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Social-Envenomation: A Ritual of Snake-Handling Churches

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Social-Envenomation: A Ritual of Snake-Handling Churches

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Abstract

This study focused on the deaths that had taken place within the Pentecostal church sects that handled venomous snakes during their religious services. This was accomplished by gathering statistics of 105 cases that were found in literature. The data was gathered through an extensive literature review from online articles, books, and journals. The incidents that were studied occurred between the years 1900 through the most recent case in 2015. The various factors that were examined included: manner of death, gender of victims, age of the victims, date of the death, location of the death, relationship between victim and participating parties, and type of snake that envenomed the victims. Of the 105 cases that were gathered, the most prominent manner of death was deemed an accident. Males accounted for 74 percent of the deaths. The relationship between the victim and the party involved was a staggering 93 percent to a pastor and member. The date of a significant rise in deaths began in 1931 and remained steady until 1980. The ages of the victim were must numerable between the ages of 41-50 years of age, accounting for 25 percent. An overwhelming 33 percent of the deaths took place in Kentucky, with 63 percent of those deaths being accredited to the envenomation by rattlesnake.

Introduction

According to *The Lancet*, it is estimated that 5 million people every year are bitten by snakes around the globe (Snakebite, 2015). It is further established that of those 5 million, 125,000 will die, and another 400,000 will be permanently disabled or disfigured as a result of the bite. Thus, with snakebites accounting for one-fifth of the world's deaths, *The Lancet* proposes that snakebites warrant high priority research (Snakebite, 2015).

A portion of those deaths can be accredited to snake-handling churches. Snake-handling churches, associated with Pentecostals, have been an issue in the United States for more than a century. Key players of the Pentecostal movement can be traced back as far as 1870 with a notable increase of membership of 57% between the years of 1870 to 1910 (Anderson, 1979, p. 30). Some 800,000 middle class individuals had joined the movement (Anderson, 1979, p. 30). Part of the success can be accredited to the divine healing of Charles Parham in 1897 (Anderson, 1979, p. 49). Parham had prayed for his own healing, throwing away medications, and canceling his insurance policy (Anderson, 1979, p. 49). After miraculous results of his prayer, Parham strived to spread his philosophy. One of his initial acts was the establishment of the Bethel Healing Home in 1890 (Anderson, 1979, p. 50).

Documentation of snake handling Pentecostals can be traced back to the 1906 Los Angeles Revival where people came together to be baptized in the spirit (Anderson, 1979, p. 4). It was said that this revival had brought lower-class individuals into the fold (Anderson, 1979, p. 30). However, the practice of snake handling did not gain national attention until George Hensley entered the scene in 1910 (Elbein, 2017). Hensley pointed

to the biblical text "they will pick up snakes with their hands; and when they drink deadly poison, it will not hurt them at all; they will place their hands on sick people, and they will get well" (Mark 16:18, The New International Version), as well as, "Behold, I give unto you power to tread on serpents and scorpions, and overall the power of the enemy: and nothing shall by any means hurt you" (Luke 10:19, King James Version). The text was literally interpreted to mean followers should handle venomous snakes as a sign of faith and obedience to God, as well as receiving of spiritual blessing to handling the snake without being harmed or recovering from a venomous bite. Cameron Freeman, writer of the Socio-cultural anthropology incite on snake handling, states "snake bites hold significant religious meaning, such as a lack of congregational prayer for the snakehandlers or reproach for not putting the serpent down when God commanded them to do so" (Freeman, 2016). A believer could also be "punished" for sin as referenced in Jeremiah 8:17, "For, behold, I will send serpents, cockatrices, among you, which will not be charmed, and they shall bite you, saith the Lord" (Jeremiah 8:17, King James Version).

This interpretation of acting upon biblical text is associated with fundamentalism, regarding experience over theology as their primary importance of religion, or biblical literalism as the "bedrock of fundamentalism" (Anderson, 1979, p. 6). Literature has propounded that snake-handling churches also follow the practice of fatalism, with a predestined future that is decided upon by God (Taylor, 1962). They felt that God was not obligated to heal terminally ill, and that all people were given a limited life expectancy (Crews, 1990, p. 83). Thus stating that if someone is bitten by a venomous snake and dies, it was the fate that was predetermined by God.

The Pentecostal fire continued to spread with energized services that drew crowds of speculation (Elbein, 2017). People became entranced with the idea of being baptized by being endowed with the gifts of the Holy Spirit of speaking in tongues, casting out demons, healing with their hands, and serpent handling (Elbein, 2017). When snake handling initially started, adults were the only handlers until about 1914 when the population of the following had grown from Ohio to Florida and as far west as Texas (Crews, 1990, p. 85). If one did not handle snakes, the individual could not be considered a true believer (Crews, 1990, p. 87). Thus, children also began to handle snakes during services under the supervision of their church elders. However, as popularity grew the snake handlers began to make national headlines in a negative manner. As people began to die, snake handling came under strict scrutiny. The growing number of deaths in the 1930's led to the intervention of the government (Crews, 1990, p. 90).

Lawmakers, in an attempt to deter any more harm to people from snake handlers, created laws forbidding the handling of snakes during worship services. Their attempts however, were unsuccessful, as snake handlers ignored these laws and continued their practices. As these practices continued, they gained more national attention. Articles concerning deaths due to snakebites were published in *The New York Times*, *The Chattanooga News-Free Press*, as well as other numerous local sources (Elbein, 2017). By 1955, there was documentation on at least 35 deaths that were associated with snake handling (Elbein, 2017). So much so, that reality shows were created in efforts to explain and understand the culture of this religious group. One of the most significant issues was brought to light when the death of the pastor of a television series occurred from snakebite during one of his services. This pastor is not the only casualty to have fallen

victim to his beliefs. When delving into this culture, there have been deaths of this nature recorded as early as 1900. As referenced to by Richard Beck, writer for Experimental Theology,

"From 1921 to 2006 there have been 90 documented deaths associated with snake handling worship. That averages out to about one death per year. Which might not seem like a lot, but these are very small and tight knit communities. One death a year is pretty significant" (Beck, 2010).

Social-Envenomation is an act or instance of poisoning by venom (directly by snake bite) during an organized gathering or event for religious purposes. By establishing a term, society will be able to define these instances that occur in the snake-handling sect based upon the trends that stem from the deaths that have been fleshed from research. These deaths are the result of high-risk behavior in handling venomous snakes, mishandling or wrongfully using snakes in practice, and the refusal of life saving medical treatment for bites, which can be founded upon demographic factors.

Statement of the Problem

Further debate as to why these snake-handling churches are still allowed to practice even though deaths still occur due to their religious practices has not been addressed. The churches have ignored laws and have continued the practice despite the deaths that are still occurring. Deaths such as these are encapsulating, not just because of their unusual nature, but because this type of death trends with this specific group of believers. Deaths such as this create a phenomenon. McVicar (2013) states that this phenomenon is a *sui generis*, unique instance, to the history of American religion. And this is social in the aspect that it affects the community in which they occur. A new term

must then be established to define this phenomenon. Thus, pronouncing these incidents to be the effect of Social-Envenomation.

Research Questions

Research Question One: Is there an identifiable pattern in deaths caused by snake bites during religious services to justify recognition of a phenomenon within religious sects that warrants the establishment of a death investigation protocol for such incidents?

Hypothesis 1: There are relationships between cases that would establish a trend to develop a working definition of Social-Envenomation to aid pathologists and death investigators in their casework.

Research Question Two: Will the development of Social-Envenomation alter the investigations of deaths related to snake bites during religious services?

Hypothesis 2: Death investigation protocols in cases that resemble trends of Social-Envenomation cases will affect and improve the initial prediction of manner of death and the possibility of any involvement of foul play.

Purpose and Significance of Study

Significance of the Study

Social-Envenomation is an act or instance of poisoning by venom (directly by snake bite) during an organized gathering or event for religious purposes. By establishing a term, society will be able to identify these instances that occur in the snake-handling sect based upon the incidents and trends that stem from the deaths that have been fleshed from research. These deaths are the result of high-risk behavior in handling venomous snakes, mishandling or wrongfully using snakes in practice, and the refusal of life saving

medical treatment for bites, which can be founded upon religious and demographic factors. By recognizing trends of Social-Envenomation, society will be able to develop a way to address the ceremonial deaths that have been thriving for over a century. This will increase the effectiveness of investigations by investigators that deal with the deceased victims of snakebites from snake-handling services.

Purpose of the Study

There must be established behavioral characteristics to find consistencies in these cases. Without a standard, authorities have encountered difficulties in recognizing and addressing deaths from social-envenomation. With consistencies in how these cases are ruled, there can be a standard of justice that could potentially deter further deaths from taking place in the snake handling churches.

By identifying commonalities and trends in these cases, a protocol can be applied to the area of investigation. But why would authorities be interested in these trends? Simply put, when individuals die from a repeated risk, it needs to be fixed. It is especially alarming to find fatal trends of death in young, presumptively healthy individuals. Authorities not only tend to find the individual at fault, but the law also plays a major role in these cases by supporting such findings. A new approach means the Medical Examiners Offices are then put each individual that fits these trends found in the literature under investigation. Even if it appears to be a blatant accident, the Medical Examiners Office is charged with the duty to ensure that there was no foul play at fault.

There are two roles within the Medical Examiners Office in such investigations: the role of the death investigator on scene, and the pathologist that must examine the individual to determine the cause of death. Not all snakebites occur accidently, but can

also occur in homicides as well as suicides (Jha, Jaiswal, Millo, & Gupta, 2009). There have been "instances where unnatural death due to hanging, murder, poisoning etc. has been alleged to be caused due to snakebite to escape the crime" (p. 38). Because cases like this do exist in literature, a pathologist will take extreme measures during their autopsy to develop a cause of death.

At the beginning of the investigation, when the death investigator arrives on scene and is aware that a snakebite could be a potential cause of death, they are responsible for either finding the snake or determining the kind of snake might have inflicted the bite. (Jha, Jaiswal, Millo, & Gupta, 2009). If the snakebite victim is transported to a hospital, and the where the victim dies, the investigator must compile the victim's clinical history to identify pre-existing conditions in addition to the snakebite. Then once the victim's transported to the office of the Medical Examiner, the pathologist will not only examine the victim for external markings or signs that accompany a snakebite death, but they will also perform a full autopsy. Body fluids will also be drawn to be examined by the toxicologist (Jha, Jaiswal, Millo, & Gupta, 2009). As indicated, this is an extremely time consuming process for the offices of the Medical Examiners. These cases drain numerous resources needed in the community. Not only does the victim require medical personnel on the scene, but also transportation to a hospital if requested. At the hospital, the victim becomes high priority to nurses and doctors who are attempting to save the victim's life, thus taking away their services from other patients in the hospital. Whenever a snakebite victim dies, transport must show up at the scene along with the death investigator, and a pathologist will be required to perform a full autopsy of the victim to rule out any cause of death other than snakebite.

Case 1: Pastor John David Brock

John David Brock was a 60-year-old preacher in Stoney Fork, Kentucky (CBS, 2015). On July 26, 2015, Brock was preaching a service in Mossy Simpson Pentecostal in Jenson, Kentucky. During the service, church members stated that Brock was handling a rattlesnake when he was bitten on the left arm (CBS, 2015). Brock refused life saving measures and was taken back to his brother's residence. Brock was later pronounced dead at his brother's residence by Bell County coroner, Jay Steele (Pendleton, 2015). Steele stated that an autopsy would not be conducted and that the cause of death was going to be determined by the medical records (Pendleton, 2015). Brock's death was investigated due to the fact that, not only was he bitten by a snake, but he was also known to have health issues which could have complicated the reaction that his body had to the snakebite (Bradford, 2015). Cases such as this are rare, however they are often misclassified in terms of manner of death due to inconsistencies in the investigative process.

Key Terms

Social-Envenomation - an act or instance of poisoning by venom (directly by snake bite) during an organized gathering or event for religious purposes.

Manner of Death - The circumstances that result in death that are designated as either natural or unnatural. Unnatural deaths are designated as accident, homicide, suicide, or undetermined (Segen's Medical Dictionary, 2011).

Homicide - The taking of human life by another human by means of pre-meditated murder (Claridge, 2017).

Pre-meditated Murder- Purposely plan and execute the murder of another human in cold blood while attempting to elude capture by authorities (Claridge, 2017).

Suicide - The deliberate taking of one's own life due to emotional distress or severe depression (Claridge, 2017).

Voluntary Manslaughter - Occurs when someone kills another with no prior intent to harm or kill, but under a sudden circumstance that caused them to mentally or emotionally become distraught (Legal Dictionary, 2018).

Attempted Murder - The act of deliberate, intentional, or reckless disregard for human life in attempt to kill someone (US Legal, 2018).

Natural - Body ceases to function of its own accord, or of underlying medical factors such as a terminal illness (Claridge, 2017).

Accident - Committed out of an involuntary act. Died while taking risks that would put them in mortal danger (Claridge, 2017). An unforeseen occurrence, especially one of an injurious character (Geberth, 2015).

