

ARCHIVAL OFFENDER RECORDS ANALYSIS: EXAMINING PATIENT
ABUSES IN TENNESSEE

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A Dissertation Submitted to the Faculty of the University of
Tennessee at Chattanooga in Partial Fulfillment
of the Requirements of the Degree of
Doctor of Education in
Learning and Leadership

The University of Tennessee at Chattanooga
Chattanooga, Tennessee

August 2019

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ABSTRACT

This quantitative causal-comparative study was designed to examine potential relationships between independent variables (job level, dependency of patient, work environments, sex, and race) related to health care practitioner offenders and the dependent variable (types of abuse) in Tennessee from 2006 to 2015. A total of 227 practitioners who were either licensed, certified, or trained in their perspective professional practice or job level, convicted of abuse, physical/emotional abuse and financial abuse, were examined from criminal and civil dispositions. The Pearson's Chi-square was used to evaluate the five research questions and test the null hypotheses for potential relationships. Additional testing with the Holm's Sequential Bonferroni Method was used to control for Type I error for pairwise comparisons between variables. The chi-square results indicated strong relationships between job level, dependency of patient, and work environments with small but weak relationships for sex and race of the offenders and types of abuse. The results of this study indicated that financial abuse was prominent for all independent variables measured while physical/emotional abuse was secondary. Offenders with technical or advanced job levels committed 87.3% of financial abuse. Patients dependent on skilled care nursing were 60.7% more likely to experience physical/emotional abuse. Practitioners in private duty care committed 83.1% of financial abuse. Female offenders committed 37.1% of physical/emotional abuse compared to males who committed 75.7% of financial abuse. The findings for financial abuse was 74.0% of Caucasians offenders and 63.6% of minority offenders. The descriptive analysis examined variables relative

to all offenders convicted of patient abuse, their position of professional authority and the work environments, as well as the dependency of the victims on care services.

DEDICATION

This work is dedicated to Dr. Vincent A. Sikora, formally of East Tennessee State University, Department of Environmental Health, in the College of Public and Allied Health, Johnson City, Tennessee. You gave me a challenge to step beyond my professional and academic comfort zones and look what happened. Thank you.

ACKNOWLEDGEMENTS

I would like to begin with expressing my gratitude and appreciation to my doctoral committee chair Dr. David Rausch. I have always appreciated your disciplined guidance and pointed direction, “read it out loud” on many occasions. I had no idea that I was going to task my life with a “formal research paper that is the culmination of months and even years of diligent research effort on behalf of a graduate student” as stated in the University of Tennessee-Chattanooga (UTC) Graduate School Thesis and Dissertation Standards. Thank you to Dr. Hinsdale Bernard who always reminded me to follow the variables analysis guide; that would be key to all my dissertation work. Thank you to Dr. Beth Crawford who tirelessly answered, one more edit, or EndNote problem that kept me from software destruction. Thank you to Dr. Vic Bumphus who assisted my direction in my dissertation.

To my family, friends, and coworkers at Tennessee Bureau of Investigation, Medicaid Fraud Control Unit in Tennessee, I truly thank you for allowing me to learn, train, and get the practitioner experience with you; it turned into a body of research. Honorable mentions include Terry Reed, Roger Turner, Dora Arnold, Darrin Shockey, Barry Carrier, JD, and Stanley Hodges, EdD. Thank you to Drs. Douglas R. Clark and Kathy O. Thacker who always encouraged me.

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LIST OF ABBREVIATIONS

APS, Adult Protective Services

CSDT, Constructivist Self-development Theory

CMS, Centers for Medicare and Medicaid Services

DEA, Drug Enforcement Agency

DHHS-OIG, Department of Health and Human Services, Office of Inspector General

DHS, Department of Human Services

DIDD, Department of Intellectual and Developmental Disabilities

DOJ, Department of Justice

MCFU, Medicaid Fraud Control Unit

MCO, Managed Care Organizations

NGO, Nongovernment Organizations

RAT, Routine Activity Theory

SURS, Surveillance and Utilization Reviews

TBI-MFCU, Tennessee Bureau of Investigation, Medicaid Fraud Control Unit

TCA, Tennessee Annotated Code

TDOH, Tennessee Department of Health

TIBRS, Tennessee Incident Based Reporting System

CHAPTER I

INTRODUCTION

In the coming millennium, history will judge our society's humanity on how we protected and preserved the dignity of our elder and vulnerable citizens. If our nation commits to the societal goal of greatly enhancing our national efforts to prevent, detect, and prosecute instances of patient abuse and neglect, we will be judged well. (Hodge, 1998, p. 38)

In 2011, the United States (U.S.) Committee on Energy and Commerce addressed areas of concern for fraud, abuse, and waste in several government programs such as patient protection, access to affordable coverage, discrimination regarding preexisting health conditions, and Medicare and Medicaid fraud (Health Insurance Law Weekly, 2011). Wasteful spending, quality of care, and mismanagement issues were to be addressed by the Department of Health and Human Services, Office of Inspector General. As reported by Centers for Medicare and Medicaid Services (CMS), fraud, abuse, and waste have impacted the annual costs for health care services in the United States, reaching \$3.8 trillion (Munro, 2014).

Another reported concern was that the Medicare program would become insolvent in five years. As the aging U.S. population continues to grow and qualify for Medicare services, costs and coverage have exceeded the financial inputs of ineligible recipients. Managing those costs and maintaining efficacious treatment plans will continue to burden government and private insurance programs (Barr, 2014). The increase in an aging population with multiple medical

needs and expectations will burden the program's solvency (Weeks, Gregg, Fisher, & Weinstein, 2015).

The Medicare Newsgroup tracks Medicare business and found that the Federal Bureau of Investigation estimated between 3% and 10% in annual health care fraud losses or the equivalent of \$17 to \$57 billion (Ogrosky & Kracov, 2010). The loss of money due to fraud far exceeds the recovery of \$4 billion in taxpayer dollars in 2010 by government investigators. The economic impact on the Medicare government insurance program as the primary funding source sees the loss in areas of staffing, medical equipment purchases, and updated software technologies in institutionalized or long-term care facilities such as skilled nursing home services (Cosgrove, 2012). Other facilities being affected include, group homes, some assisted living residential housing, and rehabilitative and laboratory services.

Furthermore, an additional concern for managing costs includes the type and quality of services to provide the public. The evolution of small, onsite medical clinics for employers and the public has focused on managed care services and cutting costs (Oliphant & Muray, 2012). Small clinics and community urgent care centers do not have as much government oversight as other health care provider services such as hospitals and doctors' offices. These facilities are audited annually by contractors and examined by customer surveys to evaluate adherence to federal compliance rules and minimized risks (Fortenberry Jr & McGoldrick, 2016). If any deviations of care services or provider performance are uncovered, induced penalties, employee retraining, and liability lawsuits can increase health care costs (Fabrikant, Kalb, Bucy, & Hopson, 2016). Professional misconduct in health care services can add to the costs in the loss of trust in the quality of services and the reputable standing in the industry.

Andrews (2008); Rashidian and Joudaki (2010); Rawson (2013); Fabrikant, Kalb, Bucy, and Hopson (2016); among many other researchers, have examined the prevalence of unprofessional conduct by licensed and/or certified health care personnel and the related costs to the medical profession. Examples included stealing needed medicines, denying services, physical assaults, and failure to disclose observed abuses by coworkers. Ramsey-Klawnsnik (2000) developed a working model for health professionals and advocates for vulnerable adults to assess the abuse of patients and the possible reasons by the types of caregivers. A part of the assessment process was the evaluation of poor job performances. Being stressed, overwhelmed, or negligent in caretaking tasks “may cause elder mistreatment or allow it to occur” (Ramsey-Klawnsnik, 2000, p. 17). The model included clinical evaluations, forensic interviews of abusers and victims, the environmental settings, and the signs of stressors.

Biggs, Stevens, Tinker, Dixon, and Lee (2009) saw the phenomena of practitioner/provider abuses as institutional mistreatment, a conceptual examination of abuse, neglect, and exploitation in the context of a health care organizational culture. Brüggemann, Wijma, and Swahnberg (2012) reviewed outcomes of abuse not limited to patient safety issues or medical errors that impacted services, but emphasized the nature of abuse as “the urgency of understanding the phenomenon” (Bruggemann, Wijma, & Swahnberg, 2012, p. 2) and its prevalence. The unprofessional conduct of health care personnel may be the complex nature of overwhelming demands of caring for older or noncompliant patients in that the “job demands are the physical, psychological, social” (Rodwell, Demir, & Gulyas, 2015, p. 368) aspects, and the ability to persevere under such pressures over time.

One example of professional misconduct by a health care practitioner was Farid Fata, M.D., who appeared in the Department of Justice press release (Department of Justice,

September 2014). The Oakland Township news reported that Fata plead guilty to charges related to the unnecessary use of chemotherapy on his patients. Fata also fraudulently billed Medicare more than \$225 million. The investigation of the doctor for criminal health care fraud and abuse of his patients exemplified the exploitation of health services, the degradation of job performance, and the negligent regard for cost management.

Managing fraud, abuse, and waste is centered on compliance with state and federal regulatory guidelines that promote the utilization of fraud analyses, edits in operational systems for payments, and data mining technologies (Koh & Tan, 2011). The Centers for Medicare and Medicaid Services (CMS) does mandate and encourage practices for the prevention and mitigation of fraud, abuse, and waste in numerous ways, including having Surveillance and Utilization Reviews (SURS) that coordinate with special investigative units, information technology, and provider networks of health care contractors. Managed Care Organizations (MCO) data mine the utilization of health services by contracted practitioners and analyze anomalies in peer related medical specialties (Rawte & Anuradha, 2015). Findings in key indicators may result in health care audits, onsite facility reviews, patient interviews, and potential referrals for investigation to law enforcement or health care oversight agencies (Joudaki et al., 2014).

The referrals or complaints for allegations of fraud or abuse may include an examination of criminal misconduct in perpetrating intentional fraud or an assessment of penalties and fines, or both (Leap, 2011). Examples may include illegal or unnecessary payments for medical services, falsification of medical records for billed services, or the breach of contracts with an MCO. An investigative process may coordinate with other health care entities or stakeholders

responsible for patient safety, federal government oversight, and the state's commerce and insurance divisions.

The State of Tennessee is among several states that investigate specific crimes against elderly and vulnerable adults in health care facilities (Levinson, 2014). The Tennessee Bureau of Investigation, Medicaid Fraud Control Unit (TBI-MFCU), the Department of Human Services (DHS), and the Adult Protective Services (APS) assess and investigate allegations of patient harm. These investigations can result in civil and criminal prosecutions. Each state agency has reporting requirements that can generate decisions against an offender to include convictions and/or placement on public registries such as the abuse registry in Tennessee (State of Tennessee, 1994). An offender can have his/her professional license revoked and face suspension, fines, and possible imprisonment. As Bucy (1996) researched, convicted offenders' records are collected and reported to the Department of Health and Human Services, Office of the Inspector General (DHHS-OIG). As part of state and federal reporting mandates for health services (Brendel, Wei, Schouten, & Edersheim, 2010) such offender data serve many purposes including public awareness, professional education reforms, and the mitigation of abuses with accurate exposure. The data collected also inform public policy decisions and the funding allocations for research projects related to health care reforms (Williams, 2007).

Abuse, neglect, and exploitation (A/N/E) are a part of the reporting mandates and are defined by the Adult Protective Services (State of Tennessee, 2014). The definitions for abuse or neglect include the "infliction of physical pain, injury, or mental anguish, or the deprivation of services by a caretaker" (State of Tennessee, 2014, p. 368). Fraud is defined as the intentional theft of "property or funds improperly taken or received from the client" (State of Tennessee, 2014, p. 13) or patient by coercion, deceit, or other methods. Exploitation of a patient is defined

as the person(s) that misuse financial support, property, or misappropriate resources intended for the patient (State of Tennessee, 2014).

U.S. national affiliates intervene for the protection of elderly or vulnerable adults over the age of 18 years and advocate patient safety. These affiliates include state and federal health regulatory oversight agencies and CMS who have examined the perpetuation of criminally abusive behaviors by providers among all allied health care services. The continued efforts of protecting the safety of all vulnerable adults includes evaluating health care providers' capacity to manage the demands of the stressful occupation, the contracted MCO's responsibilities, and compliance with patients' rights (Roll, Stark, Hoekstra, Hazel, & Barton, 2012).

Safety concerns also extend to contracted agencies that place temporary health professionals in caregiving positions. Investigating the backgrounds of potential applicants varies within the health care industry (Birnbaum, 2014). Human resources departments must monitor the training, experience, and professionalism of health care workers. Currently, initial preemployment screenings do not always address job burnout, accumulated stress, and fatigue. Wilson and Sharpels' (2015) study on the disciplines of ergonomics and human factors evaluated job performances to include the concepts of technological utilization (i.e., literacy and adaptability of use), workload, fatigue, and stress as well as its effect in work assessments.

