

The Psychological Autopsy: Solving the Mysteries of Death

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During the late 1950s, the Los Angeles County Coroner's office was faced with an increasing number of drug-related fatalities in which they had difficulty determining whether the death was accidental or resulted from a suicide [1]. In an attempt to solve these mysteries, a collaboration emerged between the Los Angeles County Coroner's office and the Los Angeles Suicide Prevention Center [2]. As a result of their joint efforts, this team developed a more focused evaluation of the deceased's life and emotional state before their death. E.S. Shneidman, cofounder of the LA Suicide Prevention Center [1], coined the term "psychological autopsy" to describe this post-death evaluation process. He defined a psychological autopsy as "nothing less than a thorough retrospective investigation of the intention of the decedent" [1]. Because psychological autopsies commonly are requested, mental health professionals must have a thorough understanding of this type of forensic evaluation before beginning their assessment. This article assists the investigator by reviewing key terms and concepts, describing common categories of equivocal deaths, discussing various methodologies used, and highlighting relevant types of litigation.

The evaluator conducting a psychological autopsy should consider carefully the following six concepts during their retrospective investigation: (1) cause, (2) mode, (3) motive, (4) intent, (5) lethality, and (6) sane versus insane suicide. *Cause* explains how the person actually died. Examples of potential causes of death include a single gunshot wound to the head, a crush injury from a car accident, or a massive heart attack. Although the cause of death may be clear to the coroner, the mode of death is often more ambiguous.

Mode refers to the circumstances that lead to the cause of death. In determining mode, the evaluator may find it helpful to classify the death according to the acronym NASH, which stands for *natural, accidental, suicide, or homicide* [1]. In 5% to 20% of death cases reviewed by the medical examiner (coroner),

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the mode of death is unclear [1]. To illustrate this principle, consider the following vignette described by Ebert [3]:

Mr. Nash was an avid sky diver who paid meticulous attention to his sport and had hundreds of successful jumps under his belt. One day his parachute fails to release and he plummets hundreds of feet to his death below. A subsequent inquiry reveals that Mr. Nash was a successful businessman facing indictment charges for fraud and embezzlement. His partner had uncovered this scheme and was angry because he also stood to lose a great deal of money. As the scandal unfolded and Mr. Nash faced criminal charges, he began expressing severe insomnia and anxiety and was heard telling others that his life was over. His physician reported that Mr. Nash had independent risk factors for an eventual myocardial infarction as he suffered from high blood pressure and elevated cholesterol.

In this case, the cause of death is clear, because the autopsy notes massive crush injuries to Mr. Nash's body. But what was the mode of death? Using the NASH criteria helps focus this question. Did Mr. Nash die from *natural* causes caused by his suffering a massive heart attack in midair, thereby preventing him from opening his parachute? Was this simply an unfortunate *accident* that resulted from a defective parachute? Did Mr. Nash commit *suicide* and make a choice to end his life to avoid the personal humiliation? Or was this perhaps a *homicide* resulting from an angry business partner who substituted a faulty parachute to ensure his partner's death? The psychological autopsy plays a critical role in determining the mode of death and solving this important riddle.

If the mode of death is determined a suicide, *motive* addresses why the decedent committed suicide. When determining a person's motive, the examiner attempts to understand the reasons or events that prompted the individual to act. In many suicides, the motive is unknown and must be inferred from the available evidence [4,5]. To assist in the examiner's investigation of the deceased's motive, Shneidman [1] recommends careful review of the following three questions:

- Why did the individual do it?
- What were their reasons?
- Why at this particular time?

In contrast to motive, *intent* represents the resolve of an individual in carrying out consciously or unconsciously their death. In their retrospective psychological study of 134 consecutive suicides during a 1-year period, Robins and colleagues [6] evaluated how and to whom people communicated their suicidal ideations. Researchers also examined the frequency, chronology, and temporal relationship of such communications before the person's death. Key findings by Robins and colleagues [6] regarding communications of suicide victims included:

- Sixty-nine percent had communicated their intent to commit suicide. The exchanges were repeatedly verbalized and expressed to many different persons.

- In three quarters of the cases, the expression of suicidal intent was of recent onset and atypical for the individual.
- Ninety-eight percent of these people were almost certainly clinically ill before their suicides.
- The frequency of expression of suicidal ideas was not significantly related to age, sex, marital status, religion, living alone, clinical diagnosis, occupational status, income, or education.