Undetermined – The manner of death cannot be determined without further investigation (Geberth, 2015).

Equivocal Death - Death investigations that are open to interpretation. The case may present as a homicide or suicide, homicide or accident, or accidents or naturals dependent upon the circumstances at the scene. The case may present itself in a manner that is suspicious or misleading due to scene staging by offender (Geberth, 2015).

Sample Size

105 cases were found during research from Internet search sources, magazine articles, law review articles, and prints such as newspapers and texts. Data from the reviewed cases were placed into seven categories, including: manner of death,

relationship between victim and participating parties involved, gender of victims, age of victims, date of incident, location of deaths, and species of snake.

Review of Literature

Manner of Death

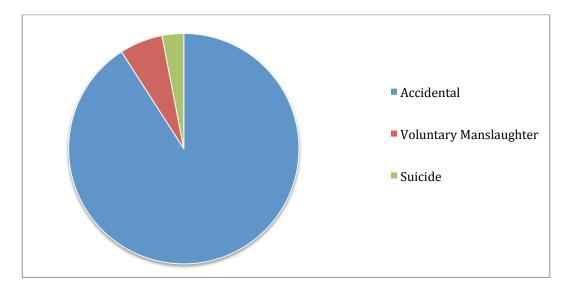
Manner of death has been a debate for decades (Hanzlick, Hunsaker III, & Davis, 2002, p. 3). This is because cause and manner are opinions of the medical examiner or coroner (Hanzlick, Hunsaker III, & Davis, 2002, p. 4). Their opinion should not be formulated to facilitate prosecution for homicide (Hanzlick, Hunsaker III, & Davis, 2002, p. 7). This differs from the court system that rest upon the law and practice of the relevant jurisdiction (Hanzlick, Hunsaker III, & Davis, 2002, p. 3). In some instances, further investigations must be conducted to determine the intent, or further discovery of evidence (Hanzlick, Hunsaker III, & Davis, 2002, p. 4). In the instance of a victim in a hit and run situation, the coroner or medical examiner may determine that the manner of death is an accident while it is the duty of the court to determine if the offender at fault is liable for vehicular manslaughter (Hanzlick, Hunsaker III, & Davis, 2002, p. 6).

Courts determine that snakebite deaths fall within four categories: suicide, homicide, voluntary manslaughter, and accidental (Malise, 1989). Thirty-three cases, of 105 total gathered, yielded information in regard to the manner of death. Ninety-one percent were considered to have been accidental deaths. Six percent was determined to have been voluntary manslaughter, and 3% were ruled to be suicide.

Figure 1.

Court Determined Manner of Death of Victims from Snakebites in Snake-Handling

Churches



Although the majority of the cases were determined to be accidental, some of these cases could have been falsely reported or determined to have been accidental due to lack of evidence to prove otherwise. As shown in the literature, the determination of manner of death is highly subjective to the medical examiner, coroner, or jury.

Jack Claridge, writer for *Explore Forensics*, gives definition to what establishes the four manners of death. First is the manner of death by natural causes. This is defined as when "the body ceases to function of its own accord or if there are mitigating medical factors such as a terminal illness" (Claridge, 2017). The second manner of death by homicide, defined as "The taking of one human life by another human being by means of pre-meditated murder. The term pre-meditated means to purposely plan and execute the murder of another human being in cold blood while trying to elude capture by authorities" (Claridge, 2017).

The third manner of death is by means of accident. The individual could be placed into the category of accidental by putting him, or herself, in a risky situation that would put them in mortal danger. The fourth and final manner of death is suicide. This is the "deliberate taking of one's own life due to extreme emotional distress often brought about by severe depression. The individual has set about on a course of action that would end with his or her own inevitable death" (Claridge, 2017). In some instances, pathologists will classify cases as "undetermined" when a manner of death cannot be determined without further investigation (Geberth, 2015). Some cases can be held in a "pending" stage for a significant amount of time. Awaiting more information from investigations that may be useful in determining the exact manner of death due to the overall circumstances surrounding the death. Other significant factors that pathologists will use in determining the manner of death are the cause and mechanism of death. As stated by Crime Museum, the cause of death is the "disease or injury that produces the physiological disruption inside the body resulting in death" (Crime Museum, 2017). Further conclusions are drawn from the mechanism of death, given as the "physiological derangement that results in the death" (Crime Museum, 2017).

Case 2: George Went Hensley

George Went Hensley was born on May 2, 1881 in Scott County Virginia (Kimbrough, 2002). Hensley was one of thirteen children that were constantly moved to wherever his family could find work. It was in Virginia where Hensley had his first experience with snake handling (Hood, Williamson, & Paul, 2008). Hensley witnessed an elderly woman handle a snake during a revival service at a coal mining camp. After moving to Ooltewah, Tennessee in 1901, Hensley converted from a Baptist to a Pentecost

while attending the Holiness Pentecostal Church of God (Hood & Williamson, 2004). After conversion, Hensley was married and divorced multiple times. As well as being fined and jailed for his involvement in moonshine distribution during the prohibition era (Burton, 1993). In 1947, Hensley stated in an interview that he had been walking in the mountains and had witnessed a snake walking on the hill. He began to pray and took hold of the snake and remained unharmed (Burton, 1993). Hensley became known for the popularization of snake handling and held revivals across Virginia, Ohio, Kentucky, Georgia, and Florida (Burton, 1993).

Toward the end of his life, Hensley settled in Altha, Florida where he began to hold several meetings and had associated himself to the Church of God with Signs Following (Burton, 1993). During his last service in July of 1955, it was said that Hensley took a snake from a lard can, wrap it around his neck, and rub it on his face (Kimbrough, 2002). When returning the snake to the can, the snake bit him on the wrist. He was noted to become ill, experiencing pain, his arm was discoloring, and he was vomiting blood (Burton, 1993). Hensley refused medical treatment that was offered to him by Calhoun County (Kimbrough, 2002). Hensley died the next morning at the age of seventy-four years old. The Calhoun County judge Hannah Gaskin ruled his death a suicide (Bakersfield Californian, 1955). This was the only case found in literature to have been considered as such. Whereas, the same circumstances were seen in a multitude of other cases and were determined to be accidental deaths. In this case instance, the manner of death would be suicide, with a mechanism of possible hemorrhaging caused by the envenomation of the snakebite to the victim's body.

Case 3: Jamie Coots

Gregory James "Jamie" Coots was born on November 17th, 1971 in Middlesboro, Tennessee (Find A Grave, 2018). Jamie Coots was a third generation snake handler, his father Gregory Coots Senior was pastor of Full Gospel Tabernacle in Jesus' Name that had been founded in 1978 by grandfather Tommy Coots (Alford, 2008). Jamie began handling snakes at the age of 23-years-old. When Coots became a pastor of his church, he implemented more venomous snakes into the services. When he did this, more people were being bitten and drew more attention to the church (Brown & McDonald, 2007). In 1995, Melinda Brown was handling snakes during one of Coots' services when she was bitten (Swaine, 2014). Brown's husband begged her to go to the hospital, but she refused and died as a result. Bell County District Attorney's office filed charges against Coots in connection to Brown's death, but Judge James L. Bowling refused to pursue the case (Estep, 2014). Coots had other issues with the local authorizes in 2008 for keeping seventy-four snakes in his home. He was sentenced to one-year probation in 2013 for illegal possession of wildlife after crossing into Tennessee with five venomous snakes (National Geographic, 2013).

Coots had been bitten at least half a dozen times during his time in worship (Estep, 2014). A few near death incidents took place in 1993, and again in 1998. The incident in 1998 resulted in the right arm swelling, blistering, and turning purple to the shoulder. Eventually the middle finger had died and fell off (Estep, 2014). Coots gained national attention when he was featured on National Geographic's *Snake Salvation* (Fantz, 2017). *Snake Salvation* first aired on September 10, 2013 with focus on Coots

teachings and practices of the Pentecostal church. The series came to an end in February of 2014 after the death of Coots (National Geographic, 2018).

On February 15, 2014, Coots was preaching at the Full Gospel Tabernacle in Jesus' Name in Middlesboro, Kentucky (People, 2014). 35- 40 members were present at the service, and had witnessed Coots handling three rattlesnakes when one of the two foot rattlesnakes on the base of his right thumb (Estep, 2014). After the conclusion of the service, Coots went into the bathroom and began throwing up and stated "my face feels like it is on fire" (Estep, 2014). Coots became unconscious while being driven to his home by his son Cody. Coots was then moved into the recliner in his home where he remained unconscious when paramedics arrived at 9:10 PM. Chief of Police, Jeff Sharpe was present during the signing of a form declining treatment by Coots' wife Linda. Linda signed the form upon the wishes of Coots based upon prior statements that receiving medical treatment was against his beliefs. Deputy Coroner, Jason Steele was called to the residence and pronounced Coots death at 10:16 PM just two hours after Coots was bitten (Estep, 2014).

Coots' death was considered to be non-criminal, and not suicide, and considered accidental (Mohney, 2004). Prior to his death, Coots said that if anyone was bit in his church, excluding his immediate family, that he would request paramedics to attempt to intervene (Mohney, 2014). Coots believed he would therefore not be liable for the death of any members to his church, except for his family.

Case 4: Reverend John Lee Holbrook

Reverend John Lee Holbrook was a 38-year-old pastor at the Lord Jesus Church in Jesus' Name in Oceana, West Virginia (The Ledger, 1982). During the Sunday

evening service on August 22nd, 1982, Holbrook was handling a rattlesnake during the service when he was bitten on the right arm. Holbrook refused life saving medical treatment that night and returned home. On August 23rd, 1982 Holbrook was taken to the Oceana Medical center where he was pronounced on arrival. Wyoming County Coroner, Ned C. Rogers stated that Holbrook's right arm had turned black from the wrist to the shoulder. There were also indications that Holbrook suffered from internal bleeding (The Ledger, 1982).

Officials stated that Holbrook died because of the lack of medical treatment, which his religion did not allow him to receive (Iaeger, 2012). Asher Elbein, *The Bitter Southerner*, argues that any other church sect is hesitant to have any outlandish forms of worship based upon the risk that it is not accepted in America. Most churches want to draw in groups that will be willing to donate to the church and continue to thrive. He further states "This suspicion leads state authorities to assume that taking up a serpent is, effectively suicide" (Elbein, 2017).

This is not a characteristic of all churches within the snake handling sect. Some churches will allow medical personnel to come to the aid of members that have been bit, but they also allow them to refuse the treatment if they choose to do so. Although they are officially offered a "choice", it seems that there is some hidden expectation that a member will refuse medical treatment even if they do actually want it. They do not want to break religious vows, or perhaps they are afraid that if they do receive the treatment, that the church will label them as an unbeliever.

Another factor that contributes to this religious practice is the brainwash theory.

Dahlia Lithwick, an author for *Slate Magazine*, states that brainwashing became a part of

the mainstream culture as a way to scientifically explain religions that we cannot accept (Lithwick, 2002):

"The standard requirements for a really sparkling clean brainwash include: isolation of the subjects, control over their information, debilitation, degradation, discipline and fear, peer pressure, performance of repetitive tasks, and renunciation of formerly held values" (Lithwick, 2002).

Multiple aspects of Lithwick's standards supporting the brainwash theory are consistent with snake handling churches. In addition to Lithwick's own interpretation of the theory, she draws upon the work of Margaret Singer and Richard Ofshe, sociologists in the 1980's. Both sociologists believed that cult leaders obtained coercive persuasion through "manipulation, exploitation, and misrepresentation . . . [to] substitute for physical coercion." (Lithwick, 2002). What does this mean for members of snake handling churches who should be held responsible? Will the courts hold them accountable for coercing these victims through brainwash and will the standards hold up in court? A more viable theory could then be the consideration of a religious insanity defense or the cultural defense.

Due to terrorist attacks over the recent decades, courts have been challenged to consider the constitutionality of terrorism defendants using a religious insanity defense. Texas courts reference *Knight v. Edwards*, 264 S.W.2d 695, as "the belief of a state of supposed facts that do not exist, and which no rational person would believe". The United States Court of Appeals for the Fifth Circuit in *Knight v. Edwards* defines insanity as, "The defendant was insane as the law defines that term only if, as a result of a severe mental disease or defect, and the defendant was unable to appreciate the nature and

quality or the wrongfulness of his acts" (Mason, 2010). This can also include "mental disease or defect" or "insane delusion" (Mason, 2010). In the instance of a snake handling death, the defendant may not be intentionally attempting to inflict harm upon the victim. But with the knowledge of handling a "deadly" object for the sake of religious purposes could they not be held to the same standard?