The research literature for patient mistreatment spans the range of social and psychological behaviors for indicators for abuse, neglect, and exploitation, in part, to adult criminality (Vold & Bernard, 1979). What researchers hope to understand are the antecedents and/or the motivations for aggression and violence against the patients, or what Biggs et al. (2009) described as institutional mistreatment. Patient abuse can be "a rubric" (Jackson, 2016, p. 269) for the types of abuse that can occur from types of personnel with patients to interactions

that have negative outcomes. It may include the loss of dignity for the patient, episodes of assault, and perpetuating fraud (Biggs et al., 2009). Institutional mistreatment may also be the outcome of individuals working in stressful environments where demanding and sometimes traumatic events are routine occurrences. In the research for understanding antecedents for abuse, important inclusions would be that “the care provider’s health requirements merit equal consideration with the health needs of the client” (Mullaney, 2016, p. viii). Proactive intervention has to include both offender and victim as well as the organization to assess a supportive mitigation of harmful events (Mullaney, 2016).

The retrospective review of the State of Tennessee offender data could provide an analysis of patterns for abuse or associations with the work environments and the types of abuse by specific practitioners. Variables, such as sex, (gender was used in the collected data (Oakley, 1991)) race, workplaces, and job levels (i.e., doctor, nurse, technician, or assistant) may show relationships in evaluating committed abuse. The work environments are where the offenses occur and can include long-term care facilities, group homes, or private residences. The current literature on abuse by health care practitioners has limited research on states’ offender data analysis.

The research on criminal health care abuse, for the most part, has been limited to acts by physicians, nurses, and other allied personnel (Apers, 1998; Birnbaum, 2014; Keating & Bridgeman, 2012). State governments annually report their crime statistics to federal oversight agencies. However, data exist specifically on health care abuses by providers collected by individual states agencies. For example, Adult Protective Services exist in each state and are sources for research in their collected data on abuse, including protocols for the protection and welfare of clients due to their patient investigations outside of law enforcement. Many cases of

alleged abuse by health care institutions or practitioners may not be criminally investigated and/or counted as a criminal event in the annual state reporting requirements (Mosquenda et al., 2016). APS maintains data that could influence the actual prevalence rate of patient abuses by health professionals and support staff (Jackson & Hafemeister, 2011; Mosquenda et al., 2016).

Background and Statement of the Problem

The required standard of care is taught in the medical profession to not cause injury or be negligent in the duty of care (Smith, 2005) . Any deviation from this standard can be consequential for the practitioner, receiving patient, and health care institution. The protocols for investigating allegations of patient abuse include inquiries in the form of civil or criminal complaints. An established investigative body, such as a medical board review or a law enforcement agency, can initiate the process to refute or confirm the allegations of harm. The results of abuse are the loss of the standard of care and trust by licensed or trained professionals in a human service system (Payne, 2013). Jorgerst, Daly, and Hartz (2008) studied elder abuses and stated that

Researchers need to determine the similarities and differences in various types of elder abuse and differences in the way the justice system responds to different elder abuse offenses to help policy makers to effectively develop intervention systems that address all forms of elder abuse. (p. 698)

The inquiries into allegations of abuse by a health practitioner or allied support must include the type of training, job level and experience, and the type of personnel/patient relationship that occurred.

Practitioner abuses in the health care profession prompt direct research into what motivates such crimes (Bernasco, 2013). Work stress can be considered a motivator for

allegations of abuse (Radcliff, White, West, Hurd, & Cote, 2013). Payne and Gainey (2006) provided rudimentary guidelines for measuring job satisfaction, wages, and compensation for full and part-time employees, inclusive of the institution's staff to patient ratio assignments. These can be variables in the evaluation and management of workers' stress. Influential factors might include work environments and personal characteristics of the health professional relative to the patients' need for supportive care (Payne & Gainey, 2006).

The inquiries into practitioner abuse must begin with what changes took place in the working environment and with the relationship toward the patients. Abuse and harm contradict the professional mandate that states a health care practitioner does no harm (Birnbaum, 2014). The standard of care is essential to the practice of health care management; it is part of the practitioner's training (Curtis, Horton, & Smith, 2012). How it degrades in some health care professionals may be ascertained in the review of the criminal data, specific measurements in job performances and work environments, and participatory interviews of offenders. The investigative research into motivators and the environmental work conditions may help further define incidents of abuse. Situational characteristics such as an individual's temperament under stress, opportunities to offend, or supportive stress management systems, may be influential in relationships between practitioners and patients (Pillemer & Moore, 1990).

Purpose of Study

The purpose of this study was to examine the potential relationships with the types of abuses committed by Tennessee health care doctors, nurses, therapists, medical technicians, allied medical professionals, licensed or certified, and trained caregivers. This was a review of the 10-year offender data collected by the TBI-MFCU, and other secondary sources, from 2006

to 2015. Tennessee is one of 49 state MFCUs that investigate and collect data on health care practitioner offenses. The archival data research may prompt research questions about the types of abuse, the level of dependency of the victims, and potential patterns among offenders' job responsibilities (Hodge, 1998; Jackson, 2016). The additional information in the offense data includes the work environments where the abuse occurred. This study pursued research questions and hypotheses regarding convicted practitioners, caregivers, and patient relationships.

Research Questions and Statement of Research Hypotheses

The research questions (RQ) in the study addressed the following:

(RQ1): Is there a relationship between the types of abuse inflicted and the job level or training?

(RQ2): Is there a relationship between the types of abuse inflicted and the patient's level of dependency?

(RQ3): Is there a relationship between the types of abuse inflicted and the work environments?

A second set of research questions addressed the relationships between demographic variables:

(RQ4): Is there any relationship between the types of abuse inflicted and the sex of the offender?

(RQ5): Is there any relationship between the types of abuse inflicted and the sex of the victim?

(RQ6): Is there any relationship between the types of abuse inflicted and the race of the offender?

(RQ7): Is there any relationship between the types of abuse inflicted and the race of the victim?

The following research hypotheses were generated for analysis:

Research 1 Hypothesis: There is a relationship between the types of abuse inflicted and the job level or training.

Research Hypothesis 2: There is a relationship between the types of abuse inflicted and the patient's level of dependency.

Research Hypothesis 3: There is a relationship between the types of abuse inflicted and the work environments.

The following research hypotheses were generated for analysis from the demographic data:

Research Hypothesis 4: There is a relationship between the types of abuse inflicted and the sex of the offender.

Research Hypothesis 5: There is a relationship between the types of abuse inflicted and the sex of the victim.

Research Hypothesis 6: There is a relationship between the types of abuse inflicted and the race of the offender.

Research Hypothesis 7: There is a relationship between the types of abuse inflicted and the race of the victim.

Rationale for the Study

The rationale for the study was to investigate potential relationships between the types of abuse reported, the profile of the offending practitioner, and the profiles of the victim patients.

These relationships may be unique to the job level of the practitioner, the work environments, the

needs of a dependent patient, and the outcome of the abuse. The archival data of convictions for abuse of patients may not expound on specific causal, proximal, or situational episodes for criminal behavior (Bernasco, 2013), but may support research for developing algorithms for offending behaviors.

The study examined data external to statistical reporting requirements to further the knowledge of health care practitioner abuses of patients. Navarro, Gassoumis, and Wilber (2013), and others, envisaged how future research might add to the body of evidence of abuse by exploring cooperative collaborations of multidisciplinary professionals through education and judicial reforms in accountability. The findings of the research might help add knowledge of health care abuses and its phenomena and provide interactive, interventions for future professionals. The overall goal is to mitigate such abuses.

Theoretical/Conceptual Framework

The conceptual framework of the study is based on two theories; the constructivist self-development theory (CSDT) of McCann and Pearlman's (1992) and the routine activity theory (RAT) of Felson, Andresen, and Farrell (2015). Where CSDT centers on the individual's processing and internal responses, the RAT for Rossmo and Summers (2015) examined "time and place of a crime as clues and using what is known about the offence and victim" (p. 19) to construct information about the offender. Together, each theory may be supportive of views for situational and interacting relationships in the outcome of offending behaviors, the balance or imbalance of personal decision making, and the individual experience of professional conduct (Madensen & Eck, 2012). The context of the study encompassed the offender, the patient

victim, and various environments where care services were rendered, and offenses were committed.

Constructivist Self Development Theory

McCann and Pearlman's (1992) study examined CSDT in the perception of an individual's traumatized experience regarding sexual assault in the college environment. The CSDT involved the framing of therapy services for traumatized college students in self-resilience. CSDT explores the loss of personal well-being because of unresolved traumatizing experiences. McCann and Pearlman (1992) found that the self-psychology and resilience of a survivor were different for every person in how their personal resources helped process and bring meaning to resolving trauma's impact. Miller, Flores, and Pitcher (2010) summarized that the lack of self-development skills could impact an individual's sense of personal safety, self-esteem, and ability to trust and establish control.

The core of McCann and Pearlman's (1992) research was the individual's ability to assess their traumatic experience and characterize its impact and implication. The theory may be applicable for traumatized health care practitioners in evaluating the scope of unresolved work experiences and patient care scenarios (Curtis et al., 2012). Applying the CSDT (McCann & Pearlman, 1992) could support the potential deviation from the standard of care and/or decisions to harm patients.

The concepts of self-development and professional discipline for health care practitioners exemplifies the core concerns expressed by McCann and Pearlman's (1992) work on the resiliency of the person. The realities of professional practice may become overwhelming without the personal fortitude to endeavor past the hardships (Harris, Kirschner, Rozek, &

Weiner, 2001). The constructs for maintaining psychological well-being in a stressful occupation, such as health care, may be the replenishment of coping, management skills, and the balance of the ideals for care practice and the realities of dedicated caregiving (Loolo, 2016).

Routine Activity Theory

Payne and Gainey (2006) studied unprofessional behavior by health care providers from a criminal conduct evaluation. They examined the routine activity theory in the conceptual framework that expanded on the psychological stressors or environmental conditions that might motivate job performances, offending behaviors, and the abuse of patients. The routine activity theory “comprises three main factors-motivation, opportunities, and guardianship” (Ab Rahman, Kessler, & Choo, 2017, p. 1). Analyzing abuse against patients in long-term facilities or similar settings, the RAT application involves a motivated offender, a working knowledge of work conditions or occupational specialties, and “suitable targets” (Gainey & Payne, 2006, p. 69) without available guardians to intervene. It was the motivation of offending behaviors that Sasse (2005) sought to examine in convicted sex offenders, while Rossmo and Summers (2015) viewed the “chemistry” (p. 20) of converged elements such as targeted victims, timing, and place as motivation for the offending behavior. Each applied the RAT in a collective concept of influential daily routines, specific or targeted objectives with varying and situational dynamics. For most researchers, crimes or offending behaviors were not random. RAT supported a more focused understanding of geographic positioning, time, and individual activity that lead to criminal conduct (Rossmo & Summers, 2015).

An aspect of the health care occupation is the routine activity of stress, the psychological and physical strain that comes with the life and death matters of the profession (Ruotsalainen,

Verbeek, Mariné, & Serra, 2016). Seeing trauma, disease progression, and long-term care services for potentially noncompliant patients may challenge previously held ideals of professional conduct (Curtis et al., 2012). The accumulative stress, psychological and physical burdens, and coping tactics can become traumatizing (Curtis et al., 2012). As Rossmo and Summers (2015) reviewed, “rhythms and cycles” (p. 21) of recurring scenarios in patient care services, coupled with specific and/or targeted individuals, without mediating guardianship, are elements in RAT. By exploring RAT, developing an understanding of offending behaviors in health care facilities may help to impact incidents of abuse (Ab Rahman et al., 2017).

Significance/Importance of the Study

As in many states, health care provider crimes in Tennessee are widespread (Chen, Twomey, & Whittier Eliason, 2012). The archival data provide the summation of criminal behavior and possibly the trend of practitioner abuses. The results of the study could impact how awareness and research influence risk assessments for personnel training, mitigation, and prevention. The subject matter is important in how researchers examine relationships between patient care and practitioners to the degradation of care that culminates into abuse.

What will be relevant to law enforcement investigators, social sciences studies, respite care services, and insurance companies is how to lessen incidents of patient abuse (Policastro & Payne, 2014). The 10-year Tennessee data analysis of potential relationships between key elements may expose patterns or anomalies that lead to certain abuses. The need to identify antecedents and the early development of dysfunctional care practices impact the community at large in the prevention of patient abuses (Cerny & Inouye, 2001).

Definition of Terms

The terms and words that describe elder and/or vulnerable adult abuses are as follow:

Abuse - commission of an act to cause physical pain, physical injury, sexual assault, mental anguish, emotional trauma, or inappropriate/unreasonable confinement by a caretaker of an adult who is unable to protect him/herself (State of Tennessee, 2014).

Dependency - the levels of nursing intervention as defined in the Jones Dependency Tool, 0 = minimal care and self-caring to 4 = total dependency with a one-to-one input (O'Brien & Bengner, 2007).

Elder - a person age 60 years and older in the State of Tennessee who has a qualifying status to receive social services (State of Tennessee, 2014).

Exploitation - extends to the caregiver of a patient who might misuse financial support, property, or misappropriate resources intended for the patient (State of Tennessee, 2014).

