Pre- and Post-Offence Behaviours of Healthcare Serial Killers as a Confidence Game

by

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ABSTRACT

Extant literature, while plentiful on the topic of serial homicide in general, does not adequately examine the phenomena of healthcare professionals who serially murder their patients. Using a sample of 58 healthcare serial killers located within North America, South America and Europe between the years of 1970-2010, this study examines notable pre- and post-offence behaviours of healthcare serial killers. Patterns related to offender etiology, victim cultivation, crime scene behaviour and techniques of evasion were explored. The findings from this study suggest that the pre- and post-offence behaviours of healthcare serial killers can be examined from the theoretical framework of confidence men or 'con men.' The findings from this study also suggest that healthcare serial killings and offenders who perpetrate them continue to be elusive and warrant additional scholarly attention to reduce their likelihood of engaging in homicide undetected for extended periods of time. Policy implications are also discussed.

Keywords: serial homicide, healthcare serial killers, medical murder, clinicide, techniques of evasion, victim cultivation, confidence men, con men

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INTRODUCTION

Serial homicide, although rare when compared to other forms of violence, is viewed with intense curiosity and fear from the public and the mass media (Herkov & Biernat, 1997; Jenkins, 1994). This interest has increased exponentially over the last decade, with countless true-crime books, movies and television shows being created or written on the topic of serial homicide and serial killers (Egger, 1998; Fox & Levin, 2005; Jenkins, 1994; Hickey, 2010). While scholars and law enforcement professionals alike have weighed in with their opinion about the etiology and motivations of serial killers, there is still much that is unknown. This gap in our understanding of serial killers and their motivations is primarily due to the uniqueness of serial killers themselves, their ability to evade detection and more importantly, the numerous myths that are perpetuated by the mass media (Egger, 1990, 1998; Fox & Levin, 2005; Hickey, 2010; Holmes & Holmes, 2010).

Myths perpetuated by the mass media typically accomplish two things: first, they result in the public (or a journalist) overestimating the frequency with which serial killers claim victims (Jenkins, 1994). Second, the media perpetuates fear by presenting a stereotypical serial killer to the public, namely presented as an insane sexual sadist who was abused as a child and subsequently preys on dozens of random strangers (Jenkins, 1994; Hickey, 2010). Fueled by this image, the public and the media seem to expect that serial killers will stand out in their appearance or mannerisms and will specifically look like someone who is capable of multiple murders (Egger, 1998). This expectation or stereotype is misleading because it focuses specifically on appearances, negating the

reality that serial killers are quite skilled in deception, techniques of evasion and impression management (Hickey, 2010; Holmes & Holmes, 2010).

Stereotypes aside, scholars have outlined a cluster of behavioural characteristics that tend to be associated with serial killers. The average serial killer is typically male, white, middle-aged, kills less than ten victims, is of average intelligence, is able to stop killing for an extended period of time and restart, has a preferred type of victim, and has had a childhood that was characterized by some kind of trauma or hardship (Hickey, 2010). Notably, this profile has been challenged by scholars who argue that the average profile does not take into consideration African-American serial killers or female serial killers, who contrary to popular beliefs, play a more active role in serial homicide (Gurian, 2011; Jenkins, 1998; Holmes, Hickey & Holmes, 1998; Walsh, 2005). Admittedly, the evidence of the healthcare serial killer also calls this profile into question because unlike the average serial killer, the healthcare serial killer is characteristically intelligent due to their educational requirements for employment.

The stereotypes about serial killers are notably different from the profile put forth by scholars, and the expectation that a serial killer will look and behave in a certain way is especially prominent in the case of healthcare professionals who serially kill their patients. It is difficult to reconcile that there are healthcare professionals who may desire to kill patients under their care; such a presupposition may result in offenders engaging in prolonged periods of active killing before being apprehended. As a result, it behooves us to move past the stereotype of the sexually motivated stranger serial killer and include a profile of the predatory healthcare professional, one who stalks, kills and disposes of the victim's body in their place of employment.

Ramsland (2007) appears to be the first to have used the term "healthcare serial killer," while other scholars have used terms like "clinicide," "carer-assisted serial killing" (Kaplan, 2007, 2009), or "caregiver associated killing" (Yorker et al., 2006) to describe this phenomenon. For the purposes of this study, the term healthcare serial killer will be used and will be defined as any healthcare professional or worker who intentionally kills two or more patients in a care-giving work environment for reasons not related to euthanasia or physician-assisted suicide (Ramsland, 2007; Yorker et al., 2006).

It is important to note that there is a clear distinction between healthcare professionals who help terminally ill patients end their lives and healthcare professionals who act like predators and target vulnerable patients based on self-interested motivations. Euthanasia and physician-assisted suicide are fraught with different themes, different ethical and legal considerations and can be understood from a different theoretical framework than that of serial homicide. Therefore healthcare professionals who engage in acts of euthanasia and/ or physician-assisted suicide are beyond the scope of the current project.

There is currently limited research on healthcare serial killers; coupled with the trust often placed in healthcare professionals, healthcare or care-giving environments have the capacity to be conducive to anti-social behaviours like homicide. While the majority of healthcare professionals sincerely care for their patients, healthcare professionals who kill their patients represent a specific type of predator who takes advantage of their position and targets vulnerable and often powerless victims (Lubaszka & Shon, 2012; Smith, 2002; Soothill & Wilson, 2007). Healthcare serial killers differ from the average serial killer in important areas like victim cultivation, crime scene

behaviour and techniques of evasion. As a result, current typologies or literature may not be entirely applicable. Therefore, it behooves us to examine and compare pre- and post-offence behaviours of healthcare serial killers to facilitate the understanding of this unique sub-set of serial killers.

This study will first review the extant literature on serial killers and healthcare serial killers and will subsequently highlight the limitations within that literature. Second, by examining the pre- and post- offence behaviours, this study will outline how healthcare serial killers engage in a confidence game, playing the role of the 'con artist' and placing their victims in the role of the 'mark.' Previous scholars have applied the theory behind the confidence game to investment banking schemes or criminal fraud (Goffman, 1952; Maurer, 1999; Nash, 1976; Schur, 1957), consumer fraud (Friedman, 1992) and police interrogation (Leo, 1996), but have not yet applied the same theoretical framework to the behaviours of healthcare serial killers. This study will remedy this gap within the current serial homicide literature.

LITERATURE REVIEW

The current literature on serial homicide can be organized into two distinct categories of scholarship. The first category includes literature that aims to explain the behaviours of serial killers from an etiological standpoint. In other words, the goal is to establish a cause and effect relationship between the characteristics of early life experiences and a person's subsequent likelihood to become a serial killer (Hickey, 2010). By understanding the etiology of serial homicide, the goal is intervention or prevention (Singer & Hensely, 2004). Similarly, the scholarship within this category also aims to explain behaviour by relying on constructed typologies that group serial killers

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into categories based on their motivations for committing serial homicide and their crime scene (Douglas, Ressler, Burgess & Hartman, 1986; Holmes & Holmes, 2010).

The second category of scholarship is concerned with explaining how or why serial killers are able to evade detection for extended periods of time. More specifically, impression management techniques and victim selection are important aspects of this category. This section of literature is especially important when considering healthcare serial killers because their work environment can often be one that is conducive to predatory behaviour like homicide.

Theoretical Explanations of Serial Killers: Etiology and Profiles

The behaviours of serial killers have been explored from the perspectives of biologists, criminologists, psychologists and sociologists in an attempt to establish a cause and effect relationship between certain risk factors and the propensity to commit serial homicide (Hickey, 2010). Serial homicide and antisocial behaviour have typically been linked to damage in the prefrontal cortex of the brain or abnormalities in certain brain structures (Anderson, Bechara, Damasio, Tranel & Damasio, 1999; Bufkin & Luttrell, 2005; DeFronzo, Ditta, Hannon & Prochnow, 2007), psychopathy (Hare, 1993, 1996), or childhood trauma like violence, abuse, or rejection (Arndt, Hietpas, & Kim, 2004; Burgess, Hartman, Ressler, Douglas & McCormack, 1986; Fox & Levin, 2005; Hickey, 2010; Singer & Hensley, 2004).

Biological theories that examine the etiology of serial homicide focus on how damage or abnormalities in certain structures in the brain can affect an individual's predisposition to aggression and antisocial behaviour (Bufkin & Luttrell, 2005; Marceau, Meghani & Reddon, 2008; Hickey, 2010). Although it may be difficult to establish an

exact cause and effect relationship between biological anomalies and the commission of

serial homicide, biological theories offer many important insights into how biological

differences can make it more likely for an individual to react violently or aggressively in

a certain situation (Bufkin & Luttrell, 2005).

In terms of serial homicide and antisocial behavior, damage to the prefrontal

cortex is at times offered as possible link (Hickey, 2010). Damage to the prefrontal

cortex is significant because this area of the brain is believed to be responsible for

controlling "emotional impulses arising from the relatively primitive 'emotional brain,'

the limbic system" (DeFronzo, Ditta, Hannon, & Prochnow, 2007, p.4). With damage to

this area of the brain, an individual may find it difficult to control impulses arising from

the limbic system to injure or kill others (DeFronzo et al. 2007; Raine, 2008). Similarly,

Anderson, et al. (1999) investigated two cases in which prefrontal cortex damage

occurred at an early age. The authors maintain that it is established in the literature that

prefrontal cortex damage can affect impulse control and social behavior. Through their

case study, the authors were able to conclude that extensive damage to the prefrontal

cortex at an early age has the ability to cause a disruption in the acquisition of

"appropriate moral and social behaviors" (Anderson et al. 1999, p. 1036). Furthermore,

the authors contend that abnormal behaviour will be more severe in adults who

experienced early-onset damage rather than adult- onset damage because the early- onset

adults would not have been able to acquire pro-social knowledge and behaviour due to

their brain damage.

Rejection, abuse or being exposed to violence during childhood, have also been

well cited as important factors in affecting the development of coping mechanisms

necessary for pro-social behaviour (Hickey, 2010). This is related to the psychological understanding of conflict and fixation during personality development (Gallagher, 2011). More specifically, Gallagher (2011) maintains that abnormal behaviour or mental illness can occur when there is a "conflict between innate human needs and societal norms" (p.77). This conflict will typically occur within the confines of a parent-child relationship and will cause the child's personality development to stop and the conflict will remain a "scar in the person's psychological structure" (Gallagher, 2011, p. 77; Hickey, 2010).

Many scholars have attempted to link serial homicide to Bandura's social learning theory in that murder, similar to other deviant behaviour, is learnt and therefore can be unlearned (Holmes & Holmes, 2010). In other words, witnessing acts of violence from siblings or parents could send a clear message that legitimizes violence (Castle & Hensley, 2002; Holmes & Holmes, 2010). Furthermore, serial killers may be ill equipped to deal with feelings of humiliation, and when humiliation (or what is perceived as humiliation) is encountered, violence is viewed as an appropriate way of dealing with it (Singer & Hensley, 2004).

In terms of abuse, scholars maintain that mistreatment during childhood can impede healthy development and maturation, expose the child to unhealthy sexual inclinations, and foster early and strong feelings of distrust and hatred towards the person who mistreated them (Arndt et al. 2004; Defonzo et al. 2007, p. 5; Fox & Levin, 2005; Knoll & Hazelwood, 2009; Singer & Hensley, 2004). Some scholars push the idea of "hate" a little further and maintain that serial killers "get even" for the abuse by displacing their anger and aggression onto victims who bear a physical or behavioural resemblance to the individual who initially hurt them (Fox & Levine, 2005). These

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concepts of aggression and hate are important aspects of the frustration model and the trauma-control model.

The frustration-model focuses on the humiliation that a serial killer experiences in childhood, and the specific way in which the serial killer begins to view all experiences as humiliating and unrewarding (Singer & Hensley, 2004). The serial killer then subsequently uses this humiliation as a rationale for murder (Holmes & Holmes, 1998). Similarly, the trauma-control model describes a process whereby individuals become murderers through a distinct process. Arndt et al. (2004, p. 120) describe how this process begins with "predispositional factors" in the individual (e.g. head injury or fetal drug exposure), when combined with traumatic factors like abuse or negative parenting style, have a greater influence of instilling feeling of rejection and worthlessness (Arrigo & Purcell, 2001).

As a result, the overwhelming consensus among the academic community is that individuals become serial killers based on an interaction of biological, psychological and sociological factors (Marceau, Meghani & Reddon 2008; Raine, 2008; Hickey, 2010; Holmes & Holmes, 2010; Skrapec, 2003). In other words, scholars today recognize that biological abnormalities, psychopathy or unpleasant childhoods are not enough to cause an individual to engage in anti-social and violent behaviour like serial homicide, but rather are an important part of the process that can "bias social behaviour in an antisocial direction" (Raine, 2008, p. 324).