Understanding a person's intent is facilitated by reviewing the degree of lethality, or risk-taking, involved in the suicidal behavior [7]. Shneidman noted that *lethality* represents the probability that an individual will successfully kill themselves in the immediate future. He divided the degree of lethality into high, medium, low, and absent, though he did not provide precise classification criteria for these categories. According to Shneidman, high lethality represents an unequivocal decision that an individual makes to kill him or herself. A self-inflicted gunshot wound to the head while alone at home without the opportunity for rescue represents an example of a highly lethal method of suicide. Medium lethality refers to a situation in which the individual played an important role in hastening their own death through conscious or unconscious actions. Examples provided by Shneidman of medium lethality include disregarding lifesaving medical treatment, potentially lethal use of drugs or alcohol, and participating in high-risk behaviors that tempt fate. Shneidman defines low lethality as occurring when the person plays some "small but not insignificant role in effecting or hastening his own demise." Finally, absent lethality indicates that the individual played no role in causing their own death and instead the evidence indicates that the decedent wished to live [1].

Determining whether a death resulted from a *sane versus insane suicide* is linked closely to the evaluation of the person's intent to take their own life. A "sane" suicide indicates that the person had a rational understanding that an action he or she took would result in his or her own death. In contrast, an "insane" suicide occurs when a person is so emotionally disturbed that they do not rationally appreciate the relationship of their actions in causing their death. To illustrate the concept of an insane suicide, consider the following case example.

Mr. G is a 38 year old man who delusionally believes he has divine powers and as such is immortal and cannot be killed. To prove this belief, he shoots himself in the head with a revolver. Although Mr. G may have understood that he was pulling the trigger of a loaded weapon, if his delusional beliefs prevented him from understanding that he would die as a result of this gunshot wound, his death could be determined an insane suicide [8].

In *Mutual Life Insurance Company v. Terry* [9], the US Supreme Court provided further guidance regarding how courts might distinguish a sane versus an insane suicide. In this case, George Terry had purchased a life insurance policy that excluded coverage for beneficiaries if he "took his life by his own hand." Before his death he heard rumors that his wife Mary had been unfaithful to

him. His friends reported that when he told them of his wife's suspected infidelity, he would burst into explosions of laughter without any apparent cause. He was described as highly excited and in a distressed state of mind. He eventually purchased arsenic, telling the shopkeeper that he wished to kill mice, while at the same time inquiring if the amount of arsenic was sufficient to kill a man. He subsequently was found dead from an overdose of the arsenic that he had purchased. Although Mary Terry was named as the beneficiary of Mr. Terry's life insurance policy, Mutual Life Insurance Company of New York refused to pay her any amount because her husband had died by his own hand, thus rendering the policy null and void. Ms. Terry sued to recover the sum of \$2000, arguing that her husband was "insane" at the time of his death, and therefore the policy should remain valid under this circumstance [9].

When the case was heard in a Kansas Circuit Court, the court refused to provide the jury with instructions requested by the insurance company that emphasized that a consideration of insanity was immaterial, because Mr. Terry had sufficient capacity to understand the nature of the act he was about to commit and its consequences. On appeal, the US Supreme Court was asked to provide guidelines for distinguishing a sane versus insane suicide. In considering this question, the Supreme Court recognized that the concept of insanity was relevant in determining criminal responsibility and the validity of a contested will, and therefore should be considered in this case. The Court held that a suicide is deemed sane when the "assured, being in the possession of his ordinary reasoning faculties, from anger, pride, jealousy, or a desire to escape from the ills of life, intentionally takes his own life" [9]. The Court defined an insane suicide when they wrote:

If the death is caused by the voluntary act of the assured, he knowing and intending that his death shall be the result of his act, but when his reasoning faculties are so far impaired that he is not able to understand the moral character, the general nature, consequences, and effect of the act he is about to commit, or when he is impelled thereto by an insane impulse, which he has not the power to resist, such death is not within the contemplation of the parties to the contract, and the insurer is liable [9].

Although the Court noted that they did not have sufficient evidence to determine whether Mr. Terry was sane or insane at the time of his death, they provided a standard that allowed courts to consider the relationship of one's emotional state even when there was no disagreement that the person took their own life. As a consequence, in those jurisdictions in which insane suicides are not excluded specifically from coverage, the psychological autopsy may require a special focus on the severity of the person's emotional state, the relationship of this state to appreciating the consequences of self harm, and the power to resist suicidal impulses. Such a determination may have significant financial consequences for surviving beneficiaries.

