from 6.5 months to 44 years. At the time of the described nursing errors, individual total nursing experience ranged from one month to 30 years, and nurse participants held the following degrees: Diploma (1), ADN (7), BSN (7), MSN (1).

All participants were currently practicing registered nurses, and errors described occurred on various hospitals units, including intensive care (neonate and adult), medical/surgical, obstetrics, rehabilitation, and outpatient surgery. A total of 16 specific nursing error experiences were described among the 12 participants; nine participants recounted a single error experience, two detailed their response to two different nursing mistakes, and one participant discussed three separate nursing errors. The degree of patient injury for 13 of the detailed errors involved minor or temporary injury that required observation for a short amount of time (12) or minor intervention (1); none of these patients suffered any permanent harm. In three of the shared experiences, the patient passed away shortly after the defined nursing error; however, there was no definitive evidence directly connecting the error with the patient's demise. Three participants

reported that involvement in the nursing error contributed to a job or professional career change, and one other nurse stated that she had not changed jobs "yet", but she planned to do so in the near future. All four of these participants planned to remain in the nursing profession in some capacity.

Based on Benner et al. (2002) identified nursing error categories, medication errors accounted for the majority of the described nursing errors (10), followed by lack of attentiveness (3), inappropriate judgment (2), and lack of moral agency or fiduciary concern as the patient advocate (1). Another way to classify the reported errors is based on cognitive reasoning as described by Reason (1992): skill-based (7), rule-based (5), and knowledge-based (4). The skill-based errors included failure to complete an ordered intervention accurately (3) and medication administration of wrong dose (2), wrong drug (1), and at wrong time (1). Rule-based errors occurred when nurses failed to follow medication administration protocols and/or discharge protocols resulting in: patient receiving another patient's medications (3), patient given incorrect dose of a high alert medication (1), and patient discharged home when criteria not met resulting in readmission (1). Knowledge-based errors were due to lack of knowledge related to specific medication administration protocols (2) and inaccurate assessment skills resulting in failure to communicate a change in patient status (2).

Table 1 provides a summary of selected demographic characteristics obtained from the Demographic Form (see Appendix E) completed at the end of each interview. All names used are pseudonyms selected by each participant. The age of the participant, years of nursing experience, and education level are all at the time of the described error. The time span noted is the amount of time between the nursing error and the time of the research study interview.

Table 1: Participant Demographic Characteristics

Participant	Nursing Experience at Time of Error	Age	Education Level	Degree of Patient Injury	Time Span from Error to Interview
Sandra	< 6 months	24	BSN	Death	< 6 months
Jane	< 6 months	Unknown	BSN	Death	13 years
Ralphie	< 6 months	27	ADN	Minor	22 years
Rebecca	< 6 months	22	BSN	Minor	12 years
Kathy	< 6 months	22	BSN	Minor	28 years
Mark	Error 1: < 6 months Error 2 & 3: Unknown	Error 1: 26 Error 2 & 3: Unknown	ADN	Minor x 3	Error 1: 5 years Error 2 & 3: Unknown
Iris	Error 1: <6 months Error 2: 22 years	Error 1: 23 Error 2: 45	Error 1: ADN Error 2: MSN	Minor x 2	Error 1: 32 yrs Error 2: 10 yrs
Maggie	Error 1: 1 year Error 2: Unknown	Error 1: 31 Error 2: Unknown	ADN	Error 1: Minor Error 2: Death	Error 1: 4 years Error 2: Unknown
Snow	2 years	26	BSN	Minor	3 years
Florence	5 years	28	BSN	Minor	24 years
Tabitha	11 years	33	BSN	Minor	31 years
Grettle	> 30 years	53	Diploma	Minor	7 years

Existential Grounds

The existential grounds of world, others, time, and body contextualize this phenomenological study of nurses' responses following direct involvement in a nursing error (Thomas & Pollio, 2002). All nursing errors described by participants occurred within a hospital environment, and the world of the patient care unit is the contextual ground within which the experiences of nurses involved in an unintentional nursing error take place. The world of a hospital staff nurse involves a complex work environment with multiple responsibilities. On any given shift, nurses may administer hundreds of medications and complete countless interventions for their assigned patients. A number of variables can affect nurses' abilities to effectively carry out these daily tasks, such as but not limited to the type of nursing unit, patient acuity levels, nurse to patient ratios, and availability of support staff. Factor in a variety of interruptions and distractions, like telephone calls, patient and family needs, unexpected lab draws, patient transports, and alarms going off, and the world of the patient care unit becomes exceptionally challenging for nurses.

Nurse participants in this study, both novice and experienced, described being "overwhelmed," "overloaded," and "overstressed" in their work environment. One nurse spoke of her world on the patient care unit by stating, "I think especially in nursing, you know, you've got high stress situations, you've got busyness, you've got multiple patients, you've got multiple needs; like it's not hard to get distracted." One participant stated that working in "ICU was like hell; like it is literally hell…I felt beat up after I worked in the unit." Participant descriptions did not always paint a positive picture regarding the world of the patient care unit and the occurrence

of nursing errors. Two contextual themes emerged in the world of the patient care unit expressed by participants as "*it's big, weighty stuff*" and "*we're setting up our nurses to fail.*"

"It's big, weighty stuff"

Providing safe patient care free from harm or injury was the goal of all participants in their world of the patient care unit: "You're a nurse because you wanna [*sic*] help people, and you wanna get them feeling better"; "I don't think anybody in nursing wants to do harm; no, you don't go into nursing to do harm"; "Our intent as nurses is never to hurt anyone, never to even like potentially hurt someone." Participants verbalized understanding of the potential ramifications for both the patient and the nurse in the event of an error, and this realization weighed heavily on them: "You can really screw somebody up, and then you can really lose like your whole life that you've worked for. It's just like, it's *big, weighty stuff*"; "In nursing…we want to make sure we do *everything exactly correct*; there's a lot at stake… As a nurse you are not given, you have no room for error… we're not allowed that"; and, "That realization that, yes, we can really hurt someone is something that you have to deal with as a nurse on a daily basis."

When talking about mistakes in general, participants expressed, "We *all* make mistakes; we *are human*"; "We're all human and none of us are perfect"; "We are human and mistakes are gonna [*sic*] happen"; and, "I'm human and people are human and errors are probably *never* going to go away." However, participants made it clear that "mistakes are a really, really big deal, *period*," and they did not take making an error, even a minor error, lightly: "I don't feel flip about making mistakes"; and, "I mean an error is an error, you know. Kind of like a sin is a sin no matter how big or small they are." As long as a nursing error was made by someone else, participants were empathetic and stated that nurses are human and are going to make mistakes

sometimes, but when it came to discussing their personal involvement with an error, they did not share this same attitude. Maggie, a nurse for five years, expressed the internal dilemma in this way:

> There's what you can know in your mind and what you know in your heart, and in my mind I can look through and say, "okay well, you know, it was a mistake and everybody makes mistakes," and in my heart I say, "there's *nothing* okay about this, there's nothing explainable about this."

There was also an overall feeling of hope among the participants that if an error did occur, the outcome of that error would be positive: "We can just hope that there's no bad outcomes"; "Hopefully they just won't be critical"; and, "Hopefully their patient did not suffer any adverse reactions. If the patient did, I think that would be *really hard* to get over."

Some participants spoke about general goals and expectations nurses held, such as implying that "everybody as a nurse want[s] to be *perfect* in those types of things." However, all participants agreed perfection was not obtainable, and many equated making an error with being a bad nurse or doing the wrong thing:

> I know I'm not perfect, but to be an excellent nurse has always been a goal, and [I] tried to be an excellent nurse and tried to live up to that standard that I set for myself and hopefully that others saw. (Tabitha)

> I don't really think of myself as being a perfectionist, but I definitely try to do the right thing and, I have no problem with rule following at all; probably part of what makes me a good nurse to some degree. (Snow)

> You're very exposed, but it's like "*I don't want to be*. This wasn't my intent…" I wasn't trying to do bad. (Florence)

> I got more a sense of mixed feelings leaving from that, did I disappoint my boss? Does she trust me now? Now I had this feeling of is she watching me? You know, am I not good enough? Am I a bad nurse? (Mark)

"We're setting up our nurses to fail"

When talking about the work environment, participants verbalized several frustrations regarding organizational processes that prevented them from successfully completing everyday tasks. An overriding theme in the world of the patient care unit was that nurses are set up for errors by the health care system in a number of different ways. Mark, a nurse with a total of five years of nursing experience, described his frustration related to medication administration and his experiences with medication errors in the following way:

> I felt like I was set up to fail, not by my preceptor but by a system… And nurses have got to be the world's worst at workarounds; we figure out if the process don't work we're gonna [*sic*] figure out some way, and I'm surprised we don't make more errors… To me we are responsible for these people and we've got these inefficient processes, and we're doing all these workarounds. We're responsible for these people, and yet here we are in a system that really doesn't encourage us to do the best that we can. It just feels like we're setting up our nurses to fail.

Several participants expressed their concern of being "thrown" out onto the floor to care for patients before they felt ready to take on such a huge responsibility. As a new graduate in an intensive care unit, Iris was sent alone into a patient's room to perform a procedure she was unfamiliar with. She unintentionally committed a nursing error and stated:

> I know you can't do the hover thing all the time and no matter how much experience you've had, you know, something weird like this could occur, but I guess that was the thing that I thought, "Wow. This is *bad* and this could have *really* been bad," and then I thought, "and they let me do it."

Jane, another new graduate at the time of her described nursing error, expressed:

> I think trying to wrap your mind around *making an error*, because when you're in nursing school you hear about it, and to me you're almost arrogant thinking, "Well, how stupid is that? Who would do that? Who could *possibly* make that mistake?" Until you're thrown in the mix with six patients and you're passing their meds.

New nursing graduates were not the only participants to acknowledge this discontentment. Florence, a nurse with five years of experience at the time of her nursing error, had transferred to a different nursing unit and had only been on the new floor a short amount of time. She said:

> I think in some ways they kind of pushed me, knowing they kind of pushed me out there *to do* a lot more during that short time, and so that was kind of an odd twist where all of a sudden I was counted on, relied on, and then I let them down.

The busyness of the patient care unit, staffing concerns, and high patient acuities were additional factors participants mentioned that could increase the chance of error while caring for patients. Sandra, a new graduate, described her patient assignment on the particular shift in which she became involved in an unanticipated error:

> I've never had a group that hard, *ever*…I've had some really hard nights, but I'm like, oh, but *nothing* like even compares to that night… And I don't think they give you enough to do what you need to do…And it's so frustrating 'cause it's like the hammer is on us for something that happened to a patient and make us feel terrible about it; like we were suppose to notice something… we're suppose to notice these little baby like changes you know, and call about them when we have so much going on.

Maggie described how the work environment may have contributed to a nursing error she was involved in. She explained how nurses were so busy in the intensive care unit in which she worked that even when a policy required a second nurse to double-check a high alert drug, this rarely happened the way it should have:

> We were busy, and truthfully that's the way it is on a lot of the double sign things. People, people don't *look*. People show up and put in their password, but they don't *look*-look [*sic*].

Jane stated:

> I think nurses tend to cut corners... I don't think they do [it] on purpose… I don't know that its that as much as it is the large responsibilities that we've asked out of nurses now; too much to do in too little time.

Unrealistic organizational expectations of nurses and lack of support of the nursing role were also expressed as a frustration in the nurse work environment. Patient satisfaction overshadowed nurse satisfaction and placed the nurse in an uncomfortable position within the healthcare organization. Sandra expressed these thoughts:

> Saying you're sorry, it's like I feel like it's all I do, and it just gets so exhausting… I have to say I'm sorry to make patients happy, so they don't sue me, or they don't get mad at the hospital, and that's how the hospital wants us to be. Like we just have to roll out the red carpet to get run over for them, and that's how I feel. I look at this place that says we care about you and we are behind you, but really I feel like they're just trying to make it this perfect system; this is never going to be perfect, and it makes me sad because I think that a lot of nurses that work that I know are unhappy.