Although the theories used to explain serial homicide in general could be applied to healthcare serial killers, the research surrounding this specific type of serial killer is still in its infancy and as a result there is a limited understanding concerning the pre- and

post-offence characteristics of healthcare serial killers. However, even with the limited information about healthcare serial killers, scholars note instances of childhood traumas, or psychological disturbances that are present both in the histories of traditional and healthcare serial killers (Field, 2007; Field & Pearson, 2010; Gunn, 2010; Hickey, 2010; Holmes & Holmes, 2010; Ramsland, 2007; Yorker et al. 2006).

For example, at a very young age, Dr. Harold Shipman watched his mother slowly die of cancer. This feeling of helplessness and grief certainly had an effect on Shipman's pervasive need for control over life and death in his career. Shipman's method of killing mirrored his early memories of his mother being injected with morphine as she lay dying (Davis, 2010; Gunn, 2010). Nurses Charles Cullen, Jeffrey Feltner, Brian Rosenfeld, Kristen Gilbert and Dr. Joseph Swango also all experienced the death of a close family member or guardian at a young age. Notably before the age of 17, Cullen already experienced the death of both his parents (Davis, 2010). These tragic instances of death can certainly shape an individual's perception of fairness and highlight a lack of control in his or her life, especially during their formative years.

Among others, healthcare serial killers Beverley Allitt, Bobbie Sue Terrell, Gwen Graham, Richard Angelo, Donald Harvey, Charles Cullen, and Kristen Gilbert all suffered from psychological disturbances that either required psychiatric care or resulted in the offenders attempting suicide (Davies, 1993; Davis, 2010; Linedecker & Burt, 1990; Roland, 2010). More specifically, Beverley Allitt suffered from an eating disorder, Bobbie Sue Terrell suffered from schizophrenia, and Gwen Graham, Richard Angelo and Kristen Gilbert were all believed to have suffered from a personality disorder (Davis, 2010; Ramsland, 2007). In addition, Beverley Allitt and Bobbie Sue Terrell in particular

were believed to have exhibited symptoms of Munchausen syndrome by Proxy (Fox & Levin, 2005; Hickey, 2010; Yorker et al., 2006). Munchausen syndrome by Proxy is a factious disorder whereby a caregiver (typically a mother) will cause harm or illness to an individual (usually a child) to obtain an "emotional or psychological benefit" (Day & Moseley 2010, p. 14). Although this syndrome is typically cited in circumstances of child abuse, this syndrome can certainly be applied to healthcare workers who may thrive off of the excitement in an emergency situation (Yorker et al., 2006). Stemming from the desire to understand the origin and the motivations of serial killers, various scholars have developed profiles or typologies from which to interpret the behaviours of serial killers (Hickey, 2010; Holmes & Holmes, 2010). Two notable and widely cited models, namely Holmes and Holmes' typology of serial killers, and the Federal Bureau of Investigation's (FBI) organized/disorganized dichotomy are important to consider.

Holmes and Holmes (2010) organized serial killers into four distinct categories based on crime scene characteristics, the killer's motivations and the killer's supposed beliefs. The four categories were as follows: visionary killer (suffers from a break from reality and believes that God instructed them to kill), mission killer (concerned with the act of murder specifically, believes that a certain group of unworthy people need to be killed for the greater good), hedonistic killer (subdivided into three categories: lust, thrill and comfort, the killer kills because they enjoy it and sex is a prominent force) and the power or control killer (seeks dominance and power over victims) (Holmes & Holmes, 1998, 2010; Salfati & Bateman, 2005). Scholars reviewing this typology have emphasized the methodological issues with collecting the data for this model, and the potential for overlap between categories (Canter & Wentink, 2004). These categories,

especially the power or control killer category, can be especially useful when considering

healthcare serial killers, as power can be an important theme or motivation (Kaplan,

2007). Notably, characteristics from the hedonistic killer may also be applicable to

healthcare serial killers in the sense that healthcare serial killers enjoy the thrill they

attain from killing, however sex is rarely a driving force behind their behaviour (Hickey,

2010).

The organized/disorganized typology was initially created by FBI agents who

reviewed various crime scene photos and cited commonalities between certain types of

crime scenes (Canter, Alison, Alison, & Wentink, 2003; Douglas & Olshaker, 1995). In

essence, the organized killer would be more likely to use restraints on victims, try to

conceal the body, would bring a firearm to the crime scene and would take the murder

weapon from the crime scene (Canter et al. 2004; Hickey, 2010; Holmes & Holmes,

2010). Based on these crime scene characteristics, the organized killer would be

considered to be highly intelligent, socially competent and more likely to be employed

(Canter et al. 2004; Hickey, 2010; Holmes & Holmes, 2010). In contrast, the

disorganized killer is less likely to use restraints, and less likely to plan the crime ahead

of time (Canter et al. 2004; Hickey, 2010; Holmes & Holmes, 2010). As a result of the

disorganization, the killer is thought to be of below average intelligence and socially

incompetent or awkward (Canter et al. 2004). Similarly, in this circumstance, healthcare

serial killers would exemplify an interesting hybrid, whereby they release some control

by utilizing a crime scene that is routinely cleaned by others.

The theoretical understanding behind these models is that the serial killer may

exhibit different behaviours in separate crime scenes (e.g. gagging a victim or binding

their hands and feet), but the underlying concept or goal (namely control) is the same across the offender's crime scene and it remains consistent because the particular goal is important to the offender (Horning, Salfati, & Crawford, 2010; Salfati & Bateman, 2005; Salfati & Canter, 1999; Sorochinski & Salfati, 2010). These models may make conceptual sense; however because both models have categories that overlap in characteristics, it is problematic to assert that these models are distinct in their categories (Canter et al., 2004; Canter & Wentink, 2004; Salfati & Bateman, 2005). In addition, the way in which data was collected for these models is problematic and unreliable (Canter et al., 2004; Canter & Wentink, 2004).

Post-offense characteristics – what offenders do after having committed a crime-have in recent years been treated by academics as important units of measurement within the serial homicide literature (Salfati & Bateman, 2005; Salfati & Canter, 1999; Shon & Roberts, 2008). Scholars consistently note the importance of understanding pre- and post offence characteristics in tandem rather than limiting our understanding to just the motivations of serial killers. For instance, Keppel (1997) maintains that serial killers leave evidence of both their unique signature and their *modus operandi* (MO) at each crime scene. He differentiates between the MO and a killer's signature by explaining that an MO refers to what a killer typically does to commit a crime and can change depending on the situational opportunity. For example, operating during the night, or entering a residence through an open window is an offender's MO (Keppel, 1997, p. 2). In contrast, a killer's signature, or more importantly the core of the signature, will never change because it reflects the killer's fantasies.

Similarly, Salfati and Bateman (2005) assert that serial killers tend to be consistent in specific types of behaviours across the majority of their crime scenes. They found that in serial homicides that had the theme of expressive aggression, the offenders consistently tortured the victim because the point was to cause harm to the victim (p. 134). In contrast, in serial homicides that had the theme of instrumental aggression, the offenders consistently displayed ritualistic behaviour that would help the offender satisfy his or her fantasies and desires (p. 134). In other words, the specific way serial killers kill their victims, and what they do immediately after the killing is unique and a vital source of information to consider (Bateman & Salfati, 2007; Salfati & Bateman, 2005; Sorochinski & Salfati, 2010). It is important to link the behavioural trademarks and patterns of serial killers because this link will help facilitate detection and subsequently apprehension (Sorochinski & Salfati, 2010).

Scholars have also investigated a serial killer's geographic mobility or body disposal site as important units of measurement (Canter, Coffey, Huntley & Missen, 2000; Lundrigan & Canter, 2001a, 2001b; Snook, Cullen, Mokros & Harbort, 2005). It is a common held misconception that all serial killers hunt, stalk and travel across state lines to select victims, but Hickey (2010) dispels this myth by outlining three specific types of serial killer mobility: (1) traveling serial killers (who travel great distances and kill their victims in different states or provinces), (2) local serial killers (who kill within their resident state or province), and lastly (3) place specific serial killers (who kill in their home or place of work) (p. 34). Healthcare serial killers would be characterized in the latter category as they select and murder their victims in the same area in which they work, namely a healthcare environment. Similarly, Meaney (2004, p.121) outlines a

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similar typology, but maintains that there are two separate types of geographic mobility in a serial offender, namely that of commuters and marauders. The difference simply being that commuters will travel away from their home to commit their crimes and marauders will commit crimes in close proximity to their home.

Although healthcare serial killers are still a relatively understudied subset of serial killers, scholars have attempted to establish typologies and crime scene characteristics that are unique to healthcare serial killers. For example, Ramsland (2007) suggests that the medical skill that healthcare professionals possess can be considered a signature. However, this assertion may be problematic because their medical skill is instrumental to the commission of their crime, and therefore seems to be more of a MO than a signature (Keppel, 1997).

The studies by Field (2007), Field and Pearson (2010), and Yorker et al. (2006), are by far the most scholarly studies investigating healthcare serial killers. This lack of scholarly works is problematic considering the examples of healthcare professionals who have killed patients dating to the 1800s, yet there are few reliable studies. Furthermore, much of the literature that is available seems to take a very sensationalized approach to the cases of healthcare serial killers. In terms of the aforementioned studies by Field (2007), and Field and Pearson (2010), and Yorker et al. (2006) as well as a study by Hickey (2010), these studies have uncovered important themes central to the detection of healthcare serial killers.

For example, suspicions will usually arise when there is a cluster of cardiac arrests or deaths in a specific area, certain patients suffer multiple cardiac arrests and subsequent frequent resuscitations, or if deaths cluster during a particular shift or

surround a particular staff member (Field & Pearson, 2010; Hickey, 2010; Pyrek, 2011; Yorker et al. 2006). The individuals who are most at risk are the most vulnerable of the population (i.e. the elderly, or the very young) and they are most at risk during the evening or late shift (Field & Pearson, 2010; Hickey, 2010; Pyrek, 2011; Yorker, 1988; Yorker et al. 2006). Furthermore, all three studies found that male and female offender rates were almost equal (when not taking into account their job status). The gender ratio is particularly interesting considering that males are overrepresented as the offender in instances of traditional serial homicide (Hickey, 2010; Holmes & Holmes, 2010).

It is important to note a theme in the healthcare serial killer literature that parallels a theme in the serial killer literature, namely the theme of power. As Field and Pearson (2010) note, the "murder of patients is about ultimate power – the power of life over death" (p. 305). This idea is significant as doctors and nurses have prominent power over their patients. Patients readily trust doctors simply based on the societal convention that doctors or healthcare professionals are healers. Therefore, it is important to distance oneself from the belief that healthcare professionals would never harm patients. This belief is dangerous and can lead to healthcare serial killers who are not investigated or apprehended because of skepticism (Field & Pearson, 2010; Yorker et al., 2006).

Serial Killers and Techniques of Evasion

Traditional serial killers are typically able to evade detection due to a lack of communication between law enforcement agencies (Egger, 1998), lack of connection between crime scenes (Sorochinski & Salfati, 2010), and the often times ambiguous connection between the offender and their victim (Hickey, 2010).

These factors, coupled with the serial killer's keen ability to manage identity in social situations can make detection difficult (Henson & Olson, 2010; Hickey, 2010). Furthermore, serial killers can also be very charming in social interactions, thus making potential victims feel at ease in their presence (Hickey, 2010). Another important way in which serial killers evade detection is the type of victims they chose. Serial killers will traditionally choose victims who are considered to be less risky, and less likely to be reported missing. For example, prostitutes or sex trade workers are often selected as victims because they are easily accessible and may not always be reported missing by family or friends (Egger, 1998; Quinet, 2007).

Compared to traditional serial killers, healthcare serial killers based on their training and work environment, are at a distinct advantage to remain undetected for extended periods of time. The notion that healthcare providers are able to kill patients without detection is particularly alarming for both the public and healthcare professionals alike. The detection of healthcare serial killers is especially difficult because of the power and autonomy that healthcare professionals can sometimes be afforded (Kaplan, 2009; O'Neill, 2000), opportunity and access to drugs (Stark, Paterson & Kidd, 2001), hospital administrator's reluctance to check references or communicate with other hospitals about troublesome employees (Curtain, 2004; Field & Pearson, 2010; Hickey, 2010), and finally the pervasive secretive attitude that surrounds the healthcare profession (Fiesta, 1999; Ramsland, 2007). Healthcare serial killers also select victims that are less likely to arouse suspicion when they die. Typically patients who are very old, sick or young are chosen as victims (Field & Pearson, 2010; Yorker et al. 2006). However, it is interesting that healthcare serial killers do not usually select victims who are completely

immobilized (in a coma), but select victims who are elderly instead, perhaps indicative of the importance of the killing experience with a responsive victim instead of an unconscious victim (Hickey, 2010).

