

Running Head: RISK FACTORS FOR COMPLETED SUICIDES

Investigative Analysis of Risk Factors for Completed Suicides

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Personal Relevance Preface

Upon receiving my degree from the University of Evansville, I will attend graduate school at Case Western Reserve University to receive my PhD in clinical psychology. I hope to firmly embrace the scientist-practitioner model of clinical psychology, and serve as both a researcher and clinician in the mental health field. Once I receive my PhD, I plan to maintain that balance by continuing research at the university level, while maintaining a private practice as well. I cannot help but feel that both aspects of the field are necessary to ensure the continued progress of mental health research and practice.

My research experiences have allowed me to develop my skills in empirical thinking and research design. Through my undergraduate experiences, I have discovered my passion for suicidology and plan to devote my graduate and postgraduate career to furthering research in the field. In my graduate career, I hope to not only investigate the risk factors associated with suicidality, but also improve upon the current models of treatment for suicidal patients. I plan to continue working to identify individual risk factors that contribute to increased risk of death by suicide. As a subset of this line of research, I intend to empirically assess therapeutic interventions commonly used in order to establish the most successful methods of treating suicidal individuals.

Both as a researcher and future clinician I seek nothing more than to improve the lives of those individuals coping with mental illness by advancing clinical psychology through empirical research and empirically-based treatment.

Abstract

The goal of this study is to provide crucial information about the risk factors that contribute to the increase in completed suicides in recent years. While current research in suicidality has focused on treatment and prevention efforts, little research has investigated the deaths of suicide completers. This archival study used data from the coroner's reports in order to facilitate a better understanding of the reasons behind these deaths. Eighty-six suicides were studied from the past three years. Analyses were performed to indicate the most predictive risk factors for suicide deaths, as well as detailed information on the usage of controlled substance including prescription medications. Directions for future research are also discussed.

Investigative Analysis of Risk Factors for Completed Suicides

Suicide is arguably one of the least understood phenomena in mental health today. While great strides have been made in the treatment of depression, anxiety, and other psychopathies, suicide has remained a hushed topic even within the mental health community. Within the last several decades a movement has begun to improve the quality of treatment and prevention efforts for individuals plagued by suicidal ideation. Still, long-held misconceptions about suicidal individuals and the media's sensationalization of suicide completions have left researchers in the midst of a difficult battle. Now more than ever, there is a need for compassion and understanding for those who have attempted or completed suicide.

Prevalence of Suicide Completions in the United States

Suicide has become a source of serious concern in modern society. In 2008, 36,035 people died by suicide in the United States. This equates to approximately one suicide death every 14.6 minutes. Suicide is now the 10th leading cause of death in the United States. While these numbers alone are disturbing, it is the 900,000 annual suicide attempts that truly demonstrate the severity of the suicide problem in America. (Nock, 2009)

Despite an increase in prevention efforts, researchers and clinicians alike are faced with the same problem; it is nearly impossible to know who will attempt and/or complete suicide. While certain factors can increase the likelihood of an individual committing suicide, no single factor can predict whether a person will actually make a suicide attempt (Dejong, Overholser, & Stockmeier, 2010; Nock, 2009; Dejong & Overholser, 2009). Depression, for example, is highly correlated with suicide attempts and completions, but thousands of people with major depressive disorder never attempt suicide (Jobes & Mann, 1999; Nock, Park, Finn, Delibrito, Dour, & Bananji, 2010). Without these specific cause and effect relationships it is difficult to accurately

predict a person's future behavior and ensure that suicide attempts are prevented (Rudd, Berman, Joiner, Nock, Silverman, Mandrusiak, et al., 2006; De Munk, Portzky, & Van Heringen, 2009).

As a result, researchers have focused on two primary aspects of suicidality: theories of the suicidal mind and risk factors for suicide.

Current Theories and Trends in Suicidality Research

Theories of the suicidal mind have centered on gaining an understanding of cognitions and external forces that impact a person's will to live. Two especially relevant theories include Edwin Schneidman's triarchic (2004) theory of suicidality and Thomas Joiner's interpersonal-psychological theory of suicidal behavior. Both theories highlight the importance of cognitive factors in suicidal ideation, but differ in their focus on the internal and external factors that contribute to suicidality.