The existential ground of "others" was also strongly evident in the study findings. Participants described how they had let others down because of involvement in the error, including patients, families, and even their nursing team. They had a strong desire to consistently make a "good impression", so they worried about loss of respect from other health care professionals and feared what others thought about them. Do they think I am a "good nurse" or a "terrible nurse?"

"Others" played a major role in helping participants work through the "traumatic experience." This support came from both internal resources within the work environment as well as from other external help. Nearly all the participants expressed how important it was to receive encouragement and verbal reassurance following the nursing error from nursing

colleagues and those serving in nurse leadership positions. These erring nurses found it comforting to know that others had "been there" and knew how they were feeling. Having a nurse manager talk to them afterwards and support them despite their involvement in the error helped decrease anxiety and allowed them to better cope with the mistake. Many participants also mentioned that physicians, residents, and colleagues from other departments, such as pharmacy, were also supportive instead of being "critical."

Several participants noted that family members of the patient involved in the described nursing error offered support to the erring nurse. In one narrative, the patient provided a positive response stating, "I can see how that (error) [happened]," and she reassured the nurse that she was "not angry" with her for the mistake. For external support from "others," some participants described how they turned to spouses, close friends, immediate family members, and/or counselors. A single participant detailed how she used prayer to try and cope with her experience.

Not all reactions received from "others" were considered positive. Participants described how negative actions and words affected them and increased their anxiety following the event. One physician responded in anger and insisted the nurse involved in the nursing error be fired. Nurse managers were also perceived as unhelpful and unsupportive at times, leading some participants to feel like no one really cared and creating a distrusting relationship. Very few nurse leaders ever approached the erring nurse again to update the nurse on the patient's condition or to check and see how things were going; this seemed to leave a feeling of uncertainty regarding the situation that was never truly resolved for the nurse involved. One participant specifically noted that is was not until his nurse manager approached him several

days later to speak to him again about the incident that he felt any sort of "catharsis" about the adverse event. Up until that point he felt that the nurse manager no longer perceived him as a "good nurse," which increased his anxiety level about the situation.

The major ground of time also emerged as figural in participant narratives. Nurses involved in an error often spoke in terms of their nursing world "before" the error occurred and compared it to what their nursing world was like "after" the error. One participant stated that before involvement in her described error she worked in a "perfect world", but all of a sudden, after the error, her world was no longer a "complete perfect story anymore." All participants echoed this same sentiment. Before the nursing error, participants described being "confident", "secure", and/or "proud" of their nursing abilities in caring for patients; after the error, they felt "insecure", "humbled", and frequently felt the need to seek out help from others in an effort to rebuild their confidence levels. Many also expressed that before the mistake, they did not find it as important to know and follow policies and procedures; however, after the mistake they made sure to *always* "follow the book" and perform the correct patient identifiers and/or medication checks to prevent another error. And although participants considered themselves careful and rigorous prior to the error, involvement in the nursing error was a "wake up call" which caused them to be "extra careful", "more hyper vigilant" about checking things, and even drove them to do additional tasks they did not "have time for" in an effort to avoid future mistakes.

Participants also expressed the importance of "taking time" to think things through before taking any nursing action. Several participants mentioned how involvement in the error had helped them slow down instead of rushing around and skipping safety steps. Even though it may be a busy shift, it is "not worth rushing into things" because this can increase the chance for

another mistake. Some nurse participants also noted surprise that despite the passage of time, they still remembered specific details regarding the error and how they had been affected by this experience. Several nurses noted that at the time in history when their error occurred, the technology that is available currently on most patient care units was not available then, such as electronic medication administration record (EMAR) systems. They felt the lack of technology at the time of their described nursing error increased the "opportunity for problems", and they believed if this EMAR technology had been in place, it may have helped detect and stop the errors from occurring.

The major ground of body was supported in the study findings under the subthemes "*my stomach was in knots*" and "*it's the worst fear I've ever felt*," which are discussed later in this chapter under Theme One, "*That was a traumatic experience*." Through what Merleau-Ponty termed the "body subject", most participants described both the physical and psychological effects experienced following discovery of the nursing error. Initial physical responses were often intense, and some participants expressed having continued symptoms for days, weeks, months, and even up to years following the incident. All participants mentioned experiencing some type of psychological response to their described error; many felt guilty, remorseful, and/or embarrassed. Every participant faced fear and worry related to potential or actual harm to the patient as well as to potential personal consequences, such as fear of losing their job or losing respect of others.

Figural Themes

Central Theme: "*It's a little scar*"

An encompassing theme of *"it's a little scar"* emerged as the central theme and is present in each transcript as nurse participants described their nursing error experience. The shared experiences of these nurses involved in a nursing error revealed many interesting characteristics of the psychological, physical, cognitive, and behavioral impact these mistakes had on the participants, as well as exposed several issues nurses face in an attempt to accommodate their professional nursing identities. Involvement, even in minor errors that caused no patient harm, left an emotional scar on these participants that they were unable to totally forget. Although some participants could not recall specific details related to the actual error, none of the nurses had forgotten how it made them feel when the mistake was discovered or how their nursing practice changed following the incident. Snow, an intensive care nurse with five years of experience, discussed how the unintentional nursing error impacted her:

> There's still guilt to this day and there probably will be forever…I don't know how you get rid of that. I mean, my patient wasn't hurt, but I don't know how you wipe that one away. So it's a little scar, yeah, we have lots of those as people walking around. So, it's part of you, kinda [*sic*] like anything else. You can choose how you respond to it, but we are gonna [*sic*] make boo-boo's; it's just what you do with it after.

During interviews it was evident that talking about the experience produced anxiety among many of the participants, and several nurses cried openly while describing their experience. It was as if talking about the error reopened a wound that was not totally healed.

Maggie reported that thinking or talking about her error, even four years after the occurrence, "is anxiety producing every time." Sarah, a new graduate with less than a year of nursing experience at the time of the interview, stated, "I'm sorry, I might start crying. It was just like, like the whole thing *sucked* and just thinking about it makes me feel bad."

The emotional scar left behind was evident even among participants whose error occurred many years prior. Tabitha's nursing error happened 31 years ago, and she verbalized surprise at what she still remembered and the anxiety she felt even after not thinking about the incident for years. In her narrative she related:

> I hadn't thought of this for years…and I don't know why it surfaced the other day… it's amazing after 30 years what you remember….I'm not really sure what brought it back to the surface…my stomachs a little tense talking about it. I'm not nauseated, but you know it just feels a little tense, and it's just not a lot of fun to talk about those things, you know.

Twenty-four years had passed since Florence's involvement in a nursing error, and she expressed:

> [I] didn't realize as much that it's sort of still hanging there…and that it sort of affects things I do… I feel like I could almost cry now just reflecting on that, but I felt like I had really worked that out… As we talk about this, I feel a little anxious. I know [I'm] feeling kind of anxious just thinking about it. It's been so *long ago.* It's like it's kind of just bubbling back up.

There were four figural themes in the nurses' experience of being involved in a nursing error that emerged from analysis of the interviews, and all four clearly connected to the central theme "*it's a little scar"*: (1) "*That was a traumatic experience*"; (2) "*My god, am I still competent?*"; (3) "*They did not treat me bad"-"I am being thrown under the bus*"; and, (4) "*I still think about it*." Figure 1 below illustrates the central theme and each of the global themes and subthemes. All themes and subthemes were chosen from participants' actual words. Each theme uncovers a unique part of the "little scar" and provides a better understanding of the meaning nurses attribute to making an unintentional error.

Figure 1: Central theme, global themes and subthemes for the phenomenon of nurses' responses following direct involvement in a nursing error

Theme One: "*That was a traumatic experience*"

In the first theme "*that was a traumatic experience*," nurses described involvement in a nursing error as a deeply distressing experience that was not easily forgotten, even over time. Iris supported this theme by noting that even 32 years after making a mistake as a new graduate, she "never forgot that (error), because it was such a trauma to me in general." Three years after her error, Snow acknowledged, "I basically felt like I had a degree of post-traumatic stress disorder and um, I'm not really an anxious person." Rebecca, a new graduate at the time of her unanticipated error 12 years ago, described her experience in this way:

> I just remember when I think back on it, all I remember was, *that* was a traumatic experience… it was very traumatic because… I had no idea what I had done at the time… A few days later I had to go back and I had to go in front of the big review board…and I just remember getting *grilled* by them. So it was very, it was very traumatic… [The traumatic part was also] the realization that what *could have happened*. I mean it could have… there's so much that could have happened…and luckily it didn't… So, to me it was more the "what if." I mean, at that time I am sure I felt like "*this is the most traumatic thing I've ever been through. It's my first real job."* But looking back it was more the "*I've really messed up. I really could have hurt them.*"

Participants verbalized being traumatized by the incident for several different reasons. One source of distress, mentioned in Rebecca's narrative above, centered on having to communicate with others, specifically physicians and management, regarding the error occurrence. Tabitha noted, "I was nervous and scared because I knew I had to call the doctor

and confess and make out an incident report." Ralphie, a new graduate at the time, expressed the stress associated with addressing the incident with her patient's doctor when she discovered that she had given the patient wrong medications. She was extremely fearful of making the call because she had been told this particular physician was "mean." She stated:

> I was in tears, and I went to the nurse I was working with and I told her what I had done…she said you're gonna [*sic*] have to call the doctor… he's been known to be really mean, and so I thought, well, that's even worse! (than making the error)… That was back before…the doctors have to behave in a certain way, you know. They could throw charts across the nurse's station at that time if they wanted to, and scream and yell at you out in the hallway, and not have to worry about any reprisals on their part.

For some participants, talking to hospital and nursing management regarding the error was upsetting and increased the internal turmoil they were facing. Sandra expressed that the thought of having to meet with the risk manager and actually having to discuss her error with nursing management "scared the hell out of me." She described in detail how it made her feel to get "pulled into this room" to discuss the incident:

> I was like, oh crap! I'm in so much trouble right now, and I'm just sitting there and I'm like I'm going to get fired, get my license taken away, you know, and all this stuff is going through my head. Oh! (sigh). And I remember my boss said to me, "Sandra we just want to know what happened"… It was a very weird conversation. I kind of felt like they were telling me that I wasn't in trouble and that I wasn't accused of something, but I did *feel* like I was.

Grettle, a nurse with 30 years of nursing experience at the time of her first known mistake, shared the distress associated with how her nurse manager disclosed the perceived nursing error to her:

> The next day when I came in my boss said she needed to talk to me, and she took me in an office where there was [a] supervisor there too, so I knew something was up in Denmark…When they were talking to me I immediately felt remorse; I was tearful just about, because that [doctor] wanted me fired…apparently weekly he likes to fire somebody, but they don't necessarily, but he always says "we'll get ya fired", you know. But anyway, it struck me because she said that to me.

Participants involved in errors not resulting in patient injury expressed feeling a sense of relief once it was determined that the patient was okay. However, despite this sense of relief, nurses still acknowledged that the realization of what could have happened, or the "what ifs", added to their anguish.

> I just think how much worse that could have been. What if there had been a medicine there that she'd truly reacted to? You know it just went over and over the "what if this," "what if this"…in some ways it was scarier later when I had more time to think about it on the things that could have happened…[I] think how lucky that I was, how lucky that patient was that, you know, [she was okay]. (Ralphie)

> There was a little bit of relief after [finding the patient okay], but there's still this feeling of what if they crash out because of the error I did? What's gonna [*sic*] happen? (Mark)

> I was just clouded up over- it was so horrible and the man lived and there was no bad outcome and like *thank goodness*, you know, *relief*... I'm just very, very thankful of course that there was not a bad outcome. (Iris)

> And fortunately, I mean I was *very, very fortunate* because… it was not an error that caused a problem for the patient. (Tabitha)

The three nurses involved in a perceived nursing error occurring soon before a patient's death did not have this feeling of relief, but instead were traumatized by the uncertainty of whether or not their error contributed to the patient's demise.