EQUIVOCAL DEATH SCENARIOS

Dr. Shneidman and his colleagues envisioned the use of the psychological autopsy in circumstances in which the mode of death was equivocal in nature [1]. Such equivocal deaths include drug overdoses, autoerotic asphyxia, suicide by cop, vehicular suicides, and Russian roulette. A brief discussion of each of these situations is provided.

Drug-related Deaths

The mode of death may be particularly difficult to determine in drug-related fatalities. To better understand the prevalence and types of drug-related deaths in the United States, the Substance Abuse and Mental Health Services Administration (SAMHSA) evaluates data collected in 35 metropolitan areas and six states by the Drug Abuse Warning Network (DAWN). DAWN is a public health surveillance system that monitors drug-related deaths investigated by medical examiners and coroners and drug-related visits to hospital emergency departments. The seven DAWN case types are classified as deaths by suicide, adverse reaction, accidental ingestion, and deaths involving “drug misuse or abuse” defined as homicide by drug, overmedication, all other accidental, and those deaths that cannot be determined. Key findings from those jurisdictions participating in the 2003 DAWN survey include the following [10]:

- Drug misuse or abuse deaths were more common than drug-related suicide deaths.
- The rate of drug misuse deaths was 2.4 times higher in men than women.
- Drug misuse deaths among children and adolescents (age 6–20 years) were infrequent.
- Drug misuse deaths more frequently involved an opiate/opioid than any other drug.
- Drug-related suicide deaths were more diverse than drug misuse deaths in gender and age.

The results of the 2003 DAWN survey revealed that researchers were unable to classify the cause of drug-related deaths in a large number of cases. For example, 75% of drug-related deaths in Maryland and more than 90% in Utah were classified as “could not be determined” [10]. These findings highlight the continued importance of psychological autopsies in assisting the coroner and interested parties in determining the mode of death in drug-related fatalities.

Autoerotic Asphyxia

Autoerotic asphyxia (also called sexual asphyxia or hypoxiphilic behavior) is a sexual practice in which the person seeks to induce cerebral hypoxia to produce a profound sexual euphoria. Conservative estimates suggest that 500 to 1000 deaths occur annually as a result of autoerotic asphyxia [11]. The most common mechanism to reduce oxygen flow to the brain involves the person placing a noose around their neck [11–16]. Other methods to produce oxygen deprivation outlined by Uva [17] include a ligature around the abdomen

[12,18] or thorax [16,19], plastic bags [12,20–22], use of an electric current [14,23,24], inhaling chemicals [12,25], gasoline [26], anesthetics such as nitrites [22,27], partial or total immersion in water [28], use of a wet suit [29], power hydraulics [30], self strangulation [31], and automobile [32]. In evaluating these cases, the examiner typically finds some type of mechanism in place so that the person will not die as a result of asphyxiation. Unfortunately such devices often fail and render the person unconscious, leaving them unable to escape [17].

Victims of autoerotic asphyxia are typically young, as demonstrated by Hazelwood's study of 157 suspected autoerotic fatalities in which 71% of the victims were younger than age 30 years [12]. Hazelwood's research also described numerous clues for the evaluator to consider when determining if the death was accidental in the context of autoerotic asphyxia or was an intended suicide. Factors suggestive of autoerotic asphyxia death are outlined in Box 1 [12].

Autoerotic asphyxia does occur in women but is rare. In a sample of 157 suspected autoerotic fatalities, only 4.6% were women [33]. Byard and colleagues' comparison of death scene features in fatal male and female autoerotic asphyxia noted that in contrast to male victims, bizarre props, pornography, devices to cause pain, or unusual attire were rarely or never found in female victims. The most common death scene scenario was a dead woman with a ligature around her neck [33]. Because female autoerotic victims typically have fewer obvious associated sexual features at the death scene than male victims, the medical examiner must consider carefully the possibility of a suicide, homicide, or rape. Rape kits should be used routinely in female victims of hypoxia [34]. Evidence suggesting homicidal strangulation includes bruises, cuts, and abrasions on the victim inflicted by an assailant or by the victim attempting to remove the assailant's hand or murder weapon with self-injury resulting [34]. Female victims of autoerotic asphyxia are not expected to have injuries to the anus or perineum or lacerations, which are physical signs more commonly observed in rape or