Schneidman's theory (2004) includes three specific categories that influence suicidal behavior. The first in this triad is psychological pain. It is the most basic of the three categories and the most relatable for the majority of people. Psychological pain can be due to any number of factors including formal diagnoses such as major depression or to life events such as the loss of a loved one or the loss of one's job. The second is perturbation. This relates specifically to that state of emotional anguish and the desire to act upon that anguish. It is not simply the feeling of hopelessness and agitation that is necessarily associated with severe depression and suicide, but also the need to do something to eliminate that pain. The third and final aspect is stress. This relates directly to the stress and discomfort associated with the other parts of the triad. This stress is the most difficult aspect to treat during psychotherapy because often suicidal patients have reached such a degree of emotional pain that the feelings of hopelessness and personal anguish are in and of themselves stressful. All three of these can relate to any number

of individual risk factors depending on the issues facing a particular person. This theory specifically supports the idea that an interaction of forces within an individual lead to suicidal behavior. Without a critical degree of stress in all three of these areas suicidal behavior will not occur.

Joiner (2005) takes a very different approach to explaining the suicidal mind. The interpersonal-psychological theory proposes that people do not commit suicide without both the desire to die by suicide and the ability to follow through with the actual act. Instead of focusing on the cognitive and emotional factors that contribute to a person's choice to die, this theory indicates very specific factors that must interact for suicide to take place (Joiner, Fitzpatrick, Berlim, Fleck, Conwell, Witt, et al., 2005). Researchers propose that feelings of burdensomeness and thwarted belongingness are most likely to predict a person's suicidal ideation. Additionally, further research has indicated that the likelihood of a successful suicide attempt is best predicted by the number of previous attempts (Joiner et al., 2005).

Both theories demonstrate the numerous interactions of cognitive and behavioral factors that must occur for a suicide attempt to take place. Schneidman clearly emphasizes the innate forces within a person that can cumulate in a loss of self-efficacy and eventually a suicide attempt. This theory places much more focus on the control individuals have over their own fate (Schneidman, 1981). Joiner, on the other hand, emphasizes the effects of objective factors such as previous attempts, as well as perceived feelings of inadequacy and burdensomeness. Joiner's theory certainly brings to mind a more external locus of control in terms of an individual's responsibility in a suicide attempt or completion. This theoretical divide is seen throughout the literature. As a result, the majority of current suicidality research has centered on establishing specific risk factors for suicidal behavior.

The body of literature regarding risk factors for suicidal behavior is substantial. Research has examined a large number of potential factors, but has focused primarily on cognitive and social problems. The most widely accepted of these risk factors is a formal mental health diagnosis. Diagnoses such as major depression and bipolar disorder have been shown to be highly correlated with both suicide attempts and suicide completions (Dejong et al., 2010; Joiner et al., 2006).

The Psychological Autopsy

Unfortunately, suicidality research was limited in its ability to evaluate suicide deaths for many years. There were not any formal procedures available to mental health professionals and interested researchers that allowed objective investigations of the reasons behind these deaths. In part due to these limitations in the field, Edwin Schneidman (1981) assisted in developing the psychological autopsy as a procedure for evaluating the factors contributing to a suicide completion. Psychological autopsies are not used exclusively in cases of death by suicide, but are especially helpful in these types of deaths. The actual procedure is a formalized process in which medical and mental health information is evaluated. A formal interview with family and friends is also required for a formal psychological autopsy. This allows insight into the suicidal mind that would not otherwise be possible.

Schneidman's original structure has been modified since its creation in 1981, but the general guidelines have remained the same. A psychological autopsy should evaluate the reasons behind a lethal act and the actual method that contributed to that death (Schneidman, 1981). Certification programs now exist to train individuals to perform objective psychological autopsies. Typical psychological autopsies for suicides today involve collaboration between a psychologist, psychiatrist, coroner, and victims' family members. Information from toxicology

reports is used in order to assess chemical substances in the body at time of death, as well as general autopsy reports in order to gauge other physical concerns that contributed to death. The most important information regarding the state of mind of a suicide victim almost always comes from family interviews (Isometsa, 2001).

These family interviews are extremely sensitive matters, especially in research settings. These interviews tend to be fairly structured with interviewers asking specific questions regarding the recent behaviors of an individual who died by suicide. Often this includes information about recent changes in eating habits, medication usage, and social activities. Families are often also asked about the state of mind of victims prior to death. These are obviously difficult subjects for families to discuss following the death of a loved one, but the information gained regarding an individual's behaviors and expressed thoughts about his or her life prior to death are invaluable in understanding suicide.