This conflicts with constitutional rights, in that the "First Amendment law that says that courts are not allowed to find that a person's religious beliefs are false" (Mason, 2010). This was following the decision of *Diestel v. Hines*, 506 F.3d 1249, 1274 (10th Cir. 2007), in which the court had decided that the defendant's delusions were not enough that he simply believed and his beliefs were false. Is this not a standard held for the rational person basis? Inconsistencies in laws accounts for case in which defendants have gone unpunished based upon their religious beliefs. Why is it that the court found Pastor Harvey O. Kirk guilty for the death of his wife and unborn child, but dozens of other member's deaths go without punishment (Kerns, 2008)? Did he not have the same belief as the others, or was he found to have false belief?

The snake handling churches go beyond their beliefs, but have also established a culture or tradition. The *Harvard Law Review* recognizes that a defendant's cultural background could raise questions concerning the intent of the defendant, such as "mistake of fact, or diminished capacity"(The Harvard Law Review, 1986, p. 1294). Perhaps when a church member is in their "trance" during a snake handling service, they are in a state of diminished capacity? "The diminished capacity defense recognizes that at the time the accused engaged in the proscribed conduct, she was not in control of her

conduct even though she was not technically insane" (The Harvard Law Review, 1986, p. 1295).

Case 5: Columbia Gay Chafin Hagerman

Columbia Gay Chafin Hagerman was born on October 27, 1938 in West Virginia (Find A Grave, 2018). Her stepfather, Bob Elkins was a coal miner and her mother, Barbara Elkins was a home maker who raised her six children from a previous marriage (Duin, 2011). The Elkins formed the Jolo Pentecostal church in 1956 where 50-100 members attended every week. On September 24, 1961, Hagerman was handling a yellow timber rattlesnake when she was bitten on her right hand (Find A Grave, 2018). Hagerman became ill within minutes, and was taken to her parent's residence. She refused medical treatment and relied upon her praying to heal her. On September 28, 1961, just four days later Hagerman died from the bite (Hood & Williamson, 2008; Kerns, 2013). Columbia's mother, Barbara Elkins, was later interviewed about her daughter's death. She stated that she had offered to call for medical assistance, but since Columbia refused she would allow "God to do what he wanted with her" (Grogan & Phillips, 1989; Hood & Williamson, 2008).

State Trooper J.M. Perry, McDowell County criminal investigator Howard Hutchinson, and McDowell County Constables Buck Jones and Clarence Shelton investigated the death (Find A Grave, 2018). Columbia's death was considered to be an accident, however her parents and other members of the church should arguably be held liable for her death due to failure to intervene to prevent her death with all means possible. Some would argue that there is evidence to rule that Columbia's death was a suicide. It could be argued that by churches refusing to seek the help of medical

personnel that a resulting death equates to voluntary manslaughter or at most murder in the second degree. Would this then be an instance to argue religious insanity or brainwash theory as a factor in the case.

Case 6: Leitha Ann Rowan

Albert Rowan and his family were cotton farmers in Adel, Georgia. On June 29, 1940 Albert, his wife, 10-year-old son and 6-year-old daughter went to a nearby farmhouse owned by Albert Lawson (Stewart, 2015). In this farmhouse, Reverend W.T. Lipham held a copperhead moccasin that he caught earlier that day. The snake was being passed around through the group of members. Albert Rowan had passed the snake to his son, who then handed it off to Leitha Anna Rowan. The copperhead bit her on the palm of her hand, and her parents had refused medical treatment. Leitha's mother was instructed to take her to Lakeland, Georgia to hide (Stewart, 2015). During this time, Lipham and Albert Rowan were arrested and placed in jail. After three days had gone by, Lipham and Albert Rowan began a hunger strike. Authorities stated that they were charging them with assault and attempt to murder, and if Leitha died that they could be tried for murder (Hood, 2012; Hood & Williamson, 2008; Kerns, 2013). After hearing the charges, Lipham gave up the location of where Leitha was being hidden. Leitha was returned to Adel and was examined by Dr. Clements (Kimbrough, 1995). Dr. Clements noted that Litha's arm was discolored, but would make a full recovery. After Dr. Clement cleared Litha, Lipham and Albert Rowan were released from jail (Stewart, 2015). Although Leitha survived the incident authorities were still able to prosecute the defendants, leading to the argument that authorities take cases involving children more seriously than they do adults. Perhaps this is due to the fact that it is uncommon for

children to be subjected to handling snakes during a service, but is more likely that the law views children as unable to decide what is best for themselves. Cases involving children receive an extensive amount of media attention and social outcry for justice on the child's behalf (Hood, 2012). It could also be that authorities feel an obligation to protect the children in the case that the parents neglect the child, especially in matters of life and death, and feel that setting precedent in one case would deter others from exposing children to snake handling at such an early age.

Case 7: Anna Kirk

On September 1st, 1945 Reverend Harvey O. Kirk was conducting a snake handling service at the Faith Holiness Church in Stone Creek, Virginia (Kimbrough, 2002). The Reverend's 26-year-old pregnant wife, Anna Kirk, was present at the service. During the service Reverend Kirk, was handling a venomous snake and allowed Anna to pat, handle, and waive her arms over the snake (Kerns, 2013). When she did so, Anna was struck three times on the wrist by the snake, causing her hand to become swollen and turn black. Three days later Anna went into labor. Anna delivered the baby without a physician present. The baby and Anna died shortly after the delivery (Hood & Williamson, 2008; Kerns, 2013). Attorney John Roberts ordered samples of the blood to be tested (Kimbrough, 2002). Anna's toxicology results showed that the cause of her death was the venom from the snakebite (Kerns, 2008). Authorities arrested Reverend Harvey O. Kirk for the death of Anna and the baby. Paul Dotson, Leander Ely, and John Wilson were also arrested for bringing the snakes to the service, however they were later dismissed of any charges (Kimbrough, 2002). Kirk was indicted for murder, convicted of involuntary manslaughter, and spent three months in jail (Kerns, 2008). It is not clear

why authorities decided to bring charges against Reverend Kirk for the death of Anna and her baby, but again the assumption is that authorities do not take the deaths of adolescents lightly. Other religious leaders have been held accountable for the deaths of children that have occurred due to religious practices.

Case 8: Jason Dean Lockhart

On June 16, 1982 nine-year-old Jason Dean Lockhart died in Enid, Oklahoma (Hochenauer, 1982). Jason Lockhart's parents, Palmer and Patsy Lockhart, refused to take Jason to the doctor after complaints of not feeling well for over five days because it was against the beliefs of the Church of the First Born. Palmer Lockhart believed that Jason was suffering from food poisoning. On the fifth day Jason began to worsen as he began sweating profusely and complaining of stomach cramps. Palmer Lockhart stated the last day Jason went to the restroom around five and went back to the couch where he later died (Hochenauer, 1982). Enid Police Department Detective, Michael Danhy, later testified that when he arrived to the residence that Palmer Lockhart said he did not call a doctor because it was not worth his son's soul burning in hell (Hochenauer, 1982). Jack Robinson, an elder of The Church of the First Born, prayed over Jason while he was ill. He testified that if Jason would have received medical attention from a doctor that he would have been forgiven (Hochenauer, 1982).

Dr. A.J. Chapman of the Oklahoma State Medical Examiner performed an autopsy on Lockhart and found that he had a ruptured appendix (Hochenauer, 1982).

Jason had ultimately died from peritonitis, an inflammation of the membrane lining in the abdominal wall and organs (Mayo Clinic, 2018). This is caused by a bacterial or fungal infection that can be caused from a ruptured appendix (Mayo Clinic, 2018). Dr. Chapman

testified in court that Jason had gone through "excruciating pain" before he had died (Hochenauer, 1982). The District Court of Garfield County charged Palmer and Patsy for manslaughter in the first degree (*State v. Lockhart*, 1983). Judge Bussey stated in his opinion that Palmer and Patsy Lockhart were being charged on the basis of "willfully and wrongfully, without lawful excuse therefore, omit to furnish necessary medical attention for their minor child, directly causing his death" (*State v. Lockhart*, 1983). On December 15, 1982 the Garfield County district court jury acquitted Palmer and Patsy of the first degree manslaughter charges (Hochenauer, 1982). Harold Moler, jury spokesman, stated that the jury was not happy about their decision, but did so because they were not guilty under the statute (Hochenauer, 1982). The Lockhart's attorney, Harold Singer, argued that a 1975 amendment to the state's child-abuse law exempted them from liability (Hochenauer, 1982). Further stating that the Lockhart's acted in good faith that their beliefs of the church did not allow them to provide medical care for their son (Hochenauer, 1982).

The Church of the First Born has 40 churches with 4,000 members (Hochenauer, 1982). The Church of the First Born are known to have roots in the states of California, Washington, Oregon, Colorado, as well as Oklahoma. These churches believe that the media is wrongly portraying them and that their religion is distorted. Allen Moss, an elder of the church, said "The medical examiner is carnal. He probably thinks we are a bunch of ignorant and unlearned people. I don't see why he doesn't leave us alone. We don't tell him how to do his business" (Hochenauer, 1982). Moss believes his religion is under attack, but on the offensive is the medical examiner that sees an epidemic that stems from that religion. The rise of the epidemic was when the medical examiner saw four children

die around the same time. All of these deaths were from illnesses that could have been treated to save their lives (Hochenauer, 1982).

Case 9: Syble Rossiter

In 2014, Tamar Auber with Issue Hawk released an investigative report regarding an outstanding number of deaths that had revolved around a Pentecostal church in Oregon (Auber, 2014). Auber states that some 80 deaths of children have been linked to the Followers of Christ church in Oregon since 1976. A specific case of 12-year-old Syble Rossiter had authorities calling for justice. Rossiter had a treatable illness of diabetes mellitus. Teachers at Rossiter's school noted that she had lost a considerable amount of weight, and had appeared to be very ill. Months after her death, the American Academy of Pediatrics urged lawmakers to consider legislation in all states for children to be able to receive care regardless of their family's faith (Auber, 2014).

Case 10: Aaron Grady

In 2012, Susan Grady of Tulsa, Oklahoma was sentenced to two and a half years in prison for allowing her nine-year-old son, Aaron Grady to die from untreated diabetes mellitus (Swan, 2012). Grady was a member of the Church of the First Born in Oklahoma. In 2009, when her child became sick she refused to seek for medical intervention (Braun, 2012). As a result she was found guilty of second-degree manslaughter for culpable negligence. According to Rita Swan, Co-founder of Children's Healthcare, other members of the church could also be charged with failure to report if they were aware that an ailing child has not received care (Swan, 2012). Such charges stem from statutes of the State of Oklahoma 10A §1-2-101(B) 1,3,4 and (C), providing that a party that is "knowingly and willfully failing to promptly report suspected child

abuse or neglect is a misdemeanor" (Swan, 2012). This is not included within all fifty states. In 1997, laws were passed in order to protect religious defenses to felony crimes against children in the states of Washington, West Virginia, and Oregon. Then in 2010, Oklahoma also created a religious exemption, although felony neglect can carry a life sentence and second-degree manslaughter a maximum penalty of four years. In the case of Susan Grady, she was prosecuted for the laws in effect at the time of her child's death, thus the courts finding her at fault (Swan, 2012).

Richard Bauman, in an article appearing in *Liberty Magazine*, addressed the issues with the attempts to banning snake handling in churches. He stated, "civil authorities have countered that they have both the responsibility and the right to stop even a religious practice that is potentially deadly" (Bauman, 1975). This was shortly after authorities made the decision to appeal the banning of handling snakes in Tennessee. Bauman predicted that if the laws are reversed then there would be more incidents of venomous bites and deaths. In State ex rel. Swann v. Pack, 527 SW 2d 99 (Tenn 1975) . . . the Tennessee state circuit ruled that the forbiddance of snake handling is unconstitutionally broad" (Bauman, 1975). This goes beyond the constitutionality of practicing their First Amendment right, it has an effect on the welfare of the members of the church. Justice Frank F. Drowota III wrote the majority opinion in Swann v. Pack, stating "defendants' snake handling constitutes a nuisance only when done in a manner in which non-participants may be endangered, and is enjoinable only to that extent" (Bauman, 1975). Therefore the modification made to the decision means that a defendant cannot handle, display or exhibit "dangerous and poisonous snakes in such a manner as will endanger the life or health of persons who do not consent to exposure to such

danger" (Bauman, 1975). This in itself is a broad application to a group of people. It could be speculated that women and children can be subjected to snake handling without their consent. The First and the Fourteenth Amendments "put freedom of speech and of religion in a preferred position" (McCown, 1944). In fact, the Fourteenth Amendment is "aimed to protect citizens against the state itself. Its purpose was to withdraw certain subjects from the vicissitudes of political controversy, to place them beyond the reach of majorities and officials . . ." (McCown, 1944). However, it was also determined that it is the government's duty to protect children from their parents in such matters that appear to be "clear and present danger . . . in such activities as were here involved, and that no undue restriction of religious liberty could result from the enforcement of the statute" (McCown, 1944).