Box 1: Characteristics of an autoerotic death scene [12]

1. Isolated location
2. Victim's body partially supported by ground
3. Injurious agent such as a ligature present
4. Self-rescue mechanism such as slip knot or knife
5. Bondage items with sexual significance
6. Sexual masochistic behavior to genitals, nipples, other body parts
7. Male wearing female attire
8. Protective padding between ligature and body
9. Sexual paraphernalia such as dildo or vibrator
10. Props such as mirrors or pornography
11. Evidence of previous experience with autoerotic asphyxia

sodomy [35]. Finally, as with all suspicious deaths, the examiner should test for the presence of substances (such as alcohol or a date rape drug) that may have weakened the victim's resolve [19].

Adolescents also participate in autoerotic asphyxia and in contrast to adults are more likely to take part in this activity alone, less likely to appreciate the risk for death associated with self-induced hypoxia [36], and less likely to have comorbid depression and suicidality [37]. In adolescent deaths resulting from self-induced hypoxia, examiners also should consider the possibility that the youth may have been involved in a risky game of self-induced hypoxia referred to as the choking game, the fainting game, the passout game, space monkey, suffocation roulette, space cowboy, and blackout [38]. Through this thrill-seeking behavior, adolescents often are seeking an altered level of consciousness for the purpose of achieving pleasure that may or may not involve any type of sexual stimulation [39]. Warning signs that a youth is playing this choking game include suspicious marks or bruises on the child's neck hidden by clothing or a turned up collar, a flushed face with no apparent cause, a rope or belt discovered near the child without a reasonable explanation, and complaints of headache reported by the youth [38].

Suicide by Cop

The phrase "suicide by cop" refers to behaviors by an individual intended to provoke a law enforcement officer to use lethal force that results in the person's death. In a study of more than 430 exchanges of fire between police and a suspect over a 10-year period in Los Angeles County, researchers classified 10.5% of the cases suicide-by-cop situations [40].

In their review of 15 deaths of suicidal persons who provoked law enforcement officers into killing them, Wilson and colleagues described the following 10 characteristics [41]:

1. All incidents were perceived as life-threatening to law officers and witnesses.
2. Fourteen of the victims were male, 13 were Caucasian, and the mean age was 32 years.
3. All verbally threatened homicide and resisted arrest.
4. Two thirds of the victims took hostages.
5. All victims possessed a handgun or other weapon.
6. All victims posed or used their weapon during the incident.
7. Sixty percent used the weapon with the intent to harm others.
8. Forty percent were intoxicated with alcohol.
9. Forty percent had documented psychiatric diagnoses and 60% had evidence of psychiatric illness.
10. Depression and substance abuse were the most common psychiatric diagnoses.

In their review of the literature, Mohandie and Meloy [42] outlined verbal and behavioral clues indicating risk for suicide-by-cop that may be helpful when conducting a psychological autopsy. Twelve verbal clues associated

with a suicide-by-cop situation included the suspect demanding authorities to kill them, threatening to kill or harm others, wanting to “go out in a blaze of glory,” giving a verbal will, telling hostages or others they want to die, looking for a “macho” way out, offering to surrender to the person in charge, indicating elaborate plans of their own death, expressing feelings of hopelessness/helplessness, emphasizing that jail is not an option, and making biblical references, particularly to the Book of Revelations and Resurrections. Behavioral clues to suicide-by-cop risk include being demonstrative with a weapon, pointing a weapon at police, clearing a threshold in a barricade situation to fire a weapon, shooting at police, reaching for a weapon with police present, attaching a weapon to their body, giving a countdown to kill hostages with police present, assaulting or harming hostages with police present, forcing confrontation with police, advancing on police when told to stop, calling police to report a crime in progress, continuing hopeless acts of aggression even after incapacitation by gunfire, self-mutilating with police present, pointing a weapon at self with police present, refusing to negotiate, not making any escape demands, and getting intoxicated [42].