> I don't know that I did harm this person, I don't know that I didn't. It's that unknowing factor that can incapacitate you. (Jane)

> I'm a new nurse and I need to learn from my mistakes, and I hate that this is such a big one to learn from, but I mean, gosh, *tell me,* because I, did I do something wrong?...With that night being as bad as it was, maybe I did miss something- maybe, but I don't think I did…Now looking back on it, I still feel like sometimes, I'm like, could I have done something? I don't think I could have… and I go back and forth on it; but really I don't think in the end, I don't think I could have done anything differently. I don't." (Sandra)

> The fundamental responsibility that I have always held as a nurse is to be my patient's advocate…It was my responsibility to be [the patient] advocate and to know what the right thing was, and I dropped the ball, *big time*. (Maggie)

Within the theme "*that was a traumatic experience"* are three identified subthemes: (1) *"my stomach was in knots"*; (2) *"it's the worst fear I've ever felt"*; and, (3) *"it was my error…it was totally mine."*

"My stomach was in knots"

The subtheme *"my stomach was in knots"* is a component of the theme *"that was a traumatic experience"* and relates to the bodily response participants described when discussing their reaction to discovery of their nursing error. Many participants expressed feeling physically ill immediately after the error, and some participants continued having symptoms for days to weeks, and even months to years after the incident. These intense physical reactions to the error contributed to the formation of the "little scar" discussed as the central theme.

Some nurses described a gut-deep bodily response initially after the nursing error was discovered, and these visceral reactions to the traumatic experience were often intense. Several related immediately hitting the "panic mode" and breaking down in tears, while others described experiencing abdominal discomfort, nausea, heart palpitations, and almost blacking out.

> I *immediately* hit panic mode. I was in tears…I thought I had killed the poor woman. My hands were shaking and I was just so afraid for that patient. I thought "how, *how could I have done that*?" …It was total panic and total, totally afraid for what I had done

to her… Your heart is racing, you're just in panic mode. I'm sure my eyes were huge! (Ralphie)

I remember when I realized what I had done how *sick* I felt, just sick to my stomach, and then I was nervous and scared… My stomach was in knots, and I guess I got some palpitations at that point. (Tabitha)

The initial feeling was *absolute terror* and I had *no clue* what I should do next. I was in the room *alone*…I just like stood and then the black starting coming over me. I thought I was going to pass out on the man cause it was like that adrenaline "Oh my gosh" kind of feeling. While I was in that panic moment, I really did think I had to start taking deep breaths 'cause I really thought I was going to pass out. I mean the black clouds like when you're going to faint starting coming over my head, and I thought, "Oh, Lord. I can't faint. I mean this is *bad* and then if I faint too..." (Iris)

Some nurses described physical symptoms that began soon after the error and continued for days to weeks. Symptoms such as vomiting, uncontrollable crying, and sleep disturbances were noted.

I just remember going home and literally being physically ill…and like being sick to my stomach and throwing up…I felt terrible about this…I ended up calling in sick that night to work because I was just too emotional and physically ill to go into work…I like cried

myself to sleep every night, and I know this sounds like really dramatic, but it was just terrible! (Sandra)

I was being a new nurse, and pretty upset about it all. So I didn't rest very well that day, obviously because I was worried about the baby. (Kathy)

Physical symptoms lasting months to years were also noted by several of the nurse participants.

It's like four or five months later, but it's like, I cry every time I talk about it with someone. (Sandra)

There is not a *moment* since that someone says Heparin that I don't get that sick, gut feeling. Every time someone says "Heparin" I think "urgh", it makes me feel heavy and twisty. (Maggie)

And literally even that night I still thought like I was going to throw up. The next morning [I] came in and talked to several people at that time and was literally crying and in tears. My intent would never be to hurt my patients, so the fact that I had to deal with accidentally affecting my patient, even though there was no poor outcome at all, not even a vital sign change, um, I was sick over it for months…literally, like [it] still makes me wanna throw up to this day, and that was years ago. (Snow)

"It's the worst fear I've ever felt"

Although not all participants verbalized experiencing specific physical symptoms following their nursing error, all participants described having some type of psychological response. The most universal psychological response centered on the concept of fear. Participants stated being "terrified" and "absolutely horrified" and described multiple reasons for being fearful, including fear of being blamed for something, of losing their job, of harming or potentially harming a patient, of what others now thought of them, of having to call the physician, and of making another mistake.

> [I was worried about] everything. The patient number one, really, truly the patient number one, you know, but worried I would lose my job. Worried what other people thought of my nursing skills, or lack there of…when I did come back to work like the next day I also had…all these weird things happening to me. I felt like everything was coming down on me; it was like a test you know. It was like all these things were going wrong…and I felt insecure. I was afraid. (Grettle)

> I was afraid to tell them everything because I didn't want them to accuse me of something or tell me that I had messed something up. (Sandra)

> Someone on my last evaluation… was like, "It seems like [she is] afraid of hurting her patient", and I was like, "Yeah. Damn right I'm afraid of hurting my patient. If I'm not afraid of hurting my patient, I'm dangerous." And anyone who thinks that there's not a

possibility that they can hurt their patient is dangerous, so yeah, you better believe I'm afraid of hurting my patient. (Snow)

I guess guilt that leads to fear of will I, will I make another error, will I harm someone else? Will I, you know, not knowingly, not intentional? (Jane)

I [thought], have I done enough to lose my job? I was terrified I was gonna [*sic*] lose my job. I mean it doesn't get more basic than wrong dose…and I had the constant fear of screwing up again. (Mark)

I am afraid of my respect being flawed. (Tabitha)

Nurses noted numerous other psychological symptoms other than fear, including but not limited to guilt, shame, grief, sorrow, remorse, aggravation, vulnerability, and embarrassment.

I felt and I can still feel at times, overcome with grief, and sorrow, and just total fear. It's the worst fear I've ever felt in my life. It caused me not to be able to sleep, and it just caused a lot of guilt. A lot of feeling like I had done something wrong that may have harmed someone. (Jane)

> It was the first time I ever *had* an error and knew about it, and I just remember feeling sort of speechless at that moment, and just embarrassed. You feel the embarrassment and a sense of feeling very exposed…I felt extremely vulnerable after that. (Florence)

> There was an overwhelming collision between guilt and responsibility and just utter disgust in myself that I fell down on one of the most basic. Guilt for making the mistake, for not doing what was the right thing. (Maggie)

> Total aggravation was there, and well, yeah, then there's always that bit of shame. (Iris)

"It was my error…it was totally mine"

Participants' behavioral response to the unintentional mistake included acknowledging their part in the nursing error and accepting responsibility despite other contributing factors, such as patient acuity, staffing issues, or organizational system processes. Snow verbalized, "So, regardless of whether it was a system error or whether it was like a person error, it was *my error*…It was totally mine."

Each nurse exhibited a strong sense of responsibility and took their described nursing error seriously, whether it was a perceived minor or major error. Grettle stated, "I took it very seriously and *way* to heart," and Jane noted in her narrative, "I pretty much blamed myself, and I still do." Maggie and Kathy also spoke about acknowledging responsibility when each phoned the physician immediately after realizing their medication errors. Maggie stated, "I called the doctor myself in tears that night…and I said this is what I did, this is what it is, I'm *so* sorry."

Kathy noted, "I recognized I had made the mistake, and first of all I checked the baby, and it was okay, and then…I called the baby's doctor and told him that I had made that error."

A few participants verbalized disbelief initially when discovering the error, although after investigating, they realized an error had occurred and they were indeed responsible. Florence and Snow described their disbelief in this way:

> I was *absolutely horrified,* and I think anytime that you think you've done something wrong, you kinda [*sic*] look at it and you're like, "Surely that's not what actually just happened," and then you're like, "Oh shit, that is exactly what just happened." (Snow)

> When they tell you that it happens, you have to go and look and see. "I don't believe it! I don't believe it!" I don't think I said it like that, but in my mind I'm thinking…(whispers) "*No. No.*" (Florence)

Reporting and/or disclosing the error was an additional behavior response several participants discussed during their interview. Of the nursing errors described, nine were self-reported by the erring nurse to nursing administration and the primary physician immediately, one nurse waited a week before reporting, five were discovered and revealed by other nurses, and one perceived mistake was never reported. Only three of the 16 nursing errors were disclosed to the patient and/or family. Many of the nurse participants were verbal regarding how they felt about the importance of reporting versus hiding the error. Kathy stated, "The worst thing that you could do would be not to acknowledge that you made that error and place that patient at further risk." Other nurses described their views on reporting as follows:

> The best way to handle it, the best way to deal with it, is to be honest about it. I think it's important to when you see that an error was made, accept responsibility for it, because I think that's gonna [*sic*] be the best way for you to handle it long term, even if it goes into a legal realm. Taking responsibility is better than hiding and lying about it. (Rebecca)

> The biggest thing is as soon as you realize it to let somebody know…don't try and hide it, that's the biggest thing, don't try and hide it, go to somebody- tell them. (Ralphie)

> I think a lot of it is, fix what you can, be willing to admit when you're wrong, be willing to do a[n] (incident report), because if you've done it, 19 other people have done it and not been willing to admit it. Um, if you go ahead and [report it]…you never have to look back with any guilt about what you did in response, you know. I still screwed up, but how I respond to it is the difference that I can make. (Snow)

Theme Two: "*My god, am I still competent*?"

In the second theme, "*My god, am I still competent?,*" many participants described feelings of inadequacy, self-doubt, and loss of self-confidence after involvement in the traumatic experience of committing an unintentional nursing error. The "little scar" left in each nurse's identity was evident in the narratives. Nurses wondered if they were competent and questioned their nursing abilities. Several voiced uncertainty regarding their decision to become a nurse, whether they should change nursing roles, and/or whether they should leave the nursing profession all together. Grettle, a nurse with over 30 years of experience, described the hurt she

felt when her nurse manager said she needed to talk to her after the mistake to see if she was "still competent to work for us." Grettle stated:

> This hurts the most, is that they wanted to make sure I was a competent nurse; and I'll never forget those words…you start thinking, "My god, am I still competent?" Boy, if you ever want to hurt somebody, you know what to say.

Sandra, a new graduate, expressed how her professional nursing identity was shaken in this way:

> Me being a new nurse made me feel terrible because I thought maybe I do stink at this. Like maybe I should not be a nurse. Maybe I just need to quit because, I'm telling you, I was like this close to quitting like after this whole thing happened because I felt like I was just completely incompetent, and I couldn't do anything.

Mark, with five years of nursing experience, had chosen nursing as a second profession. He stated:

> I'm sure my performance was probably down a little bit after that. I had feelings of "Why, *why* am I in this field again?" You know, "Why did I allow [someone to] talk me into doing this?" I needed a change of pace, but was this the right one?

While discussing feelings of inadequacy and self-doubt, a number of participants used the word "stupid" to describe how they felt. Iris stated, "I mean, I felt totally *stupid.*" Other nurses verbalized their experience in the following way:

> You will feel like you're stupid because you made a mistake… I was like, oh my goodness. I remember thinking, I can't be a nurse, I am going to be a horrible nurse…I've had a job for a month, and I have already made a huge mistake. (Rebecca)

> I had been a nurse for a long time, and I felt like I had good credibility on the unit, and to do such a stupid thing as that was not good leadership. (Tabitha)

> I seemed to feel very stupid, *very stupid* because I had the information right there, and you were taught that all through nursing school- check the armband, check the patient, check the medicine, the dose, the route, and then I didn't check her armband. It's just the basic. How could you not check an armband?...I didn't want them to think I was an idiot or a terrible nurse…You learn how to *not* make med errors all through nursing school, and I had just graduated so it wasn't like I forgot, and it was just something stupid that I did, or didn't do (nervous chuckle). (Ralphie)

The decreased self-confidence levels and uncertainty in their abilities often resulted in behavioral changes, some of which created additional stress in daily work routines. Nurses found themselves "second-guessing everything" and even trying to avoid situations or patients that reminded the nurse of the error.