Another notable aspect of the healthcare environment that may help healthcare serial killers evade capture is the way in which jokes about death and dying are often interpreted as a coping mechanism. Traditional serial killers can put themselves in danger of being discovered if they discuss, brag or joke about recent murders in a social setting. Notably, White, Lester, Gentile & Rosenbleeth (2011) in their analysis of 200 serial killers determined that 71.5% of their sample was captured directly as a result of "…direct observations, descriptions, and other information provided by surviving victims, direct witnesses, and even family members of serial killers" (p. 164). Joking or talking about recent murders increases the possibility of detection and subsequent apprehension. In contrast, jokes about death and dying can often be interpreted as a healthcare professional's way of coping in times of emotional distress while on the job (Scott, 2007). Again, the healthcare environment produces a situation whereby an individual joking about a recent homicide or death is seen as a coping mechanism rather than an admission of guilt (Jones, 1998).

Healthcare Serial Killers and their Confidence Games

By virtue of their professional position, healthcare serial killers work in an environment where death is routinely expected, and rarely questioned. As a result, taking into account all of the factors that may help healthcare serial killers evade capture and the trust afforded to them by social convention, it is imperative to consider the killing event as a process, more specifically as being part of a confidence game.

The theoretical framework of confidence men or *con men* is an excellent lens

from which to interpret the behaviours of healthcare serial killers. Confidence men in

particular must not only rely on their impression management skills and their ability to

manipulate their mark or victim, but they must also be able to select an appropriate victim

with whom to cultivate a trusting (albeit superficially one-sided) relationship (Maurer,

1999). Traditionally, the confidence game has been applied to white-collar crimes like

investment banking schemes or criminal fraud (Goffman, 1952; Maurer, 1999; Nash,

1976; Schur, 1957), consumer fraud (Friedman, 1992; Nash, 1976) or more recently to

police interrogation techniques (Leo, 1996). However, as Maurer (1999, p. 1) outlines:

"Confidence men are not 'crooks' in the ordinary sense of the word. They are suave,

slick, and capable." This assessment of the traditional confidence man is appropriate to

apply to healthcare serial killers because they are not the average serial killer and due to

their intelligence and training are certainly more than capable. According to Nash (1976),

the most important tool that a con man is in possession of is "the pose he presents to the

mark and the world" (p. 270). The con man, or doctor for example, needs to present an

identity that is consistent with the patient's perception of a good healthcare provider.

Typically, this can be accomplished by being extra attentive to the patient and their

family, or by being generous with medications. When the intended victim is a young

child or an infant, the healthcare professional also needs to manipulate the parents of the

victim into believing that the healthcare professional is not a threat to the wellbeing of the

their child. Furthermore it is important that the con man presents the "exchange of trust

for hope" (Leo, 1996, p. 264). In terms of healthcare professionals, this trust will be

exchanged for healthcare and the subsequent resolution of whatever ailment the victim

suffers from. In exchange, the patient (or the parents of the patient) needs to wholeheartedly trust the healthcare professional in order to receive this hope for recovery. As outlined in the current literature, the steps for the proper execution of a con vary depending on whether the con is a big or small game (Maurer, 1999; Nash, 1976). Bigger cons typically result in a larger pay out, but require a more elaborate plan and a partner or "inside man" to complete the con (Maurer, 1999). Healthcare serial killers typically work alone, and do not require all of the steps used in the big con to gain the trust of a potential mark or victim. The traditional big con requires a total of ten steps (Maurer, 1999). When applied to police interrogation, these steps are further reduced to four (Leo, 1996). When applied to healthcare serial killers, the steps from both the traditional con and the police interrogation con were modified to exemplify the killing process that healthcare serial killers go through.

In the healthcare confidence game there are typically five main steps necessary in the commission of a homicide: *selecting and investigating the mark, cultivating the mark, executing the con /exchanging trust for hope, cooling out the mark*, and *prolonging the con* (Leo, 1996). Each step is important in the commission of an efficient and successful con. In the step of *qualifying the mark,* the con man (or con woman) begins his con by choosing a suitable victim who would be the most responsive; this is often done by just beginning a conversation with the targeted victim (Leo, 1996). During this step, it is important for the con man to determine the potential victim's suitability. If the victim is deemed as being suitable and more importantly as agreeable, the con man will move into *cultivating the mark*, where trust is established through psychological manipulation techniques (Leo, 1996). After gaining the mark's trust, the con man will "persuade the

mark that his self-interest requires turning over the good" (Leo, 1996, p. 275; Maurer, 1999), or in other words that the mark needs to do as the con man asks in order to help themselves. Finally, after the successful completion of a con, the con man needs to prevent the victim from becoming too agitated and potentially contacting the police, and will typically blame the victim for their greed or compliance in the con (Goffman, 1952; Leo, 1996). Finally, in prolonging the con – a step that is unique to healthcare serial killers- the healthcare serial killer engages in post-offence behaviours that help them relive or remember the con. Similar to serial killers who keep trophies, pictures or revisit the crime scene or grave, the healthcare serial killer needs to relive the experience by extending the misery or pain caused by the crime to surrogate victims, namely the family members of the victim and the offender's fellow coworkers (Hickey, 2010). More specifically, offenders will use techniques like humour, deflection or will interact with the victim's family to exhibit control over the surrogate victims after they have killed the initial victim.

Until very recently, the phenomenon of healthcare serial killers has been largely ignored by academics. This exclusion is troubling considering that healthcare workers, by virtue of their profession have a unique set of skills and work environment that is particularly useful in the commission of homicide (Field & Pearson, 2010; Hickey, 2010; Holmes & Holmes, 2010; Kaplan, 2007, 2009; Ramsland, 2007; Smith, 2002; Soothill & Wilson, 2007). Also troubling is that the healthcare profession has produced more serial killers than any other profession, and that the potential number of victims is substantially higher due to readily available methods of murder and body disposal (Kinnell, 2000). For

example, the combined victim count of two prominent doctors totaled 313 victims and is more than any known serial killer (Kaplan, 2007, p. 300).

The current literature surrounding healthcare serial killers, often describes how the homicides were committed rather than trying to examine both the pre- and post-offence characteristics in tandem. The consideration of both is important because offenders will leave important clues to their motivations and their personality through their behaviours before, during and after a crime occurs (Salfati & Bateman, 2005; Salfati & Canter, 1999; Shon & Barton-Bellessa, 2012; Shon & Roberts, 2008). Understanding motivations and making links between crimes can inevitably assist in the detection of an offender, and these links are not adequately examined in the current literature (Hickey, 2010; Yorker et al., 2006).

Also problematic, victims are often overshadowed by the motivations and behaviours of the offender and even traditional serial killer literature neglects the important consideration of victimiology (Egger, 1998). Victim selection, and more importantly, how victims are cultivated is a notably neglected topic in the healthcare serial killer literature. It is important to understand how healthcare serial killers are able to gain the trust and compliance of the victims and their families, as well as the trust of coworkers or hospital administrators. Finally, the current literature fails to adequately examine how healthcare serial killers manipulate the healthcare system and utilize different procedures to evade detection. By recognizing certain aspects of the healthcare profession or system that make it possible for these types of killers to flourish, scholars, hospital administrators and healthcare workers themselves can continue to outline ways to prevent these predatory behaviours. By interpreting healthcare serial killers as con men

taking part in a confidence game, a theoretically viable typology emerges whereby healthcare serial killers rely on their ability to con patients that they are trustworthy and remain undetected because of their ability to cool out the mark and prolong the con.

The rationale for the current research endeavor is threefold: first, there is a lack of research on the pre- and post- offence behaviours of healthcare serial killers. It is vital to understand motivations, how victims are cultivated, and how offenders are able to evade capture with relative ease. Second, healthcare professionals are powerful, have the means to inflict harm and are typically viewed as incapable of intentional, malicious homicide. This is a dangerous combination. Finally, and perhaps most importantly, our population is rapidly aging, thus producing a potentially large group of individuals at risk for victimization (Bachman & Meloy, 2008).

METHODOLOGY

The investigation of healthcare serial killers can be a challenging endeavor due to the difficulties in the detection, prosecution and the general lack of reliable data on the pre- and post-offence characteristics of serial offenders. In an attempt to remedy the gap in the current literature, a dataset was created to synthesize the information concerning specific pre- and post-offence characteristics of healthcare serial killers. The goal of this study was to explore the motivations and behaviours of healthcare serial killers and to develop a theoretical framework from which to interpret their behaviour.

The definition of what constitutes a serial killer, in terms of victim count has been a source of contention in the academic community for decades. The traditional, or most often cited definition of serial homicide is: "the killing of three or more people over a period of more than 30 days, with a significant cooling-off period between the killings"

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(Arndt et. al, 2004; Hickey, 2010; Holmes & Holmes, 2010, p.5-6; Knight, 2006). While a significant portion of the academic community uses this definition, many scholars admit to the arbitrariness of three victims, and the difficulties of simply placing offenders into specific categories (Fox & Levin, 1998, 2005; Hickey, 2010; Holmes & Holmes, 2010). Furthermore, many scholars advocate for a broader and more inclusive definition of serial homicide so as to not limit any potential research (Keeney & Heide, 1995).

In contrast to this definition, the Federal Bureau of Investigation (FBI), Ronald Hinch (1998) and Steven Egger (1998) all advocate for and use the criteria of two or more victims for inclusion in the serial killer definition. The FBI have revised their previous definition and now define serial homicide quite broadly as: "The unlawful killing of two or more victims by the same offender(s), in separate events" (FBI, 2008, p. 9; Hickey, 2013). More specifically, Egger (1998) argues that a definition of two or more victims is more reasonable than three or four, because when the offender is captured they could be "just beginning a harvest of victims" (p. 5). In contrast, other scholars like Fox and Levin (1998, 2005) argue that in order to be defined as a serial killer, one must kill four or more victims. A victim number of two or more was chosen for this project primarily because it allows for a broader and more inclusive examination of healthcare serial killers (Egger, 1998). In addition, a definition of two or more victims appears to be more reasonable because of the difficulties in detection and the subsequent conviction of healthcare serial killers (Ramsland, 2007).

For this study, and the resulting dataset, three specific sources of data were used: LexisNexis (a comprehensive online newspaper data base) published true crime novels or books about healthcare serial killers, and scholarly articles on the topic of healthcare

serial killers. Biographies about specific offenders were obtained from true crime novels and were used to contextualize the data as well as illustrate specific themes or important findings. The decision to use archival newspaper articles and published true crime novels can be justified for three important reasons. Previous scholars have utilized this particular methodological approach as an effective way to collect data as well as a way to counteract the difficulties of obtaining primary data (Canter et al., 2000, 2004; Field, 2007; Hickey, 2010; Shon & Roberts, 2008; Yorker et al., 2006). Second, gathering data in this manner is an excellent cost and time effective way of conducting research on vulnerable and often times difficult to access populations (Denzin & Lincoln, 2008). Finally, newspaper articles are a valuable source of data and can provide important details about the crime or offender (Shon & Roberts, 2008). Although some scholars caution against the use of newspaper articles for data collection due to the possibility of misinformation or bias (Hinch & Hepburn, 1998), others emphasize that the information presented in newspaper articles can be used as "behavioural units of analysis" (Shon & Roberts, 2008). These units of analysis are especially useful, considering the way in which an offender's personality and motivations can be discerned through the examination of their behaviour before and after a crime has been committed (Canter et al. 2000).

I first gathered a preliminary list of names by consulting the studies by Beine (2003), Field (2007), Field and Pearson (2010), Yorker et al. (2006), Hickey (2010), and true crime novels by Davies (1993), Davis (2010), Ramsland (2007), and Iverson (2002). The article by Yorker et al. (2006) was initially used a starting point and other articles were used to supplement any missing information from their sample of offenders. A list

of 115 names was originally generated, comprised of healthcare professionals who were charged or convicted of either homicide or serial homicide. After this information was collected, the first stage was to gather newspaper articles that were as detailed as possible, outlining the details of the case, the offender and the offence perpetrated. In LexisNexis, the specific names (collected from studies and true crime novels) of the offenders were queried. In some circumstances (particularly in the cases that occurred in the 1970s and 1980s) information was not readily available on LexisNexis by merely using the offender's name. In this circumstance, additional sources like serial homicide encyclopedias and true crime novels were utilized as a way to uncover the required information. For example, in the case of Cecile Bombeek, a nurse who committed her crimes in 1977, there was no information available in LexisNexis. The information about this case was located in an encyclopedia about female criminals (Scott, 2012). To further ensure that there were not any missed cases, LexisNexis was once again searched using the terms "murder + nurse," "murder + doctor," "angels of death, " "healthcare + murder" and "Dr. Death." This type of search was done periodically (at least once a week) from December 2011 until the data was finalized in late August 2012 to ensure that any relevant new cases were included in the analysis. Any articles that contained the keywords were examined, and names of healthcare professionals who killed their patients were added onto the list (if they were not there already).

There was no specific number of articles that needed to be printed out, however the goal was to obtain as much information as possible, and typically this required more than one newspaper article. The newspaper articles were chosen based on the amount of information provided. In other words, articles that were particularly detailed about the

characteristics of the case (instead of merely offering opinion) were more readily selected as the aim was to reach theoretical saturation with this topic rather than collecting a specific number of newspaper articles. Notably, theoretical saturation is often an issue discussed in qualitative research, and scholars agree that theoretical saturation occurs when no new information emerges about a topic (Denzin & Lincoln, 2008; Field, 2007). In this situation, there is always a possibility that new information may emerge over time, however the goal was to compile as much information as possible.