Vehicular Suicides

More than 40,000 deaths from automobile accidents in the United States were recorded by the Centers for Disease Control (CDC) in 2002 [43]. An automobile serves as the ideal weapon for a suicide. A car is readily available, potentially lethal, and a tragic car accident can mask the intent of a suicidal individual [44,45]. Suicide by automobile also may be desirable because of the belief that death comes swiftly and insurance benefits will be awarded to beneficiaries [46]. The extent of vehicular suicide in the United States is unknown; however, it is estimated that suicides represent 1.6% to 15% of all vehicular fatalities, and single-car, single-occupant crashes are especially suspect [47]. Precipitating factors reported among vehicular suicide include interpersonal problems, a history of psychiatric hospitalization, prior suicide attempts, depression and personality disorders, financial hardships, and alcohol [44,48–52]. In their review of the literature, Boglioli and colleagues identified the following factors as suggestive of a possible motor vehicle suicide [44,53–57]:

- History of psychiatric treatment
- Previous suicide attempts
- Suicide note or communication of suicidal intent to others
- One-vehicle collision with the middle of a fixed roadside object
- Accelerator pedal mark on shoe
- Absence of skid marks
- Witnessed acceleration into oncoming traffic
- Simultaneous use of other methods, such as alcohol or drug overdoses

Russian Roulette

Russian roulette, as defined by Merriam-Webster’s Collegiate Dictionary, 11th Edition, is a “deadly game of chance in which a person spins the cylinder of

a revolver holding only one bullet, aims the gun at his head, and pulls the trigger” [58]. Russian roulette represents the ultimate game of chance involving a gamble with death and the testing of fate, combined with an air of bravado [59].

Men are significantly more likely to die from playing Russian roulette than are women, even when the greater tendency of men to commit suicide by firearms is taken into account [59]. Fishbain and colleagues compared 20 persons (19 men and 1 woman) who died playing Russian roulette to 95 male suicide victims who died by gunshot wound not inflicted while playing Russian roulette. Their findings may help forensic examiners in determining if the victim’s death was an accident from high risk-taking behavior versus a serious intent to die from a gunshot wound. In particular, Russian roulette victims were significantly less likely to leave a suicide note, to die in the morning, to die in the bedroom, or to die alone. Russian roulette victims, however, were significantly more likely than non-Russian roulette gunshot victims to have alcohol or drugs in their body fluids and to have a previous history of drug or alcohol abuse. Fishbain and colleagues noted that 57.8% of Russian roulette victims fired more than once, 26.3% had played the game previously, and 15.7% loaded more than one bullet into the gun [59].

Adolescence is a development period particularly associated with risk-taking behavior. When querying adolescents about their participation in playing Russian roulette, Denny [60] discovered an alarmingly high positive response rate. In his combined sample of adolescents from an inpatient psychiatric hospital and a juvenile detention center, more than 20% of respondents reported having played Russian roulette, and players included males and females, most of whom were using drugs or alcohol at the time they played the game. Because of this high reported rate of adolescent participation in Russian roulette, clinicians should query their adolescent clients routinely regarding this practice to provide education to the youth and to help prevent unnecessary tragic deaths.

METHODOLOGY

How is a psychological autopsy conducted? A review of the literature indicates that various techniques are used to conduct psychological autopsies. These various techniques are described.

The Shneidman Technique

Dr. Edwin S. Shneidman has been credited with coining the term “psychological autopsy,” and his methodology involves a qualitative approach that provides loose guidelines for the examiner to follow. He described his method of interviewing survivors as a “mixture of conversation, interview, emotional support, general questions, and a good deal of listening” [1]. Dr. Shneidman emphasized that as part of the psychological autopsy, the investigator attempts to reconstruct the lifestyle of the victim, paying particular attention to the period of time immediately preceding the death. Shneidman suggested 16 criteria to review when conducting a psychological autopsy and stressed that these criteria should not

serve as a rigid structure, but rather as a set of general guidelines for the investigator to consider. The Shneidman criteria are listed in Box 2 [1].

Operational Criteria for the Determination of Suicide

In contrast to the Shneidman criteria, the CDC used a more scientific approach in their retrospective review of deaths, with an eye toward creating an assessment instrument that was reliable and valid. To improve evaluators' accuracy when determining the mode of death, the CDC convened a working group of representatives from various professional groups to include coroners, medical examiners, statisticians, and public health organizations. The goal of this project was to develop more accurate suicide statistics that could assist in policy development and research efforts designed to lower suicide rates. This group of professionals, named the Working Group on Determination and Reporting of Suicide, established 22 criteria to be investigated during the course of a psychological autopsy. These criteria became known as the Operational Criteria for the Determination of Suicide (OCDS) and subsequently were published to assist forensic investigators in their review of deaths [61]. These criteria were conceptualized as clarifying two main aspects of an equivocal death: self-infliction and intentionality, with the victim's actual intent considered the more difficult facet of the two to determine [61].