Research using psychological autopsies has helped to increase the understanding of the actions of suicidal individuals. In large part due to the lack of research regarding completed suicides, psychological autopsies have been used with increasing frequency in the past several decades. Unfortunately, as with any type of research protocol there are limitations to the usage and generalizability of information gained from psychological autopsies (Houston, Hawton & Shepperd, 2001; Marttunen, Aro, & Lonnqvist, 1993). A new branch of suicidality research has focused on empirically evaluating the efficacy of psychological autopsies in assessing suicide deaths.

Perhaps, the most relevant concern with psychological autopsies is the lack of consistent information available to researchers. Coroner reports often vary in their data collection methods. For example, formal autopsies are not always performed when the cause of death is obviously a

suicide. Toxicology reports are often performed in a similar manner. Issues also often arise in collecting information from all medical professionals that treated an individual prior to death (Jacobs & Klein-Benhim, 1995; Hawton, Applebee, Platt, Foster, Cooper, Malberg, & Simkin, 1998). Coordinating data collection between a mental health professional, a general practitioner, and any other specialists can prove to be near impossible for every case requiring a psychological autopsy for a given study. This means that researchers often have to cope with large amounts of missing data in their studies, thus making data analyses more difficult to perform (Cavanagh, Carson, Sharpe, & Lawrie, 2003).

A recent meta-analysis of psychological autopsy studies done between 1990 and 2000 in the United Kingdom and the United States found that psychological autopsies are invaluable in assessing suicidal ideation, communication of intent, and risk factors for suicide deaths (Cavanagh et al., 2003). Researchers found that even with slight variations in the structured interviews a consistent amount of relevant information was obtained from family members that allowed researchers to draw objective conclusions about the state of mind of suicide victims prior to death. Information gained from these psychological autopsies was also shown to be useful in helping establish consistent risk factors for lethal suicide attempts.

Treatment and Prevention Efforts

Research efforts in treatment and prevention have focused primarily on ensuring that suicidal patients are properly identified and treated following assessment. This has resulted in the creation of a number of measures of specifically for suicide. Most of these measures have focused on identifying suicidal individuals early on in therapy, so that therapists can best treat the suicidal ideation. These types of measures are becoming more frequently used, in large part due to the managed care movement that has forced clinicians to utilize more empirical measures

of symptomology (Jobes, Jacoby, Cimboric & Husted, 1997; Borges, Angst, Nock, Rucio, Walters, & Kessler, 2006). A great deal of recent suicidality research has focused specifically of validating these types of measures for use with clinical populations in both inpatient and outpatient treatment. Despite this increase in research, clinicians still seem very reluctant to use these types of measures in their practices. Suicide, itself, remains a difficult topic for clinicians to cope with during the therapeutic process (Rudd, Jobes, Joiner & King, 1999; Jobes, 2000; Jobes, 1995). As a result, researchers must not only focus on the importance of creating these measures, but also educating mental health professionals on the importance of using these types of assessment tools (Jobes, Overholser, Rudd, & Joiner, 2008; Jobes, Nelson, Peterson, Pentiuic, Downing, Francini, & Kiernan, 2004).

Overview and Anticipated Outcomes

In this study, data was collected from the Vanderburgh County Coroner's office to provide the often elusive medical background on each victim. The supplementary reports from the deputy coroners provided the researchers with the family information that would otherwise be acquired from a personal interview with the family. This archival data allowed researchers to investigate novel concepts in relation to suicide and hopefully gain greater insight into the suicidal mind. This study also allowed researchers to investigate a Midwestern population versus the traditionally Eastern United States population widely represented in the literature. By doing so, researchers hope to better understand the plights of individuals in this geographic region and better target their specific needs.

Due to the descriptive nature of this study there were not any specific hypotheses. The purpose of this study is simply to identify trends within the current data to help pinpoint risk concerns that may not have been assessed in previous studies. The hope is to use this

information to improve current prevention systems within this area by better targeting at-risk populations.

Methods

Research Subjects

For the purposes of this study, research subjects consisted of any individual who died in Vanderburgh County and whose formal cause of death was ruled to be suicide by the Vanderburgh County Coroner between 2008 and 2011. Analyses were based upon 86 individuals who fit these criteria. Of these individuals, 55 (64%) were male, 30 (35%) were female, and 1(1%) was transgender. All 86 subjects were of a Caucasian ethnicity.