In the second stage of the data collection, the goal was to examine each case and eliminate cases that did not adhere to the selection parameters for this project. In order for a specific offender or case to be included in the dataset within the current study, the offender had to have been charged with killing two or more victims while engaging in a healthcare provider role at their place of employment. In terms of location, the cases in this sample were limited to North America, South America and Europe occurring between the years of 1970 and 2010. This project utilized exclusion criteria similar to that of Yorker et al., (2006), whereby cases that included healthcare professionals who killed intimate partners, children, or strangers outside of the healthcare environment, cases that included euthanasia, physician-assisted suicide, or cases that occurred during disasters like Hurricane Katrina were all excluded from the sample. Healthcare professionals who were acquitted of charges, or were only originally charged with one count of homicide were excluded from the sample. The specific criteria ensured that it was less likely for confounded variables to occur in the data, and consistent with Hickey (2010) offenders who were found innocent or wrongfully accused were not included in this dataset.

This was done to ensure that data was manageable, and that the information collected was as accurate as possible. More specially, cases were limited to North America, South America and Europe because the majority of the cases in Yorker et al. (2006) were concentrated in these areas and the cases from these areas provided the greatest amount of detail. Offenders who were charged with serial homicide but pled guilty to lesser charges, or who were only convicted of one homicide were included. Notably, healthcare serial killers are very difficult to detect and to prosecute, which means that theoretically, individuals may very well be guilty of serial homicide but there is not enough evidence to prove it in court (Field, 2007; Hickey, 2010). This however is a legal and police investigation concern and the choice was made to include those cases to err on the side of caution. Some cases that met the selection criteria were deleted if the offender died before the trial took place (i.e. Mechthild Bach and Anne Grigg-Booth), if there was no additional information on the case or if the offender's name was missing. The "Skin Hunters" case from Lodz, Poland is a good example where no names were included (perhaps as a result of a publication ban) and the only information offered was that two nurses and two doctors conspired together to kill patients to secure clients for a specific funeral home (Yorker et. al, 2006). Similarly, individual cases that identified the offender with "male nurse," "nurse A," or "female nurse" were excluded because the cases could not be verified using other sources.

After various cases were excluded, the remaining cases provided a total case sample of 58 healthcare serial killers. The information collected on these 58 cases were assessed based on total of 58 different variables measuring pre- and post offence characteristics and were based on current literature in the area of parricide (Shon &

Roberts, 2008). Demographic variables like sex, age, occupation or country were assessed in addition to pre-offence variables (i.e. prior convictions of the offender, evidence of mental illness of the offender, victim details), crime scene variables (i.e., method of killing), and post-offence variables (i.e., attempt to hide the body, post offence behaviour) (see Appendix B). After the information was coded, the data were entered into a Microsoft Word document so as to ensure the presence of a master copy of the collected data. Finally, the information within the Microsoft Word documents were coded and summarized to an SPSS file. The majority of variables had responses attributes that were entered in the form of yes or no responses, but some variables required more categories. For example, the location variable had the response attributes of hospital, nursing home, home care and combination. In comparison, the variable of body staging or mutilation could be sufficiently be coded as either a "yes", "no" or "unknown." Due to the nature of the data, much of the information required was unfortunately unavailable. As a result, any information that was not clearly stated in a newspaper report or a true-crime novel was listed as "unknown" as opposed to "no." The decision to handle the data this way resulted from the desire to present the data as accurately as possible. For example, one of the variables outlined whether the offender cleaned the crime scene. While a very small number of offenders either attempted to clean the crime scene or take the murder weapon with them, it is impossible to know (unless specified in written reports) if other offenders within the sample engaged in similar behaviour. As a result, if there was no information, the response attribute for that specific variable was categorized as "unknown." While this was typically an unfavorable response, this difficulty was not unexpected as the lack of

rich and detailed data is often a problem faced by researchers who investigate serial

homicide (Hickey, 2010).

It is important to note that for the purposes of this project, the researcher was

mindful of issues of inclusiveness, but because this project did not adopt a random-

sampling methodology, it cannot be guaranteed. Above all, the goal of this data collection

was to provide a tangible presentation outlining of some of the pre- and post- offence

characteristics of healthcare serial killers and how they compare to traditional serial

killers. Furthermore, if there are differences between the characteristics of healthcare

serial killers and traditional serial killers, it behooves us to further examine if these

differences can assist in the intervention or prevention of serial homicide within the

healthcare profession (Hickey, 2010).

RESULTS

Within this sample, the majority of offenders were male (31/ 58 or 53.4%) nurses

(42 / 58 or 72.4%), who committed their crimes in a hospital (34 / 58 or 58.6%), and used

injections to kill their victims (33/ 58 or 56.9%).

Table 1: Healthcare Serial Killer Demographics

Variable		Frequency	Percentage
Gender	Male	31	53.4%
	Female	27	46.6%
	Total	58	100.0%
Occupation	Nurse	42	72.4%
	Doctor	4	6.9%
	Nurse's Aide	10	17.2%
	Other Medical Professional	2	3.4%
	Total	58	100.0%

Employment	Hospital	34	58.6%
Location	Nursing Home	16	27.6%
	Private Practice	3	5.2%
	Combination	4	6.9%
	Other	1	1.7%
	Total	58	100.0%
Method	Suffocation	5	8.6%
	Injection	33	56.9%
	Air embolism	2	3.4%
	Combination	10	17.2%
	Other	1	1.7%
	Unknown	7	12.1%
	Total	58	100.0%

These demographic patterns are consistent with the current literature on healthcare serial homicide (Beine, 2003; Field, 2007; Field & Parsons, 2007; Hickey, 2010; Yorker et al. 2006). For example, Yorker et al. (2006) reported that registered nurses (RNs) made up 86% (or 54 out of the 90 cases) within their sample. Also notable, Yorker et al. (2006) reports that male nurses are "disproportionately represented among the prosecuted nurses" when compared to their participation in the nursing profession (p. 1365). Similarly, Beine (2003) reported that out of his 20 cases, 14 offenders were male compared to 6 females (p. 376).

In terms of the country in which the offences occurred, the majority of cases (26/58) were concentrated in the United States of America (USA). Almost half of the cases (44.8%) within this sample originated from the USA, followed by Germany (8/58 or 13.8%), England (6/58 or 10.3%) and Austria (4/58 or 6.9%).

Table 2: Country of offence

Variable		Frequency	Percentage
Country	Austria	4	6.9%
	Belgium	2	3.4%
	Brazil	2	3.4%
	Czech Republic	1	1.7%
	England	6	10.3%
	Finland	1	1.7%
	France	1	1.7%
	Germany	8	13.8%
	Holland	2	3.4%
	Hungary	1	1.7%
	Italy	1	1.7%
	Norway	1	1.7%
	Russia	1	1.7%
	Switzerland	1	1.7%
	United States of America	26	44.8%
	Total	58	100.0%

The evidence of psychological, biological or sociological risk factors are often an important component of traditional serial killer literature however, this consideration is lacking in the context of the healthcare serial killer literature. Within this sample several healthcare serial killers suffered from either a psychological impairment, or experienced some level of trauma or hardship during their childhood.

Table 3: Evidence of biological, psychological and sociological risk factors

Variable		Frequency	Percentage
Evidence of biological	Yes	3	5.2%
impairment?	No	0	0%
(i.e. brain trauma or	Unknown	55	94.8%
addiction)	Total	58	100.0%
Evidence of Metal Illness	Yes	21	36.2%
or personality disorder	No	0	0%
	Unknown	37	63.8%
	Total	58	100.0%

Sociological Trauma			
Unstable home environment / Poverty		12	20.7%
Sexual Abuse		1	1.7%
Death of a Family Member		1	1.7%
Other		1	1.7%
Combination		6	10.3%
Unknown		37	63.8%
Total		58	100.0%
Did the offender exhibit psychopathic tendencies?	Yes	9	15.8%
	No	0	0%
	Unknown	49	84.5%
	Total	58	100.0%

Within this sample, there were only three offenders who were identified with having some sort of biological trigger that potentially drove their violent behaviour. For example, Cecile Bombeek was a nurse who targeted elderly patients while working in nursing home in Belgium. In 1975, approximately two years before she started killing patients, Bombeek underwent brain surgery in an attempt to remove a brain tumor (Scott, 2012). It was reported that she not only experienced a dramatic behavioural change, but she also developed an addiction to pain medication that was used to help alleviate her headaches (Scott, 2012). Although it cannot be said for certain if her surgery caused to kill her patients, she maintained that she killed them because they were too difficult to look after during the night. Although convicted, she was admitted to a psychiatric facility instead of prison to serve her sentence. Dr. Harold Shipment was also addicted to morphine and this link (albeit at times superficially) is made between serial homicide and substance abuse (Hickey, 2010).

When compared to biological traumas, psychological traumas within this sample were far more prevalent. For example, nurses Beverley Allitt, Bobbie Sue Terrell and

Kristen Gilbert all suffered from Munchausen Syndrome by proxy (MSP) in addition to other personality or eating disorders. Allitt suffered from anorexia nervosa, Munchausen Syndrome by proxy, and was said to display a distinct lack of empathy for others. Notably, she was also reported to set fires and torture animals as a child (Davis, 2010). This behaviour, namely the act of torturing animals is often linked to the early warning signs of serial homicide (Wright & Hensley, 2003). Terrell and Gilbert both suffered psychiatric episodes throughout their childhoods and were diagnosed with schizophrenia and antisocial personality disorder respectively (Davis, 2010; Ramsland 2007).

Within this sample, an offender who experienced sociological trauma typically suffered from unstable home environment. Charles Cullen, a nurse who confessed to killing 13 patients, is an excellent example of a healthcare professional who experienced an unstable home enviroment during his childhood. Cullen was the youngest of eight children and because his father died the same year as he was born, his mother was forced to raise eight children alone on a very low income (Davis, 2010). Unfortunately, his mother, whom he had shared a very special bond with, died in a car accident when he was 17, leaving him and his siblings orphaned (Davis, 2010). Cullen experienced a significant amount of poverty and death in his early life, and it is possible that this death, or more specifically, the lack of control that one has over life and death could have affected him in a violent way (Ramsland, 2007). Similarly, another healthcare professional, namely Dr. Harold Shipman, who is considered to be England's most prolific serial killer, also experienced death at an early age. Dr. Shipman and his mother shared a special bond and when she was dying of cancer he helplessly watched her die, all the while watching her doctors inject her with morphine to alleviate her pain (Davis,

2010; Gunn, 2010). In contrast, these results differed from the results offered by Beine (2003), who maintains that there were no examples of offenders "suffering from a severe mental disorder" within his sample (p. 377). However, Beine (2003) lists Gwen Graham among his cases, and according to numerous reports, she suffered from a paraphilia whereby she was sexually aroused by killing (Hickey, 2010; Ramsland, 2007). According to the Diagnostic Statistical Manual (DSM-IV-TR) a paraphillia is considered to be a psychiatric disorder when the paraphilia causes harm or disturbance to others, which in Graham's case, certainly causes harms to others (American Psychiatric Association, 2000). Although Yorker et al., (2006) do not extensively consider sociological, biological or psychological trauma in healthcare serial killers, they do note the prevalence of MSP in select female nurses within their sample.

Serial killers, and by extension healthcare serial killers are often explained away by the public and the media by being psychopaths or being insane. It is important for a moment to briefly differentiate between the terms insane, antisocial personality disorder, and psychopathy, as they are often used interchangeably when describing or explaining the behaviors of serial killers (Carlisle, 1998; Fox & Levin, 2005; Hare, 1993; Hickey, 2010).

The term *insane* is primarily a legal construct and is typically utilized, albeit often unsuccessfully, as a defense in legal proceedings (Shon & Milovanovic, 2006). *Antisocial personality disorder* is a pervasive personality disorder that is characterized by a "pattern of disregard for, and violation of, the rights of others" (DSM-IV-TR, 2000, p. 701). Individuals who suffer from this disorder are often manipulative, deceitful and will con others for the purposes of gaining pleasure, power or profit (DSM-IV-TR, 2000, p. 701).

Psychopathy refers to a syndrome that is characterized by a specific cluster of symptoms (Hare, 1993, p. 34). Individuals who suffer from this syndrome possess specific behaviour traits like being manipulative, irresponsible, narcissistic, intelligent, in addition to having a notable lack of emotion, remorse and affect (Gao & Phil, 2010; Hare, 1993; Hickey, 2010; Holmes & Holmes, 2010).

The element of control is also notable in psychopaths, as they need to be in control of situations around them, and when not in control they tend to resort to violent behaviour (Hickey, 2010). It is important to note however, that psychopaths are considered sane, albeit presenting antisocial behaviours (Freeman & Verdun-Jones, 2010). Serial killers have been presented as psychopaths in prior works primarily because of their ability to manipulate others into believing that they are normal, and in their lack of feeling remorse during or after the kills occur. It is important to note that those suffering from psychopathy will meet the criteria for ASPD, not everyone suffering from ASPD will meet the criteria for psychopathy (Hickey, 2010).