> It affected my confidence and what I wanted to do…That really kind of shook me…
> Being a new nurse, you're trying to gain your confidence as a nurse, and that probably set

me back that I was not as confident in what I did for patients…I found myself kind of asking a lot more questions just to try and get my confidence back up. (Kathy)

There is uncertainty, suddenly just feeling like every time after that I passed a med, I double and triple checked with my preceptor to be sure that this was the right med…I mean I obsessed over knowing every detail… it just added probably an hour to an hour and a half into my day. It kept me from doing more productive things. (Jane)

I mean every time I gave a [med], I was triple, quadruple checking medicines, and I was getting behind…I was getting myself behind because I was so afraid I was gonna [*sic*] make another mistake. (Mark)

I'm like, "is there *no one* else that can help you do this?" I will, I have, but where there are supposed to be two, if I'm the primary, I get a third [person to check]. I just hate it. (Maggie)

Theme Three: "*They did not treat me bad*" - "*I am being thrown under the bus*"

This theme involves the differences between the positive and negative responses from others nurses experienced following their nursing mistake. All participants discussed how others supported them following involvement in a nursing error. In *"They did not treat me bad,"* participants verbalized a positive response from others, including nursing management, coworkers, and physicians. *"I am being thrown under the bus"* describes negative reactions

some participants experienced, primarily from nurse managers. Participants noted the importance of having support following the error, and the response from others, whether positive or negative, had an impact on how the erring nurse coped and on the "little scar" that formed following the incident.

> It's so much easier to own up to it if you've got someone that's saying, "Hey, yeah I've been there, done that." So support's really important with mistakes. (Mark)

> So just finding someone who will have your back, somebody whose gonna [*sic*] help you out with it, be it another staff nurse or hopefully someone in management because that is always the best if you know one of your managers is somebody who you feel like has pull within the facility, has your back and understands. (Rebecca)

Participants articulated how much more difficult they perceived their situation would have been had they received negative responses from others.

> I had nothing but really good support and sound and warm advice and understanding… literally everyone else was really helpful, and I think that's part of what made it easier to go on. I think if I would have had any negative response it would have been much harder to walk back in…and work again. (Snow)

> I can picture other team leaders on that floor at the time or that came later that it would [have] been a *completely* different scenario, and I probably would have felt all those sort of symptoms I *talked about before* at a more heightened level. That would have been the

main thing that would have hurt the most as far as long term wise if the team leader didn't handle it well. (Florence)

I feel bad for any nurse that doesn't have a boss as awesome as I did at that time, because I think that you could easily have crushed a nurse to the point where they don't want to be in that field anymore… I had a support group and if it wasn't for having a supportive group I could see myself easily have just quit nursing, because why would I subject myself to this every day? (Mark)

"*They did not treat me bad"*

Although participants described being fearful of how the physician was going to react to the nursing error, only one of the participants experienced a negative response from a medical professional. The majority of nurses stated that the physicians were "calm", "business-like", "supportive", and at times laughed at the nurse's reaction to the incident.

They did not treat me bad… The resident, no one acted mad, not even the doctor. The resident kind of laughed at me because I was so terrified standing there going, "*Oh my gosh*." I did not feel that they put me down or accused me or tried to, you know, pass around the word that I was *bad*. I mean, I felt like they handled it on a[n] appropriate level. (Iris)

Actually the physician was very supportive, and he said, "Well, it's probably not gonna [*sic*] hurt him." (Tabitha)

> Yes, he was [supportive]. He was. He was not critical; he was being very firm, but very direct in what he wanted in terms of observation of that infant. (Kathy)

> I'm stammering on the phone to the doctor what I had did [*sic*] and I, it was a fourth year resident… and I just remember him laughing at me going, "calm down, it's nothing"…After the resident laughs at me, I kinda [*sic*] start to calm down and then I'm thinking to myself, "Okay, maybe it wasn't that bad, you know. This is something that I guess anybody could have done." (Mark)

Many participants described how those in nursing administration supported them following their error, including "coaching" them on how to document the situation, "sticking up" for them, or checking on them following the error.

> The nurse manager was so supportive and so helpful and told me a story of an incident that had happened to her when she was a fairly new nurse, you know, trying to get me to laugh, trying to get me to relax. (Snow)

> I remember her (head nurse) saying this has happened to the best of us. (Kathy)

> I did not feel threatened or put upon by the hospital or by the manager or what have you… The manager did like check in with me in a few days just saying, "Oh, hang in [there]." (Iris)

> He (nurse manager) was [supportive]. He [was] not supportive in like "it's okay, it's going to be okay," but supportive in like he didn't fire me or yell at me, and he could have done both. (Maggie)

Support from coworkers played a central part in helping participants cope. Most participants reported experiencing only positive support from other nurses. Perceiving that coworkers were "very supportive," and hearing words such as, "that could have happened to anybody" from a trusted colleague, was comforting and helped participants cope and move forward.

> Other nurses were very supportive and basically said, "I've been there, I know how you're feeling." So that helped me, I guess, with my emotions. I felt like I wasn't the only one that this had happened to. (Kathy)

> I would not have any of the success that I've had with nursing if it wasn't for [my preceptor] and that's because he was a supportive person. He was a hard, fair person…When I [did] something, I hated to be the one to tell him, but I knew that he would tell me exactly what I needed to do and he would make sure that I improved my process so that I didn't do it again. But most of all he'd support me, whether I was right or wrong, he'd support me and that was really what helped me get through a lot. (Mark)

> My peers that had been on with me that day were all like, you know, "The patient's okay, stuff happens. Like the fact that you told people is good," and so I had *no* negative feedback. (Snow)

Several participants described support they received from individuals outside of their work environment. One participant specifically mentioned praying to help her cope with the experience.

> I relied on help from like friends, family and like teachers that I knew that I had good relationships with. They like listened to me and stuff. So it was really good to have those relationships with people to try and get through it. And I decided that I needed to find a counselor. I was like I have to find a counselor because I know if anything else happens they will help me through this. (Sandra)

> It just took a whole, really like a whole lot of praying. Like okay, if I'm really supposed to be in this (be a nurse) and if I really have to be here, like I have to have the capacity to like continue on, like through this and um, and then be able to channel it into something good. (Snow)

> It bothered me for a long time. I called a friend…and talked to her about it…and she's like, "No, no don't worry- it's okay"… I was crying and she had luckily picked up the phone right away, and I explained to her about how I felt and what had happened and she was really reassuring to me. (Grettle)

"I am being thrown under the bus"

Although most participants described experiencing helpful encouragement and support from others, four nurses discussed the negative responses they encountered from nurse managers and coworkers.

> I remember thinking, wow, I feel like I am being thrown under the bus. I've been here a month, my manager's not standing behind me. My preceptor stood behind me but because she was kind of getting smacked on the hand too…I never felt like okay, we are here for you. What happened? What's your side of things? It was more like, this happened [so] you have to go here, you have to explain what happened. It was not a real nurturing [experience]. (Rebecca)

> I don't want to say the wrong thing and then get thrown under the bus because I don't know how the hospitals going to support me or stay behind me, and I was concerned about it…I remember my boss looked at me, and just the way she started this conversation just really makes me mad looking back on it because like she was trying to get me to say something wrong, like make me mess up or say something wrong…I couldn't believe how I felt like my boss was so unsympathetic about *everything* and didn't care. (Sandra)

> I had no real follow up or support by my manager or anything… And then what *really* upset me was [a doctor's] wife was working [with me]…and [we] respected each other; and now when that happened, she was different towards me, and that hurt me too. It was

like, I did this really bad thing, and maybe somebody's gonna [*sic*] sue their group, and I felt very uncomfortable around her…She would come over and talk to the nurse she gave report to… right in front of me, whispering about the scenario and what had taken place and, right in front of me, you know…I didn't really appreciate that. (Grettle)

The nurses that were on (working) were more seasoned nurses, and I was just, "What are they gonna [*sic*] do? Are they gonna [*sic*] fire me?" And they were hot, they were mad, they were, "I don't know, maybe"… They were mad at me. They said… "You know better, you know better." (Maggie)

Theme Four: "*I still think about it*"

In the last theme, "*I still think about it,"* participants described how intrusive memories left by the "little scar" continued to invade their thoughts months to years following involvement in the nursing error. Although the emotional distress may have decreased over time and intrusive thoughts may be occurring less often, nurses were not able to completely forget the incident and how significant the impact was on their nursing identities.

I mean I still think about it, it's weird, you know. I'll just be in bed you know at night or something- "remember that time?" It's getting less painful…cause he didn't die or anything. (Grettle)

I had an error, and now it was almost three years ago, and to this day I still think about it when I'm getting patients ready for whatever I'm doing. (Snow)

> Those are the two [errors] that stand out in my head that I think of almost daily- that have shaped the way I practice and the way that I live as a nurse. I constantly think about what was the deviation, what was the change, what was the thing that made [me] move away from the right thing to do, and when I can't come up with an answer that's good enough for myself, there's a whole lot of self-loathing that comes from it, even today. (Maggie)

> I still think about it, you know, whenever I get a patient in [that room] I look at that room… and I just take a deep breath and I think about the whole thing and I'm sad about it… you don't want the one negative thing to overwhelm all the positive things in your life, but sometimes you just can't get a grip on it, and it overtakes you… So I think about it. I don't want something bad else [*sic*] to happen. (Sandra)

Reflecting on the nursing error and still thinking about it after months, and even years for most of the participants, reminded the nurses how deeply they wanted to avoid involvement in another nursing mistake.

> I remember this mistake I made and how I felt, [and] there's no way I'm gonna [*sic*] do that [again]. (Mark)

> [You] just don't want to like catch yourself in that spot again. (Iris)

> It feels like it's something that can happen and be right around the corner so there's this, um sort of fear and anxiety or vulnerability that it *can*. You don't want ever to go through that again. You don't want it to happen even if nothing bad happened. (Florence)

Within the theme "*I still think about it"* are two identified subthemes: (1) *"it changed my life"* and (2) *"turned to help others."*

"It changed my life"

The subtheme *"it changed my life"* is a subtle element of the theme "*I still think about it"* and relates to how reflecting on the nursing error has changed how participants currently practice as a nurse. Whether or not a patient was harmed, nurses wanted to avoid the feelings they had experienced following their described nursing errors, and they learned lessons and maintained changes to their nursing practice in an effort to prevent future occurrences. The error served to make nurses "more hyper vigilant," "very stubborn about being careful," "follow those cardinal rules," and "pay attention to *every* detail" because they realized an error "can happen so easily." Mark stated that the thing that stayed with him, "is that mistakes really can be learning experiences if we let them be," and Maggie stressed that what can be learned from a mistake "is more powerful than anything you'll ever learn from blue skies and clear days."

Participants all described making a nursing error as a negative experience, however, many acknowledged their nursing practice positively benefited from the experience.

> I think *that* experience was negative for me at the time, but was helpful long term in my career because I just wanted to not do anything that was going to harm anybody and put anybody at risk because of *my* miscalculation or *my* error. (Kathy)

I double-check everything I'm doing… and so even though it was a negative experience, and it was a crappy experience, um, I feel like that has helped me take time in what I'm doing with my patients now and protect my patients now. (Snow)

Do I really need to be a nurse? At the time I questioned that but then after that, I think in the long run it helped me. I mean it, I think it made me a better nurse because it made me more aware of what was a relatively…*safe mistake* to make to learn a lesson. (Rebecca)

Several participants described the changes in their practice following the nursing error as being extreme in nature:

I'm so over the top. I think I was over the top before, but I think I'm even more over the top now with everything because I want to make sure I do everything right. It's changed my life. It's changed how I am with patients, and it really might change what type of field I might go into in the future. (Sandra)

Oh I'm anal. So anal it's ridiculous. People make fun of me…I mean it's, some of that is just vigilance and appropriateness, and some of it is, "I've made a boo-boo in the past and I never want to make a boo-boo again." Now is that reasonable? No, I mean, no. But will I do everything I possibly can to prevent something from happening? *Yes*! (Snow)

"Turned to help others"

The subtheme *"turned to help others"* is another component of the theme *"I still think about it,"* and it relates to how nurses share the lessons learned with other nurses to help them avoid making their own nursing errors or to help support nurses who become involved in a mistake. The "little scar" remained from the emotional trauma these participants experienced, and they wanted to share what they had learned to prevent emotional injury caused by nursing errors in other current and future nurses. Personal testimonies were shared with others on the patient care unit and at the organizational level in a process change committee to help protect patients from harm, to prevent other nurses from becoming involved in an error, and to provide support for erring nurses.