Age cutoffs were made using common procedures within suicidality research with 5 (6%) youths, 21 (24%) younger adults, 48 (56%) older adults, and 12 (14%) seniors. 32% (n=28) of subjects were married at time of death, 20% (n=17) were single, 33% (n=28) were divorced, 2% (n=2) were separated, and 12% (n=5) were widowed. Educational information for this population varied with 5% (n=4) having less than an 8th grade education, 12% (n=10) not completing a high school diploma, 62% (n=52) having a high school diploma or GED equivalent, 8% (n=7) having some college education (no degree), 6% (n=5) having an associate's degree, 6% (n=5) having a bachelor's degree, and 1% (n=1) having a master's degree or higher.

Procedure

Collection of Data from the Coroner's Office

Upon receiving permission from the Office of the Coroner of Vanderburgh County, researchers were able to access the complete death records for all suicide deaths in the county. Using this information, researchers coded data from each chart for an individual that had died by suicide. Information regarding all demographic information including age, gender, sexual

orientation, ethnicity, and education level was documented. Researchers then examined information from death certificates, hospital reports, toxicology reports, autopsy reports, and police/deputy coroner supplementary reports in order to establish information about the individual's history and state of mind prior to death. Information taken from the death certificates included all demographic information, date of death, time of death, time of injury, and method of choice. Variables included from hospital reports included past medical conditions, recent medical visits to general practitioners or emergency physicians, and any other relevant health information.

Toxicology reports were invaluable in assessing the impact of prescription medications on suicide completions. While toxicology reports were not necessarily included in every case file, a vast majority of the data collected included this type of information, specifically in cases of overdoses. All substances currently in the victim's system at time of death were recorded by the researchers. This included prescription medication, illegal substances, nicotine, and caffeine. Toxicology reports also included the standard therapeutic levels for most prescription medications. This allowed researchers to better establish which substances were being taken as prescribed and which were used with lethal intent.

Autopsy reports were also not included in every case of death by suicide. Often this type of investigation was not included when the cause of death was obviously suicide. When autopsy reports were included researchers looked at medical information such as medical conditions, overall health status at time of death, and other relevant physical infirmities present at time of death.

Police and deputy coroner supplementary reports were used in order to examine all background information on suicide victims. These reports were compiled based on interviews

with families immediately following the death of their loved ones. Often these interviews provided the most personal information about the state of mind of individuals prior to death. Information gained from these reports included potential relationship problems, monetary concerns, legal issues, changes in behavior or withdrawal from friends and loved ones, previous suicide attempts, and other relevant information.

Coding of Subject Demographics

Subject demographics were coded into several different categories in order to allow for analyses to be performed. Age demographics were split into four categories as are typical in the research area. Individuals between the ages of 14 and 24 were considered “youth”, between the ages of 25-44 were considered “younger adults”, between the ages of 45 and 65 were considered “older adults”, and 65 and above were considered “seniors”. Marital status was broken down into married, single, divorced, separated, and widowed as is consistent in most research. Individuals’ education status was divided into those with less than an 8th grade education, a 9-12th grade education, but no formal diploma, a high school diploma or GED equivalent, some college education with a formal degree, an associate’s degree, a bachelor’s degree, or a master’s degree or higher. County of residence was coded as either being a resident of Vanderburgh County or a resident of some other county (individual counties were not specified for the purposes of this study). Sexual orientation was also coded as heterosexual, homosexual, or bisexual.

Coding of Individual Risk Factors and Trends

A large number of individual factors were coded for the purposes of this study. Researchers first coded method of suicide into one of eight categories. These consisted of drug overdoses, gunshot wounds, hangings, asphyxia, stab wounds, carbon monoxide poisonings,

chemical poisonings, and fall-related traumas. Once this information was obtained researchers then examined the time of death and the time of injury. Because some victims were hospitalized for as much as a day after their initial suicide attempt, time of injury was used as the best indicator of specific periods in which suicides were more likely to occur. Time of injury was coded into morning (between 5:00-11:59AM), afternoon (12:00-4:59PM), evening (5:00-10:59PM), and early morning/late evening (11:00-4:59AM). Previous military service was recorded simply based on whether or not the individual had any history of involvement as a member of the armed services.