Health care provider or practitioner - indicative of licensed Tennessee medical practitioners as well as certified positions, such as nursing assistants and x-ray technicians, under the State of Tennessee board of licensing authorities (State of Tennessee, 2014).

Government funded facilities - under the auspices of the Centers for Medicare and Medicaid Services (CMS), medical services are billed as provided by the contracted entity (State of Tennessee, 1994).

Job level - defined as the medical degree or job title of the practitioner; technical degrees in medical services may be equivalent to certifications, diploma programs, such as entry level nursing or therapy services, or employer-based learning while on the job (Study.com, 2015).

Neglect - omission by a caretaker of services or care needed by an adult to prevent physical or mental injury/illness, inclusive of medical neglect (Hodge, 1998). Patient care is the standard of care as defined under health practices and American Medical Association (Leap, 2011).

Vulnerable adult - any person over the age of 18 who might need various levels of medical services such as skilled nursing, assisted living support, or an independent adult with minimal support needs under the Tennessee Department of Health guidelines.

The use of the words patient, client, or resident are interchangeable in this study. While some facilities might address their population as client-residents, another might have both clients and patients, depending on the level of medical services such as rehabilitation or assisted living amenities. These facilities include skilled nursing homes, rehabilitation centers, therapeutic services, and residential housing. Group homes, some assisted living facilities, with the exclusion of privately paid services and Homes for the Aged (State of Tennessee, 2010) might be categorized by the type of financial support they receive to operate. When abuse is discovered, the assumption that quality care is rendered with trained personnel is violated (Tennessee, 1978).

Methodological Assumptions

For the purposes of this study, the researcher assumed that the archival data was accurate and representative of the offences and convictions for the period of 2006 to 2015 in the State of Tennessee. The data represented individuals convicted of a specific offense of abuse and were health care practitioners that were either licensed, certified, or trained. The researcher assumed that the methodology and the statistical methods listed addressed the problem and purpose, and

the results to be relevant to the entities involved with health services, education, and the advocacy for patient care.

Delimitations of the Study

The health care providers and the archival data pertained to the 2006 to 2015 reporting period for Tennessee and to adult abuses. The criminal statutes under Tennessee State laws were not federal. The exception would have been a joint investigation that might include federal statutes for health care fraud. State and federal health care laws were applicable, depending on the judicial jurisdiction, if civil and criminal proceedings occurred. The study focused on convicted offenders of abuse from 2006 to 2015 due to a trial verdict or a plea agreement. Substantiated reports of abuse that were investigated by other state agencies like the Tennessee Department of Health, but were not adjudicated in a court of law, were excluded.

Limitations of the Study

The study was a nonexperimental, ex post facto design for the examination of criminal convictions of abuse and/or fraud by Tennessee health care practitioners. The actual case investigations conducted by the TBI-MFCU were not available due to statutory limitations on public access, therefore, victim information was incomplete for statistical analysis. The use of secondary data was obtained from the U.S. Health and Human Services, with the Freedom of Information Act (Foerstel, 1999), Drug Enforcement Agency's (DEA) arrest and prosecution information of registrants, local area District Attorneys' Offices in Tennessee, Department of Justice's (DOJ) Criminal press releases, including Tennessee Bureau of Investigation (TBI) archived press releases, Tennessee Intellectual and Developmental Disabilities, several local and

national media sources, electronic newspapers, and the Internet. There were other Tennessee health care fraud reporting such as the Tennessee Incident Based Reporting System (TIBRS) and Tennessee Department of Health (TDOH). However, the TIBRS data and some of the TDOH information did not always include the details of some of the variables in the study. The archival data were verified by comparable reporting sources, federal and state abuse or health care fraud registries, and the case dispositions in the local District Attorney offices in Tennessee.

Summary

This study is organized into five chapters. Chapter 1 includes a brief introduction, a statement of the problem, research questions and hypotheses, definition of terms, delimitations and limitations. The quantitative study examines patient abuses by convicted health care providers in Tennessee. The literature review includes the discussion of institutionalized abuse and mistreatment, the criminality of abuse, and the prevalence of abuse regarding institutionalized care.

CHAPTER II

REVIEW OF THE LITERATURE

The research of patient abuse, and the more inclusive concepts of all forms of abuse against elder and vulnerable adults, is extensive (Daly, 2017). However, Hodge (1998) was very specific in his article regarding the types of health care provider abuses committed in health care institutions and investigated by state Medicaid Units in the US. Hodge (1998) defined abuse under the umbrella of provider fraud, abuse, and waste. Whether it was physical, verbal, exploitation, or mistreatment, provider or practitioner abuse might also include fraud of the health care program for the respective patient(s).

The historical look at the coordinated efforts of law enforcement agencies, social services, nongovernment organizations (NGO), ombudsman, and the legal profession helped to characterize and examine abuses against elder and vulnerable adults in health institutions. Health care practitioners, whether licensed, certified in support positions, or trained to provide medical and/or direct care, were subject to be investigated contingent upon complaints of abuse. These actions would develop into procedural responses to investigate, mitigate, and educate professionals and volunteers of abuse or institutional mistreatment (Biggs et al., 2009).

The review of the literature begins with a historical understanding of institutional abuse, sometimes recognized as institutionalized maltreatment (Daly, 2014). Its definitions throughout elder and vulnerable adult mistreatment literature (Ziminski Pickering & Phillips, 2014) can be paralleled with child abuse research (Ziminski Pickering & Phillips, 2014; Jackson, 2016).

There were shared concepts of power relationships with adult caregivers, the recognition for advocacy against institutionalized abuse and victimization, and the redress for harm were applicable in both elder and child abuse. The criminality of abuse that can evolve, whether from an individual level or a systemic organizational disregard, may identify an offender as the person or persons violating positions of authority (Ramsey-Klawnsnik, 2000). Related concepts and theorized causal indicators for abuse by health care practitioners can range from intergenerational conflicts (Rubin, 2016), workplace stress, to violence against patients due to unresolved personal issues (Ziminski Pickering & Phillips, 2014). Lastly, the concern for the prevalence of abuse despite implemented state and federal laws, employee training, and mandatory reporting, rounds out the review of the literature for researching potential relationships between types of health care practitioners and the types of abuse committed.

Institutional Abuse or Mistreatment

With the advance of an aging population moving into the 21st century, the demands for direct care staff and quality care will burden health service institutions (Leap, 2011). The U.S. population over 65 years of age is projected to be 71 million by 2029 (Barr, 2014). The focused risk assessments and investigational outcomes of institutional practitioner abuses have generated awareness of the problem and magnified the urgency of identification, prevention, definitions for the types of abuse, and its management (Lindbloom, Brandt, Hough, & Meadows, 2007). In Daly's (2014) historical research into institutional abuse of children during the early 20th century, she asked the question "why institutional abuse emerged as a social problem?" (p. 1). Several factors would influence the way awareness of child abuse became public, from socioeconomic

changes in families, adult survivor's personal recounting of abuse, and government and church institutions responding to child abuse with some corrective actions.

In 1979, the U.S. Senate Subcommittee on Child and Human Development gave institutional abuse the distinction of being a social problem (Myers, 2008). Daly (2014) had examined Canadian and Australian cases of institutional abuse in multiple facilities while also reviewing the U.S. inquiries, investigations, and redress system. She developed generalizable constructs within the social and institutional environmental settings, its specific victimization, and the power dynamics of caregiving relationships. Although, Daly's (2014) research pertained to children institutionalized as wards of the state, as well as children placed in residential group homes, religious orders, or school systems, extensive researched theories and construct comparisons can be made for adult mistreatment. The same unequal social exchange in caregiving scenarios, transmission of violence against vulnerable populations, and situational contexts of institutionalized living (Schiamberg et al., 2011) existed in the comparison to child abuse.

The recognition of child abuse, or maltreatment as Myers (2008) chronicled, was at least recognized in dynamic social and domestic settings where abuse in terms of physical, neglect, and exploitation, were identified and some corrective responses by community leaders were imposed. However, prior to the New York Society for the Prevention of Cruelty to Children in 1875 (Myers, 2008; Daly, 2014), there was no unified enforcement of protective measures. Depending on the U.S. district and/or community resources, reporting suspicions of child abuse was not a mandatory social construct (Thomas Jr.,1971). Part of the hesitation was the cognitive dissonance, or the unthinkable acts of sexual exploitation or "sexual use" (Daly, 2014, p. 20), and physical abuse of children by any authority figure (Harmon-Jones & Harmon-Jones, 2012).

Reporting abuse was objectionable; children were considered parental property. It was a reprehensible thought that a parent, guardian, or church authority could abuse a child (Thomas Jr., 1971), however social norms had not defined types of abuse.

As the research into child abuse furthered the examination into family and domestic violence, Wolfe (2003) assessed the “lessons derived from progress in child abuse and domestic violence initiatives provide a valid starting point for drawing more attention to elder abuse” (p. 502). Daly (2014) posed the question of why institutional abuse had emerged as a social problem, laying the groundwork for examining adult abuse. As Mysyuk, Westendorp, and Lindenberg (2013) opined, abuse was not just the perpetrator versus victim event. It included the environmental settings in health care with the social and organizational structures of provider and recipient relationships. Abuse was a social and health problem (Mysyuk et al., 2013).

Researchers like Pillemer and Moore (1990); Parley (2007); Biggs et al. (2009); and Policastro, Gainey, and Payne (2014) examined adult mistreatment and loss of dignity in institutions caring for those with learning disabilities, vulnerabilities due to economic status, and family support. Defining types of abuse such as financial, psychological, emotional, and sexual was essential to examine offending behaviors. Criminal theories of offending behaviors appeared to seek causal indicators “to enhance the understanding of elder abuse phenomena” (Goergen & Beaulieu, 2010, p. 185). Even more specific was the phenomenon of practitioner abuse against patients (Bucy, 1996; Hodge, 1998; Parley, 2007; Wijma, Zbikonski & Bruggeman, 2016). The research literature (Shuman, 1997; Liederbach, Cullen, Sundt & Geis, 2001; Wijma et al., 2016; Jackson, 2016) has covered practitioner abuses from the position of being insulated with immunity from criminal prosecution, to the expectation of adhering to the standard of care, to a more current evaluation of pathopsychological behavior of offending

caregivers. As Jackson (2016) noted perpetrators of abuse “are in fact heterogeneous with important differences across types of abuse” (p. 265) committed and in what environments.

The Criminality of Abuse

Abuse becomes criminal when patient safety laws and regulatory guidelines, as defined by state and federal statutes, are violated (Hodge, 1998). For the State of Tennessee, the Tennessee Annotated Code (T.C.A.) of 71-6-117 defines willful abuse, neglect or exploitation under Title 17, Welfare: Chapter 6 - Programs and Services for Abused Persons, Part 1 - Adult Protection (Tennessee, 1978). Abuse is the commission of an act to cause physical pain, physical injury, sexual assault, mental anguish, emotional trauma, or inappropriate/unreasonable confinement by a caretaker of an adult who is unable to protect him/herself (State of Tennessee, 2014). Neglect is the omission by a caretaker of services or care needed by an adult to prevent physical or mental injury/illness, inclusive of medical neglect (Hodge, 1998). Exploitation extends to the caregiver of a patient who might misuse financial support, property, or misappropriate resources intended for the patient (State of Tennessee, 2014). In the 2015 legislation, Tennessee and 32 states increased the penalties for identity theft and illegal acquisition of funds to felony offences (State of Tennessee, 2015). Abuse, neglect, exploitation, and identity theft all relate to the standard of care in health care services.

The standard of patient care can vary with the medical diagnoses such as asthma, diabetes, or heart disease. The care, or appropriateness of care, was the understanding of how clinical practice must weigh the balance of health benefits and negative risks (Field & Lohr, 1990). Shuman (1997) however, summarized the essence of the standard of care for health care

professionals in whether they “adhered to prevailing professional standards in providing care” (p. 101) by putting the patient first.

Bernasco, Ruiter, Bruinsma, Pause’s, and Weerman (2013) posited the criminality of offending comes with opportunity, the absence of peers, and/or the added presence of others who target specific individuals, all considered elements of the routine activities theory (RAT).

Another construct was situational precipitators of crime (Bernasco, 2014; Wortley, 2016), described as less rational and calculated in response to criminal offending. It was the immediacy of circumstances or one’s environment that “can also actively encourage or induce individuals to commit crimes that they may not have otherwise contemplated” (Wortley, 2016, p. 2). For the health care practitioner, both theories suggested some rational choice to offending, with the RAT being more calculated, with more intent. Wortley and Tilley (2014) and Wilcox, Sullivan, Jones, and Gelder (2014) summarized how opportunity and location were factors contributing to offending behaviors:

The first approach is to view offenders as rational, utility-maximizing actors whose choices are informed by available criminal opportunities and how they perceive them; the second approach is to view the offender as a respondent to situational pressures and provocations, which sometimes positively encourage crime. (R. Wortley & Smallbone, 2014, p. 5165)

However, prior to exacting criminal theories for offending behaviors, Policastro, Gainey, and Payne (2015) sought to challenge what differentiates elder and/or vulnerable adult crimes from white collar, assault, or any other general criminal activity that existed for all ages of the population. Part of the concern was how various scholars and academic disciplines defined abuse in terms of the victim’s characteristics and its specificity to the offender’s occupation, and environments. The inclusion of emotional abuse and neglect as criminal offenses were not always variables in abuse analogies (Policastro et al., 2015).