There were a select few (9 / 56 or 16.1%) offenders who did exhibit behaviours that could potentially qualify them for a diagnosis of psychopathy. Psychopathy is characterized by a lack of empathy or remorse, pathological lying, impulsivity, need for control, shallow emotions and the "persistent violation of social norms and expectations" (Hare, 1996, p. 25). Within this dataset, notable examples would be Beverly Allitt, Donald Harvey, Dr. Michael Swango or Charles Cullen, whose behaviour was characterized by a lack of empathy or remorse for their actions.

Finally, the motivations of serial killers are often considered in the literature, and the motivations of healthcare serial killers are equally important to understand. Although the data was limited for this variable, certain patterns are evident.

Table 4: Motivations of Healthcare Serial Killers

Variable		Frequency	Percentage
Motive	Financial gain	2	3.4%
	Power / control	4	6.9%
	Eliminate patients / overworked	4	6.9%
	Hero complex / earn respect	4	6.9%
	Test doctors or coworkers	5	8.6%
	Combination	19	32.8%
	Unknown	20	34.5%
	Total	58	100.0%

Within this sample, few offenders killed for exclusively financial reasons (2 /58 or 3.4%), in comparison to the majority of offenders who killed for a multitude of reasons (19/58 or 32.8%) ranging from power and control or wishing to earn respect for diagnosing or saving patients who were in distress. The findings within the current literature mirror the results in the present study, in the sense that healthcare serial killers kill for diverse reasons, financial gain being rarely as important as power or control. Notably, as outlined by Beine (2003) and Yorker et al., (2006), healthcare serial killers often cite mercy or compassion as a motive to killing, however this becomes problematic when healthcare serial killers choose victims who are elderly or critically ill, but not necessarily terminal. However, as Field (2007) notes, uncovering the motives of healthcare serial killers can be difficult because an offender's motive for killing can be personal and offenders may not always make this information known. Notably, because healthcare professionals who engaged in legitimate cases of euthanasia or assisted suicide

were already excluded from the sample, mercy was not included as a potential motive for healthcare serial killers' behaviour.

The application of typologies to serial homicide is often fraught with difficulties and inconsistencies (Canter & Wentink, 2004). This is primarily because typologies focus on a specific aspect of the act of serial homicide or a specific characteristic of the serial killer, rather than as an entire process. Therefore, in the consideration of healthcare serial killers, the most appropriate way to consider the process of killing is from a theoretical framework that is characterized by manipulation, impression management and systemic procedural failure, namely as the *confidence game.* The healthcare serial killer is the epitome of the ultimate *con artist or con man*, namely a criminal with a "gentle touch" who uses his or her intelligence and impression management skills to manipulate victims into gaining their trust (Maurer, 1999, p. 1). It is important to note that the term con man is by no means a comment on gender issues or gender roles; instead the term con man is used for brevity's sake.

Selecting and investigating the mark

For both the healthcare serial killer and the average serial killer, the initial step of selecting an appropriate victim is vital to evading detection and subsequent apprehension. More specifically, this initial stage in the healthcare serial killer confidence game is akin to the stalking behaviours that traditional serial killers typically engage in before selecting an appropriate victim to murder (Hickey, 2010). Healthcare serial killers are exceptionally proficient in this regard because any stalking behaviours that might seem suspicious outside of the healthcare environment instead appear as attentiveness or competence within the healthcare environment (Hickey, 2010; Ramsland, 2007; Yorker et al., 2006).

In this stage, the offender needs to select a victim who they believe is an appropriate mark or victim. For the traditional con man, this would typically be someone who can be easily manipulated and who has money (Maurer, 1999). For the healthcare con man, the victim needs to be accessible, trusting and have the potential to be killed with the least amount of effort. Healthcare serial killers, similar to traditional serial killers will select victims based on an *ideal victim type* or IVT (Hickey, 2010). However, especially in the case of healthcare serial killers, this IVT is easily abandoned in favour of a more convenient victim.

For example, nurse's aides Gwen Graham and Catherine Wood initially selected victims according to the first letter of their surname so they could spell MURDER in patient records. Ramsland (2007) reports that Graham and Wood wanted to be "bonded forever" and each death added one day to their "forever" (p. 80). When Graham tried to kill an elderly man who matched their IVT (due to his surname), the patient fought back and thus Graham was unable to complete the murder (Newton, 2007). As a result, their murder game plan was abandoned because it proved too difficult and they instead simply selected elderly female victims who were unlikely to fight back (Ramsland, 2007). This is interesting for two reasons. First, none of the victims reported the incidents. Second, Graham made the conscious decision to alter her perception of a desirable victim. Initially the desired victim was one whose death could appear as a letter in their murder game but then it became any female patient who would be unable to fight back and thus unable to expose the pair. In contrast, nurses Orville Majors and Colin Norris also had a specific victim type and targeted elderly victims exclusively (Davis, 2010). Majors and

Norris were able to consistently select their ideal victim because the victims were elderly and would be less likely to resist or fight back.

By virtue of their profession, healthcare providers are usually automatically afforded with the privilege of trust. Drawing on information from recent opinion polls, Pryek (2011) reports that medical professionals are one of the most trusted, even more so than police officers or teachers. This trust works in the favour of healthcare professionals who genuinely wish to help people as well as those who wish to do harm. There are specifically two components of trust in this context. First, it is the trust that we, as a society have in our healthcare professionals that they will "first do no harm." In other words, there is a pervasive collective understanding that listening to our healthcare professionals' advice is beneficial and necessary to our wellbeing. Second, there is a distinct divide between the authority of a healthcare professional, and the lack of knowledge in a patient. This divide is a dangerous sentiment as healthcare professionals, similar to other professionals and human beings in general are in fact capable of harming patients under the right circumstances.

Within this sample, the majority of offenders selected victims who were elderly or critically ill, but not exclusively terminal. Healthcare serial killers also choose victims that are vulnerable and easily accessible, much like a traditional serial killer's preference for a prostitute as an appropriate victim (Quinet, 2007).

Table 5: Victim Profile (Based on the majority of Offender's Victims)

Variable	Frequency	Percentage
Approximate age of victim Infant	3	5.2%
Adult (18-60)	2	3.4%
Elderly (61+)	41	70.7%
Unknown	12	20.7%
Total	58	100.0%

Health of victim		
ICU (not terminal)	9	15.5%
Terminal / Coma	9	15.5%
Require a lot of care, but not terminal	25	43.1%
Other	5	8.6%
Unknown	10	17.2%
Total	58	100.0%
Victim's Gender		
Majority Female	8	13.8%
Majority Male	5	8.6%
Combination	19	32.8%
Unknown	26	44.8%
Total	58	100.0%

This type of victimology is echoed in the current literature on healthcare serial killers (Field 2007; Field & Pearson, Yorker et al. 2006). Healthcare serial killers primarily choose victims who were elderly (41/ 58 or 70.7%) and required a lot of care, but were not terminal (25/58 or 43.1%). In addition, the offenders within this sample targeted both male and female victims (19 / 58 or 32.8%).

This initial step of selecting the mark is important for the offender to select an appropriate victim who will be responsive to the offender and also be able to place their trust in them.

Cultivating the mark

After the healthcare con man has selected an appropriate target, either out of convenience or by adhering to a specific victim type, they engage in psychological manipulation and identity management to appear as trustworthy and as unthreatening as possible. Healthcare professions can often appear friendly or personable by simply interacting with the victim and their family more often than other healthcare

professionals. This can create the illusion that the offender is more attentive and competent.

Table 6: Cultivating the Mark

Variable		Frequency	Percentage
Did the offender cultivate	Yes	15	25.9%
family members of the victim?	No	0	0%
	Unknown	43	74.1%
	Total	58	100.0%
Offender's Demeanor	Positive	22	37.9%
	Negative	3	5.2%
	Unknown	33	56.9%
	Total	58	100.0%

Within this sample (where the data was available), offenders typically were thought of in a positive manner (22 / 58 or 37.9%) rather than a negative one (3/58 or 5.2%). This interaction between the offender and the victim and their family is important and is evident in the reported demeanor of the offender. Offenders who are successful at impression management and victim cultivation are often remembered with fond memories and families of victims often expressed disbelief that the offender was accused of homicide (Hickey, 2010).

Nurse Beverly Allitt is an excellent example of how victims and their families are cultivated by healthcare serial killers playing the confidence game. Allitt was convicted of killing four children (although suspected of more) while she worked at in the pediatric ward at a hospital in England. She reportedly was quite close to the families of her patients and was often praised by parents of sick children on her excellent bedside manner and heroic efforts to save their dying children (Davies, 1993; Davis, 2010; Ramsland, 2007). In one particular instance, she attempted to kill twins Katie and Becky Philips with an overdose of insulin, but only succeeded in killing Becky and leaving

Katie brain damaged (Davis, 2010). In this particular case, because the victims were infants and therefore unlikely to voice any potential concerns over the healthcare professional's conduct, the parents must be also be cultivated to trust in the healthcare professional.   The parents of Katie and Becky were so grateful for Allitt's efforts to save Becky that they unknowingly made the woman responsible for their child's death the godmother of their surviving child (Davis, 2010).

Executing the Con / Exchanging Trust for Hope

It is important for the healthcare serial killer to manipulate victims into believing that they are trustworthy before they kill them. Essentially, the healthcare serial killer is exchanging trust for hope similar to the way that the traditional con man will exchange trust for promise of money (Maurer, 1999). In other words, this exchange of trust also works in the favour of the healthcare professional because the ill or elderly patient and their families hope for a solution to their loved one's ailment. The healthcare serial killer is aware of this and uses it to his or her advantage. For example, Dr. Harold Shipman, whose killing career began in 1974 and ended in 2001, was convicted of 15 murders. He operated primarily out of his own practice and would make house calls to his patients late in the evening. Both Davis (2011) and Kaplan (2009) maintain that many of Shipman's victims were healthy for the most part and their surviving relatives expressed great surprise when hearing about their death.

Shipman established himself as a friend during his interactions with his victims, which explains why his victims did not protest when he offered an unexpected injection. When Shipman arrived at his victim's home, they would offer tea or snacks and they would engage in friendly banter. Shipman would then explain that they were in need of

an injection, or that he needed to take a blood sample. His victims, because they trusted him as their doctor and 'friend,' and would sit back in their chairs and offer their sleeveless arm. In other words, the victims in this case unwittingly participated in their own deaths. Shipman would then inject a lethal dose of morphine, and the victims would die shortly after. Another doctor in Russia, namely Dr. Maxim Petrov had a very similar MO, however it is unknown if he was influenced by Dr. Shipman. Dr. Petrov would also arrive at a patient's home and would take their blood pressure and then would offer an injection (Walsh, 2002). As Kaplan (2009, p. 58) notes, Shipman's victim selection was specific for the most part. He chose elderly women who lived alone and believed Shipman to be a good friend. Shipman was also in the habit of falsifying medical data to make it appear as if the victims had pre-existing conditions or were drug users. Dr. Shipman also forged the victim's wills to ensure that he was the beneficiary. If the offender has completed the first two steps accurately, they will be able to kill their victims with either the victim's help, or without the protest of the victim's family. Some offenders were so confident in their presentation of self that they injected the victim in front of their family members. Nurses Timea Fauldi, Orville Majors, Irene Becker and Dr. Swango all reportedly injected their victims in front of family members and were rarely questioned.

Cooling out the mark

In this stage the offender has already completed their con (act of homicide) and they need to ensure that they will not be reported and if they are reported to ensure they are not charged. In the traditional confidence game, this stage is to ensure that the mark will not report the con man to the authorities (Goffman, 1952). Typically, the mark will

be reminded of their own culpability in the situation and that "you can't con an honest man" (Maurer, 1999). By implying that the victim is somehow responsible for being conned, the con man is able to lessen the likelihood that the victim will go to the police because if they do they will have to admit criminal activity as well (Maurer, 1999; Nash, 1976).

In the context of serial homicide investigations, techniques of evasion or cooling out the mark can be understood to mean any behaviour or technique that a serial offender will utilize to decrease their likelihood of detection or capture (Hickey, 2010). Traditionally, these behaviours are intentional (Hickey, 2010). When considering healthcare serial killers, there are many techniques of evasion that are intentionally utilized by the offender, and there are many techniques that may be procedural or systematic on the part of the hospital or its staff that are unintentional, but still produce an environment that is conducive to anti-social behaviour. Even though these may not be intentional on the part of the offender, it is still important to consider how different procedural errors can influence serial homicide in healthcare environments.