Empirical Criteria for the Determination of Suicide

Three years after the development of the OCDS, investigators combined the 22 OCDS criteria with 33 additional criteria gleaned from the existing literature to produce the 55-item Death Investigation Checklist. Using empirical methods, researchers established the Empirical Criteria for the Determination of Suicide

Box 2: Shneidman criteria for the psychological autopsy [1]

1. Basic identifying information (such as age, gender, marital status, occupation)
2. Specific details of the death
3. Outline of the victim's history to include previous suicide attempts
4. Family psychiatric history (ie, suicides and mood disorders)
5. The victim's personality and lifestyle characteristics
6. The victim's historical pattern of reaction to stress and emotional lability
7. Recent stressors or anticipated conflicts
8. Relation of alcohol and drugs to the victim's lifestyle and death
9. Quality of the victim's interpersonal relationships
10. Changes in the victim's routine, schedule, and habits before death
11. Information relating to the "lifeside" of the victim (ie, successes and plans)
12. Rating of lethality
13. Reaction of informants to victim's death
14. Assessment of suicidal intention

(ECDS) by selecting those items that best correlated with self-infliction and suicidal intention. The resultant ECDS, a 16-criteria instrument, contains a scoring system that produces total scores for self-infliction and intention. Investigators tested the accuracy of the ECDS by asking 70 medical examiners to apply the criteria to 126 recent deaths that included suicide and accidents. The ECDS was found to have predicted 100% of the previously certified suicides and 83% of the previously certified accidents [62]. The ECDS criteria are listed in Box 3.

Military

In 2002, the Department of Defense (DoD) published a proposed model for psychological autopsies, including a model curriculum, report format, and peer review [63]. When discussing a rationale for the model, Ritchie and Gelles cite a mandate given by the Attorney General in 1996 requiring all of the armed services to standardize psychological autopsies [63]. This mandate followed the controversial and high profile death of a US Navy sailor aboard the ship *USS Iowa*. In this case, the Federal Bureau of Investigation (FBI) conducted an investigation into a 1989 explosion killing seven sailors aboard the

Box 3: Empirical Criteria for the Determination of Suicide (ECDS) [62]

1. Pathological (autopsy) evidence indicates self-inflicted death.
2. Toxicologic evidence indicates self-inflicted harm.
3. Statements by witnesses indicate self-inflicted death.
4. Investigatory evidence (eg, police reports, photos from scene) indicate self-inflicted death.
5. Psychologic evidence (observed behavior, lifestyle, personality) indicates self-inflicted death.
6. States of the deceased indicate self-inflicted death.
7. Evidence that decedent recognized high potential lethality of means of death.
8. Decedent had suicidal thoughts.
9. Decedent had recent and sudden change in affect (emotions).
10. Decedent had experienced serious depression or mental disorder.
11. Decedent had made an expression of farewell, indicated desire to die, or acknowledged impending death.
12. Decedent had made an expression of hopelessness.
13. Decedent had experienced stressful events or significant losses (actual or threatened).
14. Decedent had experienced general instability in immediate family.
15. Decedent had recent interpersonal conflicts.
16. Decedent had history of generally poor physical health.

USS Iowa. The resultant psychological autopsy concluded that the explosion was the result of a young sailor sabotaging a gun turret in an act of suicide-homicide. Following objections by the young man's family to these findings, the US House of Representatives Armed Services Committee arranged for 12 psychologists to review the methodology and findings associated with the psychological autopsy that was conducted. Most of the panel criticized the methods and conclusions used by the FBI in their investigation, resulting in the FBI's withdrawal of their original findings. As a consequence of the concerns raised by the review panel, the DoD standardized the methodology used when evaluating equivocal military deaths [64].

INFORMATION GATHERING

Whatever methodology is chosen, each requires extensive information gathering. Two major sources of information include survivor interviews and review of collateral records [65]. Personal interviews with family members, friends, and other individuals close to the victim are considered an extremely important information source. Collateral records that should be reviewed whenever possible include the victim's psychiatric, medical, employment, and academic records, and suicide notes, personal journals, and computer hard drives. Other documents that may be relevant include police reports, toxicology reports, autopsy reports, insurance police records, or the deceased's last will and testament.