Vold's (1958) early work examined theories of criminal conduct "as normal learned behavior, group conflict theory as an explanation of crime, the organization of criminals for profit and power" (Vold, 1958, p. xi), and the control of organized and white collar crimes. *Theoretical Criminology* (Vold, 1958; Vold & Bernard, 1979) offered a baseline to further current theories of criminal conduct. However, theories directed at criminal conduct in health care services were not conceptualized as interpersonal relationships of care gone wrong (Policastro et al., 2015). The changing demographics of offenders due to sex, race, and cultural orientations changed criminal conduct outcomes that were related to power inequities, social biases, and fears of specific populations in some health care environments. The collaboration of social sciences, psychology, medicine and criminology experts, among others, evolved from individual perspectives of violence against others, or strangers, to "more integrated approaches to reducing aggressive behavior" (Klevens, Simon, & Chen, 2012, p. 1988). The identification of abuse for vulnerable adults, which included general to specific criminal acts, also involved an expanded awareness of ageism, socioemotional stresses, and physical environments for care services (Biggs & Goergen, 2010). Growing awareness of a social phenomenon encased in the institution of health care services increased the theories of criminal conduct and the conceptual framework for types of abuse and needed intervention (Biggs & Goergen, 2010).

The relational component of caregiving can influence the roles of the health care provider, the patient, and the facility services. Kusmaul and Bunting's (2016) study reviewed care services from the perspective of Certified Nursing Assistants (CNAs), the "first line" (p. 4) of the health services a client or patient receives in medical health centers. As described by Kusmaul and Bunting (2016), the outcome of the study's interviews and survey established that the quality of care was related to how the CNAs were treated by their employer, whether they

were valued, had a good work environment, and were part of the care process. The findings suggested the positive or negative outcomes of relationships the CNAs had with the assigned patient services were factors in the quality of care provided. Changes in staffing, patient needs, or other yet unexplained dynamics could evolve into relationships that reflected strained or dysfunctional outcomes.

On an individual level, the propensity to react in a violent manner has been researched in the fields of psychology and social learning. Childhood exposure to violence and aggression in family settings is correlated with violent adult behavior (Swogger, Walsh, Christie, Priddy, & Conner, 2014). Ellis and Del Giudice (2014) also saw responses to stressors over time affecting mental and physical health. It is important to acknowledge that not all abused individuals repeat learned violent behaviors (Thomas, 2007). Bandura (1991) identified self-regulation in social cognitive theory in how a person can be guided by their ability to develop self-monitoring, self-observation, and self-reactions. The outcome allowed for goal setting, personal discipline, and informative decisions.

Karpman (1968) illustrated, in what he called the drama triangle, how dysfunctional family relationships intertwine the roles of a rescuer, persecutor, and victim. The examples of caregiving in family dynamics include the interrelationships of care with a recipient and a provider, a person who is responsible for managing care. The recipient is dependent or becomes dependent on the care. The impact of such intimacies and the balance of burnout with sustained care are present with inpatient care settings:

In such relationships, all three roles are enacted by self and other parties at the same time, without an awareness of or control over their damaging consequences. Each participant in an intimate (close, committed, interdependent, and prolonged) role plays the Victim, and can be perceived as a Persecutor or Rescuer at the same time, depending on who does or says what. (L'Abate, 2009, p. 2)

The described intimacies of caregiving influence the roles of the health care provider, the patient, and the facility services and may impact the quality of care (Karpman, 1968).

Violence and aggression in health care settings and the perpetration of abuse against vulnerable patients may not be singular acts; there might be co-occurrences of violent acts (Klevens et al., 2012). In other words, an individual provider may have committed several abusive acts to multiple and different demographics of victims. The types of victim selected support the co-occurrences in abuse theories (Babchishin & Romano, 2014).

Klevens, Simon, and Chen (2012) surveyed aggressive behaviors by caregivers perpetrated on adults, children, acquaintances, and strangers to examine co-occurrences of abuse and violence in relationships. Their study of U.S. adults over 18 years of age who had struck someone determined that “thirty percent of those who reported any aggression had struck more than one type of victim” (Klevens et al., 2012, p. 1996). Additionally, the survey revealed that participating in one form of aggressive expression, such as slapping a child, adult, or stranger, increased the likelihood of other types of aggressive behaviors. In a health care setting, a victim might be subjected to physical threats, verbal abuse, and exploitation by a single aggressor or multiple offenders. The concern for patient safety relies on the selection of potential employees. The findings of Klevens et al. (2012) suggests the need to understand past or present exposure to aggressive behaviors and promote the employment screenings for health care providers.

Another assessment of practitioner aggression against patients in health care facilities was Sudeck’s (2012) research in managing the interpersonal relationships of care. A caregiver’s compassion fatigue led to a depersonalized sense of professional and individual commitment “due to continual exposure” (Star, 2013, p. 5) to the needs of others. This, as researched in the assessment, was the beginning of burnout that advanced into further dysfunctional actions. In

Yan's (2014) 6-month study of abuse by caregivers to family members with dementia, the development of caregiver burnout began with verbal mistreatment and advanced to physical assaults in some cases. Research has indicated that the increase of abuse by family and professional caregivers resulted from prolonged stress and changes in the social environments of care services (Schiamberg et al., 2012).

The etiology of health care offenses may be the analysis of work environments, staffing training protocols, and organizational oversight. Caregiving services are interrelated with staff behaviors and patient relationships over time (Karpman, 1968; Mrotek, 2001). Assessment and evaluation of worker stress, patient compliance, and professional fatigue are proactive measures in awareness and detection (Kar, 2016).

Prevalence of Abuse in Institutional Care

Tennessee's crime data of health care offenders has been generated and remained in the repository of the Tennessee Bureau of Investigation, Medicaid Fraud Control Unit, Nashville, Tennessee since 1984. The collected data includes the offender's medical job title, incident location of the crime, and the criminal statute for the abuse. Crime data present potential resources of information for offending patterns and the individuals who perpetrate abuse. The current literature on abuse and health care providers has a limited focus on archival offender data analysis as it relates to trends in the national and international communities.

Accumulated data was born out of investigations of institutional abuses. This has offered an opportunity to theorize and examine the complex phenomenon of health care abuses against patients. Pillemer and Moore (1990); Ramsey-Klawnsnik (2000); McCool, Jorgerst, Daly, and Xu (2009), among a list of early researchers, examined offender databases and framed causal

constructs allied to potential work-related stress to the types of offenders that might abuse in behavioral analysis. However, the strongest framing of health care provider abuses that related to Hodge's (1998) article was the concepts of institutional mistreatment (Biggs et al., 2009). Abuse by providers in health service systems can provide a "perspective of a relationship within an organisational system" (Biggs et al., 2009, p. 2). The individual offender may reflect a greater systemic failure of care.

Yongjie, Mikton, Wilder, and Gassoumis (2016) presented their meta-analysis of their prevalence study from an international perspective stating that "roughly 1 in 10 older people experience abuse every month and the rates may be higher for those living in institutional settings" (Yongjie et al., 2016, p. 2). With the increase of an aging population worldwide, more incidents of elder mistreatment are probable. Yongjie et al. (2016) examined however, the inconsistencies as to the reported prevalence rates regarding the varying and different definitions for elder mistreatment, abuse, and the lack of uniformity and reliability of information collection from local, regional, and global data monitoring.

Roberto (2016) cited the same inconsistencies in prevalence data collection. She expressed concern that the growing body of literature on elder abuse and/or mistreatment was hindered for lack of a uniformed analysis. Each discipline, whether it was researchers, patient advocacy groups, law enforcement, health educators, or the health industry itself, differed in their measurement analysis and approach to mitigation and solutions.

A goal for both Yongjie et al. (2016) and Roberto (2016) was synthesizing data characteristics that identified physical abuse, sexual abuse, emotional abuse, neglect, and exploitation, in environments of group or nursing homes, specific residential care (i.e., dementia, behavioral health, drug and alcohol rehabilitation), community and institutional care locations,

and the criteria for age limits for institutional mistreatment data. Institutional care for example has adult residents as young as 18 to 21 years of age. Measuring the prevalence of elder and vulnerable adult abuse for institutional mistreatment may change the framing of at risk factors for “individual characteristics in incidences” (Mysyuk et al., 2013, p. 1267).

Prevalence of abuse was better researched in individual topics relegated to Adult Protective Services’ review of abuse, oversight agencies, and researchers for health care abuse in some U.S. states (Jogerst et al., 2006; McCool et al., 2009; Narvarro et al., 2013). Offender data created and utilized by Medicaid Units and DHHS continue the concerns for awareness, intervention, and mitigation of identifiable abuses (Comlossy, 2013). The changing health care environments and the greater demand for research of institutional care mistreatment, at all levels, support the efforts to utilize offender data for a proactive review of abuse trends.

Summary

This chapter provided the literature review related to institutional abuse and mistreatment, the criminality of abuse, and the on-going development of what the prevalence of abuse measurements might mean. The literature review was strongly related to the topic of elder abuse, with limited research on young adults institutionalized mistreatment over the age of 18 years of age. Child, sex, domestic violence, intimate partner, with newer research regarding gay, lesbian, bisexual, transsexual, and queer, abuse were more prolific than was the research into mixed populations in institutional care environments. The prevalence of continued abuse may seek to utilize collected offender data for an overall assessment of institutional mistreatment, as well as a broader analysis, inclusive of local, state, and global monitoring.

CHAPTER III

METHODOLOGY

This chapter describes the methodology, research design, the research questions, population and sample, variables analysis, and data collection and analysis. The quantitative study examined nonparametric data to understand potential relationships between two or more groups of independent variables. The chi-square test of independence was used to analyze the nominal data.

The examination of the extant data explored the phenomenon of health care provider abuses in Tennessee. This was an opportunity to research the specifics of a criminal offender population in Tennessee. The data were collected and reported to the federal oversight agency DHHS. The large data sample covered 10-years of convictions from 2006 to 2015. These were criminal offenses for abuse, neglect, and exploitation by licensed and certified health care providers, also called practitioners, inclusive of nursing assistants, physicians, registered nurses, behavioral health practitioners, and other allied health professionals. The sampled population chosen for the study was reported in electronic format to the federal agency DHHS. Prior to 2006, some of the collected and reported data were in hard copy forms.

The Tennessee archival data maintain mandatory reporting requirements under government oversights (Tennessee Bureau of Investigation, 2013). The annual reporting was monitored by DHHS and assisted in the validity and reliability of the data. The uniformity of the data elements was prerequisite for compliant reporting. This study pursued research questions

and hypotheses regarding caregiver and patient relationships. The interest in exploring work environments, the demographics of the offenders, and the victims' dependency on care services were included.

Research Questions and Statement of Research Hypotheses

The research questions (RQ) in the study addressed the following:

(RQ1): Is there a relationship between the types of abuse inflicted and the job level or training?

(RQ2): Is there a relationship between the types of abuse inflicted and the patient's level of dependency?

(RQ3): Is there a relationship between the types of abuse inflicted and the work environments?

A second set of research questions addressed the relationships between demographic variables (i.e., extraneous in this study) such as sex and race:

(RQ4): Is there any relationship between the types of abuse inflicted and the sex of the offender?

(RQ5): Is there any relationship between the types of abuse inflicted and the sex of the victim?

(RQ6): Is there any relationship between the types of abuse inflicted and the race of the offender?

(RQ7): Is there any relationship between the types of abuse inflicted and the race of the victim?

The following null hypotheses were generated for analysis:

Null (H₀) 1: There is no relationship between the types of abuse inflicted and job level or training.

Null (H₀) 2: There is no relationship between the types of abuse inflicted and the patient's level of dependency.

Null (H₀) 3: There is no relationship between the types of abuse inflicted and the work environments.

The following null hypotheses were generated for analysis from the demographic data:

Null (H₀) 4: There is no relationship between the types of abuse inflicted and the sex of the offender.

Null (H₀) 5: There is no relationship between the types of abuse inflicted and the sex of the victim.

Null (H₀) 6: There is no relationship between the types of abuse inflicted and the race of the offender.

Null (H₀) 7: There is no relationship between the types of abuse inflicted and the race of the victim.

Research Design

The retrospective study of Tennessee health care offenders was a causal-comparative study. The choice for this research design was due to the ex post facto data that cannot be manipulated, the objective numerical examination (nominal independent and dependent variables) of the total convictions in calendar years, and the larger sample size of offenders. The research design may offer the opportunity for researchers to replicate the analysis of the offender

information in Tennessee from 2006 to 2015. Based on the collected convictions for fraud, abuse, and neglect of adult victims, relationships between the dependent variable and the independent variables emerged. The research questions formed may be pivotal in care-centered discussions, managed care services, and the individuals that provide care. The research could be replicated.