Healthcare serial killers can facilitate the *cooling out of the mark* in two specific ways. First, the offender can try to clean up the crime scene, destroy evidence (i.e. convince the family to cremate the body) or make it less likely to have the homicide associated with their name. Second, the offender can claim that they acted out of mercy instead of malice intent. Notably, the healthcare system seems to work well to cool out the mark for the healthcare serial killer, and they often do not need to do anything else. As previous scholars have noted, autopsies are rarely conducted on patients who are very ill, are terminal or who die in nursing homes (Hickey 2010; Pyrek, 2011; Ramsland,

2007; Yorker et al. 2006). Patients who are terminal or are in an Intensive Care Unit (ICU) are expected to die and as a result there is usually no need for an autopsy. This money and time saving practice, while common, certainly benefits the healthcare professional who wishes to do their patients harm.

The case of Anthony Joyer, a diet technician who worked in a nursing home in Pennsylvania, is an excellent example of how offenders can *cool out the mark* using the healthcare system. Joyer was convicted of raping and killing six elderly, albeit active women. The first of Joyer's victims died on January 21st 1983. She was found dead on the floor of her room with traces of blood on her face and in her vaginal and anal cavity. Also notably, she had evident bruising on her face. According to Davis (2010), the doctor ruled the death as natural cause because the body may sometimes leak fluid after death. The second victim was found on February 12th 1983 with the same traces of blood as before. This death was also ruled as natural causes. It was not until the third victim was discovered, that a doctor asked for an autopsy. Unfortunately, this particular doctor was absent the day the body was discovered and another doctor (who had not been aware of the other similar deaths) signed off on the death, citing natural causes, and thus authorizing the commencement of the embalming process. On June 1st 1983, the fourth victim was found, but the crime scene differed slightly from the crime scene of the other victims. This particular victim was found with her face submerged in a couple of inches of water. The nurses who found her assumed that she had a heart attack because of her pre-existing heart problems. It was not until the fifth victim that the doctor (the same doctor who requested an autopsy after the third victim) refused to attribute the death to natural causes and subsequently would not sign the death certificate. The sixth and final

victim was found in her room a few hours after the fifth victim was found and a subsequent police investigation began.

The case of Waltraud Wagner, Maria Gruber, Ilene Leidolf and Stephanija Mayer, nurses from Viennna is a second example of how healthcare serial killers can *cool out the mark* and restrict the amount of evidence using their nursing education. For example, Wagner and her accomplices utilized a 'washcloth' method of killing their victims. They would use a wet washcloth to smother their victims and because of their victim's age if an autopsy was performed the fluid in their lungs would not be cause for alarm (Ramsland, 2007; Roland, 2010).

The final example, Dr. Michael Swango, an American doctor, illustrates how cooling out the mark can help sustain a healthcare serial killer's killing career for an extended period of time. Swango's troubling behaviour and the increased number of patients who died while under his care were evident from the beginning of his medical career but coworkers were reluctant to report anything suspicious. The first notable experience occurred on January 31st 1984. Swango, who was still an intern at this point, entered a patient's room under the guise that he was checking on her status. A female student nurse witnessed Swango injecting the patient's IV line with something that caused respiratory failure. The patient was revived and managed to write on a piece of paper that she was given something that prevented her from being able to move (Kaplan, 2009). The student nurse reported the situation to her supervisor, but nothing came of the accusation, nor was Swango questioned. Kaplan (2009) makes the pertinent observation that the hospital hierarchy certainly decreased the likelihood of Swango's detection. In this situation the female student nurse, regardless of what she saw, was not more credible

than a male doctor. Notably, Swango was able to manipulate those around him frequently, obtaining positive references from hospitals that dismissed him, forging documents and obtaining employment with falsified documents (Kaplan, 2009).

Dr. Michael Swango began to kill in 1970 and was apprehended in 2000, making his killing career the longest within this sample: a total of 30 years. Dr. Harold Shipman killed his patients over a span of 27 years while avoiding detection. It is safe to say that among other things, the prestige and trust that is especially associated with doctors certainly helped Dr. Swango and Dr. Shipman avoid detection for three decades.

Donald Harvey, a nurse's aide and Charles Cullen, a nurse, were able to avoid detection for 17 and 16 years respectively. In contrast to the current literature males instead of females in this sample were able to avoid detection for longer periods of time. As Hickey (2010, p. 254) notes, female serial killers can kill for longer spans of time due to them being "almost invisible to public view." In other words, due to conventional societal stereotypes and gender roles, women are at times seen as incapable of homicide (Hickey, 2010; Holmes & Holmes 2010). This finding also sheds light on the hierarchy or privilege system within a hospital setting whereby male doctors are at the top while female nurses or nurse's aids are at the bottom of the hospital hierarchy.

The second way that healthcare serial killers can *cool out the mark* is by placing the responsibility on either being overworked (i.e. Wolfgang Lange) or by maintaining that the victim asked to be killed and the offender acted out of mercy rather than malice intent (i.e. Christine Malevre, Roger Andermatt and Timea Faludi).

Table 7: Cooling out the Mark

Variable		Frequency	Percentage
Did the offender claim it was mercy?	Yes	21	36.2%
	No	0	0%
	Unknown	37	63.8%
	Total	58	100.0%
Total number of years active	One year or less	30	51.7%
	Two years or more	28	48.3%
	Total	58	100.0%

Within this sample, many offenders (21/58 or 36.2%) claimed that they acted out of mercy or compassion for suffering patients. This assertion is often made by healthcare serial killers as a way to neutralize their actions, and the results from this study are consistent with extant literature on healthcare killers (Hickey, 2010; Yorker et al., 2006). This claim of acting out of mercy is certainly contradicted by the victim selection (victims are not all terminal), the offender's method (injecting muscle relaxants are a terrifying and slow way to die), and finally, the victim's families often valiantly deny that the victim expressed any wish to die (Ramsland, 2007, Yorker et al. 2006).

Finally, another way to determine if the offender has been successful in cooling out their mark is to examine what caused the original investigation and how a particular offender was identified.

Table 8: Investigation Trends

Variable		Frequency	Percentage
Cause of initial investigation Into patient deaths?	Statistics	9	15.5%
	Patient complaints	1	1.7%
	Families of Patients	1	1.7%
	Coworkers	12	20.7%
	Other	17	29.3%
	Unknown	18	31.0%
	Total	58	100.0%

Table 9: Reporting Trends

Variable		Frequency	Percentage
How was the offender			
Identified?	Offender's coworkers	18	31.0%
	Offender's supervisors	5	8.6%
	Victim's Family	2	3.4%
Surviving victim (homicide not completed)		3	5.2%
	Statistical Analysis	1	1.7%
	Other	9	15.5%
	Unknown	20	34.5%
	Total	58	100.0%

If the offender is able to present himself or herself in a positive way, especially to the victim or the victim's family, this can make it less likely for the offender to be reported by these sources. Within this sample, the majority of investigations were started because of coworker's concerns (12/58 or 20.7%). In contrast, both the victim's family's complains or other patient complaints were responsible for the initial investigation into the deaths the least frequently (1/58 or 1.7%).

Similarly, in terms of a specific offender being identified in an investigation, the offender's coworkers were again frequently the ones who identified the offender (18/58 or 31.0%) when compared to surviving victims (3/58 or 5.2%) or the victim's family (2/58 or 5.2%). This finding seems to contradict the current literature that maintains that coworkers rarely voice their concerns because they are afraid to violate the 'code of silence' within the healthcare industry (Fiesta, 1997; Mason, 2004). However, it should be noted that a significant number of cases are missing and therefore, if all the information was available, the results may be altered. On a more hopeful note, perhaps hospital administrators are beginning to encourage or insist that suspicious behaviour is

reported, and perhaps they are also making the effort to follow up on that information. More research is certainly needed to further substantiate this particular result.

Prolonging the con

After the healthcare serial killer has completed the previous steps, the healthcare serial killer engages in the final step of the healthcare confidence game. In this step, namely, in *prolonging the con* – a step that is unique to healthcare serial killers- the healthcare serial killer engages in post- offence behaviours that help them relive the experience of killing. More specifically, the offender will extend the misery or pain caused by the crime to victim's family and the offender's coworkers. Healthcare serial killers prolong the con in two specific ways. First they use humour or they interact with or taunt the families of victims as a way to relive the experience of killing. Humour within the healthcare environment, even dark or seemingly insensitive forms are often interpreted as coping mechanisms for healthcare professionals who deal with tragic instances of death (Jones, 1998; Scott, 2007).

The healthcare serial killer knows this because they are a member of the healthcare environment and thus are able to relive the killing experience by making jokes about patient deaths. In essence, the healthcare serial killer utilizes societal conventions like humour as a coping mechanism and partakes in the conversations about death without arousing suspicion too quickly. However, it should be noted that there is a fine line between what is interpreted as a coping mechanism and what is a cause for concern. For example, Waltraud Wagner, Irene Leidolf, Orville Majors, Anthony Joyer, Gwen Graham and Catherine Wood all joked about patients dying. These jokes were originally dismissed as inappropriate jokes, but inevitably did contribute to the offender's detection.

Notably, the majority of coworkers recall these "jokes" in retrospect of the offender being charged, but few did report the offender based on the excessive joking or bragging about the deaths of patients. In addition, select healthcare serial killers revered in the nicknames that were bestowed upon them by other coworkers or by the media. For example, Richard Angelo (*angel of death*), Donald Harvey (*angel of death*), Wolfgang Lange (*the executioner)*, and Dr. Swango (*Double-O-Swango, License to kill)* were all reportedly quite proud of their nicknames (Davis, 2010; Ramsland, 2007).

Other healthcare serial killers engaged in behaviours that involved interacting with the victim's family. For example, Kristen Gilbert, a nurse who was convicted of killing four sick and elderly patients, engaged in an especially callous post-offence behaviour that could also be interpreted as taunting the families of her victims. She reportedly took delight in contacting the families of the deceased and would inform them simply that their loved one is dead and would hang up (Ramsland, 2007). Similarly, Michael Swango would often write "DIED" in large red letters over the files of patients who died in plain view of the families. Nurse Orville Majors would reportedly inject his victim in front of their families and would kiss the victim on the forehead while explaining that everything will be okay (Davis, 2010). Nurse Coleen Thompson invited the widowers of her victims to her wedding (Syder & Kunkle, 2004). Notably, this final step in the con game is not evident in all cases of healthcare serial killers, however this could possibly be due to the lack of available data on this variable.

DISCUSSION AND CONCLUSION

Using a sample of 58 healthcare serial killers, this study sought to fill the current gap in the literature by examining the pre-and post-offence behaviours of healthcare

serial killers and interpreting those behaviours from the theoretical framework of confidence or con men. The results of this study can be divided into two main categories, namely the general demographics characteristics of offenders and victims, and the five steps involved in the healthcare confidence game (*selecting and investigating the mark, cultivating the mark, executing the con /exchanging trust for hope, cooling out the mark*, and *prolonging the con)*. In terms of demographics, the majority of offenders in this sample were male nurses who worked in hospitals and killed elderly victims using an injection. These results mirror those found by other scholars (Beine, 2003; Field, 2007; Field & Parsons, 2007; Hickey, 2010; Yorker et al. 2006).

In terms of the healthcare confidence game, healthcare serial killers are the epitome of the ultimate con man because they are able to utilize societal conventions and impression management techniques to manipulate their intended victim into compliance. Notably, this study uncovered selection patterns and trends in healthcare serial killers. First, victim selection and cultivation is vital in ensuring that the offender evades detection and capture. Healthcare serial killers need to ensure that they appear to be competent and worthy of trust. Within the current sample, it was evident that the healthcare serial killers made an effort to interact with their patients while appearing competent and pleasant. Many families of the deceased reportedly remarked at how kind the offender was and how surprised they were that the offender was responsible for the death of their family member (Ramsland, 2007). This generally positive assessment works in favour of the healthcare serial killer because coworkers and supervisors may already be reluctant in accusing healthcare professionals of homicide and when family

members of patients express their admiration for certain employees, this makes it even less likely that healthcare professionals would be questioned.

The importance of victim cultivation or interaction is not echoed in some of the literature on healthcare serial killers. Namely, Beine (2003) maintains that the healthcare serial killers within his sample did not spend much time selecting their victim because many victims died right after being admitted to the hospital or nursing home. The results from this study contradict this because what appears to have more of an impact is if the offender has had an opportunity to gain the trust of the intended victim. Also, it would be safe to assume that healthcare serial killers do pay attention to the victim's medical history or visitor schedule so as to avoid detection. More specifically, the most successful healthcare serial killers like Dr. Harold Shipman and Dr. Michael Swango, were the ones who were able to develop relationships (albeit superficial and deceptive ones) with their victim. In addition to choosing the victim, the location is also an important consideration. Although the current study did not have enough information to investigate this concept fully, previous scholars do report healthcare serial killers will typically kill during the night shift and out of the view of nursing stations (Stark, Paterson & Kidd, 2001;Yorker et al., 2006).