> I *have* to think that even though, I mean I would still feel ashamed if I did another med error, [but] that somehow it could be turned to help others in the future. (Iris)

> I've shared that story and several others of experiences I had. I like to try and teach the new nurses things to try, for them to avoid errors. (Ralphie)

> If you screw up and you can't learn from it or you can't teach others from it, it's worthless. So that was definitely part of coping. (Snow)

> After that one I would have students that I would precept, [and] I was like, "Okay, so…" and I would *tell them*. I mean it was a bad mistake, but I would rather somebody learn

> from something I did then them have to do it, and it happen to another patient, so I always told it. (Rebecca)

> I think that some people may be embarrassed to recant their mistake; I used it as an example throughout that whole process [change]. "I did this. I feel like a fairly smart guy. How many other people are doing it, and what if you guys aren't hearing about them?" (Mark)

Summary

The challenging world of the patient care unit served as the contextual ground in which involvement in an unintentional nursing error occurred. A total of four interconnected themes emerged from the 12 participant interviews within the encompassing theme of "*it's a little scar*." In this central theme, nurses described the adverse event as a traumatic experience, and it resulted in an emotional scar that, although often hidden from others, remained a part of their nursing identity. After discovery of the error, nurses accepted responsibility despite external contributing factors, and they experienced psychological responses to the event, such as fear and guilt. In addition, many participants also reacted with intense physical symptoms.

Feelings of inadequacy, self-doubt, and loss of self-confidence plagued the participants, and they worried about what others thought of them and their nursing abilities, contributing to the intensity of the "little scar." The response from others in the world of the patient care unit also impacted the emotional scar. Participants viewed positive support from colleagues, nurse managers, and physicians as crucial in their emotional recovery. Those encountering negative responses from others had a difficult time understanding what they perceived as an

"unsympathetic" attitude from those who should have been "standing behind" them after the error.

Although the emotional distress diminished over time, participants described how intrusive thoughts and memories continued even years after the error occurrence. The "little scar" was a silent reminder that helped push the erring nurses to make positive changes in their nursing practice and that encouraged them to share their experience with others in an effort to prevent future errors.

After analysis of all 12 transcripts, the essence of a registered nurse's experience of being directly involved in a nursing error may be summarized in the following manner:

> I became a nurse because I wanted to help people, and I take my nursing role seriously. It's a huge responsibility because patients' lives are literally in my hands. Unfortunately, the patient care unit world is full of challenges that can make it difficult for me to provide safe patient care all the time, and since I'm human, mistakes are going to happen. When I realized I had made a nursing error, I remember how terrified I was for both my patient and myself. Did I harm my patient? Am I going to get fired? What do others think of me now? After the error was discovered, my nursing identity was shaken, and I wondered if I was even competent to be a nurse. Others in my work environment were mostly supportive which helped me cope after the event. Involvement in the incident was an eye-opening experience, and it changed the way I practice as a nurse. The nursing error left behind a little emotional scar, and I still think about my mistake even today.

Chapter 5

Discussion

Registered nurses involved in an unintentional nursing error, whether or not a patient suffers injury, are often traumatized by the adverse event and are considered second victims of the unanticipated mistake (Scott et al., 2009; Wu, 2000). These second victims of nursing errors often experience an intense emotional response that can affect their personal life and their professional nursing career (Rassin et al., 2005; Scott et al., 2009; Sirriyeh et al., 2012). Although related medical and nursing literature have demonstrated that health care professionals are indeed affected by involvement in errors while caring for patients in the challenging healthcare environment, the literature does not offer the meaning of involvement from nurses with direct experience as a second victim. Therefore, the purpose of this study was to describe the lived experience of nurses as a second victim following involvement in an unanticipated nursing error. The specific research question developed to acquire understanding of this phenomenon was: How do nurses involved in an unintentional nursing error perceive and describe their response to the experience as a second victim? The findings revealed in the rich descriptions of nurse participants' experiences with a nursing error are discussed in relation to previous literature, and implications for nursing education, nursing practice, and nursing policy are presented in the sections below. The chapter concludes with suggestions for future research and the strengths and limitations of this study.

Themes and The Literature

Regardless of the type of nursing error, the years of nursing experience at the time of the mistake, the number of years passed since the error occurred, or the type of patient care unit

where the error took place, participant responses were similar. The encompassing theme of "*it's a little scar*" represents the overall experiences of nurses who have personally been involved in a nursing error, and each of the figural themes described in Chapter Four provides some insight into the characteristics of the emotional scar left behind.

Merriam-Webster Online Dictionary defines a scar as a "mark left by the healing of injured tissue" or " a lasting moral or emotional injury"; used as a verb, scar means to "cause someone to feel great emotional pain or sadness because of a bad experience" (Scar, 2013). In this study, participants described how involvement in an unanticipated nursing error left them emotionally scarred. Unlike physical scars that can often be easily discovered, these emotional scars are often hidden and unseen by others. In addition, based on the narratives and the anxiety noted during the interviews, these scars never fully disappear. Even participants who thought they had resolution and had healed from their experience were surprised that the incident still had an effect on them even after many years had passed. Over time these emotional marks may have become less evident, but they appeared to remain part of the "body subject" and influenced the nurses' professional identities.

These scars were reminders of the nurse's imperfections in the nursing role and his or her failure in reaching the goal of preventing patient harm. The findings of this study support Arndt's (1994) research that nurses identify themselves as being accountable for the welfare of their patients and being responsible for individual nursing actions. Because "a certain order has been broken" (Arndt, 1994, p. 524), such as a policy/procedure/guideline not followed or a break in the code of ethics to do no harm, the erring nurse becomes emotionally scarred. These emotional wounds remind the nurse where he or she has been and the positive lessons learned

from the unintentional event. The emotional scars are gentle reminders of what happened in the past, which helped guide the participants toward positive practice changes and increased alertness to help hopefully prevent mistakes in the future. Each of the four figural themes contained in the central theme of "*it's a little scar*" add insight into some of the different details of this emotional scar.

In the theme "*that was a traumatic experience*," participants detailed how they were traumatized after direct involvement in an unintentional nursing error. Based on the Scott et al. (2009) definition, these participants endured emotional distress following the nursing error and thus meet the criteria to be considered second victims. The participants in this study were no different than the nurses in previous studies in that they acknowledged responsibility for the error, they felt internal turmoil following this acknowledgement whether or not the patient was harmed, and they perceived they had let their patient down (Scott et al., 2009; Scott et al., 2010; Treiber & Jones, 2010).

Previous literature identified six second victim trajectory stages that nurses work through following an error (Scott et al., 2009). All participants in this study appeared to move through these stages to some degree, providing supporting evidence for the accuracy of this trajectory. As detailed in the theme and subthemes of "*that was a traumatic experience*", participants experienced turmoil, which many participants described as a time of "panic" when awareness of the error occurred. These nurses anguished over the potential harm to patients and worried about the "what ifs" that could have potentially happened. Soon after discovery, participants moved toward the second trajectory phase where questioning of abilities and feelings of inadequacy began to consume their thoughts, as noted in the theme "*My god, am I still competent?*". They

found themselves replaying the steps leading up to the event often over and over again before beginning to attempt to restore personal nurse integrity in the third stage of the trajectory. As described in "*They did not treat me bad,"* participants primarily found encouragement from nursing colleagues who were able to relate to the experience and understood how the erring nurse was feeling. Participants who experienced negative responses from others, which may have affected the restoring of personal integrity, was described in the theme "*I am being thrown under the bus*." In stage four, many of the participants expressed worry and fear of the consequences they might face due to involvement in the error in the subtheme "*it's the worse fear I've ever felt.*" The fifth trajectory stage in which second victims begin searching for emotional support was the least supported trajectory stage in this study. Few participants spoke of actively seeking out others for emotional support, although three participants did describe seeing a professional counselor and a few others talked to a friend or family member to help them cope. One specifically recalled "praying a lot" after the incident to help her cope.

Based on narratives in this study, participants may be classified as "dropping out", "surviving", or "thriving" in the final trajectory stage. Of the 12 participants, three of them changed professional nursing roles or transferred to different practice areas and "dropped out" after their error; all three were new graduates at the time of their error. Although intrusive thoughts of the error continue to impact them, four of the participants were "surviving" or "doing okay." The other five participants would be considered "thriving" based on the trajectory definition. These individuals were most verbal about turning a bad experience into a learning experience and moving forward in a more positive way. It is interesting to note that participants involved in an error prior to a patient's demise and ultimate death either "dropped out" or were

simply "surviving". All those "thriving" involved only errors that did not involve patient injury or death.

Theme One: "*That was a traumatic experience*"

In the theme "*that was a traumatic experience*," participants discussed how deeply distressing it was for them following discovery of the nursing error. The participants in this study were no different than second victims in earlier literature in that involvement in the error contributed to a decreased professional identity, depression/sadness, job changes, fear, and even symptoms of post traumatic stress disorder for several of the nurses involved (Arndt, 1994; Denham, 2007; Rassin et al., 2005; Schelbred & Nord, 2007; Schwappach & Boluarte, 2008). Also consistent with previous research, participants described intense reactions even for minor nursing errors in which no patient harm resulted (Schelbred & Nord, 2007; Scott et al., 2009; Treiber & Jones, 2010). There were no obvious differences in the painful emotions described by participants based on the severity of the error, and despite the passing of time for many of the participants since their error, it was evident that just talking about the experience still evoked internal turmoil, much like the participants in Treiber and Jones' (2010) study.

Unlike previous research that suggested female health care providers show more distress then their male counterparts (Waterman et al., 2007), there were no pronounced differences in participant narratives based on gender in this study, although further nursing research regarding gender differences is warranted. Specific causes of increased distress, such as having to communicate with physicians, nurse managers, and hospital leaders following the error as well as the uncertainty several participants faced regarding how the error contributed to their patient's demise, were also less evident in the literature. In addition, the specific physical reactions

described by participants in the subtheme "*my stomach was in knots*" were not addressed by previous studies in both the medical and nursing literature.

From all previous medical and nursing literature reviewed in Chapter Two, the most frequently reported internal negative emotions experienced by health care providers following an error were remorse, guilt, anger, inadequacy, depression, and embarrassment. During interviews, various participants in this study also described experiencing these same emotions. In studies involving nurses, guilt was the most common negative emotion reported (Crigger & Meek, 2007; Rassin et al., 2005; Wolf et al., 2000), and although several participants in this study directly mentioned the concept of guilt, most participants alluded to guilt in an indirect manner. Several talked about how "bad" they felt for committing the error, for potentially harming their patient, and for letting others down. Instead of guilt, the most frequent emotional response among participants of this study was fear, which is described in the subtheme "*it's the worst fear I've ever felt.*" One previous multidisciplinary study identifies fear of disciplinary action, fear for the patient, and fear of punishment as the highest concerns among HCPs following a serious medication error (Wolf et al., 2000). In addition to these fears, participants in this study also expressed fear of what others thought of them, fear of having to contact the physician, and fear of making another mistake.

A third subtheme of "*that was a traumatic experience*" was "*it was my error…it was totally mine*." Professionals in health care display a strong sense of responsibility related to mistakes involving patients (Engel et al., 2006; Penson et al., 2001). A number of studies in the nursing literature found that nurses tend to blame themselves and seldom try to shift the blame even when external factors played a major role in the mistake (Arndt, 1994; Jones & Treiber,

2010; Meurier et al., 1998; Schelbred & Nord, 2007). All participants in this study acknowledged involvement and accepted responsibility for their nursing error, even when faulty system processes or other issues contributed to the mistake. One study found that although nurses generally blame themselves, they often attribute blame to inexperience or lack of knowledge (Treiber & Jones, 2010). Several participants in this study stated, "I didn't know" when describing their experience, especially if the nursing error occurred as a new graduate nurse, while participants with years of nursing experience often stated, "I should have known."