Population and Sample

The population and sample for the study were chosen from the offender data for health care fraud convictions in Tennessee by TBI-MFCU and other law enforcement agencies. The sample was limited to convictions from 2006 to 2015. This was due to the convenience of the electronic archival data. There were 267 cases during the period of interest separated by the offender charges for fraud, abuse, or neglect. The sample size is $N = 267$.

Variables Analysis

The variables analysis chart in Table 1 outlined the basis for a causal-comparative study. The chart depicts the nominal independent variables of job level of the offender, the dependency of the victim, work environments, and the sex and race of the offender. The variables were measured against the nominal dependent variable, types of patient abuse, physical/emotional and financial.

Table 3.1 Variables Analysis

	Variables	Level	Scale of Measurement
Dependent Variables	Patient Abuse	1 = Physical 2 = Emotional 3 = Financial	Nominal
Independent Variables	Job Level	1 = College, 5 years+ 2 = Technical Degree 3 = High School/GED, Certification	Nominal
	Dependency of Patient	1 = Skilled Care Nursing 2 = Assisted Living Support 3 = Independent w/ Support	Nominal
	Work Environments	1 = Hospitals, Rehabs/Inpatient 2 = Group Homes, Community Living 3 = Private Duty Support	Nominal
Extraneous Variables	Sex	1 = Male 2 = Female	Nominal
	Race	1 = American Indian/Alaskan 2 = Asian 3 = Black American 4 = Caucasian	Nominal

Data Collection

The initial steps to obtain the secondary data source involved the permission of the TBI-MFCU and the Institutional Review Board (IRB). The study used the secondary data source from TBI-MFCU annual reports to the Department of Health and Human Services, Office of Inspector General through the Freedom of Information Act (Foerstel, 1999). The described elements in the data were adults over the age of 21 years, committing fraud, abuse, and neglect in Tennessee, and convicted under related statutes for health care crimes for civil or criminal offenses from 2006 to 2015. The additional demographics for the study such as victim profiles, sex, age, and race were not included in the reports from Department of Health and Human Services, Office of Inspector General. The additional secondary data source included Tennessee District Attorney offices, media, archived newspapers outlets, and the Internet.

Data Analysis

The data analysis used descriptive statistics and the chi-square test of independence to investigate relationships between two or more nominal variables. The analysis of the variables from the contingency, or crosstabulation table in the chi-square test related to the types of abuse to the independent variables of job level, dependency of patient, work environments, sex, and race of the offender (Urda, 2016). The calculation and summarization of data utilized the Statistical Package for the Social Science (SPSS).

CHAPTER IV

RESULTS AND ANALYSIS

The State of Tennessee has collected data related to health care practitioners who were convicted of patient abuses since 1977 (U.S. Congress, 1977). The state government agency responsible for the repository and archival information has been the Medicaid Fraud Control Unit (MFCU) within the Tennessee Bureau of Investigation. There were other state agencies that reported potential practitioner offenses to MFCU such as the Adult Protective Services, the Office of Area Agency On Aging, public and private organizations, as well as other Tennessee law enforcement, and employers of practitioners responsible for the health and welfare of their clients.

The purpose of this study was to examine potential relationships between types of abuse and independent variables job level, dependency of patient, work environments, sex, and race. The data collected were of convicted health care practitioners in Tennessee from 2006 to 2015 for criminal offenses of patient abuse. The population consisted of 227 convicted practitioners that were either licensed, certified, or trained in their perspective professional practice or job level. Figure 4.1 illustrates the dependent variables, types of abuse (physical/emotional), and the independent variables for this study.

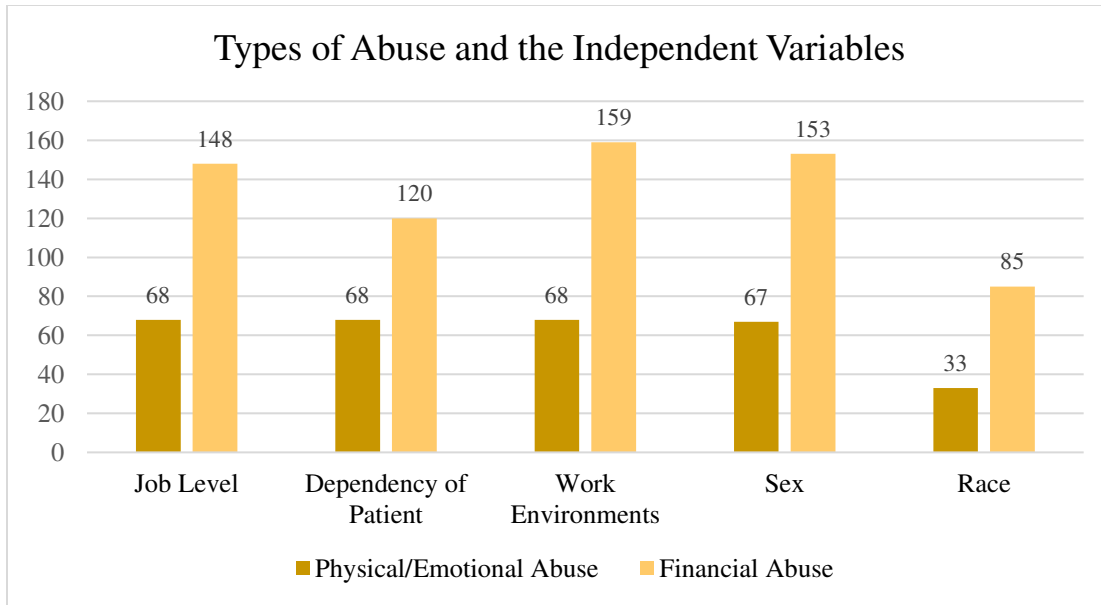


Figure 4.1 Types of abuse and the independent variables, 2006 – 2015

Description of the Sample

Table 4.1 shows the demographic characters of the offender population in this study. Among offenders whose sex was reported, 52.3% were male while 47.7% were female. Among offenders whose race was available, the majority (81.4%) were caucasian. The offenders in this study had an 81.5% of having a technical degree or an advanced level of professional training.

Table 4.1 Demographic Characteristics of Offender Population

Sex	<i>n</i>	%
Male	115	52.3
Female	105	47.7
Total	220	100.0

Race	<i>n</i>	%
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Caucasian	96	81.4
Black American, African	11	9.3
Asian	10	8.5
American Indian, Alaskan	1	0.8
Total	118	100.0

Job Level	<i>n</i>	%
College, 5 years +	110	50.9
Technical Degree	66	30.6
High School, Certification, Diploma	40	18.5
Total	216	100.0

Table 4.2 shows the descriptive statistics for the types of the abuse, the dependency of the patient, and the work environments where the abuse occurred. As shown in the table, over two-thirds of abuse cases were financial abuse (70%). Over half (56.9%) of the patients who were abused were dependent on skilled care nursing. Most of the abuses (54.6%) occurred in a private duty support.

Table 4.2 Descriptive Statistics for the Type of Abuse, Dependency of the Patient and the Work Environments

Types of Abuse	<i>n</i>	%
Physical or Emotional	68	30.0
Financial	159	70.0

Total	227	100.0
<hr/>		
Dependency of Patient	<i>n</i>	%
Skilled Care Nursing	107	56.9
Assisted Living Support	38	20.2
Independent with Support	43	22.9
Total	188	100.0
<hr/>		
Work Environments	<i>n</i>	%
Hospitals, Rehabs, Inpatient	80	35.2
Group Homes, Community Living	23	10.1
Private Duty Support	124	54.6
Total	227	100.0
<hr/>		

Data Analysis

Seven research questions were developed to direct the study. Due to data availability, only five corresponding hypotheses were tested. The Pearson's Chi-square was used to evaluate the null hypotheses. The assumptions of chi-square are: (1) no more than 20% of the cells can have an expected frequency of less than five and (2) the minimum expected frequency must be at least 1.0. The assumptions of the chi-square test for each of the hypotheses were met unless otherwise indicated. As a measure of the strength of the relationship between two variables, Phi was used for 2 by 2 crosstabulated tables while Cramer's *V* was used when tables were larger than 2 by 2. As shown in Table 4.3, are the guidelines for interpreting Phi and Cramer's *V* used in this study by Rea and Parker (1992).

Table 4.3 Phi and Cramer's V Guidelines

Value of Phi or Cramer's V	Description
.00 and under .10	Negligible association
.10 and under .20	Weak association
.20 and under .40	Moderate association
.40 and under .60	Relatively strong association
.60 and under .80	Strong association
.80 to 1.00	Very Strong association

Research Question One

Is there a relationship between the types of abuse inflicted and the job level or training?

Null (H₀) 1: There is no relationship between the types of abuse inflicted and the job level or training.

A Pearson's Chi-square test was used to evaluate the relationship between job level and types of abuse. Job level had three positions (college or 5+ years, technical degree, and high school certification or diploma). The types of abuse had two levels (physical/emotional and financial).

As shown in Table 4.4, the percentage of the offenders who perpetrated physical/emotional abuse were: 12.7 % of offenders with college, 5+ years training; 56.1 % of those with a technical degree; and 42.5% of offenders with a high school certification or diploma. The chi-square test for job level was significant, Pearson's Chi-square (2, $N = 216$) = 38.67, $p < .005$. Therefore, the null hypothesis was rejected. Cramer's V indicated the strength of the association between job level and types of abuse was relatively strong (Phi = .42). The

percentages of offenders who perpetrated financial abuse were: 87.3% of offenders with college, 5+ years training; 43.9% of those with a technical degree; and 57.5% of offenders with a high school certification or diploma.

Table 4.4 Crosstabulated Table for Job Level and Types of Abuse by Offender

Types of Abuse	College, 5 years +		Technical Degree		High School	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Physical/Emotional	14	12.7	37	56.1	17	42.5
Financial	96	87.3	29	43.9	23	57.5
Total	110	100.0	66	100.0	40	100.0

The chi-square test for job level and types of abuse was significant, therefore, follow-up tests for pairwise comparisons were conducted. The Holm’s Sequential Bonferroni Method was used to control for Type I error when testing multiple comparisons and to calculate the appropriate interpretations of the α level that represents the probability of a Type I error (Salkind, 2010, p. 2). The alpha used to test the hypothesis was .017. The $p < .005$ was less than alpha, the null hypothesis was rejected. Table 4.5 shows the results of the pairwise comparisons.

Table 4.5 Results for Job Level Pairwise Comparisons Using the Holm’s Sequential Bonferroni Method

Comparison	Pearson’s Chi-square	<i>p</i> value (Alpha*)	Phi
College, 5 years + vs. Technical Degree	38.67**	< .005 (.017)	.46

College, 5 years + vs. High School	15.86**	< .005 (.025)	.33
Technical Degree vs. High School	1.83	.176 (.050)	.13

*Alpha level testing

** Significant

The comparison between offenders with college, 5+ years versus those with a technical degree was significant. The Phi measure of association showed a relatively strong association between the variables (Phi = .46). The percentage of offenders with college, 5+ years training who perpetrated financial abuse (87.3%) was double that of offenders with a technical degree (43.9%).

The chi-square test for offenders with college, 5+ years training versus high school was also statistically significant (Phi = .33) indicating a moderate association. Again, the percentage of offenders with college, 5+ years training (87.3%) who perpetrated financial abuse was 30 percentage points higher than offenders with a high school certification or diploma (57.5%).

Finally, there was no statistically significant relationship between offenders with a technical degree and those with high school training and the types of abuse perpetrated. Phi indicated only a weak association (Phi = .13). In conclusion, offenders with college, 5+ years of training were more likely to perpetrate financial abuse than offenders with technical degrees or those with only high school training. However, offenders with college, 5+ years of training, were less likely to perpetrate physical/emotional abuse (12.7%) than offenders with high school training (42.5%), and offenders with a technical degree (56.1 %).

Research Question Two

Is there a relationship between the types of abuse inflicted and the dependency of patient?

Null (H_0) 2: There is no relationship between the types of abuse inflicted and the dependency of patient.

A Pearson's Chi-square test was used to evaluate the relationship between the dependency of patient and types of abuse. Dependency of patient had three levels (skilled care, assisted living support, and independent with support). The types of abuse had two levels (physical/emotional and financial).

The percentages of physical/emotional abuse were: 60.7% for skilled care nursing, 5.3% for assisted living with support, and 2.3% for independent support. The chi-square test for the dependency of patient was significant, Pearson's Chi-square ($2, N = 188$) = 65.05, $p < .005$. Therefore, the null hypothesis was rejected. Cramer's V showed a relatively strong association between dependency of patient and types of abuses ($\Phi = .59$). Table 4.6 shows the dependency of the patient and the types of the abuse.