Beyond laws that protect the religious practices of snake handling, Bauman states, "Anointing or no anointing, believers do get hurt, and authorities assert their duty to protect believers against themselves" (Bauman, 1975). Further exclaiming "You don't let a person jump off a building because he believes he can fly, and there are a lot of people watching him" (Bauman, 1975). This interpretation is confirmed by Justice Tomlinson's opinion written in the *Hardin v. State, 216 s.w.2d 708 (Tenn. 1949)* decision,

"They may believe without fear of any punishment . . . but the right to practice that belief is limited by other recognized powers equally precious to mankind.

One of these equally precious rights is that of society's protection from a practice, religious or otherwise, which is dangerous to life and health" (Bauman, 1975).

A parallel example of this is the refusal of blood transfusions by the Jehovah's Witnesses, whom would rather die than receive blood in order to survive. However, some courts

have intervened and ordered transfusions be given to babies and children that are unable to assert their own rights (Bauman, 1975).

Case 11: Darlene Summerford

Glenn and Darlene Summerford were the pastors of The Church of Jesus Christ with Signs Following in Scottsboro, Alabama (Covington, 1995; Holstege, 2001). As pastors of the church, the Summerford's stored the venomous snakes that were used for their services. One evening in October of 1991, Glenn was in a drunken rage and started abusing Darlene. Glenn coerced Darlene to place one of her hands into a canebrake rattlesnake's cage by holding a gun to her head. After Darlene had been bitten, he proceeded to drive Darlene around to allow time for her hand to swell and blacken. Glenn forced Darlene to write a suicide note to their son. He once more instructed her to place her hand back into the rattlesnake's cage to be bitten once more. Later on that evening, Glenn had fallen asleep. After Glenn had fallen asleep, Darlene was able to call her sister, who called for an ambulance. She survived and gave testimony against Glenn, which resulted in his conviction (Covington, 1995; Holstege, 2001). Glenn is currently serving a 99-year sentence for attempting to murder his wife Darlene Summerford by rattlesnake bite. If Darlene had not survived, Glenn would have gotten away with murder. Glenn had crafted a plan that would have appeared to be a suicide without any witness testimony. Even without a note it could still be considered a suicide, or accident since Darlene was known to handle snakes in the church. This case prompts the dispute that this may have happened before, and has been documented by the church and authorities as an accident.

Investigative roadblocks can create a dilemma for pathologists in determining the manner of death. Equivocal deaths are investigations that are open to interpretation. The

case may present as a homicide or suicide, homicide or accident, accident or natural dependent upon the circumstances at the scene. The case may present itself in a manner that is suspicious or misleading due to scene staging by offender (Geberth, 2015). Family members could also alter the scene, if their family member is found in an embarrassing or compromising situation. They could perhaps clean their body, clothe them, or remove items from the scene. First responding medical personnel could also alter the scene. Such as moving a gun away from the body. The position in which the body was originally found could also be altered by emergency services. Instances such as, cutting a decedent down from a hanging ligature. They can also compromise vital forensic evidence while on a scene. Clothing could be cut, projectile casing moved by foot travel, or blood spatter patterns could be smeared or removed. Preserving the body in the state it was found is crucial for the autopsy. Emergency services will often place chest tubes through gunshot wounds in the chest, could cause fracturing of the ribs from chest compressions, or cause post mortem artifacts to the body from medical equipment. If the victim is alive and taken into surgery, further altercations can be made to the decedent that could make it difficult for a pathologist to determine a cause or manner of death. Instances such as gunshot wounds to the head, the victim will often have a craniotomy that will remove portions of the skull to relieve swelling. A death investigator must be prepared for all of these situations when they get to the scene. They will often rely upon the help of emergency services or law enforcement to give them the details that could have been changed at the scene prior to the arrival of the investigator.

For the death investigator, some of the roadwork is paved upon arrival to the scene if authorities have been able to interview witnesses and family of the decedent.

Questions will be presented to determine if the decedent was psychologically stable, have they been through traumatic experiences that could play a role in the death, or has there been any recent changes in their behavior that would be an indication of suicide.

Considerations of intent and motive are a considerable factor in determining the manner of death for a pathologist. This part of the investigation is also reliant upon medical records of the decedent. Medical records could rule out any pre-existing conditions that may not have had a part in the death. If there were pre-existing conditions, did the decedent take prescriptions? If so were they taking them accordingly, or purposely abusing their medications?

Besides the scene, the death investigator will rely upon the positioning of the body and the presence or absence of trauma. If trauma is present, the investigator must exercise the idea that the decedent could have harmed themselves. If it does appear that it could have been self-harm, the next step is to determine if it is possible for the decedent to have inflicted that trauma to themselves. This is common in situations of decedents that kill themselves by firearm. The range of the gunshot wound and the trajectory of the projectile path will be observed. And most importantly to determine if the injuries are consistent with what the scene looks like. In the instance of a long firearm such as a rifle, or shotgun, would the decedent even be able to reach the trigger of the firearm? Further considerations include weapon location at the scene. Is it still at the scene, or is the weapon absent from the scene?

Each one of these cases presented, with the exception of Glenn Summerford, have similar factors in each that would make it difficult to determine the manner of death. The literature does not present any specifications that authorities use to determine the manner

of death. Or any characteristics that might or might not be present to determine what they would consider to be an accident, suicide, or murder. It is difficult to fathom that out of 38 cases, that 91% of them would be deemed as an accident. In these cases where an individual attempts to kill his wife with a snake, one cannot help to wonder if this has happened before. There must be established investigative procedures to find consistent outcomes in these cases. Without a standard, authorities have reached inconsistent conclusions regarding manner of death in snakebite cases. With a standard, justice may be served for individuals that are easily looked over as potential victims of a crime. With a consistent approach how these cases are ruled, there can be a standard of justice for offenders that could potentially deter further deaths from taking place in the snake handling churches. Or in the least, it could protect individuals not wanting to participate, against having snake handling forced upon them.

Members such as Rudolf Otto have stated that handling venomous snakes is the "real innermost core of all religion... a unique original feeling response" a sense of "aweful [Sic]... incomprehensible and overpowering qualities of existence; a response that is wholly emotional and devoid of all moral and rational elements" (Anderson, 1979, p. 10). Further statements from members make the argument that this practice is more for euphoric purposes than for worship. "Ascetic and orgiastic techniques are cultivated to achieve eestasy in the belief that unusual psychological and physical states are synonymous with possession by the spirit" (Anderson, 1979, p. 10-11). These members are experiencing a heightened sense of emotion that they associate with 'the spirit' that takes them beyond the sense of reality. It is described as an "emotional state or trance that is an out of body experience. Lost in the feeling to that someone would not be aware of

what they are doing... [a] Phenomena said to be automatic, involuntary, full unconsciousness" (Anderson, 1979, p. 11). The argument then becomes is this an act of righteousness, or an act to otherwise satisfy a personal need of church leaders?

What then would constitute the difference between a venomous snake handler and a drug abuser? A drug abuser will seek pleasure, which leads to an addiction. Individuals that are addicted will weigh cost and price against what it takes to fulfill the pleasure. HelpGuide.Org states that

"Addiction involves craving for something intensely, loss of control over its use, and continuing involvement with it despite adverse consequences. Addiction changes the brain, first by subverting the way it registers pleasure and then by corrupting other normal drives such as learning and motivation" (HelpGuide.Org, n.d.).

Recent research also shows that "addictions are no longer limited to alcohol and powerful drugs but also to activities such as gambling, shopping, and sex" (HelpGuide.Org, n.d.). The addicted will then begin to crave the activity and act on compulsions. Perhaps a snake handler is bitten and narrowly escapes death. He continues to handle snakes due to the excitement or the pleasurable experience that could cause 'adverse consequences'.

The rationale for snake handling is not well accepted by outsiders. Just as the addicted become enslaved to their drug of choice, snake handlers have become addicted or dependent upon their faith. Anderson states that the Pentecostal are "thought to be mentally ill…abnormal" (Anderson, 1979, p.14). The individual may be normal, but might have experienced a greater amount of stress, making them dependent, or inadequate enough to hold interpersonal relations (Anderson, 1979, p.14-15). The United

States does not view Pentecostalism as normal, but rather unhealthy, like a fever in the human body that is related as a sickness in American society (Anderson, 1979, p.15). If the Pentecostal practices are said to be unhealthy, one could argue that deaths that take place should receive higher scrutiny.

Special considerations in determining manner of death: Proof of homicide

Lester Adelson, author of *The Pathology of Homicide*, states that victims whom are poisoned "are the most difficult to discover, to prove objectively in the laboratory and ultimately to adjudicate" (Adelson, 1974, p. 757). This is because the offender is concerned with being discrete and being able to harm the victim without being caught. The offender has a specific personality described given as someone that "carefully considered and maliciously plotted" to kill their victim (Adelson, 1974, p. 757). This person also is solo in his or her actions, and believes that they will be able to "get away with it" (Adelson, 1974, p. 757). This was exemplified in the Glenn Summerford case where Summerford, a solo actor in his plot, with a way to cover up the act, in what would appear to be a suicide.

Beyond the work of the Medical Examiner, and medicolegal investigators,

Adelson stresses the importance of the intent and motive of the offender to prove that the
poisoning was homicidal. The intent must be "the purpose or aim behind the commission
of [the] act . . . the intent behind the act is the hoped-for or desired outcome" (Adelson,
1974, p. 760). The motive then follows as the "impelling force for the criminal act"
(Adelson, 1974, p. 760). Summerford had the intent to kill his wife by means of snake
venom that was readily available to him at his home. As Adelson stated, there must be
"proof that the accused had access to the poison responsible for the death" (Adelson,

1974, p. 760). This was also not an usual circumstance that Summerford would have access to snakes since he was the leader of their church, allowing him to fly under the radar. Next, Summerford had an "opportunity to administer the poison to the victim, either directly or indirectly" (Adelson, 1974, p. 760). In this instance, Summerford attempted to directly distribute the poison to his wife through snake venom administered by the snakes. Adelson lists two forms of poison distribution. First, acute poisoning as the "responsible agent [that] is usually found in greatest concentrations at or near its portal of entry" (Adelson, 1974, p. 761). And chronic poisoning is "the highest concentration of the lethal agent [that is] found in organs or tissues which have the greatest affinity for it" (Adelson, 1974, p. 761). If Summerford's wife had not been able to reach help, she would most likely be classified as an acute poisoning case. Whereas, a chronic poisoning could be attributed to a victim such as George Hensley, whom had been bitten numerous times by snakes throughout his career as a pastor. Overall, Adelson makes the conclusion that "Combinations of acute and chronic poisoning are an additional possibility which should not be overlooked when one investigates a suspected homicidal poisoning" (Adelson, 1974, p. 763). This supports the argument that other victims could have fallen victim as Darlene Summerford did, and the justification for venom in the system could be attributed to prior bites received during recent services when snakes were handled voluntarily.

The point that Adelson uses to best suit the case of homicide by snake envenomation is:

"Homicidal poisoning is usually an intimate or 'household' crime, customarily perpetrated when victim and poisoner share the same domicile, an arrangement which furnishes the necessary proximity and privacy for the lethal potion to be administered (in the absence of witnesses) . . . The marital bond between victim and murderer is the most common relationship (Adelson, 1974, p. 767).

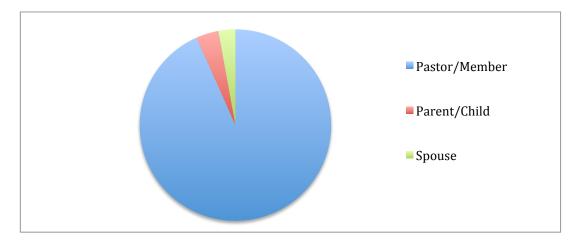
Marital relationships are similar to pastoral and member relationships, as seen with Glenn Summerford and his wife Darlene.

Relationship between Victim and Participating Parties Involved

The literature shows that cases of death due to snakebite in the snake handling churches can be placed into three categories based upon the relationship between the victim and the other participating parties involved (offender): pastor/member, parent/child, and spousal relationship. Of the 105 cases reviewed, 93% were classified as a pastor/member relationship, meaning that the participant were either the pastor of the church, a member of the church that received the snake from another member or pastor, or a member that voluntarily handled the snake on their own. Four percent of the cases were classified as a parent/child relationship, where the parent was responsible for the child handling the snake, and the remaining three percent was a spousal relationship, where one spouse was responsible for giving the snake to the other.

Figure 2.

Relationship between Offender and Victim in Snakebites from Snake-Handling Churches



Although the majority of the cases were determined to be pastor/member relationships, some of these cases could have been falsely reported or determined to have been due to lack of evidence to prove otherwise.

Case 12: Pastor Mark Randall "Mack" Wolford

Mark Randall "Mack" Wolford was born on May 26, 1968 in Pike County,
Kentucky to mother Vicie Hicks Haywood and father Mack Ray Wolford (Find a Grave,
2018). At the age of 15-years-old, Mack witnessed his 39-year-old father die from a
snakebite that he had been handling during a service (Duin, 2011). After the death of his
father, Wolford "went wild" and had been arrested for armed robbery and kidnapping.