Interview of collateral sources require sensitivity to the survivor's emotional condition. Researchers have examined the most effective time to contact survivors when arranging a collateral interview. Runeson and Beskow found that survivors were more satisfied when the interviews were conducted within 10 weeks of the death [66]. Although survivor satisfaction is higher if the interview is conducted in the weeks following the death, Brent found no significant relationship between the timing of the interview and the actual information gained from informants when interviews were conducted 2 to 6 months following the event [67]. Regardless of the timing of the interview, evaluators should avoid arranging interview appointments on key dates, such as birthdays or the anniversary of the death.

What is the most effective way to approach survivors initially? The evidence seems divided on this question. Beskow found contacting survivors directly by telephone, followed by a letter, allowed the investigator to gauge the response of the survivor, thereby resulting in lower rejection rates [68]. Conversely, Brent achieved a 77% acceptance rate by contacting survivors by a letter followed by a phone call [67]. If a letter is sent to a survivor, the evaluator should use personalized terms, such as "your son" or "your husband," rather than "the deceased," because such sensitivities assist in interview compliance [69]. Whether contacting the person first by letter or phone call, the evaluator should not request the individual to complete a detailed personality questionnaire of the deceased. Such requests are likely to result in negative reactions from interviewees, thereby potentially jeopardizing the communication of valuable information [70].

Research indicates that when conducting the actual interview, the evaluator should address the issue of the victim's death during the early phase of the interview to decrease the anxiety for the interviewee [69]. Examiners also should be sensitive to language they use in reference to the deceased. For example, Cooper found that survivors preferred the term "sudden death" to "suicide," because many individuals interviewed did not believe or accept that their loved one's death resulted from a suicide [69].

LITIGATION AND PSYCHOLOGICAL AUTOPSIES

The psychological autopsy has applications in many aspects of civil and criminal litigation. **Box 4** provides a list of some of the legal areas in which a retrospective analysis of death is useful [71].

The court (ie, judge) determines whether or not the information gleaned from a psychological autopsy is admitted into evidence. The forensic psychiatrist should understand the actual standard for admissibility of evidence in their jurisdiction to prepare for possible questioning regarding the methodology of their analysis. Whatever standard is used, the likelihood that results from a psychological autopsy are admitted into evidence improves significantly when the methodology used is reliable and valid. Various courts have accepted psychological autopsies into evidence in civil and criminal litigation, as described.

Civil Litigation

A psychological autopsy usually is requested in civil litigation when a question arises regarding whether benefits are to be awarded to the deceased's estate or to the surviving beneficiaries. Although the 1889 inheritance case of *Riggs v. Palmer* did not involve the use of a psychological autopsy, this civil litigation case nevertheless provides an interesting historical precedent for subsequent

Box 4: Areas of potential litigation following death from unclear reasons [71]

1. Life, health, or disability benefits from insurance policies that allow financial recovery for accidents but not suicides
2. Homeowners' policies that exclude coverage for intentionally violent acts
3. Legal actions related to worker's compensation benefits
4. Malpractice actions alleging suicide
5. Product liability claims
6. Motor vehicle insurance claims
7. Contested wills
8. Awarding of military benefits to surviving family
9. Criminal prosecution in which homicide by a third party versus suicide of the decedent is alleged
10. Determination if death from police intervention was suicide-by-cop

cases that do. Elmer E. Palmer was a 16-year-old boy who poisoned to death his grandfather when he learned that his grandfather was planning to change his will in a way unfavorable to young Elmer. Although Elmer murdered his grandfather, he insisted that he should nevertheless receive his grandfather's inheritance, because his grandfather died before changing the will. The grandfather's two daughters sued Elmer, arguing that he should not benefit financially from his willful murder. The New York Court of Appeals agreed with the two daughters and held that "no one should be allowed to profit by his own fraud" [72].