Table 4.6 Crosstabulated Table for Dependency of Patient and Types of Abuse by Offender

Types of Abuse	Skilled Care Nursing		Assisted Living Support		Independent with Support	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Physical/Emotional	65	60.7	2	5.3	1	2.3
Financial	42	39.3	36	94.7	42	97.7
Total	107	100.0	38	100.0	43	100.0

The chi-square test for dependency of patient and types of abuse was significant, follow-up tests for pairwise comparisons were conducted. The Holm’s Sequential Bonferroni method to control for Type I error when testing multiple comparisons was used to calculate the appropriate alpha level for each comparison. Table 4.7 shows the results of the pairwise comparisons.

Table 4.7 Results for Dependency of Patient Pairwise Comparisons Using the Holm’s Sequential Bonferroni Method

Comparison	Pearson’s Chi-square	<i>p</i> value (Alpha*)	Phi
Skilled Care Nursing vs. Independent with Support	42.49**	< .005 (.017)	.53
Skilled Care Nursing vs. Assisted Living	34.73**	< .005 (.025)	.49
Assisted Living vs. Independent with Support	0.49***	.485 (.017)	.08

*Alpha level testing

** Significant

***Chi-square Test had a violation of an assumption.

The comparison between the dependency of patient in skilled care nursing versus independent with support was significant. The Phi measure of association showed a relatively strong association between variables (Phi = .53). Among patients who were independent with support, 97.7% were subjected to financial abuse as opposed to only 39.3% of patients with skilled care nursing.

The chi-square test for skilled care nursing and assisted living with support was also significant with Phi (Phi = .49) indicating a relatively strong association. The percentage of patients with assisted living support who were subjected to financial abuse was 94.7% while only 39.3% of patients with skilled nursing care were financially abused. Finally, there was a

violation of the assumption of Pearson's Chi-square for the comparison between patients who had assisted living support versus those who were independent with support, the test was not used to evaluate statistical significance. There was a weak association ($\Phi = .08$) between the dependency of the patient and the types of abuse. The majority of patients who had assisted living support (94.7%) and patients who were independent with support (97.7%) had been financially abused. In conclusion, patients who had skilled care nursing were considerably less likely to be victimized by financial abuse (39.3%) than were patients who were independent with support and patients with assisted living support. However, the patients in skilled care nursing were more likely to experience physical/emotional abuse (60.7%) than assisted living support (5.3%) and independent with support (2.3%).

Research Question Three

Is there a relationship between the types of abuse inflicted and the work environments?

Null (H_0) 3: There is no relationship between the types of abuse inflicted and the work environments.

A Pearson's Chi-square was used to evaluate the relationship between the types of abuse and the work environments. There were three levels for work environments (hospitals/rehab/inpatient, group homes/community living, and private duty support). The types of abuse had two levels (physical/emotional and financial).

As shown in Table 4.8, the percentages for work environments where physical/emotional abuse occurred were: 46.3% for hospitals, rehab, inpatient, 43.5% for group homes, community living, and 16.9% for private duty support. The chi-square test for work environments was significant, Pearson's Chi-square ($2, N = 227$) = 22.15, $p < .005$. Therefore, the null hypothesis

was rejected. Cramer’s *V* indicated the strength of association between work environments and types of abuse was moderate ($\Phi = .31$). The 83.1% of the offenders who provided private duty support perpetrated financial abuse as opposed to 56.5% of offenders in group homes/community living, and 53.8% of offenders in hospitals, rehabs or inpatient facilities.

Table 4.8 Crosstabulated Table for Work Environments and Types of Abuse by Offender

Types of Abuse	Hospitals, Rehabs, Inpatient		Group Homes, Community Living		Private Duty Support	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Physical/Emotional	37	46.3	10	43.5	21	16.9
Financial	43	53.8	13	56.5	103	83.1
Total	80	100.0	23	100.0	124	100.0

The chi-square test for work environments and types of abuse was significant, follow-up tests for pairwise comparisons were conducted. The Holm’s Sequential Bonferroni to control for Type I error when testing multiple comparisons was used to calculate the appropriate alpha level for each comparison. Table 4.9 shows the results of the pairwise comparisons.

Table 4.9 Results for Work Environments Pairwise Comparisons Using the Holm’s Sequential Bonferroni Method

Comparison	Pearson’s Chi-Square	<i>p</i> value (Alpha*)	Phi
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Hospitals, Rehab, Inpatient vs. Private Duty	20.54**	< .005 (.017)	.32
Group Homes, Community Living vs. Private Duty Support	8.21**	.004 (.025)	.24
Hospitals, Rehabs, Inpatient vs. Group Homes, Community Living	0.06***	.814 (.017)	.02

*Alpha testing level

**Significant

***Violation of an assumption of chi-square Test

The comparison between hospitals, rehabs, and inpatient versus private duty support was statistically significant (Phi = .32) indicating a moderate association. Among offenders who provided private duty support, 83.1% perpetrated financial abuse on patients compared to 53.8% of offenders who worked in hospitals, rehabs, and inpatient facilities.

The comparison between group homes and community living versus private duty offender showed the chi-square test had a violation of the assumption of chi-square. However, among private duty offenders, 83.1% perpetrated financial abuse while only 56.5% of offenders who worked in group homes or community living perpetrated financial abuse. The statistics indicated a moderate association (Phi = .24).

Finally, there were no differences in the comparisons between offenders who worked in hospitals, rehabs, inpatient, and group homes, community living. The measure of association between variables was small (Phi = .02). The percentage of financial abuse perpetrated in group homes, community living (56.5%) was no different than financial abuse (53.8%) in hospitals, rehabs, and inpatient.

In conclusion, offenders in work environments of private duty support were more likely to perpetrate financial abuse than offenders in hospitals, rehabs, inpatient facilities, and offenders who worked in group homes, or community living. However, physical/emotional abuse by offenders was greater for hospitals, rehabs, and inpatient (46.3%) and group homes, community living (43.5%), than for private duty support (16.9%).

Research Question Four

Is there any relationship between the types of abuse inflicted and the sex of the offender?

Null (H_0) 4: There is no relationship between the types of abuse inflicted and the sex of the offender.

A Pearson's Chi-square test was used to evaluate the relationship between sex and types of abuse. Sex had two levels (male, female). The types of abuse had two levels (physical or emotional and financial).

The chi-square test for sex was significant, Pearson's Chi-square (1, $N = 220$) = 4.24, $p = .039$. Therefore, the null hypothesis was rejected. However, Cramer's V indicated the strength of the relationship between sex and types of abuse was weak ($\Phi = .14$).

As shown in Table 4.10, a higher percentage of female offenders (37.1%) perpetrated physical/emotional abuse than male offenders (24.3%). Female offenders were slightly lower (62.9%) in perpetrating financial abuse than male offenders (75.7%).

Table 4.10 Crosstabulated Table for Sex and Types of Abuse by Offender

Types of Abuse	Male		Female		Total
	<i>n</i>	%	<i>n</i>	%	
Physical or Emotional	28	24.3	39	37.1	67
Financial	87	75.7	66	62.9	153
Total	115	100.0	105	100.0	220

While the chi-square test was statistically significant, the association between sex and the types of abuse was weak ($\Phi = .14$). In conclusion, the difference in the percentages of males and females who perpetrated physical/emotional or financial abuse showed only 12.8 percentage points for both. The difference was somewhat small, and the strength of the relationship was weak.

Research Question Five

Is there a significant relationship between the types of abuse inflicted and the sex of the victim?

Null (H_0) 5: There is no relationship between the types of abuse inflicted and the sex of the victim.

There was no available data to analyze research question five. The victim information for this study was maintained in the investigative files of the TBI-MFCU. Some information was occasionally reported in media sources but was not always reliable or verifiable to include in this study.

Research Question Six

Is there any relationship between the types of abuse inflicted and the race of the offender?

Null (H₀) 6: There is no relationship between the types of abuse inflicted and the race of the offender.

Initially, the chi-square test for race and types of abuse showed violations of the assumptions of chi-square. As a result, the variable, race, was collapsed into two categories, Caucasian versus minority. The types of abuse had two levels (physical/emotional and financial abuse).

The percentages for physical/emotional abuse were: 26.0% for Caucasian and 36.4% for minorities. The chi-square test for race and types of abuse was not significant, Pearson's Chi-square (1, $N = 118$) = 0.95, $p = .331$. Therefore, the null hypothesis was not rejected. Cramer's V indicated the relationship between race and types of abuse was weak ($\Phi = .09$). As shown in Table 4.11, physical/emotional abuse had the same difference in percentage points as the 74.0% of Caucasians who perpetrated financial abuse and the 63.6% of minority offenders, a difference of only 10.4 percentage points.

Table 4.11 Crosstabulated Table for Race and Types of Abuse by Offender

Types of Abuse	Caucasian		Minority		Total
	<i>n</i>	%	<i>n</i>	%	
Physical/Emotional	25	26.0%	8	36.4%	33
Financial	71	74.0%	14	63.6%	85
Total	96	100.0%	22	100.0%	118

Summary

The study examined seven research questions and seven hypotheses. However, due to data availability, only five corresponding hypotheses were tested. Each research question tested the independent variables with the nominal dependent variable, types of patient abuse. The chi-square testing assessed if there were statistical relationships between the identified nominal variables of job level, dependency of patient, work environments, sex, and race of the offender. The types of abuse were physical/emotional and financial.

Research question one assessed job level that was divided into three positions: college, 5 years +; technical degree; and high school or diploma. Findings showed the percentage of the total college, 5 years + was 50.9 ($N = 110$), technical degree was 30.6 ($N = 66$), and high school or diploma was 18.5 ($N = 40$). The dependent variable, types of abuse, was divided into two levels: physical/emotional abuse and financial abuse. The findings for physical/emotional abuse perpetrated by offenders were: 12.7 % of offenders with college, 5+ years training; 56.1 % of those with a technical degree; and 42.5% of offenders with a high school certification or diploma. Findings showed the percentages of offenders who perpetrated financial abuse were: 87.3% of offenders with college or 5+ years training; 43.9% of those with a technical degree; and 57.5% of offenders with a high school certification or diploma. There was a statistical relationship therefore, the null hypothesis was rejected.

Research question two assessed the dependency of patient that was divided into three levels: skilled care nursing, assisted living support, and independent with support. Findings showed the percentage of the total skilled care nursing was 56.9 ($N = 107$), assisted living support was 20.2 ($N = 38$), and independent with support was 22.9 ($N = 43$). The findings for patients impacted by physical/emotional abuse by offenders were: 60.7% for skilled care nursing,

5.3% for assisted living with support, and 2.3% for independent support. Findings showed the percentages for dependency of patient impacted by financial fraud were: independent with support was 97.7%, assisted living support was 94.7%, and 39.3% of skilled care nursing. There was a statistical relationship therefore, the null hypothesis was rejected.

Research question three assessed work environments that was divided into three levels: hospitals, rehab, inpatient; then group homes, community living; and private duty support. Findings showed the percentage of the total of hospital, rehab, inpatient was 35.2 ($N = 80$), group homes, community living was 10.1 ($N = 23$), and private duty support was 54.6 ($N = 124$). The findings for patients impacted by physical/emotional abuse by offenders were: 46.3% for hospitals, rehab, inpatient, 43.5% for group homes, community living, and 16.9% for private duty support. Findings showed the percentages of financial abuse perpetrated in work environments were: private duty support was 83.1%, in group homes, community living 56.5%, and hospitals, rehab, inpatient was 53.8%. There was a statistical relationship therefore, the null hypothesis was rejected.

Research question four assessed the sex of the offender and the types of abuse inflicted. Findings showed the percentage of the total of males was 52.3 ($N = 115$) and females 47.7 ($N = 105$). A higher percentage of female offenders (37.1%) perpetrated physical/emotional abuse than male offenders (24.3%). Female offenders were slightly lower (62.9%) in perpetrating financial abuse than male offenders (75.7%). There was a statistical relationship therefore, the null hypothesis was rejected.

There was no available data to analyze research question five. The victim information for this study was maintained in the investigative files of the TBI-MFCU. Some victim

information was occasionally reported in media or Internet sources but was not always reliable or verifiable to include in this study.

Research question six assessed the race of the offender and the types of abuse inflicted. Findings showed the percentage of the total of Caucasians was 81.4 ($N = 96$) and minorities, 18.6 ($N = 22$). Initially, the chi-square test for race and types of abuse showed violations of the assumptions of chi-square. As a result, the variable, race was collapsed into two categories: Caucasian versus minorities. Findings for physical/emotional abuse were: 26.0% for Caucasian and 36.4% for minorities. The findings for financial abuse was 74.0% of Caucasians offenders and 63.6% of minority offenders. There was no statistical relationship therefore, the null hypothesis was not rejected.

CHAPTER V

DISCUSSION AND CONCLUSION

Objectives of the Study

The purpose of this study was to quantitatively assess any relationship between the nominal independent variables (job level, dependency of patient, work environments, sex, and race of the offender) and the nominal dependent variable (types of patient abuse). The researcher reviewed convicted health care practitioner data from 2006 to 2015 for the State of Tennessee. The analysis focused on descriptive statistics, chi-square, and the Holm's Sequential Bonferroni Procedure for whether statistical significance existed in any relationship. A summary of findings, conclusions, and recommendations are detailed in the following sections.