The second notable pattern uncovered within this study was that healthcare serial killers are able to evade detection and apprehension for extended periods of time because they are able to successfully cool out their mark. Namely, they are able to utilize and exploit hospital procedures in ways that differ from traditional serial killers (Curtain, 2004; Fiesta, 1999; Mason, 2004; Lubaszka & Shon, 2012). Those healthcare professionals (i.e. Shipman and Swango) who exploit many different procedures are able

to evade detection for significant periods of time because their behaviour can be very difficult to track. For example, problem employees may be dismissed from one hospital only to be hired by another hospital that does not check references (Curtain, 2004). Healthcare professionals are aware of this oversight and healthcare serial killers exploit it. In addition, post-offence behaviours like cleaning a crime scene or removing the fingerprints from surfaces near the victim are not as important to healthcare serial killers as they are to traditional serial killers. This is due to the fact that there is often a reasonable explanation (the offender is employed there) as to why an offender's fingerprint or hair sample might be found near the victim.

Finally, healthcare serial killers engage in post-offence behaviours like humour or interacting with the victim's family to prolong their con (Jones, 1998). This type of behaviour mirrors the post-offence characteristics of traditional serial killers where they visit the crime scene or relive the murder using trophies, photographs, or something belonging to the victim (Hickey, 2010). For healthcare serial killers this may not be possible when the bodies of their victims are cremated or buried, so an important way that they relive the crime could be jokes or continued interaction with the victim's family. There was not enough information within this study to be able to investigate this fully. However, it is imperative that future research investigates this unique post-offence characteristic in order to understand how healthcare serial killers relive their crime by witnessing the pain of the victim's family. In one notable case, nurse Stephan Letter would want to be the one who would inform the family of their loved one's death and he would never shy away from embracing the families and crying along with them (Boyes,

2006). Perhaps after the death of the target victim, the offender still desires control and in essence the family can act as a surrogate victim.

There is a significant amount of literature surrounding the topic of serial homicide. Unfortunately, healthcare serial killers have not been afforded the same volume of scholarly attention. This lack of attention is troubling because healthcare professionals consistently work in an environment that under the right circumstances can be conducive to predatory behaviours like serial homicide. As result, it is imperative that we relinquish our perception that healthcare providers are incapable of committing homicide and instead examine the pre- and post-offense behaviours of those who do kill their patients. In traditional serial killer literature, the desire to understand typically manifests in the form of constructed typologies or motivational models. When traditional models are applied to healthcare serial killers, they are often lacking because healthcare serial killers differ in important areas like victim selection, crime scene behaviours and techniques of evasion. Furthermore, the behaviours of healthcare serial killers are considered from single points of analysis like motivation rather than as a process that begins with the selection of a victim and ends with post-offence behaviours that help the offender relive their crime.

As is the case with any research project, there are always limitations. This study had three potential limitations, namely reliability, validity and sampling error. In terms of reliability, there was little possibility of cross-referencing with victims or offenders and therefore there was a potential for incorrect information. In an ideal research design, there would be a possibility to verify information like motivation or victim cultivation techniques with the offender however, as is often the case with serial homicide research,

this is not usually possible to do (Hickey, 2010). In terms of validity, there could be cases where the offender has evaded detection or the crime was misattributed to another offender. Research involving serial homicide is often precarious, and these difficulties are often expected (Fox & Levin, 2005; Hickey, 2010). Finally, there is a potential for sampling error. When using data from an online database, true-crime novels or from newspaper articles, there is the potential for information to be missing or excluded from the search engine (Hinch & Hepburn, 1998).

The healthcare serial killer confidence game may not perfectly fit the behaviours of all healthcare serial killers, and as a result more research is vital. There are four specific topics that while tentatively uncovered in this study could benefit from future research. First, future research needs to further examine the links between certain mental health concerns and healthcare serial killers. It is also important to understand if healthcare professionals developed any disturbances in their behaviour based on specific occurrences while on the job. This study was able to tentatively uncover patterns in the histories and mental health issues experiences by healthcare serial killers, however it is important to further understand certain biological, psychological and sociological risk factors in the childhoods of offenders. There is still a significant gap in the literature regarding the etiology of healthcare serial killers.

Second, future research needs to more thoroughly explore why male nurses are overrepresented as offenders. More specifically, are nurses simply caught more readily than other healthcare professionals or is it their status as a male nurse that causes them to stand out more than female nurses? Third, in a similar vein, future research needs to examine the implicit and explicit hierarchical systems within the healthcare environment

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and how they affect the detection and evasion techniques of healthcare serial killers. Finally, future research needs to further examine the post-offence behaviours of healthcare serial killers. The way in which some healthcare serial killers interact and taunt the families of their victims and their coworkers is indicative of a specific kind of arrogance that is notably troubling. Research needs to further explore why this post-offence behaviour is important to the healthcare professional and what they achieve from this behaviour.

Further research would benefit from having access to more detailed information about the offenders and their crimes. For example, having access to healthcare serial killers for interviews would be extremely beneficial. Additionally it would be helpful to have access to police statistics, hospital death rates and any reports filed on problem employees.

In addition to uncovering notable trends and patterns of healthcare serial killers, this study also sheds light on the importance of making certain policy changes to protect vulnerable victims like those within the healthcare environment. There are three specific recommendations that are evident through the data within this sample. First, hospitals need to be prepared to communicate with each other on a national level. In particular, a reporting system needs to be developed that when a healthcare professional is disciplined or dismissed due to misconduct with patients, this information is made available to all hospitals who request the information. Hospital administrators need be reminded that not reporting a healthcare professional who exhibits problematic behaviours because they do not want to ruin a healthcare professional's future or risk getting sued is not an appropriate reason to ignore potentially dangerous behaviour. Second, hospitals need to

implement a more accurate and secure manner of accounting for the use of drugs.

Perhaps a system that involves fingerprint identification and an automated weighing

system for the drugs to determine how much was used. Finally, hospitals and hospital

administers need to be encouraged to report and investigate accusations by patients or

other healthcare professionals, regardless of their gender or status within the hospital.

Patients should also be encouraged to voice any concerns about certain healthcare

professions that may make them uncomfortable or have harmed them in any manner. In

addition, the families of patients should also be encouraged to listen to their loved ones

rather than dismiss their concerns.

This study presented evidence that a more fruitful endeavor might be to classify

and consider healthcare serial killers based on victim cultivation techniques. In the

context of healthcare serial killers, simply placing them in categories of 'angels of death,'

or 'Dr. Deaths' may not be particularly useful in understanding how healthcare serial

killers select their victims and how they are able to remain undetected for extended

periods of time. Instead, by considering healthcare serial killers from the theoretical

framework of confidence men, we are able to begin to understand how this specific type

of serial killer manages his or her deviant identity and exploits societal conventions and

procedural conventions in the healthcare environment.

Healthcare serial killers by virtue of their professional status and their work

environment have a distinct advantage over traditional serial killers in being able to evade

detection and subsequent apprehension, thus allowing them to continue killing for

extended periods of time. It is important that we as a society move past our perception

that healthcare professionals are not capable of predatory serial homicide. The

responsibility is inevitably on the public, hospital administrators and staff to be vigilant

and keep the lines of communication open about serial killers within the healthcare

system.

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INCLUDED HEALTHCARE SERIAL KILLER CASES[1]

Name	Years Active	Occupation Location	Country	Victim / Method	Charge/ Conviction
Joseph Dewey Akin	1992-1997	Nurse / Hospital	USA-AL	Used injections of epinephrine	Convicted of one count of homicide
Beverley Allitt	1991-1993	Pediatric Nurse/ Hospital	Grantham, England	Targeted children, Injections of KCI, Insulin, air embolism and suffocation	Convicted of 6 counts of assault, 3 counts of attempted murder, 4 counts of homicide
Roger Andermatt	2001	Nurse / Nursing home	Lucerne, Switzerland	Targeted elderly (between 66-95) patients, most suffering from Alzheimer's disease. Killed his victims using lethal injection or suffocating them with a cloth or plastic bag	Convicted of 22 counts of homicide, confessed
Richard Angelo *Angel of death*	1987-1989	Nurse/ Hospital	USA-NY	Generally healthy victims, injections of Pavulon (muscle-paralyzing drug)	Convicted of 4 counts of homicide, confessed

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[1] The information within this table was collected using a variety of newspaper articles and true crime novels, however a significant amount of data regarding the demographics of healthcare serial killers was adapted from Yorker et al., (2006).

Irene Becker	2005-2006	Nurse / Hospital/ Cardio Ward	Berlin, Germany	Targeted elderly patients, injections of potassium,	Charged with 6 counts of homicide, confessed to 4
Cecile Bombeek	1977	Nurse / Nursing Home	Wetteren, Belgium	Targeted elderly patients, injections of insulin	Convicted of 3 counts of homicide, confessed, admitted to psychiatric facility after conviction
Reinhard Bose	1975-1981	ICU Nurse / hospital	Rheinfelden, Germany		Convicted of 7 counts of homicide
John W. Bradgett	2001-2003	Nurse / Nursing Home	USA- NH		Charged with 2 counts of manslaughter, pled guilty to a charge of unauthorized administration of drugs
Abraao Jose Bueno	2005	Nurse/ Hospital	Rio de Janeriro, Brazil		
Sonia Caleffi	2004	Nurse / Hospital	Lecco, Italy	Injections of air	Charged with 5 counts of homicide
Michael Coons	1998	Nurse/ Nursing home	USA-OR	Targeted elderly patients. Injections of morphine	Charged with 4 counts of homicide, but was deemed mentally unfit and therefore was not indicted for the crimes
Peggy Course	2002-2004	Nurse / Nursing Home	USA- NH	Targeted elderly patients	Charged with 4 counts of

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					homicide, pled guilty to a charge of unauthorized administration of drugs
Charles Cullen	1987-2003	Nurse/ Hospital	USA-PA	Injections of digoxin	Confessed to 13 counts of homicide
Olaf Dater	2001	Nurse/ Private care	Bremerhaven Germany		Convicted of 5 counts of homicide, confessed
Robert Diaz AKA David Richard Diaz *Prophet of Death*	1981	Nurse / Hospital	USA – CA	Injections of lidocaine	Convicted of 12 counts of homicide
Timea Faludi	2001	Nurse/ hospital	Budapest, Hungary	Targeted victims who were terminally ill, injections of morphine, potassium,	Charged with 7 counts of homicide
Jeffrey Feltner	1990	Nurse's Aide / Nursing Home	USA – FL	Targeted elderly victims. Suffocated victims	Convicted of 6 counts of homicide, confessed
Sebastian Fontaine	2001	Nurse/ hospital	Boornik, Belgium		Charged with 6 counts of homicide
Kristen Gilbert	1995-1996	Nurse/ Hospital	USA- MA	Injections of epinephrine	Convicted of 4 counts of homicide
Michaela	2003-	Nursing	Bonn,	Targeted elderly	Convicted of 4

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Giersberg	2005	assistant/ Nursing Home	Germany	patients in a nursing home	counts of homicide, 4 counts of attempted homicide, 1 count of mercy killing
Gwen G. Graham (CD[2] - Wood)	1986-1988	Nurse's Aide / Nursing Home	USA – MI	Targeted elderly victims. Suffocated victims	Convicted of 5 counts of homicide
Maria Gruber (CD-Wagner, Leidolf, Mayer)	1983-1989	Nurse's aide/ Hospital	Vienna, Austria	Used suffocation, overdose of medication	Charged with 2 counts of homicide, convicted of 2 counts of attempted homicide
Benjamin Geen	2004	Nurse/ Hospital	Banbury, England	Targeted hospital patients	Convicted on 2 counts of homicide
Edson Isidora Guimaraes	1999	Aide ICU/ Hospital	Rio de Janeriro, Brazil	Targeted critical unconscious or comatose patients. Injections of potassium chloride or tampering with oxygen masks	Convicted of 4 counts of homicide, confessed
Frans H.	1972-1976	Nurse / Psych-geriatrics	Kerkrade, Holland		Convicted of 5 counts of homicide; confessed
Otha H. Hart	1984	Nurse/Hospital	USA- OR	Targeted elderly victims, injections of insulin	Convicted of 4 counts of homicide