Although a psychological autopsy was unnecessary in the case of Mr. Palmer because of his clear motive and rational state of mind, what if he had killed his grandfather in a delusional psychotic state as opposed to murdering him to profit from his grandfather's will? What if he had then committed suicide after murdering his grandfather? Should his grandfather's assets become part of his estate? Such a question arose in 1964, when John Bobula killed his wife and then committed suicide. In this New York case, a psychological autopsy was requested to evaluate if the deceased Mr. Bobula would have met the criminal test for insanity had he lived and been tried for his crime. The court ruled that if Mr. Bobula was found "insane" at the time he murdered his wife and killed himself, his wife's assets should be included in his estate [73]. Goldstein refers to this analysis as a "post-mortem insanity defense," wherein a killer's estate may profit from his homicide-suicide if the "spirit" of the killer is found not guilty by reason of insanity [74].

Life insurance payments following a person's death represent another civil litigation arena ripe for legal challenge. Many life insurance policies contain a suicide clause that prohibits payment of benefits if death results from suicide within a specified time period (usually 2 years). As described previously in the case of *Mutual Life Insurance Company v. Terry*, some insurance policies allow payment to beneficiaries only if the suicide is determined an "insane suicide" [9]. Worker's compensation litigation is a third type of civil litigation in which a psychological autopsy may be helpful in determining the mindset of the deceased before benefits may be awarded. Under worker's compensation policies, the employee or surviving beneficiaries receive financial damages for injuries sustained by the worker on the job. As with inheritance and life insurance payments, the evaluator conducting the psychological autopsy may be asked to distinguish if the deceased employee was sane or insane when he took his life. In some jurisdictions, an "insane" suicide breaks the chain of causation, thereby releasing the employer from liability for financial damages to surviving beneficiaries. Courts have allowed psychological autopsies into evidence in worker's compensation cases to help determine the relationship, if any, between the employee's work situation and their ultimate death [75,76].

Criminal Litigation

Psychological autopsies also have been used to evaluate the mental state of a deceased victim to assess more fully the culpability of a criminal defendant.

The case of *US v. St. Jean* represents a criminal case in which a psychological autopsy was requested to help determine whether a man accused of murdering his wife was falsely accused, in the event his wife's death was instead a suicide. In this interesting case, Lieutenant St. Jean called 911 from his home, stating, "My wife has committed suicide," after he allegedly found his wife dead in the bathroom with a handgun in the nearby sink. Although he gave numerous inconsistent statements regarding his use of the weapon, he persisted in placing his wife's death in her own hands. To help rebut his assertion that his wife committed suicide, the prosecution requested Dr. William Grant to conduct a psychological autopsy of the deceased wife. At trial, Dr. Grant testified that the victim did not fit the profile of a suicidal individual. St. Jean was convicted, and although he challenged the admittance of the psychological autopsy into evidence, the appellate court upheld the conviction [77].

Results from psychological autopsies also may be allowed in cases involving criminal child abuse. *Jackson v. State* is a frequently cited case in which a psychological autopsy examined the relationship between a mother's alleged abusive behavior and her daughter's subsequent suicide. In this case, a mother altered her daughter's birth certificate so that her 17-year-old daughter could work as a nude dancer in a nightclub. The teenager subsequently shot herself and a psychiatrist was prepared to testify that the mother's behavior was a substantial factor in the daughter's suicide. Although the defense argued that psychological autopsies were not reliable and therefore not admissible, the court reasoned that the jury could determine the reliability of this testimony and allowed the psychological autopsy results into evidence. Dr. Douglas Jacobs, a psychiatrist specializing in suicidology, testified that the abusive relationship with the mother was a substantial contributing cause to the teenager's suicide. The mother was found guilty of child abuse and this verdict was challenged. A Florida appellate court held that the state had presented sufficient evidence to establish that psychological autopsies examining suicides had gained acceptance in the field of psychiatry and the trial judge did not err in allowing the psychiatrist's testimony [78].

SUMMARY

The psychological autopsy is an important assessment tool used to identify aspects of a person's life that explain any lingering mystery that shrouds their death. In addition to answering questions of the past, the psychological autopsy has significant implications for the future. Statistics obtained from mortality data affect the course of health care research, the flow of resources, and ultimately public health policy. From a public health perspective, the misclassification of suicides as accidents or deaths from natural causes can negatively affect research funding and policy development related to suicide prevention efforts, making a standardized and accurate procedure imperative. Although the psychological autopsy was developed initially as a tool to assist the coroner in clarifying the cause of death, this procedure has transcended the confines of

forensic science and has applications in the many arenas of litigation and public health policy.

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