Summary of Findings

The study examined five research questions with the generation of five hypotheses. The findings presented as a part of this research were the result of testing the five hypotheses with the available data on health care practitioner offences resulting in the types of patient abuse committed. The secondary data included sources from criminal and/or civil dispositions from judicial districts (95) of District Attorneys in Tennessee, federal and state law enforcement agencies, media (broadcasting and electronic/digital), hard copy news prints, including but not limited to databases such as LexisNexis and ProQuest, and lastly, the Internet. The findings of the nonparametric data for potential relationships between two or more groups of independent

variables and the dependent variable were statistically significant in four of the five tested hypotheses. Based on the results of this study, quantifying relationships in health care offenses may help to further examine the accuracy of measuring prevalence rates of patient abuse from allegations to convictions, the behavior of the prevalence for abuse in work environments, and the increase of collaborative research for the identification and unified definitions for the types of abuse in national and global communities.

Findings of the Study

In the review of pertinent literature, the mistreatment, the criminality, and the prevalence of vulnerable adult abuse, key variables such as the job levels of health care practitioners, the work environments from private duty to institutionalized facilities, the level of dependency of a patient for care services, and the sex and race of the offender were identified in all offender convictions and as Daly (2014) stated, “tapped the history and demographics” (p. 4) of each incident of abuse. The independent variables in this analysis were relevant themes in the research that were measured against the dependent variable, types of patient abuse (physical/emotional and financial). The focused time of the analysis for offender convictions was 2006 to 2015. Five research questions directed the study with the use of contingency tables and chi-square to test for relationships. All research questions were tested with the same methodology to determine potential relationships. The following sections review each research question and its findings.

Research question one examined the relationship between the job level or training and the types of abuse inflicted. The Pearson’s Chi-square was used to evaluate the null hypothesis and it was found to be significant. To measure of the strength of the relationship between two

variables, Phi was used for 2 by 2 crosstabulated tables and Cramer's *V* for larger tables. The relationship between job level or training and types of abuse was relatively strong. Among the three categories of job level, (College, 5 years +, Technical Degree, and High School, Diploma), 56.1 % of those with a technical degree perpetrated physical/emotional abuse and 87.3% of offenders with college, 5 years + perpetrated financial abuse.

Research question two examined the relationship between the dependency of the patient and the types of abuse. The results of the Pearson's Chi-square was significant and Cramer's *V* showed a relatively strong association. Among the three levels of dependency of patient (Skilled Care Nursing, Assisted Living Support, and Independent with Support), 60.7% of patients in skilled care nursing had experienced physical/emotional abuse. However, patients who had assisted living support (94.7%) and patients who were independent with support (97.7%) had experienced financial abuse to a much greater extent.

In research question three, work environments and types of abuse were examined. As with the two other research questions, three levels of work environments (Hospitals, Rehabs, Inpatient; Group Homes, Community Living; and Private Duty Support) were found to be significant with 46.3% of physical/emotional abuse perpetrated in hospitals, rehabs, inpatient, and 43.5% in group homes, community living. These two work environments were also similar in perpetrated financial abuse with 53.8% and 56.5%, respectively. The data revealed that private duty support had the lowest in physical/emotional abuse with 16.9%, yet, the perpetrated financial abuse was 83.1%.

In research question four, the 2 by 2 crosstabulated tables examined the sex of the offender and the types of abuse. Although the data revealed the chi-square test for sex was significant, there was a weak association. Females offenders perpetrated 37.1 % of

physical/emotional abuse compared to males at 24.3%. However, males offenders perpetrated 75.7% of financial fraud, compared to 62.9% of females.

In the last tested research question, the race of the offender was examined against the types of abuse. In measuring the four levels of identified race categories, Caucasian ($N = 96$), Black American, African ($N = 11$), Asian ($N = 10$), American Indian, Alaskan ($N = 1$), a violation of the assumptions of chi-square was found, therefore, the variable, race, was collapsed into two categories, Caucasians and minorities. Physical/emotional abuse was perpetrated 26.0% for Caucasian offenders and 36.4% for minorities. Caucasians offenders perpetrated 74.0% of financial abuse compared to 63.6% of minority offenders. There was no relationship between the types of abuse inflicted and the race of the offender for this analysis.

Conclusions

The following conclusions were drawn from this study regarding potential relationships between health care practitioner offences and the types of patient abuse in Tennessee from 2006 to 2015. Previous research has analyzed antecedents in working conditions, casual factors due to stress, and/or psychosocial behavioral indicators in health care practitioner patient abuse. This study utilized available data for a 10-year offender period; a retrospective baseline for types of patient abuse in the State of Tennessee. A limitation in the study included the access to victim data either by state regulations on privacy rights and/or statutes that governed public access to investigative files. Also, the findings and conclusions may not be generalizable to other populations.

The results of this study indicated that financial abuse was prominent for all independent variables measured while physical/emotional abuse was secondary. As mentioned in the

limitations, victim information was not always available for a more complete assessment of potential relationships. The following conclusions were drawn from the analysis of the data relevant to this study.

- 1) For all independent variables, financial abuse exceeded physical/emotional abuse in the 10-year review by more than half.
- 2) In Job level, College, 5+ years, constituted the most perpetrated financial abuse category at 87.3%.
- 3) The Dependency of patient saw the highest perpetrated financial abuse between two patient groups, those in assisted living and independent support. The highest incidents of physical/emotional abuse was more than all independent variables in the study at 60.7% for patients in skilled care nursing environments.
- 4) For Work environments, patients in private duty support had the greatest amount of financial abuse.
- 5) For Sex, 37.1% of the sampled female offenders perpetrated more physical/emotional abuse than male offenders (24.3%), however, less financial abuse (62.9%) than males (75.7%).
- 6) Race was potentially less represented in the sample of individual offenders. This may have been due to the demographics of the region or identifiable data of the offenders. 26.0% of Caucasians perpetrated less physical/emotional abuse and more financial abuse compared to 74.0% of minority offenders.

The theoretical framework for this study was the foundation for examining health care practitioner abuses in Tennessee. Two theories, the Constructivist Self Development Theory, CSDT, and the Routine Activity Theory, RAT, provided a lens into the failures of self-

development and the potential challenges, traumas of professional practice in the individual, and the decision-making rationale to criminal offend. The phenomenon of health care practitioner abuse in this 10-year study pertained to individuals with various practice levels and work environments that had outcomes of criminal behavior against vulnerable adults. Quantifying the prevalence of abuse integrates the individual offender and the justification of opportunities to perpetrate abuse.

Implications of the Study

Previous research has indicated that prevalence of abuse, physical/emotional and financial, are increasing (Navarro et al., 2013). The findings of this study may stimulate further analyses of potential relationships within the practitioner/patient environments, quantitative retrospective reviews of the annual reporting by the State of Tennessee to the state and federal stakeholders in the health care industry, and qualitative analyses of relationships that were identified. The process of breaking down a complex problem or the phenomena of patient abuse is the detailed examination of the abuse incidents by practitioner, work environments, patient impact, among several other variables to seek potential relationships that could influence outcomes of abuse. Data mining can begin the process, facilitating the quantitative reviews of health care practices and care services, consumer complaint analyses, anomalies in tracking peer-review services, and collaborative discussions with stakeholders on trending work environment stressors, to include organizational support systems in regard to professional practice in the health care industry.

Recommendations for Further Research

This study was designed to examine the health care practitioner abuse of patients in Tennessee for a designated time period. The quantitative approach reviewed the number of convictions based on secondary data then tested for potential relationships with the chosen nominal dependent and independent variables. This study was specific to Tennessee offenders, and the findings may not be relevant to other states that manage practitioner abuse encounters. More research is necessary to quantify aspects of engagement that culminate in civil or criminal outcomes.

What is relevant to all communities, stakeholders, and the health care industry is the prevalence of practitioner abuse. Research continues to examine data for trends, emerging changes in health care services, and the communities impacted by the prevalence of abuse in patient care services. Several recommendations for additional research are presented as a result of this study.

The victim impact data need to be part of future research studies in understanding relationships and risk factors with the help of designated law enforcement and human resource agencies that secure such data. There are recognized limits to the access of case investigations not only from law enforcement but from agencies such as Adult Protective Services or the Department of Intellectual and Developmental Disabilities (DIDD) for Tennessee. However, in a collaborative effort to quantify events of patient abuse, affiliated alliances may provide an expanded view of the prevalence of the types of abuse.

Research with collaborative entities may assist in unified data analysis for patient abuses, prevalence, and judicial outcomes. As Yongjie et al. (2016) examined the inconsistencies of reported prevalence rates in the U.S., the varying and different definitions for elder/vulnerable

adult mistreatment, abuse, and the lack of uniformity and reliability of information collection may impact the credibility and validity of abuse reporting processes. The collaboration might be extended to national and global efforts.

A quantitative analysis of offender data with a qualitative component, such as interviews or surveys, for a self perception examination of offender incidents may provide further variables of interest for testing purposes. A potential behavioral health research study on socioemotional stresses may assist in assessing interpersonal variables. This may culminate in the concerted effort to prevent offenses.

Of interest are the incidents of practitioner abuse in rural and urban environments. A causal-comparative study of diverse practitioner employee populations might provide evidence of relationships between incidence of abuse and the environment (rural versus urban) in Tennessee. There may be unique differences in a small community in a rural county in Tennessee regarding demographics, organizational support, and job longevity with or without work benefits for analyzing components of stress or job satisfaction.

Any future research depends on the reliability of the data in understanding the prevalence of patient abuse. The information impacts community support, costs and losses for the patient victim and the offender practitioner, the health care industry as a whole for services and care, and the changing cycle of prevalence. It was beyond the scope of this research to quantify reports of patient abuse that had no legal convictions in the judicial system. Agencies in Tennessee that conducted internal investigations of physical/emotional abuse and financial abuse allegations were Adult Protective Services, Department of Children Services, Intellectual & Developmental Disabilities, local law enforcement agencies, to name a few, that could confirm but not seek

prosecution for patient abuse for many reasons. The prevalence of abuse continues in the absence of data.

Summary

The purpose of this study was to examine a body of data for the purposes of testing identified variables to understand if any relationship existed between health care practitioners and types of patient abuse in Tennessee. The time period of the data, 2006 to 2015, relied on electronic recordkeeping to facilitate accurate criminal and civil dispositions for a quantitative analysis. The findings of this study identified physical/emotional abuse and financial abuse as having relationships with the job level, dependency of patient, and work environments. Sex was significant, but there was a weak association. There was no relationship between the types of abuse inflicted and the race of the offender for this analysis.

Data driven solutions in understanding the prevalence of abuse by health care practitioners might result in more Tennessee comparative analyses. Whether it is job performance, work environments, practitioner qualitative behavioral research, or collaborative endeavors by multiple agencies to formalize a process to define definitions of abuse and adjudication of such acts, the accurate collection of all data will be needed. The recommendations in this study were not exhaustive, but focused on Tennessee and future relatable studies.

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APPENDIX A
IRB APPLICATION

FORM A:
APPLICATION FOR REVIEW OF RESEARCH INVOLVING HUMAN SUBJECTS

INVESTIGATOR’S ASSURANCE: By submitting this protocol, I attest that I am aware of the applicable principles, policies, regulations, and laws governing the protection of human subjects in research and that I will be guided by them in the conduct of this research.

Title of Research: ARCHIVAL OFFENDER RECORDS ANALYSIS: EXAMINING PATIENT ABUSES IN TENNESSEE

	Dept	Mail Code	Email
Principal Investigator	Wahtawah TJ Battle		nld479@mocs.utc.edu
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Other Investigator			
Faculty Advisor	Dr. David Rausch		David-Rausch@utc.edu

Anticipated dates of research project: Upon IRB approval through 2018

Type of Research:

- Dissertation/Thesis Class Project
 Faculty Research Other (Please explain):

If this research pertains to a grant opportunity*: Grant Start Date:

***Attach grant proposal narrative & FCOI disclosure** Funding Agency:

Please check that all of the following items are attached (where applicable) before submitting the application:

- Any research instruments (any tests, surveys, questionnaires, protocols, or anything else used to collect data)

- All informed consent documents (see www.utc.edu/irb for sample informed consent documents)
- Permission from applicable authorities (principals of schools, teachers of classrooms, etc.) to conduct your research at their facilities
- Appropriate permission and signatures from your faculty advisor (if applicable).
- Please be sure the entire application is filled out completely.

All student applications must be either signed by the faculty advisor then scanned and submitted electronically, OR submitted directly by the faculty advisor.

- Allow at least 2 weeks for IRB processing from date of submission.
- You may not begin your research until it has been officially approved by the IRB.
- This form should not be used if your research involves protected health information. Please refer to the HIPAA section of the website (www.utc.edu/irb) for the appropriate forms.

All applications should be submitted by email to instrb@utc.edu.