Also under the subtheme "*it was my error… it was totally mine*," many participants described reporting of the nursing error. Most participants in this study stressed the importance of reporting the error to management instead of "hiding" the error, mainly due to the potential for patient harm; however, disclosure of the error to the patient and/or family was done in only three of the 16 (19%) reported error incidents, and only one participant personally told the patient and family member and openly apologized. Disclosure to the patient and/or family varied in the available literature with one nursing study reporting a 90% disclosure rate (Schelbred & Nord, 2007), while another nursing study reporting only a 15% disclosure rate (Rassin et al., 2005). House officers in Wu et al. (1991) study and emergency medicine residents in Hobgood et al. (2005) study reported a 24% and 36% disclosure rate respectfully. Denham (2007) proposed in the Five Rights of the Second Victim that a non-punitive environment is critical in improving patient safety through disclosure of errors and in minimizing the negative consequences for those directly involved in the error. Participants in this study expressed many of the same reactions, emotions, fears, and concerns whether or not they worked in a non-punitive, or "just culture"

environment, and there was no indication in the narratives that a punitive environment played a role in the decision to report and/or disclose the error.

Theme Two: "*My god, am I still competent*?"

Theme Two described participants feelings of inadequacy, self-doubt, and loss of self-confidence following involvement in a nursing error. The participants made self-depreciating comments, often using the term "stupid", repeatedly questioned their abilities, and wondered if they had chosen the wrong career path. Previous medical and nursing studies echoed these same findings, although with less specific detail from study participants (Crigger & Meek, 2007; Engel et al., 2006; Hobgood et al., 2005; Schelbred & Nord, 2007; Waterman et al., 2007). Also in this study, the feelings of insecurity often led to unhelpful behavioral changes in daily practice that increased workloads and stress levels. These defensive changes included avoidance of similar types of patients, spending excessive time rechecking orders and medications, and obsessing over the possibility of making another mistake. However, in previous literature few studies focused on these defensive changes in nursing practice compared to the constructive changes nurses often made following involvement in an error (Seys et al., 2013).

Theme Three: "*They did not treat me bad" – "I am being thrown under the bus*"

Participants described both positive and negative responses they received after discovery of their error, and the reactions from others played a critical part in each participant's ability to move forward following the nursing error. As in other studies, supportive reactions from coworkers, colleagues, and/or management were vital to emotional recovery (Aasland & Forde, 2005; Arndt, 1994; Schwappach & Boluarte, 2008; Scott et al., 2009). Most participants verbalized experiencing positive support, as discussed in the theme "*They did not treat me bad,"*

and they noted how important it had been for them to be treated with compassion and understanding by colleagues and those in nurse leader roles.

The importance of treating second victims with respect, compassion, and understanding was a major focus in Denham's (2007) Five Rights of the Second Victim; providing psychological support was also strongly encouraged. No organized psychological support was offered by any health care organizations to any of the participants of this study. In fact, the nursing error was seldom ever brought up again by management or anyone else after the initial discussion; the erring nurse simply suffered alone in silence unless he or she took the initiative to talk to someone about the experience. As mentioned in the second victim trajectory, three nurses eventually sought professional counseling to help them cope with the traumatic event. In this study, participants most often sought assistance from coworkers and colleagues, and they found comfort and encouragement when colleagues shared their own stories of previous mistakes they had been involved in. This finding supported Engel et al. (2006) research that found talking with family and friends was less important in coping than talking with other colleagues. These findings differ from Rassin et al. (2005) study in which nurses most often sought support in the first month after the error from family and friends.

In previous literature and in this study, not all reactions from colleagues and other health care members were considered supportive which may have contributed to higher distress levels (Rassin et al., 2005; Schelbred & Nord, 2007; Waterman et al., 2007). As discussed in "*I am being thrown under the bus*," participants felt unsupported at times by nurse managers and coworkers. They found them "unsympathetic" and uncaring. Rassin et al. (2005) noted negative

reactions from physicians toward erring nurses in their study, but only one participant in this study experienced an unsupportive reaction from a physician.

Theme Four: "*I still think about it*"

In the final theme, "*I still think about it*," participants discussed that despite the passing of time, intrusive thoughts about the nursing error continued to plague them. Some thought of the error "almost daily" while others admitted not thinking about it for years. In all cases, participants admitted that although it was "getting less painful" to think about, total resolution eluded them. However, these memories were not always deemed negative because they often reminded the nurses of how strongly they wanted to avoid potentially harming another patient. These findings support several previous studies related to nurses' reactions following medication errors. Nurses in Schelbred and Nord's (2007) study reported that "the anguish lessened" (p. 321) as time passed, but the impact of their medication error remained with them and affected their nursing practice. Participants in Rassin et al. (2005) study expressed their inability to totally forget the error, with some noting frustration that it "still lingers on" (p. 882). Treiber and Jones' (2010) research also noted nurses reporting long-lasting memories even years after the mistake occurred, but this often served a beneficial purpose of helping prevent future errors.

In "*it changed my life*" and "*turned to help* others", subthemes of "*I still think about it*," participants shared lessons learned and specific practice changes they made following their error to help avoid being involved in another mistake. Participants noted that learning from their error and sharing the experience with others assisted in coping and helped them view that something positive resulted from a negative experience. As in Treiber and Jones' (2010) study, most lessons learned were more on an individual level then on a system or organization level; only one

participant in this study contributed to policy change at an organizational level by serving on a medication administration process improvement team. Most practice changes reported in this study were: (a) seeking advice and help more frequently from colleagues; (b) being more vigilant by paying more attention to "every detail"; (c) taking time to double-check, even when the day was busy; (d) increasing education; and (e) closely following policy and procedures, including identifying the patient and always checking the five rights of medication administration. These findings are similar to the results found in Chard's (2010) research involving intraoperative nursing errors in which 81% of nurses paid more attention to detail following their error, 78% followed policy and procedures more closely, 66% rushed less when caring for patients, 60% sought advice more often from others, and 60% observed patients more closely.

Nursing Implications

The findings of this study offer insight into the second victim phenomenon from a nurse's point of view. Knowledge gained from this research study adds to the nursing literature and has relevance to nursing education, practice, and health policy. The following recommendations are applicable to student nurses, registered nurses, and nurse leaders who may personally commit a nursing error and/or who may be available to provide support to a colleague involved in an unintentional nursing mistake.

Education

Several suggestions about education related to nursing errors and providing assistance to second victims are supported by the findings of this study. First, findings emphasize the need for the topic of nursing errors and the second victim phenomenon to be taught in undergraduate

nursing curricula. The expectation of perfection while performing patient care begins early in the nursing career, most likely during the student nurse's schooling years. Since perfection is unobtainable, nurse educators have an obligation to prepare students for this reality.

Currently, no specific research involving only student nurse errors has been conducted; however, the Institute for Safe Medication Practices (ISMP), a federally certified patient safety organization, noted that student nurse-related errors do occur "despite close supervision by their clinical instructors" (ISMP, 2007). In addition, Martinez and Lo's (2008) analysis of medical student essays found that students experience distress and uncertainty after error involvement, and some students reported the distress was never addressed further. Since students can experience involvement in a nursing error, training regarding nursing errors and second victims should be part of both the classroom and clinical setting. Courses could include information regarding not only how to best prevent nursing errors, but also include how to appropriately respond by reporting the error and disclosing to the patient and/or family, whether or not a patient was harmed. Providing specific examples and inviting nurses who have suffered as second victims to speak might be an effective way to help educate the next generation of nurses.

Adding this topic to undergraduate nursing curricula would benefit the nursing student in several ways. This proactive approach would give the student a heightened awareness of the potential for mistakes in the patient care world and would better prepare them should an unanticipated error occur. Although this present study did not include student nurse participants, many of the described nursing errors occurred when participants were new graduate nurses. Treiber and Jones' (2010) study also noted that nurses frequently described errors they made while a new graduate. Therefore, this teaching method during an undergraduate program would

also provide invaluable knowledge as the student nurse transitions into the work environment as a new graduate nurse.

Findings of this study also highlight the need for professional development among staff nurses and nursing administration on how to appropriately respond to fellow nurses who become involved in a nursing error. Previous literature and findings in this study support the importance of positive responses toward second victims from both colleagues and nurse managers to help them cope and move forward in their nursing career following an adverse event (Aasland & Forde, 2005; Arndt, 1994; Penson et al., 2001; Schwappach & Boluarte, 2008; Scott et al., 2009; Scott et al., 2010).

To ensure staff nurses and nurse leaders have the knowledge needed to effectively assist a second victim, adequate education must be provided. The themes discovered in the narratives of this study could be integrated into a nurse education program designed to help promote increased awareness of the second victim phenomenon for both staff nurses and nurse leaders. Providing this type of training could better ensure that staff are available and able to provide initial and ongoing support to nurses who may be traumatized by involvement in an error. As Edrees, Paine, Feroli, and Wu (2011) noted, health care organizations cannot require staff to utilize support services, such as an employee assistance program (EAP), but they can provide education to staff on specific symptoms a colleague may have and how to help a coworker who may have been involved in a mistake.

This type of educational program would benefit the erring nurse by providing emotional support that may assist them toward a healthier emotional recovery; basically helping them "thrive" instead of "dropping out" or simply "surviving" as noted in Scott et al. (2009) trajectory

of recovery for the second victim. Patients and the health organization as a whole may also benefit by having a healthier nursing workforce instead of having nurses suffering in silence due to unresolved distress from previous nursing errors.

Practice

The findings of this study have noteworthy implications for nursing practice, and practicing nurses may use these findings to provide insight regarding the potential impact nursing errors may have on those involved. Staff nurses would benefit by completing a formalized educational program, as described in the previous section, and then effectively putting the knowledge gained into practice to help facilitate positive support and coping for other nurses following an error.

Although staff nurses do have an important role to play in supporting fellow nurses involved in a nursing error, based on this study's findings, much responsibility rests on the shoulders of nurse managers and other nurse leaders. This responsibility includes incorporating strategies to decrease the chance of errors from occurring in the first place as well as proactively making preparations and actively supporting nursing staff who commit an unintentional error and are traumatized by the event. To decrease the chance of an error occurrence, nurse managers must be vigilant in assessing the world of the patient care unit for adequate staffing resources, for realistic expectations for nurses, and for inefficient or unsafe practices or processes. They must also promote a non-punitive approach to mistakes to help encourage honest reporting and disclosing of any errors to the appropriate individuals, whether or not patient injury resulted. In addition, nurse leaders are accountable for assuring that new graduate nurses and other inexperienced nursing staff are adequately prepared for patient care specific to the unit prior to

releasing them from orientation. Preceptors should be cautioned to provide adequate oversight to trainees, particularly to new graduates, for procedures these nurses may not be proficient performing or when dealing with high alert or new medications.

All nurse leaders need to review the work environment in an objective manner and approach hospital administration when appropriate to provide justification for staffing or process changes in the name of patient safety and quality care. In doing this, staff nurses may feel less "overwhelmed", less "overloaded", and not "set up to fail." This, in turn, could possibly decrease the chance of errors in the world of the patient care unit, ultimately resulting in fewer second victims.

The literature, along with participant narratives in this study, supports that nurses often do suffer both physical and emotional distress following an error, and they need encouragement and support to help them deal with the traumatic event. Leaders in nursing have a moral and ethical responsibility to provide positive support to nurses on the front lines who have been directly involved in a nursing error. This includes a commitment to obtaining the support resources needed as well as making sure erring nurses are treated with compassion, understanding, and respect at all times, as Denham's (2007) Five Rights of the Second Victim describes.

To increase awareness of second victims and to ensure adequate support is available, nursing leaders must advocate for financial resources to provide education and training of all nursing professionals. Findings regarding positive support following recognition of an error suggest that it is critical that colleagues at the departmental level know how to appropriately respond and/or detect signs of ongoing distress among nurses involved in an unintentional

nursing error. Participants in this study expressed that it was coworkers telling them "I've been there and know how you feel" and "it happens to the best of us" that often helped them find the motivation to return to work and begin rebuilding self-confidence levels following discovery of the mistake. In addition, nurse leaders must ensure that professional assistance is also available and encourage erring nurses to seek these additional services when other forms of coping at the departmental level are insufficient.