And at the age of 18-years-old he spent a year and a half in jail. After drinking had
destroyed his first and second marriages, Wolford repented at the age of 30-years-old
(Duin, 2011). Wolford stopped drinking and quit his job as a loom technician in North
Carolina at a cotton factory to become a pastor. Wolford then became the pastor of the
Apostolic House of the Lord Jesus in Matoaka, West Virginia (HeraldNet, 2012).

Wolford utilized the open terrain in West Virginia to search for venomous snakes for his services. He often went to Panther Ridge, West Virginia in search for rattlesnakes, water moccasins, and copperheads to add to his collection that he kept in a spare bedroom at his residence (Duin, 2011). Wolford and his mother were the only members of his family that still handled snakes (Duin, 2011). In attempts to convert his other family members, Wolford made a post on Facebook on May 23, 2012 that he would be hosting a "homecoming" service in Panther, West Virginia (Duin, 2012). The service was held at the Panther Wildlife Management Area in Panther, West Virginia on May 28, 2012 (Pond, 2012). Wolford was handling a yellow timber rattlesnake during the service (Pond, 2012). Wolford was handing the snake around during the service, once the snake was given back to him by his mother, he placed the snake down beside him where he sat (Pond, 2012 & Kerns, 2013). At approximately 1:30 PM, Wolford was bitten on the thigh by the rattlesnake (Duin, 2012). Wolford was then taken to his mother-in-law's trailer in the nearby town of Bluefield (Pond, 2012). When family noticed that Wolford's conditions had continued to worsen, they had attempted to take him to the hospital. When Wolford had finally agreed to go to the hospital, it was too late. Wolford was pronounced around 11 PM at the Bluefield Regional Medical Center (Duin, 2012 & Kerns, 2008).

Wolford encouraged this high-risk behavior, even after being bitten multiple times in the past. This persuasion is extremely effective with young adults who idolized Wolford as the pastor who had cheated death, and is in good favor with God. Wolford was on a campaign to restore the practice of snake handling (Kerns, 2013). He would travel to specific states to rebuild the next generation of snake handlers. Primarily, he targeted 20-year-olds who began publicizing their snake handling services in areas such

as Lafollette, Tennessee and Middlesboro, Kentucky, posting these events on social media websites such as Twitter, Facebook, and a national television documentary series, *Snake Salvation* (Kerns, 2013).

Wolford considered all this media attention to be a success in terms of member recruitment. With cult like tactics, Wolford converted an impressionable group of young believers that were infatuated with the idea that Wolford seemed to be untouchable. A man who had survived so many bites from venomous snakes must be a powerful man, or at least favored by God. The pastor/member relationship is most prevalent in these cases because the pastor is the leader of the church. What the leader does the members will follow. If a pastor, such as Wolford can gather large crowds to services he could also convince others to handle snakes as well. After the death of Wolford, one member of the church had stated in a Facebook message to a reporter, "Sometimes, I feel like we're all guilty of negligent homicide" (Pond, 2011).

With control of all church matters the pastor controls what leaves the church. Pastors will likely gain close friends that become loyal members as well as the loyalty of his family. If there is an instance of the snake handling bordering on criminal it is likely the church will not divulge facts to an investigator other than those that point to an accident. Members of the church may be sworn to a certain degree of secrecy in order to stay loyal to the church, careful not to be seen as a threat or an outcast (Fehler, 2001). After the death of Jimmy Ray Williams Jr., the chief of police stated that members at the house where Jimmy had died were "closed mouthed" and stated "what happened was between them and their God" (Wohlwend, 1991).

Case 13: Melinda Francine Duvall Brown

Melinda Brown was a 28-year-old from Parrotsville, Tennessee (Estep, 2014). In 1980, Melinda met John "Punkin" Brown at a church in Kingston, Georgia at the church of the Lord Jesus Christ (Morrow & Hood, 2005). They married in North Carolina, and after the birth of their first child they moved to Parrotsville (Morrow & Hood, 2005). On August 8th, 1995 Melinda had been attending a service with Punkin at the True Tabernacle of Jesus Christ in Middlesboro, Kentucky (Estep, 2014). Brown was handling a yellow timber rattlesnake when she was bitten on her left arm. She was then transported to Pastor Jamie Coots residence in Middlesboro. Her husband begged to take her to the hospital. Finally after two days had passed, an ambulance was called to transport her to the nearby hospital where she was pronounced after arrival at 3:38 PM (Morrow & Hood, 2005).

As a consequence of her death, John was in danger of losing custody of his children (Brown, 1995). This was due to the housing of venomous snakes at his home where his children resided. The Judge presiding over the custody battle later restored custody of the children to Punkin with orders to remove the snakes from the residence, as well as banning the children from attending services with venomous snakes present (Breed, 1998). When John was interviewed regarding the death of Melinda and the endangerment of losing his children, he stated that his in-laws did not approve of their religious practices (Brown, 1995). Similar to the case of Anna Kirk, Melinda was subjected to the pressure of being the pastor's wife. It could be argued that as pastor's wives these women are likewise a figure of the church, and other members look at them as spiritual role models. Church members would question the pastor if the wife did not

handle the serpent as her husband does. It could even be argued that Darlene Summerford was "coerced" into living behind the façade of her husband, whose congregation would never fathom him as being capable of murder (Covington, 1992).

Case 14: John Wayne "Punkin" Brown Jr.

John Wayne "Punkin" Brown Jr. was born in 1964 in Tennessee (Brown & McDonald, 2000). Punkin became a pastor after becoming disabled with a back injury (Morrow & Hood, 2002). Over the 18 years that he had been handling snakes, he had reported that he had been bitten 22 times (Morrow & Hood, 2002). On October 3, 1998 in Macedonia, Alabama Punkin led a service at the Old Rockhouse Holiness Church (Breed, 1998). During the service, Punkin was handling a yellow timber when he was bitten on his left middle finger (Morrow & Hood, 2002). 10 minutes after being bitten at the church alter; Punkin was transported to Jackson County Hospital in Scottsboro and pronounced dead at 11:12 PM (Morrow & Hood, 2002; Brown & McDonald, 2000).

The Alabama State Medical Examiner, Dr. Stephen Pustilnik listed the cause of death being due to the snakebite (Brown & McDonald, 2000). Observations made during the autopsy included the puncture wounds on the left third finger with soft tissue hematoma of the finger. Other findings of the autopsy showed atherosclerotic cardiovascular disease, cardiomegaly, and hypertension. However, Dr. Pustilnik concluded that they did not contribute to Punkin's death. Jackson County Coroner, Jim Grigg investigated the death of Punkin. Grigg stated that Punkin was the first case of its kind that he had investigated. Grigg theorized that Punkin should have been immune to venomous snakebites. However, Dr. Pustilnik disagreed and stated that Punkin would have been more sensitive to venom. Therefore, less venom was needed to kill Punkin. Dr.

Pustilnik also used the video of the service to make his determination in the manner of death. Dr. Pustilnik listed the cause of death being snakebite to hand, with other factors including atherosclerotic cardiovascular disease. Manner of death determined to be an accident (Brown & McDonald, 2000).

After Punkin's death, Judge John Bell gave custody of the grandchildren Jonathan, Jacob, Jeremiah, Sarah, and Daniel to their maternal grandmother, Mary Goswick of Plainville, Georgia (Morrow & Hood, 2002). Paternal grandparents Peggy and John Brown Sr. fought for custody of the children. The children's maternal grandfather Lewis Duvall went to Cocke County officials in regard to the safety of the children. Peggy and John Brown Sr. were pastors of a snake handling church in North Carolina. Ultimately the state of Tennessee granted custody of the minor children to stay with their maternal grandparents during the school year, and paternal grandparents in the summer (Morrow & Hood, 2002).

Codependency is a relationship and a learned behavior (Christian Recovery International, 2017). The person in a codependent relationship can become anxious if they do not perform to the standards of the relationship. Perhaps this is where the pressure of snake handling presents itself. As followed by the Biblical text of Jeremiah 5:31, the happiness of the church is dependent upon the happiness of the leader (Christian Recovery International, 2017).

Christian Recovery International lists two forms of religious codependency. The first form is the kind that develops in relationship to a religious addict. And the second form develops in relationship to a codependent God (Christian Recovery International, 2017). This is exemplified by a pastor of a church that chases to "bully" his members into

performing religious activities such as snake handling and thereby holding hostage their sacred standing with God. The question then becomes, why do so many members allow one person to control their actions even if they know it is wrong? These members fear humiliation, relationships in their communities, or possibly a loss of financial stability (Christian Recovery International, 2017).

There is nothing to indicate that all pastors are the cause of all deaths that have occurred in their churches. However, it can be deduced that with 93% of the cases being a pastor/member relationship, then pastors are substantially liable in a high percentage of cases. Not only are they allowing themselves to be bitten, but they are forcing or encouraging members to participate and then refuse medical treatment when bitten. To reduce the number of cases that have the pastor/member relationship, authorities must go directly to the source, the source being the pastor, and the fix is arresting and convicting pastors. However, this has not shown to be productive in the past because their religion is more important than the potential consequences they could face by the law (Burton, 1993).

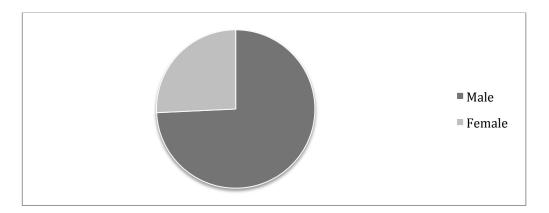
Gender of Victims

There is an overwhelming gender difference in cases of death due to snakebite in the snake handling churches. One hundred of the 105 cases reviewed yielded information regarding the gender of the victim. Documentation on the remaining 4 cases did not identify the gender of the victim. Seventy-four percent of the victims were male, and the remaining 26% were female.

Of the 26 percent that were females the mean number of deaths of females was 3.7, with a median of 3 deaths, and a mode of 1. States with deaths of females from snakebites during religious services includes: California, Virginia, Alabama, West Virginia, Tennessee, Georgia, and Kentucky. Most deaths of female snake handler occurred in Kentucky, where there were nine deaths, accounting for 35 percent of all recorded female deaths and nine percent of all reported deaths (male and female victims).

Figure 3.

Gender of Victims from Snakebites in Snake-Handling Churches



There are several reasons why there are more male victims than female in snake handling churches. The most obvious is that women are not allowed to be preachers in these religious sects (Hood, 2012). This practice has several passages from the biblical text that are interpreted, literally to forbid women from being leaders in the church. Crews added that Church of God members believe a woman's place is in the home caring for her children as referenced to in Proverbs 22:6 (Crews, 1990, p. 92). In addition, which is inconsistent with leadership roles, male leaders in these churches are instructed to "let

your women keep silent" as referenced to in 1 Corinthians 14:34 (Crews, 1990, p. 93). Other sources link the interpretation to 1 Corinthians 24: 34-35:

"Let your women be silent; for it is not permitted unto them to speak; but they are commanded to be under obedience, as also sayeth the law, and if any will learn let them ask their husbands at home, for it is a shame for women to speak in the church" (Jones, 1999, p. 29).

It follows that if women were also allowed to be pastors, there would be a higher death rate among women in the snake handling churches. However, women do subscribe to the religion's beliefs and participate in their practices, and thus the number of female victims in the church is significant (Hood, 2012).

Another reason for fewer female deaths is the perception that men tend to engage in more risky behavior than women. Harris & Jenkins (2006) completed a study showing that men are more likely to be the victims of an accident than women. They established that this is because males will voluntarily engage in risky behaviors more often than women. This study also determined that men die more often from accidental poisoning than women (Harris & Jenkins, 2006). Further, Steinberg found that most victims are male, approximately 80 percent, and 20 percent of these are due to intoxication by alcohol (Steinberg, 2017). Those who have been bitten admit the bite occurred while attempting to interact with the snake.

Steinberg's study of gender roles in religion led to the development of the Risk Preference Theory. This theory establishes that "Women perceive more risks and are less likely to have risk-taking attitudes or engage in risk-taking behaviors, suggesting that they are generally more risk averse than are men" (Roth & Kroll, 2007, p. 206). It is

further distinguished that men will take different types of risks than women will. "[M]en take more physical risks while there is no difference for financial or career risks" (Roth & Kroll, 2007, p. 206). In reference to risk, Miller and Stark define risk as "a carefully calculated decision that entails a weighing of costs based on the amount of risk a person is willing to accept (Miller & Hoffman, 1995). The Risk Preference Theory has one central feature in that an individual's religious ferver is driven by risk (Roth & Kroll, 2007, p. 206). Further, Roth and Kroll believe that men make decisions based in part upon their biological makeup. That "risky and impulsive behavior is connected to testosterone levels" (Roth & Kroll, 2007, p. 206).

Gender appears to be a contributing factor, in that these are male dominated sects. It seems that again the solution is to address the root of the source, being the male pastors. It would be telling to see how many handlers would continue to practice after the death of their pastor, or if the death of their pastor may deter them from not only handling the snakes, but to abandon the church or the practice altogether. Also, the literature did not disclose how many of the deceased males were pastors and which were members.