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[2] CD= Co-defendant

Donald Harvey *Angel of Death* *Kiss of death*	1970-1987	Nurse's Aide/ Hospital	Cincinnati, OH, USA	Used injections of cyanide, insulin, tampered with equipment or suffocated victims	Convicted of 24 counts of homicide, confessed
Rhea Henson	2000	Nurse/ Hospital	USA-VA	Injections of morphine	Charged with 2 counts of homicide, confessed to controlled substance distribution
Susan Hey	1997	Nurse / Nursing home	USA- TX	Victims were elderly men with deteriorating health, injected potassium into their feeding tubes	Convicted of 2 counts of homicide
Ilene Leidolf (CD-Wagner, Gruber, Mayer)	1983-1991	Nurse's Aide / Hospital	Vienna, Austria	Injections of rohypnol, water in lungs	Convicted on 5 counts of homicide, confessed
Vickie Dawn Jackson	2000-2001	Vocational Nurse/ Hospital	USA- TX	Injection of Mivacron (muscle relaxer)	Convicted of 10 counts of homicide
Anthony Joyner	1983	Diet Technician / Retirement home	USA-Pennsylvania	Targeted elderly women, raped and suffocated his victims (drowned one in the bathtub)	Convicted of 6 counts of homicide
Milos Klvana	1982-1986	Obstetrician / At home	USA- CA	Targeted infants; infants died	Convicted of 8 counts of

		delivery		during delivery	second-degree homicide
Aino Nykopp-Koski	2004-2009	Nurse / hospital, nursing home, home care	Finland	Targeted elderly victims (between ages 70-91). Used injections opiates and sedatives	Convicted of 5 counts of homicide and 5 counts of attempted homicide
Wolfgang Lange *The executioner*	1990-1993	Nurse/ Hospital, Neuro Psychiatry	Gutersloh, Germany	Used air embolism to kill victims	Convicted of 9 counts of homicide
Stephan Letter	2004-2005	Nurse	Sonthofen, Germany	Targeted elderly and weak victims. Used injections	Charged with 16 counts of homicide
Orville L. Majors	1993-1999	Nurse/ Hospital	USA- IN	Injections of KCI	Convicted of 6 counts of homicide
Christine Malevre *The black widow*	1998	Neurology Nurse/ Hospital	Versailles, France	Targeted terminally ill patients. Injections of KCI and morphine	Convicted of 6 counts of homicide
Stephanija Mayer (CD-Wagner, Leidolf, Gruber)	1983-1991	Nurse's Aide/ Hospital	Vienna, Austria	Used suffocation, overdose of medication	Charged with 12 counts of homicide, convicted of 7 counts of attempted homicide, confessed
Arnfinn N. Nesset	1977-1981	Nurse / Nursing home	Norway	Targeted elderly victims, used injections of succinylcho-oline (muscle	Convicted of 22 counts of homicide

				relaxer)	
Colin Norris	2001-2002	Nurse / hospital	Scotland	Targeted elderly women, injected insulin	Convicted of 4 counts of homicide
Maxim Petrov	2000-2002	Doctor	Russia	Targeted elderly female victims, injections of anesthesia	Charged with 17 counts of homicide
Terri Rachals	1985-1986	Nurse/ Hospital	USA-GA	Targeted patients in the ICU, injections of potassium chloride	Charged with 6 counts of homicide and 19 counts of aggravated assault, convicted of 1 count of aggravated assault
Phillip Reed	1999-2000	Nurse/ hospital and nursing home	Leeds, England	Targeted elderly victims. Injections of morphine	Charged with 2 counts of homicide, convicted of one charge of assault
Michaela Roeder	1985-1989	ICU Nurse/ Hospital	Wuppertal, W. Germany	Targeted patients in the ICU. Injections of KCI	Convicted of 5 counts of homicide, confessed
Brian K. Rosenfeld	1991-1992	Nurse/ Nursing Home	USA- FL	Targeted elderly victims, used injections of Mellaril (anti-psychotics)	Convicted of 3 counts of homicide, confessed
Kimberly Saenz	2008-2008	Nurse/ Hospital	USA- TX	Targeted victims undergoing dialysis, injected bleach into the dialysis lines	Convicted of 5 counts of homicide

Efren Saldivar	1989-1998	Respiratory Therapist / Hospital	USA- CA	Injections of morphine and pavulon	Charged with 6 counts of homicide
Barbara Patricia Salisbury	1999-2004	Geriatrics Nurse/ Hospital	Crewe, England	Targeted elderly victims, used injections of morphine or suffocation	Charged with 2 counts of homicide, convicted of 2 counts of attempted homicide,
Harold Frederick Shipman *Dr.Death*	1974-2001	Physician/ Hospital, Nursing Home, personal Practice	England - Hyde	Targeted elderly women who lived alone, injected victims with an overdose of heroin	Convicted of 15 counts of homicide, committed suicide in prison in 2004 while serving life sentence
Joseph M. Swango *Double-O-Swango, License to Kill*	1970-2000	Physician/ Hospital	USA – multiple states, Zimbabwe	Overall healthy victims, injected victims with potassium (KCI)	Charged with 5 counts of homicide, confessed
Bobbie Sue Terrell	1984-1985	Nurse / Nursing Home	USA – multiple states (Illinois and Florida)	Injections of insulin, suffocation	Convicted of 4 counts of homicide, confessed
Coleen M. Thompson	2003	Nurse/ Hospital	USA - MD	Targeted elderly and critically ill patients. Injections of morphine, equipment tampering, withholding lifesaving medical	Charged with 5 counts of hastening death, pled guilty to 5 counts of neglect

			procedures		
Martha U	1996	Practical nurse/ nursing home	Delfzijl, Holland	Targeted elderly victims.	Convicted of 4 counts of homicide, admitted to psychiatric care
Waltraud Wagner (CD-Leidolf, Gruber, Mayer) *The witch*	1983-1991	Nurse's Aide/ hospital	Lainz, Austria	Targeted elderly patients, Used injections of rohypnol, water in lungs.	Convicted of 15 counts of homicide, confessed
Catherine M. Wood (CD-Graham)	1986-1988	Nurse's Aide / Nursing Home	USA - MI	Targeted elderly victims Suffocation	Convicted of 6 counts of homicide
Petr Zelenka	2006	Nurse / Hospital	Czech Republic	Injections of heparin (blood thinner)	Convicted of 7 counts of homicide
Rudi Paul Zimmerman	1971-1976	Nurse / Hospital and Nursing home	Noordijn, Wuppertal, Germany	Targeted elderly victims	Convicted of 3 counts of homicide, 4 counts of attempted homicide

APPENDIX B
HEALTHCARE SERIAL KILLER DATASET VARIABLE CODES

1. NAME OF OFFENDER
2. AGE (at time of arrest)
3. GENDER: 0=Female; 1=Male
4. OFFENDER'S COUNTRY OF OFFENCE
    0=Austria
    1=Belgium
    2=Brazil
    3=Czech Republic
    4=England
    5=Finland
    6=France
    7=Germany
    8=Holland
    9=Hungary
    10= Italy
    11=Norway
    12=Russia
    13=Switzerland
    14=United States of America
    15=Combination
    16=Other
    99=Unknown
5. OFFENDER'S OCCUPATION POSITION / TITLE
    0=Nurse
    1=Doctor
    2=Nurse's Aide
    3=Other
    9=Unknown
6. OCCUPATION LOCATION
    0=Hospital
    1=Nursing Home
    2=Private Practice or In-home visitation
    3=Combination
    9=Unknown
7. SHIFT= Shift offender typically worked
    0=Daytime
    1=Evening or Overnight
    9=Unknown
8. YEAR KILLINGS BEGAN
9. YEAR KILLINGS ENDED
10. TOTAL= Total number of years active

0= One year or less
1=Two years or more
11. CONFESS: did the offender confess? 0=NO; 1=YES; 9=unknown
12. OFFSENT: What was the offender's sentence 99= unknown
13. INSPLEA: Did the offender enter into an insanity plea= 0=NO; 1=YES
14. MERCY: Did the offender claim mercy as a motivation for killing= 0=NO;
    1=YES; 9=unknown
15. MOTIVE: offender's motives for killing
    0=Financial gain
    1=Power over life and death
    2=Sexual satisfaction
    3=Eliminate troublesome patients / Overworked
    4= Hero complex / earn respect
    5=Test doctors or other coworkers
    6=Combination
    7= Other
    9=Unknown
16. PRIOR: did the offender have a history of violent offences? 0=NO; 1=YES
17. MISCON: did the offender have a history of misconduct or non-violent offences?
    0=NO; 1=YES, 9=unknown
18. SOC: evidence of trauma
    0=Unstable home environment or poverty
    1=Sexual abuse
    2=Physical abuse
    3=Death of a family member
    4=Other
    5=Combination
    9=Unknown
19. PSYCH: evidence of mental illness or personality disorder; 0=NO; 1=YES;
    9=unknown
20. ANTI: did the offender exhibit psychopathic tendencies? 0=NO; 1=YES;
    9=unknown
21. BIO: evidence biological impairment (i.e. brain damage or addiction); 0=NO;
    1=YES; 9=unknown
22. EARDEATH: did the offender experience the loss of a loved one early in life?
    0=NO; 1=YES; 9=unknown
23. HERO: did the offender exhibit elements of a "hero-complex"? 0=NO; 1=YES;
    9=unknown
24. METHOD
    0=Suffocation
    1=Injection
    2=Air embolism
    3=Equipment manipulation
    4= Poisoning
    5=Combination
    6=Drowning (water in lungs)

7=Other
9= Unknown

25. INJECT: If the offender used an INJECTION to kill their victim, what was the specific type of chemical that was used?
0=Digoxin
1=Insulin
2=KCI
3=Lidocaine
4=Epinephrine
5= Succinylcholine
6=Opiates or Opioids (i.e. Oxycodone, Morphine, Heroin or Codeine)
7= Pavulon
8=Sedatives or Muscle relaxers
9=Heparin
99=unknown

26. TEAM: did the offender have a co-defendant or co-defendants? 0=NO; 1=YES

27. BRAG: did the offender brag about the homicide or predict potential victims?
0=NO; 1=YES; 9=unknown

28. TAUNT: did the offender engage in any kind of behaviour that could be construed as taunting the victim's family? 0=NO; 1=YES; 9=unknown

29. JOKESCO: did coworkers joke about the offender causing or being responsible for the deaths of patients? 0=NO; 1=YES; 9=unknown

30. FUNERAL: did the offender attend the funeral or visit the gravesite of the victim?
0=NO; 1=YES; 9=unknown

31. CPR: was Cardio Pulmonary Resuscitation (CPR) attempted? 0=NO; 1=YES; 9=unknown

32. CPRPER: was the offender the one to perform CPR or any other life-saving procedure? 0=NO; 1=YES; 9=unknown

33. BLUE: Did the offender call the "Code blue"? 0=NO; 1=YES; 9=unknown

34. REMAIN: did the offender remain with room with the victim? 0=NO; 1=YES; 9=unknown

35. INFORM: who informed the victim's family of the death?
0=Offender
1=Supervisor or charge nurse
2=Other
9=Unknown

36. VICAGE: approximate age group of victim
0=Infant or young child
1=Adult (ages 18-60)
2=Elderly (61+)
9=unknown

37. VIC: health of victim
0=Generally healthy, routine procedure
1=ICU (Not terminal)
2=Terminal / coma
3= Require a lot of care, but not terminal (i.e., elderly or infant)

4=Other

9=unknown

38. VICSELECT: offender's victim gender selection

0=Majority Female

1=Majority Male

2=Combination

9=unknown

39. BODY: was the victim's body moved or staged? 0=NO; 1=YES; 9=unknown

40. MUTIL: was the victim's body mutilated? 0=NO; 1=YES; 9=unknown

41. RAPE: was the victim raped or sexually assaulted by the offender? 0=NO; 1=YES; 9=unknown

42. TROPHY: did the offender take a trophy or souvenir from the victim? 0=NO; 1=YES; 9=unknown

43. CLEAN: did the offender attempt to cleanup the crime scene (i.e. remove evidence like a syringe)? 0=NO; 1=YES; 9=unknown

44. EXHUME: were the bodies exhumed? 0=NO; 1=YES; 9=unknown

45. CREMATION: were any bodies cremated after the victim's death? 0=NO; 1=YES; 9=unknown

46. INVESTIG: what caused the original investigation?

0= Statistical analysis showed an unusual increase in deaths on a certain floor

1=Patient complaints or concerns

2=Families of patients

3=Coworker complaints or concerns

4=Other

9=unknown

47. REPORT: how was the offender identified or brought to the attention of the police?

0=Offender's coworkers

1=Offender's superiors or supervisors

2=Victim's family

3=Surviving victim (homicide not completed)

4=Statistical analysis

5=Other

9= unknown

48. DEM: general demeanor or professionalism of offender (as reported by family member or coworkers)

0=Positive

1=Negative

9=unknown

49. CULTIVATE: did the offender interact with the victim or the victim's family prior to the homicide? 0=NO; 1=YES; 9=unknown

50. STRANGE: did the offender engage in any behaviours that were in retrospect deemed as out of the ordinary in the context of the situation? (i.e. wanting to be alone with the victim's body, or not giving the family privacy after the death) 0=NO; 1=YES; 9=unknown

51. COMFORT: did the offender attempt to comfort the victim's family? 0=NO; 1=YES; 9=unknown

52. EXTEND: did the offender interact or attempt to interact with the family of the victim after the victim's death? 0=NO; 1=YES; 9=unknown

53. WORK: did the offender work at other hospitals? 0=NO; 1=YES; 9=unknown

54. REF: were the offender's references verified? 0=NO; 1=YES; 9=unknown

55. IGNORE: did management ignore complaints against the offender? 0=NO; 1=YES; 9=unknown

56. PATIENTS: did certain patients voice concerns or discomfort over specific staff? 0=NO; 1=YES; 9=unknown

57. JOKES: did the offender make inappropriate jokes about death or have an unprofessional demeanor towards the subject? 0=NO; 1=YES; 9=unknown

58. FAM: did the offender kill in front of the victim's family members?