Findings in this study support that the way participants were treated by others, particularly nurse managers, played a vital part in how they coped with their nursing error. Based on these results, it is important in nursing practice that nurse managers and other nurse leaders are aware of how the nurse is approached initially following the mistake as well as in the days, weeks, and in some cases months or years ahead. Any nurse involved in an error should be reassured and encouraged by the manager to help calm specific fears, such as fear of job loss, and follow-up information should be communicated to the erring nurse regarding the patient's condition and the outcome of any investigation. Involved nurses should be allowed to take responsibility for the error, but they need to understand from management that faulty processes account for most errors (Crigger, 2005). Therefore, nurse leaders should include involved nursing staff in formulating solutions for future error prevention and provide opportunities for nurses to share lessons learned with others to help facilitate constructive coping.

Health Policy

The findings of this study help clarify some areas of concern in health care policy related to nursing errors and second victims. One important area within policy that should be addressed is that of psychological support for nurses who are traumatized by involvement in a nursing

error. Historically, much of the focus has been placed on the causes of errors, the reporting of mistakes, and putting strategies in place to try to prevent errors from occurring. Unfortunately, little organized support has been offered to nurses following an adverse patient event. Addressing the emotional needs of nurses as second victims needs to become part of national, state, and local patient safety and quality improvement initiatives.

Available literature indicates that nurses are emotionally traumatized after committing a mistake, even if a patient is unharmed by the mishap, and this is supported by the findings of this study, particularly in the central theme of "*it's a little scar*" and in the themes "*that was a traumatic experience"* and "*I still think about it.*" Although no specific studies including nurses only have been conducted, Schwappach and Boluarte (2008) discovered that anxiety levels were much higher among erring physicians when organizations were regarded as unsupportive following an error. Participants in this study specifically noted in the theme "*They did not treat me bad" –"I am being thrown under the bus"* that, although their situation was stressful, they perceived it would have been even more distressful if they had received negative responses from others. Therefore, it is crucial for health care organizations to ensure policies are in place to provide positive support for nurses at all levels of the organization. Policy and procedures and support mechanisms accounting for immediate to long term support should be developed and implemented to aid second victims. Training nursing staff and leaders using an established formal program, such as Scott et al. (2010) *forYOU Program* or the *Medically Induced Trauma Support Services* (MITSS) program, may assist organizations in establishing successful support strategies for second victims at the department level as well as helping ensure professional counseling and assistance are available for nurses suffering more severe emotional turmoil.

In addition to establishing a more formalized program to provide assistance to second victims, health care organizations need to incorporate policy that provides opportunities for nurses who have been involved in a nursing error to help formulate solutions to faulty work systems and allow input regarding policies, procedures, and process changes that relate to second victims and/or patient care affecting nurses as a whole. As described in the subthemes "*it changed my life"* and *"turn to help others*,*"* nurses who have experienced a nursing error directly are affected by the incident, often resulting in constructive practice changes that potentially help prevent future errors. Creating a work environment that values and encourages these second victims to share their traumatic experience and become involved in process improvement committees may help the erring nurse cope with the experience and help reestablish self-confidence levels.

Another important policy implication of this research was revealed in the subtheme "*it was my error…it was totally mine*", and it related to the need for a true non-punitive or *just culture* environment within health care organizations. Punitive cultures may discourage error reporting and disclosing of errors, increase feelings of fear related to making a mistake, and result in more emotional distress for the erring nurse (Crigger, 2005; Wolf et al., 2000). Non-punitive environments, on the other hand, promote reporting and disclosure, tend to actively pursue addressing faulty system processes, and are more willing to provide opportunities to erring nurses to help formulate solutions after an error occurs without the fear of retaliation (Armitage, 2009; Crigger, 2005; O'Connor et al., 2011). Although reporting and disclosing an error may create anxiety for the nurse involved, research findings maintain that overall the

outcome is less emotional distress for the nurse directly involved and the likelihood of a future error is reduced (Wu, 2000; Wu et al., 1991).

Since the literature supports that a non-punitive environment may play a vital role in the reporting and disclosing of errors, pushing for local, state, and national policy to help ensure *just cultures* are prevalent within health care systems is crucial to decreasing the number of health care errors, and thus hopefully minimizing the possibility of a nurse becoming a second victim. Just culture environments are also of the utmost importance in assuring that nurses involved in nursing errors will be treated fairly, respectfully, compassionately, and that adequate psychological support will be provided (Denham, 2007).

Recommendations for Future Research

Based on the findings of this study, there are two theories that appear to be useful for adding knowledge to this important nursing issue. The first framework is Lazarus and Folkman's cognitive-relational theory of emotions and coping (Lazarus & Folkman, 1984, 1987). In this process-oriented theory, cognitive appraisal, coping, and emotions are the primary foci (Folkman & Lazarus, 1990; Lazarus & Folkman, 1987). Cognitive appraisal is a process of categorizing a person-environment encounter and its numerous aspects with respect to the encounter's significance for the well-being of the individual involved (Lazarus & Folkman, 1984). Lazarus and Folkman (1984) defined coping as constantly changing cognitive and behavioral attempts to try and handle specific external and/or internal demands that are considered stressful or exceeding the individual's resources. Historically, coping has been regarded as a response to emotion. This theory, however, proposes that coping and emotion have a multidirectional relationship (Folkman & Lazarus, 1990), and coping plays an essential role in

the emotion process (Lazarus, 2012; Lazarus & Folkman, 1987). Emotions are defined as "complex, organized psychophysiological reactions consisting of cognitive appraisals, action impulses, and patterned somatic reactions" (Folkman & Lazarus, 1990, p. 315).

In this theoretical framework, cognitive appraisal, coping, and emotions all work together as a unit, and the quality and intensity of the emotions are driven by the patterning of these three components (Folkman & Lazarus, 1990). Participants of the present study identified involvement in a nursing error as "a traumatic experience" which started a behavioral flow that included appraisal of the situation as a significant encounter for the nurse's well-being. This appraisal resulted in a psychological and often physical bodily response, as noted in the subthemes "*my stomach was in knots*" and "*it's the worst fear I've ever felt*." The appraisal also resulted in the use of problem-focused and/or emotion-focused coping as described by participants in theme three, "*They did not treat me bad" – "I am being thrown under the bus*," in the fourth theme, "*I still think about it*," and in the subthemes "*it changed my life*" and "*turned to help others.*"

Applying a theory of social support in a future study is also supported by the findings of this study. Participants described how others, such as but not limited to coworkers, nurse managers, family, and counselors, played an important role in how they coped after making a nursing error. Using a theory of social support could provide the theoretical framework needed to better understand the relationship between coping and social support so an effective intervention plan could be developed and implemented to help second victims achieve closure and help successfully heal their emotional scar. Also, since literature supports that female physicians responded differently to mistakes involving patients (Waterman et al., 2007), future

research utilizing a theory of social support could help determine if specific forms of support need to be individualized based on gender.

In addition to the theory driven research noted above, several other areas related to this topic show promise in adding to the nursing knowledge base through future research. First, as nursing begins to implement education and specific programs to assist second victims, such as the *forYOU* or MITSS programs, follow-up research using a theoretical framework is needed to evaluate their effectiveness. Last, research directed at disclosure of errors and the effect disclosure has on the erring nurse may be useful in helping determine whether disclosure affects the continued distress and lack of closure clinicians in this study often described.

Strengths and Limitations of This Study

There are a number of strengths that enhance this study's value within the body of nursing knowledge. One strength was the use of Merleau-Ponty's existential phenomenology as applied to nursing research by Thomas and Pollio (2002). Since little was known about the second victim phenomenon from a nursing point-of-view, a qualitative approach utilizing a non-structured interview format and acknowledging the participant as an expert was most appropriate. Personal reflections and testimonies relating to involvement in a nursing error and the trauma experienced from nurses who have lived the experience provided valuable insight regarding how nurses are truly impacted by these mistakes. Their perceptions provide a clearer understanding of this phenomenon and help direct future meaningful research.

Another strength of the study was the incorporating of several different strategies to ensure study rigor, including interviewer bracketing prior to and during the course of the study to minimize researcher bias, and interviewing participants until data saturation was reached. In

addition, collaborating with the IRG in identifying and agreeing upon the final thematic structure, and member checking with participants after the thematic structure was determined strengthens the validity of the study findings. All eight participants who responded to the researcher confirmed agreement with the thematic structure with no suggestions for revision. This affirmation came from both new graduate nurses with recent involvement in a nursing error as well as from experienced nurses who were involved in a nursing error from within a few years up to over 30 years ago. Sandra, a new graduate, stated, "From my standpoint you are right on." Kathy, a new graduate at the time of her described error but an experienced nurse with over 28 years at the time of her interview, noted, "I have nothing to add. You have thematically captured the responses from your participants that is accurate and descriptive of the quotes you included."

Additional strengths include the diversity of nurses from various hospital units and varying years of nursing experience at the time of the described errors. Also, the varying amount of time that has passed since the error happened to the time of the interview, and the differing types of errors described helped strengthen the study. Participants were involved in a range of different types of nursing errors, mostly without injury; however, the responses to the experience were very similar whether or not a patient suffered actual harm. This diversity was desirable in order to uncover a thematic structure that was representative of nurses, from new graduates to expert nurses and from patient care units encompassing neonates to geriatric patients.

There are several limitations related to this study. Participants were Caucasian, and all but one participant was female. Nurses from different ethnic backgrounds may respond differently to involvement in a nursing error, and as already mentioned, it is not known whether gender plays a role in the response to a nursing error or the type of support needed to assist

erring nurses. No potential participants who had left the nursing profession following involvement in a nursing error expressed an interest in interviewing for this study. In addition, all participants were currently practicing nurses with nursing errors that occurred in hospital-based units only. Clinicians who have left the nursing profession or who work in other health care environments, like the home health nurses in Abusalem and Coty's (2011) study, may perceive their lived experience to nursing errors differently than nurses currently working in the acute hospital setting.

Summary

Registered nurses involved in unintended nursing errors are frequently traumatized by the event, establishing them as second victims of the mistake (Scott et al., 2009; Wu, 2000). Nurses experience internal distress following the error, whether or not the patient suffered actual harm. Only a scant amount of literature is available regarding the impact of the nursing error on the second victim from the erring nurse's point-of-view. The purpose of this study was to describe the lived experience of nurses as a second victim following involvement in an unanticipated nursing error. The philosophical lens of Merleau-Ponty provided the framework for this phenomenological study. Viewing the second victim experience using this framework and the four existential grounds of others, time, body, and world helped provide a more accurate understanding of this experience. Four interconnected themes emerged from participant interviews within the encompassing theme of "*it's a little scar*": (1) "*That was a traumatic experience*"; (2) "*My god, am I still competent?*"; (3) "*They did not treat me bad*" – "*I am being thrown under the bus*"; and (4) "*I still think about it.*" This research offers a rich understanding and an intensified awareness of what it is truly like to live as a nurse following involvement in a

nursing error. Findings from this study add to the nursing literature and have implications for nursing education, practice, and health policy. Recommendations for future research are also supported.

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Appendices

Appendix A

Personal/Professional Contact Invitation to Participate Letter

Dear "**X**",

My name is Shelia Swift, and I am a doctoral candidate in the College of Nursing at the University of Tennessee-Knoxville. As part of my degree requirements, I am conducting a research study on Registered Nurses' responses following involvement in a nursing error. I would like to invite you to participate in this study.

As you know, nurses care for patients in complex healthcare environments, and unintentional nursing errors can occur causing potential or actual harm to patients. Most research efforts related to errors in the healthcare environment have focused on the cause of errors and the development of prevention strategies to decrease or eliminate errors. Only a few studies focus on how nursing errors affect the nurses involved. I want to learn more about what it means from a nurse's point of view to be involved in a nursing error in order to raise awareness in the healthcare environment on how nurses are impacted after error involvement and to help the nursing discipline develop recommendations and implement interventions to better support nurses following an error.

I have attached the "Information Letter for Research Study" below that describes this research project in detail. If you have any questions, comments, or would like to participate in this study, please contact me via email at sswift@utk.edu or phone at (865) 591-0491.

In addition, please feel free to forward the Information Letter to others whom you think may be interested in participating.