Age of Victims

Thirty-two of the 105 cases studied included information concerning the age of the victims that died from snakebite at snake handling churches. The remaining cases were lacking information on the age of the victims. For this stud, the victims were separated and placed into one of 8 categories based upon their respective age. Each category was representative of a 10-year span.

Figure 4.

Ages of Deceased Victims from Snakebites in Snake-Handling Churches

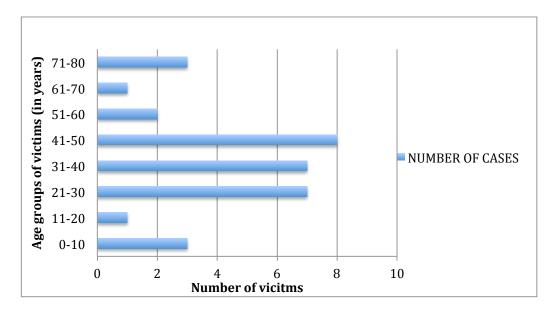


Figure 4 shows 41-50 year-olds have the greatest number of deaths at eight, accounting for 25% of the victims. Two other groups had seven deaths or 22% of all victims. The average age of death was 38.3 years old.

Most victims fall between the 20-51 age range. It is not unusual that there are a minimal number of victims in the age group of 20 and below. During the early years of snake handling, although children were able to participate in the practice, there were not many documented deaths (Hood, 2012; Hood & Williamson, 2008). Certainly if more children had been handling snakes during services, there would be a significantly higher percentage of deaths in the younger age groups. This is because the same amount of venom that affects a child is going to be more severe than that in adults due to the reduced total dilution volume in children (Chen & Guang-zhao, 2012).

The death rate for the elder group was lower than expected. During the earlier years of snake handling, that there were not many elders in the church. Perhaps they were not well enough, or stable enough to handle a snake. It could also be reasoned that, if the older members of the church had been first generation snake handlers, they could have been bitten and passed prior to aging and before any documentation of snake handling began.

The high number of victims in the 41-50 age range could be a result of a peaking generation. It is argued that that there is another resurgence of snake handling that is currently taking place due to many third generation handlers now reaching maturity and continuing and reviving the practice (Hood, 2012). The leading example is Pastor Jamie Coots, a third generation snake handler. Coots was the pastor of Full Gospel Tabernacle in Jesus' Name in Middlesboro, Kentucky, and died on February 15, 2014 at the age of 42 (Fantz, 2014; Mahoney, 2014). Snake-handling churches are facilitated by groups of families (Kerns, 2013). Meaning the pastor will pass down the church to his son who is "called" to be a preacher. Before he passed, Coots stated that he was planning to pass down the church to his son Little Cody (Fantz, 2014). Coots took the time to groom his son in the ways and practices of his church so he would be ready to take over when the time came.

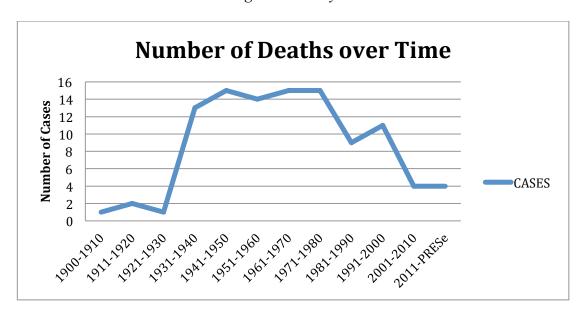
Given that because families facilitate the churches, and the tradition of passing the church to the pastors' sons, that there will likely be gaps in the age groups of victims, although the heir does not have to wait until the time that he is appointed pastor in order to handle the snakes, he will not be handling the snake at the same frequency as the pastor would be (Hood, 2012).

Date of Incident

One hundred and four of the 105 cases reviewed included date information on death of the snakebite victims associated with snake handling churches. The date range was divided into 12 ten-year spans and shows a trend of sudden increase in victim deaths after the years 1921-1930, with an increase from 1 to 13 cases between 1931-1940. These numbers remain steady for the next 40 years with annual deaths averaging around 15, the victim rate does not decline significantly until the 1981-1990. Even then, there are 9 cases in those years, with another slight increase in deaths between 1991-2000, with 11.

Figure 5.

Snakebite Deaths in Snake-Handling Churches by Decade



The sudden increase in the number of deaths in the years 1931-1940 can be directly attributed to changes that were made to laws in the United States. In Appendix 1, the non-cumulative maps capture this phenomenon. The years 1900-1929 had 4% cases

of snakebite deaths spread evenly across 4 different states. However, the years 1930-1949 increased to 27% with a dispersal across 6 states, with concentrations in Kentucky and Tennessee. Prior to 1940, the United States did not have specific laws against snake handling (Hood & Williamson, 2008). Kentucky was the first state to pass laws banning snake handling practices (Hood, 2012; Hood & Williamson, 2008; Hood, Williamson, & Morris, 2000; McVicar, 2013). Soon after in 1941, Georgia also passed a law-making snake handling a felony offense (Hood, 2012; Hood & Williamson, 2008; Hood, Williamson, & Morris, 2000). Tennessee would follow suit in passing anti-snake handling laws in 1947 (Bock, 2014; Burton, 1993; Hood, 2012; Hood & Williamson, 2008, Hood Williamson, & Morris, 2000). North Carolina joined suit in 1949 as did Alabama in 1950 (Hood, 2012; Hood & Williamson, 2008; Hood, Williamson, & Morris, 2000).

According to Figure 5, the passing of laws did not decrease the number of deaths, but instead there is an even larger increase. Appendix 1 indicates the years 1950-1969 increases to 28%, 1970-1989 minimally decreased to 23%, and a decrease in 1990-2015 with 18%. Churches continued to practice, despite the laws prohibiting the practice snake handling (Kimbrough & Hood, 1995). In fact, the Assembly of God grew across the United States by 400 percent between 1960-1990 (Conlin, 2014). The Pentecostal Assemblies increased by 1000 percent likewise the Church of God in Christ had 393 churches in 1960 and 5,500 in 1995, accounting for a 1,300 % increase in churches handling snakes (Conlin, 2014). Law enforcement was aware this was happening, but chose to turn a blind eye (Associated Press, 2015). According to Elbein:

"Serpent handling is still illegal in most Southern states, and practicing churches are occasionally raided by the police. This is constitutionally tricky, however, so states like Tennessee have recently chosen to pursue serpent handlers for violating laws about wildlife collecting. Officially, the purpose of the ban is to protect people from snake bites" (Elbein, 2017).

Clearly the laws have not been successful in the deterrence of snake handling practices even with passing the loophole laws to 'protect the wildlife'.

Case 15: Charles Prince

Charles Herman Prince was born on February 26, 1938 in Canton, North Carolina (Burton, 1993). Prince was born into a family of two boys and five girls. His father, Ulysses was a traveling minister who would place venomous snakes in boxes under the beds of the children at night while they slept. Prince was just six years old when he attended his first snake handling service. Prince followed in his father's footsteps by becoming a minister. During his years of ministry, Prince was arrested and charged in Haywood County, North Carolina on two separate occasions for illegally handling snakes and obstructing officers (Burton, 1993). During one instance, Haywood County Sheriff Jack Arrington had attempted to confiscate some of the snakes during a service when he was bitten and was hospitalized for several days following the incident (Burton, 1993).

On August 17, 1985 Prince was preaching at service at the Apostolic Church of God in Greeneville, Tennessee (Burton, 1993; Morrow, 2005). During the service he was holding a yellow timber rattlesnake and a black timber rattlesnake while dancing and jumping around the pulpit (Morrow, 2005). Prince was then bitten once by the yellow timber on the left hand thumb and was also bitten 4 more times by the black timber

rattlesnake (Morrow, 2005). He continued the service until he went limp. He was then taken to Carl Reed's residence in Limestone, Tennessee to be cared for. Prince's sister Anna begged Prince to go to the hospital. He continued to refuse the help even after his arm had swelled and he began to throw up blood (Burton, 1993). After 36 hours of suffering, Prince died on August 19, 1985 at 7:30 AM (Morrow, 2005; Defiant, 1985).

Adverse of publicity from repeated incidents may have also caused lawmakers to feel pressure from citizens to pass laws against this practice (Hood & Williamson, 2008). During the time the laws were being passed, there was also a rise in publicity and publications concerning these deaths. Word of these deaths were reaching *The New York Times* (Hood, 2012; Hood & Williamson, 2008). The cases were being published on national media reaching a much larger audience than the local newspaper, where the incident had actually taken place.

Without public outcry the anti-snake handling laws would not have been passed. The resulting criminal cases would not have been as highly publicized without the participants being involved in the now illegal acts. It could be assumed that this is the reason for an increase in number of victims during years 1940-1950.

The revival of snake handling churches and the renewed interest in their activities could be in part due to the Internet and social media. This development has helped people around the world stay connected or enabled them to explore avenues of life that they would not have considered previously. Aleks Krotoski, journalist for *The Guardian*, stated, "Social networks, including Facebook, have active and close-knit communities of religious followers of all creeds . . ." (Krotoski, 2011). This has not only allowed religions to network across the world, but has also allowed people to find a religion that

meets their needs. *Huffington Post* reporter, Rabbi Jason Miller, cited to a *New York Times* article that reported

"[S]ocial media have transformed the way people practice religion, the number of people discussing faith on Facebook has significantly increased in the last year, according to company officials. Overall, 31 percent of Facebook users in the United States list a religion in their profile, and 24 percent of users outside the United States do, Facebook says. More than 43 million people on Facebook are fans of at least one page categorized as religious" (Miller, 2011).

Krotoski expounds on how important the Internet has become to people's everyday life needs. "[F]rom banking to shopping to socializing- means that religious organisations [sic] must migrate their churches and temples to virtual real estate in order to stay relevant and to be where the people are" (Krotoski, 2011). Leaders of churches are learning to take advantage of the Internet and branching out to attract more members.

"[W]hat has traditionally been behind closed doors in ecclesiastical councils is now online, challenging the control that the leaders once had over doctrine and their flocks . . . the web has helped proliferate different interpretations and articulations of religions and we have witnessed the emergence of new communities and faiths" (Krotoski, 2011).

A form of modern day revivals for snake handling churches can now reach broader audiences by being broadcast via the Internet and social media outsourcing. As Krotoski states, people are looking for their group that they belong to. These people are drawn like a "flock of birds that match their feathers" (Krotoski, 2011).

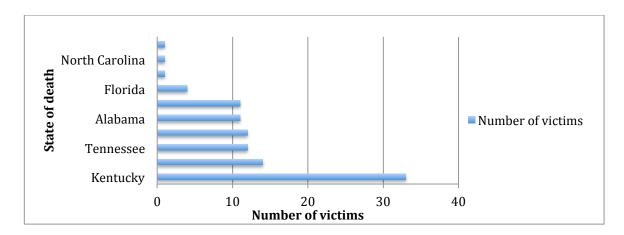
Further, this has allowed people to find a form of worship where they do not have to leave the comfort of their own home. Bex Lewis, Lecturer at Manchester Metropolitan University, states that "social media offers much more space for congregations to actively engage with sermons by tweeting along, asking questions, sharing photos of church activities, or continuing discussions throughout the week, not just on Sundays" (Lewis, 2016). Therefore, congregations are able to not only increase the accessibility to outsource their information but also increase the frequency at which individuals can access religious material and provide spiritual and financial support to these churches and their practices.

Location of Deaths

Snakebite deaths associated with religious services have occurred in 10 of the 50 United States. As Figure 6 illustrates, Kentucky leads in number of snakebite deaths with 33 of the 102 cases; 3 of the cases reviewed lacked information on location.

Figure 6.

Number of Snakebite Deaths in Snake Handling Churches by State from 1900-2015



The practice is primarily focused in Southern Appalachian states considered part of the "Bible Belt" (Associated Press, 2015; Hood, Williamson, & Morris, 2000). It is estimated that a total of 125 snake handling churches still operate today within the Appalachia region, which includes the southeast area from Virginia down through Alabama (Howard, 2015; Wyler, 2014). According to Birckhead (1997), there is a misconception that these churches are on the decline (p. 42). He continues to present the idea that investigators are misled to assume that these churches are declining because they are often small and continually relocating (Birckhead, 1997). This could also be due to a church having to re-establish itself after a pastor's death. Since these churches typically have a small population of members the death of a pastor could force them to close a church, relocate or combine with other like-minded churches.

Some researchers feel that without reliable statistics on these churches, it would be difficult to determine how many groups, or how many total members there are practicing snake handling (Synan, 1971, p.155). Some have estimated that it is possible for there to be as many as 2,500 individuals practicing snake handling in the United States (Kimbrough, 1995). Hood (1998) believes that however number of members today is much less, likely within the hundreds. These estimates are from researchers that have been allowed to observe the practice of snake handling by churches that had formed trust with the researchers. These researchers have concluded there are only a few locations that seem to be stable, while others flourish for only a short period of time and dissipate again.