Immediate precipitating events referred to any event that occurred within several days of the suicide completion. These events were coded as relational, legal, hospitalization/health problem, or other. Money issues referred to any issue related to financial burdens upon the suicide victim. These were coded as unemployment, medical bills, and other. Legal problems were coded if they had occurred in the last month prior to the individuals' suicide. These were coded as motor vehicle accidents, arrest for a DUI, child molestation charges, shoplifting, prescription drug use, and other. Relationship problems related to any relational concern that greatly impacted the emotional well-being of the individual. These were coded as documented conflicts/domestic violence, separation or estrangement, divorce, or other. Health problems referred to any formally diagnosed medical concern that was documented in the coroner's records. These included heart issues, obesity, chronic pain, back issues, multiple sclerosis, seizures, diabetes, cancer, and an additional category for other unspecified conditions. Recent visits to medical professionals were coded if they had occurred within the two weeks prior to the suicide. These were categorized into emergency room visits, general practitioner appointments,

and specialist appointments. The number of visits that occurred in the two week period was also recorded.

Mental health diagnoses were recorded if they had been formally diagnosed and were documented in the coroner's records. These were coded as depression, schizoaffective disorders, bipolar disorder, borderline, and ADHD. Previous attempts were coded only if they were formally documented attempts. This number was then recorded by the researchers, as was the number of previous attempts or completions by close family members. Communication of intent included any verbal or written communication to another person or via social networking of suicidal ideation or intent. This information came primarily from the supplementary reports in the case files. Communication of intent was simply coded as present or not. Researchers also recorded if a suicide note was left by the victim.

Researchers also thoroughly examined the presence of controlled substances in the victim at time of death and the abuse histories of controlled substances. Prescription medications were coded into drug classes for presence at time of death. These categories included antidepressants, muscle relaxants, opiate agonists, analgesics, opioid analgesics, anti-psychotics, anti-seizure, benzodiazepines, antihistamine, beta-blockers, high blood pressure, sedative-hypnotics, antibiotics, antiarrhythmics, calcium channel blockers, and NSAIDs. Illegal drugs were coded into methamphetamine, THC, cocaine, opium, and many/others. These medications were also coded into common combination categories for individuals who were taking multiple medications. Alcohol and tobacco use at time of death were also coded as present or not present.

Results

Due to the descriptive nature of this study the majority of the results consisted of frequency counts of specific variables as described in the coding sections of this document.

Results for method of lethal means showed that overdoses were the most common at 39% (n=33) of all cases. This was followed by gunshot wounds at 31% (n=26), hangings at 14% (n=12), asphyxia at 6% (n=5), stab wounds at 4% (n=3), chemical poisonings at 2% (n=2), and fall-related trauma at 1% (n=1). Gender breakdowns of method of lethal means showed that men were more likely to use guns (n=22 for males and n=4 for females) and hanging (n=9 for males and n=3 for females). Further results showed that overdoses accounted for 41% of male deaths, but 66% of female deaths. Females also only used five total methods across years, whereas men used eight methods across years.

Analyses of risk factors showed varied results. 24% (n=21) of individuals were using alcohol at time of death with 29% (n=25) of individuals having a history of alcohol abuse. 27% (n=23) of victims had monetary concerns. 32% (n=27) had relationship concerns. 33% (n=28) had at least one medical illness at time of death. 32% (n=27) had recently visited a medical professional. 21% (n=18) had made at least one previous suicide attempt. 43% (n=37) had communicated intent prior to their death. 6% (n=5) had a family member commit suicide. 43% (n=37) had a formal mental health diagnosis. 17% (n=15) left a suicide note at their time of injury.

One focus of this particular series of analyses was the use of prescription medication in overdose victims. Of the individuals who died of an overdose 63% (n=21) used an opioid, 21% (n=7) used an antidepressant, and 16% (n=5) used Tramadol. It is important to note that these percentages reflect the drugs with the highest concentration at time of death. All overdose victims used at least two medications in their overdose. The most common combinations were opioid/benzodiazepines at 18% (n=8) and opioid/antidepressants at 12% (n=4). Of the

individuals that used opioids, 81% (n=13) used one opioid drug, 19% (n=4) used more than one opioid with some using as many as three opioid medications at one time.

28% (n=24) of individuals who died were taking at least one antidepressant at time of death. This percentage is especially relevant when considered in conjunction with the percentage of mental health diagnoses seen in these groups. 35% (n=30) were formally diagnosed with a depressive disorder, 3% (n=3) were diagnosed with bipolar disorder, and 3% (n=3) were diagnosed with a psychotic disorder.

43% of individuals who died were taking at least one opioid at time of death. This is also interesting given that only 14% (n=12) of individuals were diagnosed with chronic pain, the most common diagnosis associated with opioid prescriptions.