Thank you for your interest in this research project.

Sincerely,

Shelia Swift, BSN, RN
Doctoral Candidate, UTK-CON

Appendix B

Nursing Association Invitation to Participate Letter

Dear "**Nursing Association Officer**",

My name is Shelia Swift, and I am a doctoral candidate in the College of Nursing at the University of Tennessee-Knoxville. As part of my degree requirements, I am conducting a research study on Registered Nurses' responses following involvement in a nursing error. I would like to invite members of "**Name of Nursing Association**" to participate in this study, and I am hopeful that you will consider forwarding the attached "Letter of Invitation to Participate" to all group members.

As you know, nurses care for patients in complex healthcare environments, and unintentional nursing errors can occur causing potential or actual harm to patients. Most research efforts related to errors in the healthcare environment have focused on the cause of errors and the development of prevention strategies to decrease or eliminate errors. Only a few studies focus on how nursing errors affect the nurses involved. I want to learn more about what it means from a nurse's point of view to be involved in a nursing error in order to raise awareness in the healthcare environment on how nurses are impacted after error involvement and to help the nursing discipline develop recommendations and implement interventions to better support nurses following an error.

I have attached the "Letter of Invitation to Participate" below for your review. Once you have reviewed, please consider forwarding the letter via email to all group members. If you have any questions or comments, please contact me via email at sswift@utk.edu or phone at (865) 591-0491.

In addition, if you would be interested in a short presentation on this research topic at your next professional association meeting, I would be happy to attend and share information related to nursing errors.

Thank you for your interest in this research project.

Sincerely,

Shelia Swift, BSN, RN
Doctoral Candidate, UTK-CON

Appendix C

Information Letter for Research Study

My name is Shelia Swift, and I am a doctoral candidate in the College of Nursing at the University of Tennessee-Knoxville. As part of my degree requirements, I am conducting a research study entitled "Registered Nurses' Responses Following Involvement in a Nursing Error." I would like to invite you to participate in this study.

Please note that if you have received this letter from an organization of which you are a member that this organization has NOT provided your personal information to the researcher and personal details will NOT be released by the organization to the researcher at any time. The organization in which you are a member will NOT know whether you participate in this study or not.

Title of Research Study

Registered Nurses' Responses Following Involvement in a Nursing Error

Principal Investigator: Shelia Swift, BSN, RN, PhD Candidate

Background

Nurses care for patients in complex healthcare environments, and unintentional nursing errors can occur that can cause potential or actual harm to patients. Most research efforts related to errors in the healthcare environment have focused on the cause of errors and the development of prevention strategies to decrease or eliminate errors. Only a few studies focus on how nursing errors affect the nurses involved. I want to learn more about what it means from a nurse's point of view to be involved in a nursing error, whether or not a patient was harmed.

Purpose

You are being asked to be a participant in this study to talk about your personal experience of being involved in a nursing error while working as a registered nurse.

Procedure

If you decide to take part in this study, you will meet with the researcher, Shelia Swift. You will be asked to tell the researcher about your experience of being involved in an unintentional nursing error, with or without patient injury. You will be asked to think of a time when you made a nursing error and then describe your experience following that error. We can meet for the interview wherever is most convenient for you, such as your home or a private meeting place that can be reserved by the researcher. The interview would last approximately 60 to 90 minutes. What you say would be digitally recorded (no video) and transcribed by the researcher and/or

transcriptionist. If you are willing, a brief summary of the thematic structure will be emailed to you once the researcher has completed all interviews and identified themes. You will have the opportunity to provide feedback to the researcher on the overall findings. This entire study will be completed by May 2013.

Possible Benefits

Participants in other studies have found it helpful to discuss their experiences, and you may find it beneficial to discuss your experience with the nurse researcher. Your participation may help raise awareness in the healthcare environment on how nurses are impacted after involvement in nursing errors. Sharing this experience with others may also assist the nursing discipline in recommending and implementing interventions to better support nurses following an error.

Possible Risks

There are possible risks to participating in this study. Talking about your experience may upset you, and if you wish, you may end the interview at any time. If needed or requested, Mrs. Swift will provide you with information about accessing counseling services in your community. You will be responsible for any fees related to doctor appointments or counseling sessions. There is also a possibility that undisclosed nursing errors that you decide to discuss during your interview may have to be reported to the appropriate authorities by the researcher if patient injury was involved.

Confidentiality

Your confidentiality will be maintained during and after this study. Information will be made available to persons directly involved in the study, including the researcher (Shelia Swift), Mrs. Swift's four dissertation committee members, and members of the Interpretive Research Group. Information will only be available to these individuals after they agree to sign a pledge of confidentiality. Confidentiality will be maintained through the use of pseudonyms during the interview and on transcripts, by the removal of all identifiable personal details from transcripts (specific names of people/organizations/etc), and by keeping all data sources in a locked cabinet and/or on a password protected computer.

The results of this study may be included as part of a dissertation or published in a journal article. Your name would not be mentioned in any of these documents. No participant in this study would be identified by name in either a presentation or publication. The information you provide could be used in a future study with appropriate ethics committee approval.

Voluntary Participation

Taking part in this study is completely voluntary, and you may choose to withdraw from the study at any time without penalty. You will receive a $15.00 gift card for participating in the study.

Reimbursement of Expenses
The researcher will reimburse any babysitting or parking fees charged during interview times.

Contact Names and Telephone Numbers

If you have any questions or concerns about your rights as a study participant, please contact the Research Compliance Officer-University of Tennessee at (865) 974-3466.

If you wish to participate in this study, please contact Shelia Swift at (865) 591-0491 or via email at sswift@utk.edu.

Appendix D

INFORMED CONSENT STATEMENT

TITLE OF PROJECT: Registered Nurses' Responses Following Involvement in a Nursing Error

INTRODUCTION

You are invited to participate in a research study to describe your personal experience of being involved in an unintentional nursing error while working as a registered nurse. This study is being conducted by Mrs. Shelia Swift, BSN, RN as her dissertation research for her PhD in Nursing at the University of Tennessee, Knoxville. Goals of this study are to increase awareness in the nursing discipline of how nurses are impacted after involvement in nursing errors and to obtain information that may help nurse leaders provide the most effective support to nurses following an unanticipated error. The results of this study will be presented as group data, and no identifying information will be given for any individual data presented. Results may be published in journal articles and books and may be presented at professional meetings or conferences. The information you provide could be used in a future study with appropriate ethics committee approval.

INFORMATION

You will be one of 10 to 12 nurses asked to participate in a 60 to 90 minute interview with Mrs. Swift at a private location of your choice. You will be asked to think of a time when you made a nursing error and then describe your experience following that error. The interview will be digitally recorded and transcribed verbatim. You will also be asked to complete a short demographic form at the conclusion of the interview. Mrs. Swift and an interdisciplinary research group at the University of Tennessee will read transcriptions to identify common themes. If you agree, Mrs. Swift may contact you regarding the findings of the study and obtain your feedback about the results. The study is due for completion in May 2013.

CONFIDENTIALITY

Your confidentiality will be maintained during and after this study. Information will be made available to persons directly involved in the study, including the researcher (Shelia Swift), Mrs. Swift's four dissertation committee members, and members of the Interpretive Research Group. Information will only be available to these individuals after they have signed a pledge of confidentiality. Confidentiality will be maintained through the use of pseudonyms during the interview and on transcripts, by the removal of all identifiable personal details from transcripts, and by keeping all data sources in a locked cabinet and/or on a password protected computer.

RISKS

There are possible risks to participating in this study. Talking about your experience may upset you, and if you wish, you may end the interview at any time. If needed or requested, Mrs. Swift will provide you with information about accessing counseling services in your community. You will be responsible for any fees associated with doctor's appointments and/or counseling

Participant's Initials:_____

sessions. There is also a possibility that undisclosed nursing errors that you decide to discuss during your interview may have to be reported to the appropriate authorities by the researcher if patient injury was involved.

BENEFITS
Participants in other studies have found it helpful to discuss their experiences, and you may find it beneficial to discuss your experience with the nurse researcher. Your participation may help raise awareness in the healthcare environment on how nurses are impacted after involvement in nursing errors. Sharing this experience with others may also assist the nursing discipline in recommending and implementing interventions to better support nurses following an error.

CONTACT INFORMATION

If you have any questions or concerns about the study, you may contact Mrs. Shelia Swift, BSN, RN at any time at (865) 591-0491 or via email at sswift@utk.edu. You may also contact the faculty research advisor, Dr. Mary Gunther, at (865) 974-7589 or by mail at 1200 Volunteer Boulevard, University of Tennessee College of Nursing, Knoxville, TN, 37996. If you have questions about your rights as a study participant, please contact the Research Compliance Officer at the University of Tennessee at (865) 974-3466.

PARTICIPATION

Taking part in this study is completely voluntary, and you may choose to withdraw from the study at any time without penalty. If you withdraw before the interview is completed, all recorded data will be destroyed.

The researcher will reimburse you any babysitting or parking fees charged during interview times. You will receive a $15.00 gift card for participating in the study.

CONSENT
I have read the above information and received a copy of this form. I have had all questions and concerns about participating in this study answered. I agree to participate in this study.
Participant's Name (Print)_____

Participant's Signature _____ Date_____

Researcher's Name (Print)_____

Researcher's Signature_____Date_____

I also agree to the use of data from this study in future studies:

Participant's Signature _____ Date_____

Appendix E

Demographic Form

Pseudonym of Participant: _____

Gender: ____Female _____Male

Race: _____

Total Years of Nursing Experience: _____

Please provide **CURRENT**:

Age: _____

Education Level (Circle): Associate Bachelor Masters Doctorate

Occupation: _____

Nursing Department working in (if applicable):_____

Please provide information **AT TIME OF UNINTENTIONAL NURSING ERROR:**

Age: _____

Education Level (Circle): Associate Bachelor Masters Doctorate

Occupation: _____

Nursing Department working in when error occurred: _____

Degree of Patient Injury (Please circle):

- None/Near Miss
- Minor/Temporary/Observed patient/Minor intervention needed
- Major/Significant intervention needed/Permanent injury
- Death of patient

Did nursing error contribute to any job or professional career changes? Yes No
If yes, please explain:

Are you willing to review the findings of this study once data analysis is completed?
Yes No
If yes, you prefer to be contacted via: Email or Telephone (Please Circle One)

Appendix F

Transcriptionist Confidentiality Agreement

I, _____, as a transcriptionist for the study entitled ““Registered Nurses’ Responses Following Direct Involvement in a Nursing Error”, pledge to maintain confidentiality of this digitally recorded research interview during and following transcription. I will not discuss the transcript with anyone other than the Primary Investigator, Shelia H. Swift.

Date: _____

Appendix G

Interpretive Research Group Confidentiality Agreement

As a member of the Interpretive Research Group at the University of Tennessee, College of Nursing, I pledge to maintain confidentiality of this recorded and transcribed interview for the research study entitled: "Registered Nurses' Responses Following Direct Involvement in a Nursing Error." I will not share any information from these transcripts with anyone other than the primary investigator, Shelia Swift, BSN, RN, or other members of this phenomenology research group.

Signatures: Date:

Vita

Shelia Marie Henson Swift was born February 4, 1970 to Dennis and Barbara Henson in Boone, North Carolina. She graduated valedictorian from Johnson Country High School in Mountain City, Tennessee in 1988. She attended Tennessee Technological University in Cookeville, Tennessee, and graduated with honors in 1992 with a Bachelor of Science degree in nursing. She began her professional nursing career as a staff nurse in an intensive care unit until relocating to Knoxville, Tennessee in 1993 to work for Baptist Health Systems as a medical/surgical staff nurse. In 1997, she was promoted to the GI Lab, Preop, and PACU nurse manager position where she remained until deciding to enter graduate school in July 2008. She was a graduate teaching assistant for the University of Tennessee, College of Nursing from August 2009 until July 2013 serving as a clinical instructor for undergraduate students in their medical/surgical clinical rotations. Currently, she is teaching undergraduate nursing students in a part-time faculty member role. She completed her Doctorate of Philosophy at the University of Tennessee in December 2013.