West Virginia is home to several long-standing snake handling churches such as the Church of the Lord Jesus in Jolo, West Virginia (Hood & Williamson, 2008).

Although this is where some of the most highly publicized cases have originated, overall West Virginia only accounts for 12 of the 105 cases reviewed. The amount of victims due to snakebites from snake-handling churches in Kentucky overshadows West Virginia's 12 cases. Hood (1998) states that media coverage of snake handling churches typically happens when a church is planning a large gathering, known as "homecomings" (p.73). He places importance upon the fact that only select churches in West Virginia and Georgia will even allow film crews into their church during services. The media has misconstrued the membership of these churches by assuming that each snake handling church in that area has just as many members.

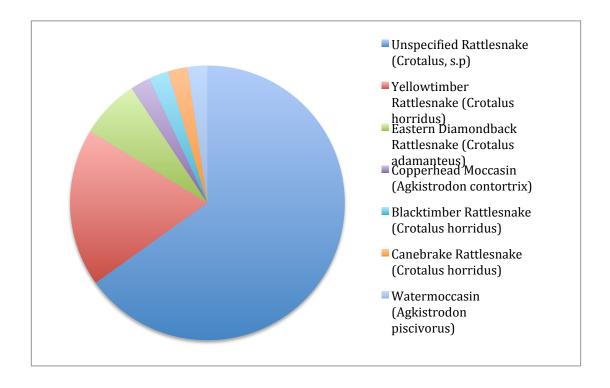
In Appendix 1, the cumulative map of all snakebite deaths in between the years of 1900-2015 affirms the location of the snakebite deaths to be consistent to the Southern Appalachian Mountains. This map also shows the concentration of deaths in Kentucky.

Species of Snakes

Surprisingly, only 46 of the 105 cases reviewed included information on the type of snake which inflicted the deadly bite during the snake-handling services. It appears the primary species used was of the Crotalus (rattlesnake). Unspecified rattlesnakes accounted for 28 of the 46, or 65%, of the snakes responsible for deaths from snakebites during religious services.

Figure 7.

Species of Snake in Snakebite Deaths from Snake Handling Churches



Snake-handling churches have specific snakes that they prefer for handling. Snake handlers often use rattlesnakes and copperheads that are native to the area (Associated Press, 2015). There are six types of venomous snakes that are found in the southern region where the Pentecostals practice, and all six of these species are utilized for religious practices (Elbein, 2017). Hood (1998), states that serpent handlers will only use vipers (deadly serpents) in their services. This is because it plays on the emotions that arise when there could is a possibility of death (p. 87).

It is typical for younger males of the church to hunt for the snakes in the surrounding areas (Hood, 2012). Serpent handlers will also trade snakes from their collections with other congregations. Figure 7 supports the conclusion that the

Appalachian Mountain region is predominantly inhabited by species of copperheads, rattlesnakes and water moccasins (Hood, 2012). Churches do not always keep the snakes for their life; instead they will release them back into their habitat. When a church is without snakes, they will rely upon other churches to provide snakes for their services.

A member could be bitten while capturing snakes in the wild just as easily as they could in the church service setting. One interesting question is how a member of the church would handle a situation of being bitten while capturing snakes in the wild.

Would they treat it as if they were bitten during worship service and refuse treatment? Or, would they accept the medical treatment because the incident did not take place during the time of worship? Such instances are not addressed in the current literature, and if treated by medical personnel, were likely viewed as simple accidental bites occurring in the wild. In poorer countries, snakebite victims will seek the help of traditional healers. Healers are respected by the people and consulted first by victims of snakebites prior to them seeking medical treatment from a hospital (Uragoda & Goodnaratna, 2013).

A problem lies in distinguishing routine snakebites from snakes indigenous to the area from those related to the intentional handling of snakes by religious sects. A case of death due to snakebite would be much more alarming if the victim was bitten by a snake that is exotic to the area. The increase of urbanization, and population shifts south and west, newer antivenom treatments, and importation of exotic snakes has changed the way snakebites are viewed (Schulte, Domanski, Smith, et al., 2016). Snakebites are not reportable to the health department. Poison control centers are responsible for collection of data of snakebites (Schulte, Domanski, Smith, et al., 2016). This is most likely due to the typically low number of victims that die from snake envenomation. As stated by

Sammy Fretwell, Journalist for *The Herald*, "The death of a person from a venomous snakebite is highly unusual. Only about half-dozen people die each year across the country from venomous snake bites" (Fretwell, 2016). Further, "It is so incredibly rare for someone to be bitten by a rattlesnake, but it is even rarer for them to die" (Fretwell, 2016). This fact justifies the need for focus on the deaths that take place in the Pentecostal services.

It is also important to note the enduring consequences to those that are bitten by a venomous snake and survive. Physically, the tissue surrounding the bite can become necrotic, with "chronic ulceration, gangrene and 'compartment syndrome' need surgical intervention . . ." (Uragoda & Goonaratna, 2013). And dependent upon the type of snake, some may experience nerve damage, amputations, as well as acute kidney injuries that can last for up to 12 months after envenomation. Victims are also known to experience symptoms of depression and posttraumatic stress disorder. Overall, the negative impact on victims has shown to affect their career capabilities, with 10 percent of victims becoming physically disabled and having to forfeit their jobs (Uragoda & Goonaratna, 2013).

Victims who are bitten by venomous animals endure tremendous pain. In a study of 18 autopsies, classified as poisoning by toxic animals, Long Chen and Guang-Zhao Huang approximate that of five million snake bites that occur annually worldwide over 2.5 million result in envenomation, and 100,000 of those victims will die (Chen & Guang-Zhao, 2012). Of the three cases of venomous snakebites that Long Chen and Guang-Zhao present in their study, all victims experienced a variation of vomiting, dizziness, vision loss, irritability, body aches, edema, cellulitis, hemorrhaging, renal

degeneration, irregular pulse, and organ failure. Further, snake venom is extremely complex. It is composed of a protein/peptide base, and remaining components are metal ions, lipids, and carbohydrates (Chen & Guang-zhao, 2012). Physicians are able to detect snake venom in order to treat it, however even after death, the determination of type of venom is important in determining if the suspected snake is from the native area or an exotic animal. This could be useful in cases of possible homicide. The samples of venom can be extracted from wounds, urine, local bite tissue, and neighboring lymph nodes, vitreous humor from the body can also be analyzed to detect the presence of venom (Chen & Guang-Zhao, 2012). Medical Examiner should pay close attention to the details of the bite, especially in examining the bite mark in the skin. Samples of the tissue surrounding the bite, as well as the liver, blood, and kidney should be taken. Organ pathology is strongly suggested for microscopic observation. "Bites by different species may be clinically differentiated by dissimilar syndromes of systemic envenoming" (Pathmeswaran et al., 2006).

Forensic Pathologists Kona Williams and Chris Milroy state that snake venoms are "extraordinarily complex" with over 100 compounds with several toxins that can be harmful to human victims (Williams & Milroy, 2012). Snake venoms can either be hemotoxic, attacking tissue and blood, or neurotoxic, damaging or destroying nerve and tissue (Juckett & Hancox, 2002). The neurotoxins in snake venom can "inhibit or block various channels, receptors, and membranes of the neuromuscular junction, causing muscular paralysis and respiratory failure" (Williams & Milroy, 2012). Proteases, also found in venom, are responsible for affecting the "endothelial cells lining the capillary blood vessels and hydrolyze basement membrane proteins, causing local hemorrhage and

tissue necrosis, as well as severe hemorrhage" (Williams & Milroy, 2012). Myotoxins are also known for causing hemorrhage and renal failure, which are both known to be components of Viperidae venom (Williams & Milroy, 2012). These are also symptoms that can be mistaken with natural diseases at the time of first observation of emergency care admittance. For a medicolegal death investigator that is not familiar with symptoms of venomous snakebites, the case can be mistaken for a natural death and therefore wave jurisdiction without an autopsy being performed by a forensically trained and certified pathologist.

It should also be noted that although there are treatments for envenomation, the process could lead to a negative medical prognosis. Snake antivenoms for treating people who have been bitten by a snakes have caused blood clots (Maduwage, Buckley, de Silva, et al., 2015). The antivenom is developed to counter the coagulopathy components of the snake's venom. Animals produce antibodies that counter the toxins in snake venom (Maduwage & Isbister, 2014). Animals are injected with the venom so that they can produce an immune response to the venom, and therefore produce the antibodies (Maduwage & Isbister, 2014). Antivenom from an equine basis can be more harmful than the bite because it can cause hypotension and anaphylaxis (Juckett & Hancox, 2002). Studies have shown that sheep derived antivenom is better in this instance, but not as readily available and is not cost effective (Juckett & Hancox, 2002). New developments on fang puncture swabs could help victims in their recovery from envenomation. Testing a DNA swab can be used to identify the species of snake has bene proven to be accurate 100 percent of the time (Smillie, 2014). A rapid diagnostic dipstick for envenomed victims is in the process of being developed in order to determine the correct type and

amount of serum specific based on the species of snake. This will allow victims to receive a more effective treatment, which could prevent them from being disabled, and prevent amputations (Smillie, 2014).

This is especially important for cases of possible homicide or suicide. 18-yearold, Grant Thompson worked in his family's pet store, and was familiar with handling snakes (Wagner, 2015). On July 14, 2015, Thompson was found inside his parked SUV in the parking lot of Lowes in Austin, Texas. When authorities arrived to the scene, the vehicle was full of caged tarantulas, and non-poisonous snakes. However, the cage for his cobra was open, and the cobra was missing. Thompson was transported to St. David's Round rock Medical Center, where he was later pronounced (USA Today, 2015). Thompson had a history of suicidal ideations, and had made a Facebook post the day of his death stating "I'm sorry". The Travis County Medical Examiner's autopsy report stated that Thompson had several bites from the monocle cobra on each arm, with no signs that Thompson had attempted to pull the snake off of him (KVUE, 2015). Thompson was right handed, and allowed the cobra to bite him higher on the left shoulder which would be consistent with someone who is right-handed, to have done this purposefully. The autopsy showed that the cobra venom caused paralysis leading to respiratory failure. Toxicology results also showed marijuana and amphetamines in Thompson's system (KVUE, 2015).

Suicide by snake venom has also been successful through syringe injection.

Suicidal patients can inject snake venom intravenously (Morgan, Blair, & Ramsey,

2006). "Clinical findings of self-inflicted rattlesnake venom injected intravenously appear

similar to those of the rare intravenous (IV) envenomation from a rattlesnake bite". This

will cause immediate vomiting, coma, hypotension, and swelling. Followed by severe hematological abnormalities and bleeding. "The patient will have an area of ecchymosis with several pinpoint petechial surround the puncture site" (Morgan, Blair, & Ramsey, 2006). Rattlesnakes inject their venom through hollow fangs typically into the skin and subcutaneous tissue. This will cause a severe local reaction of pain, swelling, and blistering around the bite. This differs from a patient that has injected themselves with a syringe in that there will be no local findings around the injection site, but will present the severe systemic effects of the venom (Morgan, Blair, & Ramsey, 2006).

Again, the distinction of snakebites is vital in case analysis. As for cases of coral snakes, they appear to bite in a chewing motion, as opposed to the stabbing motion of most pit vipers (Norris, Pfalzgraf, and Laing, 2009). In some instances the snake has to be pulled off of the victim, and creates a Velcro peeling affect. According to Dr. Kona Williams, and Dr. Chris Milroy, there are several families of venomous snakes (Williams, & Milroy, 2012). The Viperidae includes

"Rattlesnakes, puff adders, copperheads, and cottonmouths . . . the most developed and highly efficient venom apparatus belongs to the viperidae family, which use long, solenoglyphous, or hollow fangs located at the front of maxilla to inject venom. This is combined with an extremely mobile maxillary bone, which can rotate forward and erect the fangs, allowing for deep penetration and preventing damage to the fangs. The result is a single or multiple puncture wounds" (Williams & Milroy, 2012).

The amount of venom that a snake will inject will vary and increase exponentially with the size of the snake (Johnson, 2012). Baby rattlesnakes are extremely nervous and prone

to biting (Steinberg, 2017). Although the babies have less venom than an adult, they have not yet learned to control the amount of venom that they release (Stenberg, 2017). The amount of possible venom injection will range between one and 850 mg. In a study performed in the United States, the University of Florida Department of Wildlife Ecology and Conservation found that the most lethal snake injection comes from the Eastern Diamondback Rattlesnake (Johnson, 2012).

For a young and unseasoned investigator working a snakebite case, being able to distinguish the type of bite at the scene with the possibility of finding the snake at the scene could make or break a case. This would be a significant finding for investigators and examiners facilitate a correct diagnosis for the future investigation of the case and in the determination of the appropriate manner of death.