Purpose/Objectives of Research: *Briefly state, in non-technical language, the purpose of the research and the problem to be investigated. When possible, state specific hypotheses to be tested or specific research questions to be answered. For pilot or exploratory studies, discuss the way in which the information obtained will be used in future studies so that the long term benefits can be assessed.*

The purpose of this study is to examine potential relationships and the types of abuses committed by Tennessee healthcare doctors, nurses, therapists, medical technicians, allied medical professionals, licensed or certified, and trained caregivers. The research questions are: 1) Is there a relationship between job level or training and the type of abuse inflicted? 2) Is there a relationship between the types of abuse inflicted and the patient's level of dependency? 3) Is there a relationship between the types of abuse inflicted and the work environment? 4) Is there any relationship between the types of abuse inflicted and the sex of the offender? 5) Is there any relationship between the types of abuse inflicted and the sex of the victim? 6) Is there any relationship between the types of abuse inflicted and the race of the offender? 7) Is there any relationship between the types of abuse inflicted and the race of the victim?

The research objectives include analyzing data specific to healthcare offenders in the state of Tennessee, utilizing the information obtained by following a carefully defined quantitative study, investigating the phenomenon of abuse and fraud by professionals, and pursuing research questions to advance education and mitigation against such offenses.

Relevant Background and Rationale for the Research: *This section should present the context of the work by explaining the relation of the proposed research to previous investigations in the field. Include citations for relevant research. Please include at least twice as many peer reviewed articles as “lay” publications.*

The proposed study would examine the Tennessee data of convicted healthcare providers collected annually for a period of 10 years. Payne and Gainey (2006) studied unprofessional misconduct of healthcare practitioners/providers as a phenomenon, including outcomes of criminal behavior. Biggs, Stevens, Tinker, Dixon, and Lee (2009) described the “concern to make the phenomenon manageable and distinctive” (pg. 9). The proposed quantitative analysis of archived offender data may encourage reviews of other states’ data. Convicted offenders’ records are collected and reported to Health and Human Services in the Office of the Inspector General (Bucy, 1996), however, limited research has examined each of the offender reports per individual states.

Policastro, Gainey and Payne (2015) examined the data of crimes against older adults by looking at the characteristics of the offender and victim, potential relationships, and the types of offenses such as abuse, neglect, and exploitation for institutionalized abuses (Daly, 2014, Jackson, 2016). Asking specific research questions about the offense data, Policastro et. al., (2016) could see variables related to or identifiable concepts of abuse.

The conceptualization of victimization in elder abuse evolved from a theorized social problem of “vulnerable and impoverished older adults” (S. Jackson, 2016, p.1) to one of criminal intent from occupational healthcare and service practitioners. The proposed study will focus on the population of convicted offenders in healthcare abuses.

The study’s rationale would be the examination of the prevalence of practitioner abuses as researchers Yongjie, Mikton, Wilder, and Gassoumis, (2016) and Roberto (2016) both sought in their researches. Some potential outcomes might be the unification of states’ data and research and the formalization of definitions for abuse for accurate reporting measures. Although the proposed study is focused in Tennessee, it may suggest similar generalizable trends in healthcare practitioner abuses on national and international levels.

Methods/Procedures: *Briefly discuss, in non-technical language, the research methods which directly involve use of human subjects. Discuss how the methods employed will allow the investigator to address his/her hypotheses and/or research question(s).*

The proposed study is a causal comparative, an ex post facto review of convicted healthcare practitioners from 2006 to 2015 in Tennessee. There will be no personal identifiers used in the analysis of the data, e.g., names, addresses, or social security information. The proposed variables in the study include the offenders' job level, the environment where the offenses occurred, as well as the reported year, and the facility specialty (hospital, nursing rehabilitation center, residential group home, and healthcare agency). These will be numbered categorical variables without disclosing the names of persons, facilities or locations. The sex and race of the offenders and victim patients would be included as variables in the analysis using numerical descriptions such as male = 1, female = 2, race categories from 1 to 5 levels, and varying abuse levels described as 1 = physical, 2 = emotional, and 3 = financial.

The chi-square test of independence will be used test for the expected and observed data frequencies. The research methodology seeks to test the research hypotheses of potential relationships between two or more variables.

Subject Population: *List the size of population to be used, and check if any of the populations listed apply to the study. Discuss criteria of selection or exclusion, population from which they will be selected, and duration of involvement. NOTE: Federal guidelines require selection of subjects be equitable within the exclusions, and subjects meeting the criteria cannot be discriminated against for sex, race, social or financial status, or any other reason.*

Describe Sample: The sample will be made up of convicted healthcare providers in the state of Tennessee from 2006 to 2015. The conviction was based on the type of patient offense, abuse and/or fraud. The archival data are stored online with the Health and Human Services, Office of Inspector General, as well as the Tennessee Bureau of Investigation, Nashville, Tennessee. No data has been sampled or collected.

Approximate Number of Subjects: 267

Subjects Include (check if applicable):

Minors (under 18)

Involuntarily institutionalized

Mentally handicapped

*Health Care Data/Information

*Visit www.utc.edu/irb to download and complete additional HIPAA forms.

Informed Consent: Describe the consent process and attach all consent documents. See www.utc.edu/irb for sample informed consent forms and complete information regarding informed consent. All research must be conducted with the informed consent (signed or unsigned, as required) of all participants.

The archival data will not need informed consent. Access to the data are available with the permission from the Tennessee Bureau of Investigation, Medicaid Fraud Unit, as well as the public access to the annual reports for healthcare provider convictions for Tennessee at Health and Human Services on their website of <https://exclusions.oig.hhs.gov/> , <http://tncrimeonline.com/public/Browse/browsetables.aspx>

Incentives: Indicate whether or not subjects are to be paid, how and when they will be paid, amount, and the rationale for payment. The proposed payment should be commensurate with the time required for participation, travel expenses, and/or inconvenience assumed by the subject, but should not be so great as to constitute undue influence on an individual to assume risks of study participation that would not otherwise be undertaken.

Not applicable

Risks/Benefits to Participants and Precautions to Be Taken: This section should discuss all possible risks and discomforts from participation in the study, indicating both severity and likelihood of occurrence for each. Risks may range from the physical to the psychological, including inconvenience, travel, or boredom, and loss of privacy and confidentiality. The methods that will be used to minimize these risks should also be discussed. If subjects are vulnerable populations, or if risks are more than minimal, please describe what additional safeguards will be taken. This section should also discuss the potential benefits of the research. List any benefit to the participants themselves, contribution to the field of knowledge, or benefit to society as a whole. Indicate if there is no direct benefit to participants.

There are minimal risks in this study. This is a retrospective review of data that has been publicly available upon the release of the conviction of offenders from 2006 to 2015. No names of victims or offenders are used or needed in the proposed study. Some likely discomfort might include the subject matter, in retrospect, of offending practitioners in the Tennessee as a concern for prevalence of abuse.

The proposed study may have potential benefits in revealing associations, patterns, constructing algorithms of offender behavior, and/or relationships in the chosen categorical variables. Some conceptual development in the manner of abuse inflicted may assist further theories of how and who in the practice of healthcare services might offend.

Privacy/Confidentiality: *Please describe whether the research would involve observation in situations where subjects have a reasonable expectation of privacy. If identifiable existing records are to be examined, has appropriate permission been sought, i.e. from institutions, subjects, and physicians? What provision has been made to protect the confidentiality of sensitive information about individuals? Are research records anonymous? If not, there should be discussion of how records will be coded, where and how they will be stored, and when they will be disposed of. It should also note where and how signed consent forms will be maintained. If video or audio tapes will be made as part of the study, disposition of these tapes should be addressed. In general, the IRB recommends that research tapes be destroyed as soon as the needed data are transcribed, and that only restricted study personnel be allowed access to the tapes. List the names of individuals who will have access to names and/or data. If other procedures are proposed [for example, retaining tapes for future use, allowing individuals other than study investigators access to the tapes] justification should be presented and separate.*

Based upon the granted permission of The Tennessee Bureau of Investigation, Medicaid Fraud Control Unit, Nashville, Tennessee, their repository of the case investigations that lead to the conviction of the healthcare providers are essential in the identifiable variables of the proposed study. The individual case files, the pertinent information needed will include the offender's job level, license or certification status, the facility of interest where the offense occurred, the status of the victim, whether dependent or semi-independent of care services, and the sex and race of both provider of care and patient victim. The analysis data will be from 2006 to 2015.

With permission to view the archival data, there are potentially 267 investigative records or documents during the proposed time of study, 2006 to 2015. The examination of the documents consists of two categories, one for fraud offenses and the other for abuse. The proposed research variables are contained in the data such as job level of offender, work environment, sex, and race. Unique identifiers will represent variables, for example, in patient abuse 1 = physical, 2 = emotional, and 3 = financial. The data will be tabulated with the SPSS software and stored with a password protected computer.

Signatures:

Wahtawah T. Battle

Principal Investigator or Student

Date

*Faculty Advisor (for student applications)

Date

** If submitted by a faculty member, electronic (typed) signatures are acceptable. If submitted by a student, please print out completed form, obtain the faculty advisor's signature, scan completed form, and submit it via email. Only Word documents or PDF files are acceptable submissions.*

APPENDIX B
IRB APPROVAL LETTER

Institutional Review Board
Dept. 4915
615 McCallie Avenue
Chattanooga, TN 37403-2598
Phone: (423) 425-5867
Fax: (423) 425-4052
instrb@utc.edu
<http://www.utc.edu/irb>

MEMORANDUM

TO: Wahtawah TJ Battle **IRB # 17-207**
Dr. David Rausch

FROM: Lindsay Pardue, Director of Research Integrity
Dr. Amy Doolittle, IRB Committee Chair

DATE: 12/18/2017

SUBJECT: IRB #17-207: Archival Offender Records Analysis: Examining Patient Abuses in Tennessee

The IRB Committee Chair has reviewed and approved your application and assigned you the IRB number listed above. You must include the following approval statement on research materials seen by participants and used in research reports:

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 17-207.

Since your project has been deemed exempt, there is no further action needed on this proposal unless there is a significant change in the project that would require a new review. Changes that affect risk to human subjects would necessitate a new application to the IRB committee immediately.

Please remember to contact the IRB Committee immediately and submit a new project proposal for review if significant changes occur in your research design or in any instruments used in conducting the study. You should also contact the IRB Committee immediately if you encounter any adverse effects during your project that pose a risk to your subjects.

For any additional information, please consult our web page <http://www.utc.edu/irb> or email instrb@utc.edu

Best wishes for a successful research project.

APPENDIX C

PROCEDURES FOR VARIABLES ANALYSIS

Frequency Tables

Sex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	114	43.7	52.1	52.1
	Female	105	40.2	47.9	100.0
	Total	219	83.9	100.0	
Missing	System	42	16.1		
Total		261	100.0		

Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Caucasian	96	36.8	81.4	81.4
	Black American, African	11	4.2	9.3	90.7
	Asian	10	3.8	8.5	99.2
	American Indian, Alaskan	1	.4	.8	100.0
	Total	118	45.2	100.0	
Missing	System	143	54.8		
Total		261	100.0		

Job Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	College, 5 years +	110	42.1	50.9	50.9
	Technical Degree	66	25.3	30.6	81.5
	High School, Certification, Diploma	40	15.3	18.5	100.0
	Total	216	82.8	100.0	
Missing	System	45	17.2		
Total		261	100.0		

Dependency of Patient

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Skilled Care Nursing	107	41.0	56.9	56.9
	Assisted Living Support	38	14.6	20.2	77.1
	Independent with Support	43	16.5	22.9	100.0
	Total	188	72.0	100.0	
Missing	System	73	28.0		
Total		261	100.0		

Work Environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hospitals, Rehabs, Inpatient	80	30.7	35.2	35.2
	Group Homes, Community Living	23	8.8	10.1	45.4
	Private Duty Support	124	47.5	54.6	100.0
	Total	227	87.0	100.0	
Missing	System	34	13.0		
Total		261	100.0		

Types of Abuse

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Physical	65	24.9	28.6	28.6
	Emotional	3	1.1	1.3	30.0
	Financial	159	60.9	70.0	100.0
	Total	227	87.0	100.0	
Missing	System	34	13.0		
Total		261	100.0		

VITA

Wahtawah Tomiko Jeanette Battle graduated with a B.S. in Environmental Science from Tusculum College in Greeneville, Tennessee. She worked at the Tennessee Bureau of Investigation, Medicaid Fraud Control Unit as a Special Agent, Criminal Investigator throughout her educational endeavors. Upon receiving a Master of Science in Environmental Health, Battle minored in Criminal Justice at the University of Virginia through the Federal Bureau of Investigation's National Academy program. With the learning and leadership classes from the academy, Wahtawah Battle focused her interests in the field of education and accepted a Criminal Justice adjunct position at Lincoln Memorial University in Harrogate, Tennessee. Wahtawah Battle volunteered with Remote Area Medical in Tennessee, mentored high school students to attend college with tnAchieves, Tennessee College Scholarship and Mentorship program, and maintained her Certified Fraud Examiners (CFE) license with the Association of Fraud Examiners as well as her Advanced Emergency Medical Technician (AEMT) licenses in Tennessee. She continued her pursuit of learning and applied for her Doctor of Education in Learning and Leadership from the University of Tennessee-Chattanooga.