Illegal drug use was surprisingly uncommon with only 14% (n=13) individuals having these substances in their system at time of death. 65% (n=56) of individuals did not have any illegal substances in their system. 4% (n=4) of individuals were using methamphetamine, 6% (n=6) were using THC, 2% (n=2) were using cocaine, and 1% (n=1) were using some other illegal drug. 64% (n=55) of individuals did not have a history of illegal drug use. 7% (n=6) had a history of methamphetamine use, 3% (n=3) had a history of THC use, 1% (n=1) had a history of cocaine use, and 4% (n=4) had a history of using some other illegal drug.

Discussion

The results of this study yield some important information for both clinical suicidology and community prevention. The majority of the results keep with the literature in the distribution of age, gender, and method of lethal means. There does seem to be a decrease in the polarization between the use of highly lethal means such as guns and hangings between males and females. Overdoses are also becoming more equally distributed between males and females. While a

higher percentage of women are still choosing overdoses, men are choosing it with an increased frequency. Prevention efforts must begin to address these changes in the method choices across age ranges and gender.

Risk factors also provide insight into the common triggers for suicidal actions. One would expect high percentages of issues with relationship issues, monetary concerns, and legal troubles within suicide victims. Relational issues seem to remain the most likely to be related to suicidal ideation, as relationships are directly tied to one's sense of self-worth and sense of belonging in the world. Legal issues were incredibly low, with only those showing particularly severe legal issues such as a recent arrest or felony charges being even marginally related to suicide completions.

Surprisingly, this data did not show any particularly strong relation between suicide and economic issues such as unemployment. Given the recent downturn in the economy, many experts were concerned about the effects job loss would have on suicide rates. While a fair number of individuals were unemployed, there was certainly not a substantial change in the number of suicides or the number of those that died who were employed over that past several years. This seems to suggest that the economy does not play a particularly large role in the suicide rates within the county as a whole.

While these variables were certainly a concern with a fair percentage of individuals, it does seem to support the idea that suicidal individuals are most strongly affected by their own internal sense of failure or worthlessness. External factors should perhaps be focused on as warning signs for suicidal ideation, but taken in conjunction with a person's own sense of efficacy in their life.

The prescription drug overdoses are perhaps the most concerning portion of this study. The number of opioid medications that suicidal individuals have access to is particularly concerning. Opioid medications such as oxycotin are well-known for their addictive properties and lethality in high doses. Unfortunately, many of these people have access to high quantities of opiates as well as other prescription medications. When these are taken in combination it is nearly impossible to avoid fatalities. This issue becomes even more pronounced when one sees the number of individuals with documented chronic pain conditions. Many individuals are prescribed opioids for conditions other than chronic pain now. Doctors seem much more willing to prescribe these types of medications without proper follow up with patients. There also seems to be a lack of willingness to ensure that patients are not receiving these medications from multiple physicians as is common with individuals with substance abuse issues. This crossover between suicidal individuals and those with opioid addiction is an issue that has not yet been thoroughly evaluated in the literature. Additional research needs to evaluate the treatment of these individuals and ensure that physicians prescribing such powerful medications take the mental health of their patients into account.

Limitations

The information presented in this study is certainly worthwhile for bettering the understanding of suicidal individuals. Unfortunately, several areas could have been improved upon to increase the overall generalizability and power of these results. The most important of these is the large amount of missing data within the coroner's records. It is nearly impossible to have consistent information across cases for an entire year. Autopsies and toxicology analyses are not performed on every person who dies. There are also several deputy coroners who write the supplementary reports. While information tends to be fairly consistent in these reports, there

are still individual differences between these reports that make it difficult to gather the same information from each case.

These results are also limited because of the number of years covered by the analyses. Due to time constraints, researchers did not have the opportunity to view data from the five years originally planned for the study. Therefore, trend analyses could not be completed to evaluate how suicide rates have changed over the past few years. Future studies should seek to examine changes in lethal methods, gender, age, and risk factors over the course of the last decade. This will assist in creating better prevention efforts and educating people more thoroughly about the many risks and warning signs associated with death by suicide.

Conclusion

Ultimately, the goal of all research endeavors in suicidality is to prevent future deaths. By learning more about completed suicides and the events contributing to a person's choice to die, researchers hope to target at-risk populations to get those people the help they need. With an increased appreciation for the struggles of suicidal individuals, clinicians and social workers will be more capable of assisting and preventing suicidal actions. One can hope that with continued research and prevention efforts we can stop this tragic loss of human life.

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