Methodology

The present study was conducted as an exploratory research design that will be used to establish an investigative protocol for Social-Envenomation to properly classify the types of deaths resulting from the practice of snake handling during religious services. This research and protocol will aid pathologists and death investigators in their casework.

Data and Procedure

Facts given in each case were arranged into seven separate demographic categories to develop statistics for trends that seemed to be most prevalent. Not all cases were represented in each category due to lack of information in that area. These seven focus areas of data collection included: (1) Manner of Death (2) Relationship between Victim and Offender (3) Gender of Victims (4) Age of Victims (5) Date of Incident (6) Location of Deaths and (7) Species of Snakes. By using an Excel spread sheet, each

individual case was examined for information relevant to the seven categories. Once all 105 cases were examined, the data was translated into graphs and charts to illustrate the statistical and visual significance of the data. Specifically the study aims to establish a pattern in these cases to produce an investigative protocol to aid pathologists and death investigators in their casework.

Discussion

Based on 105 cases found in literature, it was determined that the majority of the deaths were considered to be accidental. However, these could be misclassifications based on reporting errors or ethical issues resulting from manipulation of the facts by church members protecting their religious beliefs. Victims were most at risk when the snake was handed directly to them from their pastor, or they engaged the snake on their own due to pressure to participate based on relational expectations held by the church. Most victims were male, due to their likelihood that they would participate in more risky behavior. This was especially likely if they were around the age of 38.3 years old. Death cases were at a concentrated peak starting in the 1940's, around the time laws banning the use of serpents during worship services were introduced. However, they held consistent through the year 1980. The most snake-handling deaths took place in Kentucky, and the rattlesnake of the Crotalus, s.p. was the most common snake responsible for envenomation. The rattlesnake is indigenous to the surrounding terrain near the location of the churches and were therefore plentiful for their use in services.

By identifying trends in these cases, we can suggest a protocol for consideration in the investigation. It is especially alarming to find trends of death in young, presumptively healthy, individuals. Authorities will not only want to find the root cause

and individuals responsible, but the law will also play a major role in the disposition of these cases. Coroners and medical examiners must treat such cases as suspicious and consider the legal consequences of the event. Even if it appears to be a blatant accident, coroners and medical examiners are charged with the duty to ensure that there was no foul play involved in the death.

There are two roles of the Medical Examiner Office in part of an investigation: the role of the death investigator on scene, and the pathologist that must examine the deceased to determine the cause of death. Jha, Jaiswal, Millo, and Gupta (2009), note that not all snakebites occur accidently, but can also be instrumental in homicides as well as suicides. They further elaborate that there have been "instances where unnatural death due to hanging, murder, poisoning etc. has been alleged to be caused due to snakebite to escape the crime" (p. 38). Because cases like this do exist, a pathologist must resort to extreme measures during the autopsy to develop the correct cause of death.

At the beginning of the investigation, when the death investigator arrives on scene and becomes aware that a snakebite could be a potential cause of death, they are responsible for either finding the snake attempting to determine which species of snake might have inflicted the bite. (Jha, Jaiswal, Millo, & Gupta, 2009). If the snakebite victim is transported to a hospital and dies, the investigator must then assess the victim's clinical history to rule out the possibility of death by snakebite instead of natural causes. Once the victim is transported to the Office of the Medical Examiner, the pathologist will not only examine the victim for external markings or signs consistent with a snakebite, but they will also perform a full autopsy. Specific body fluids and tissue samples will be collected for examination by the toxicologist (Jha, Jaiswal, Millo, & Gupta, 2009). As indicated,

this is an extremely time consuming process for the Office of the Medical Examiner. These cases are depleting of multiple resources needed elsewhere in the community. Not only does the victim require medical personnel on the scene, but also transportation to a hospital if needed. At the hospital, the victim becomes a high priority for nurses and doctors who are attempting to save the victim's life and taking away their services from other needy patients in the hospital. Whenever a snakebite victim dies at the scene, transport must show up at the scene along with a death investigator. Then a pathologist will be required to perform a full autopsy of the victim to rule out any cause other than snakebite.

Conclusion

The research examined 105 cases for information regarding the seven categories that form the basis to qualify a case for social-envenomation. The categories included significant numbers to determine that a case of social envenomation has historically been deemed as an accident 86% of the time. Such victims are likely to be male based upon the findings of 74% gender comparisons. Kentucky led states with the most number of deaths with an overwhelming 33%. 63% of the cases, a rattlesnake was the species of snake responsible for the bite. The most deaths occurred between the years 1931-1980. Peak years averaged 15 cases of death by envenomation. The victims were in the age range of 41-50 years-old 25% of the time with the average age of 38.3-years-old. Lastly, it was found that most victims were handed a snake by a church pastor 93% of the time.

This is cause for medicolegal death investigators to be trained in evaluating deaths of this nature by addressing each case utilizing a standard protocol based on the categories given discussed. Pathologists should take into account these surrounding

circumstances prior to establishing a manner of death for these victims. The Pentecostal churches that handle snakes are not the only religious sects to share the same beliefs and riguals; churches throughout the United States share uncanny similarities where a multitude of people are still dying from snakebites that seem to be preventable. With the establishment of social-envenomation, lawmakers should reevaluate conditions in which practices affect the health and vitality of their citizens.

Limitations

Although 105 cases were researched, there will be limitations to the information due to the manner in which the cases were documented. With most of the cases being documented by word of mouth testament, the statistics could be skewed due to incorrect facts. For example, some resources gave conflicting information in regards to the age of the victim and the year that the incident took place. Ninety of these cases were from a single source which relied upon printed citations and oral history confirmations from fellow church members (Hood & Williamson, 2008). Facts given in each case were arranged into separate demographic categories to develop statistics for trends that seemed to be most prevalent. Not all cases are represented in each category due to lack of information in that area.

Recommendations for Future Research

Multiple issues are exuding from social-envenomation cases. Research must continue in the aid of pathologists that continue to feel the burden of these cases. Some questions that must be answered: Can or do courts have the right to establish a law in these cases to where pathologists do not have to bear the burden of these extremely time consuming cases that are obvious as to the victim refusing lifesaving medical treatment?

Can social-envenomation become a source of explanation for cause of death when investigating these types of cases? It would also be relevant in gender research to remove pastors as a factor, and to compare the percentages of male to female victims.

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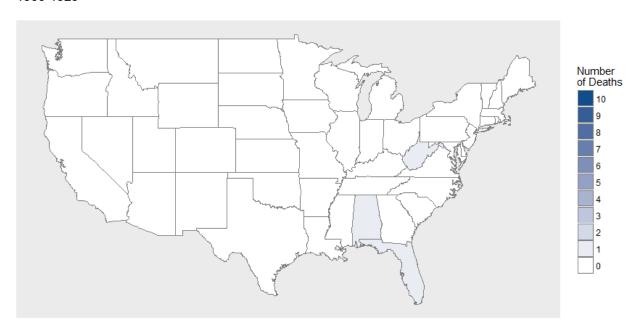
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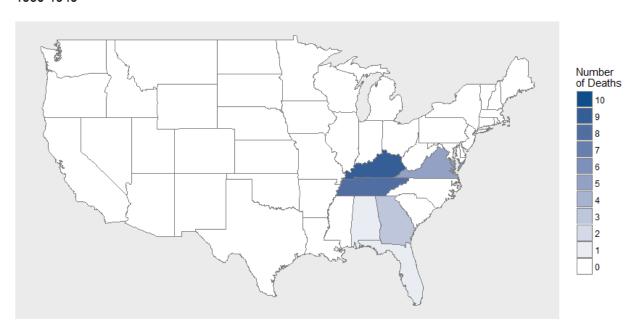
Appendix 1: Distribution of Snakebite Deaths Over Time

Non-cumulative Heat Maps

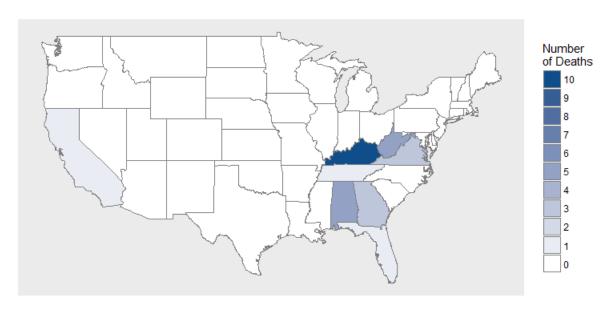
1900-1929



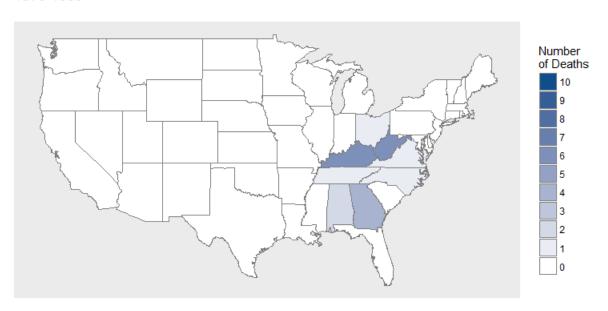
1930-1949



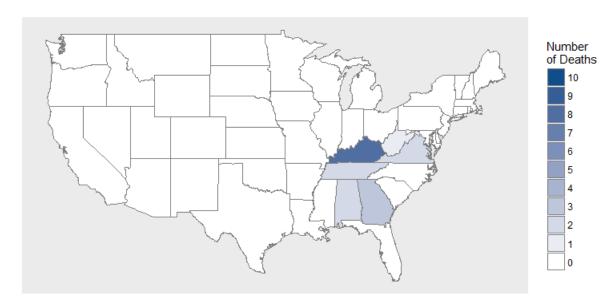
1950-1969



1970-1989

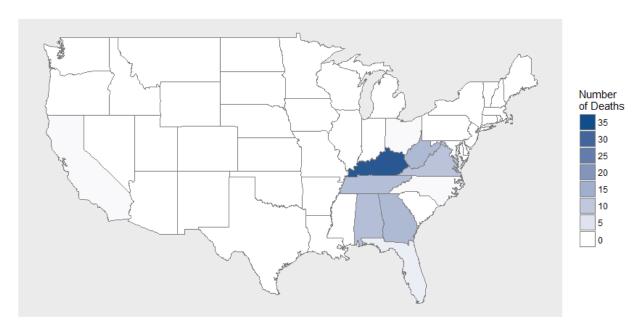


1990-2015



Cumulative Heat Map

1900-2015



Appendix 2: SOCIAL ENVENOMATION

RISK FACTOR CHECKLIST FOR MEDICAL EXAMINERS

Several risk factors are associated with Social Envenomation. This checklist is to be used as an investigative tool for social envenomation. This checklist is to be used to assist medical examiners and death investigators in determining if the deceased is a victim of Social Envenomation. This could be used in determining manner of death in these cases. A total of 13 or more "yes" responses indicates that the decedent was a victim of Social Envenomation.

*A specialist in herpetology may need to be consulted for questions inferring to snake involved in incident.

Circle the number for the following that apply.

- 1. Was the decedent bitten during a snake-handling service?
- 2. Is the decedent a pastor of the snake-handling church?
- 3. Is the decedent a member of the snake-handling church?
- 4. Is the decedent a relative of the pastor of the snake-handling church?
- 5. If the decedent is a relative of the pastor, was their relationship strained?
- 6. Did the decedent have any prior medical conditions that could have been a contributing factor to the death? If so, was it caused by a prior venomous snake bite during a service?
- 7. Was the decedent ever stated to have been suicidal?
- 8. Was the decedent offered lifesaving medical treatment?
- 9. Did the decedent refuse lifesaving medical treatment?
- 10. Did another member of the church refuse lifesaving medical treatment for the decedent?
- 11. Was the medical treatment refused based upon belief?
- 12. Was the decedent given the snake involuntarily?
- 13. Did the decedent handle the snake voluntarily?
- 14. If the decedent had been previously bitten, did they refuse lifesaving medical treatment after?
- 15. If the decedent had been bitten previously, did they suffer any loss of physical function, or obtain a disability?
- 16. Was the decedent bitten by a venomous snake listed (unspecified rattlesnake, yellow timber rattlesnake, eastern diamondback, copperhead moccasin, black timber rattlesnake, canebrake rattlesnake, or water moccasin)?
- 17. Has this snake been used for other snake-handling services?
- 18. Has this snake bitten other members during a snake-handling service?

- 19. Is this snake considered to be an adult or juvenile?
- 20. Was the snake collected for examination? If so, was the snake healthy enough to inject a lethal dosage to the decedent?
- 21. Do the bite marks indicate that the decedent had attempted to pull the snake from their body when bitten?
- 22. Is the injection site of the snake venom consistent with a snake bite?
- 23. Was the snakebite witnessed by other members at the service?
- 24. Are the witness accounts consistent with the snakebites found on the decedent?
- 25. Did the decedent's toxicology results show that snake venom contributed to death?
- 26. Is the snake venom retrieved from the decedent's blood consistent to the species of snake that was witnessed to have bitten decedent?