Do 90% of Suicide Victims Really have Serious Mental Illness?

A Commentary on Psychological Autopsy Suicide Studies

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Abstract

For more than fifty years the psychological autopsy (PA) has been used in suicide research. The most common application is to determine the incidence of diagnosable psychiatric disorders in suicide victims. This long line of studies has consistently found that about ninety percent of the decedents who were the subjects of such inquiries had signs of mental illness around the time of death based on interviews of those who knew them in life. This finding is widely cited in the professional literature to such an extent that it almost seems to be axiomatic. As a result, mental illness appears to overshadow other suicide risk factors. Individuals with mental illness have a high risk of suicide but this may be because of exposure to many other risk factors. PA-based studies of suicide victims have received little critical attention. Here they are examined in terms of the reliability of informants, the methodology, the feasibility of diagnosis by proxy, other data, and new theories of suicide. The psychological autopsy may be misused and overused in documenting psychopathology in suicide victims, but it remains a practical design for gathering less subjective background information.

Anyone who turns to the suicide prevention literature for insight on the topic of suicide and mental illness will quickly encounter this statement in some form: Ninety percent of suicide victims had a psychiatric disorder (e.g., Goldsmith et al., 2002;.Litts et al., 2008; American Foundation for Suicide Prevention, 2014) The implication of this contention is almost causal in nature. Mental illness has been shown to be a factor in suicide, but "the relative importance of mental disorders compared to social strains is not fully clear" (Stack, 2014). Be this as it may, the prominence of the association between psychiatric disorders and suicide is pervasive in suicide prevention, and has become very much a part of the conversation about suicide. For this reason, more attention should be given to how mental illness came to be seen as being so prevalent among suicide victims.

Where did the 90% figure come from?

The conclusion that ninety percent of suicide victims suffered from some form of mental illness is the product of "psychological autopsies" (AKA "follow-back studies") of suicide victims involving inquiries among their survivors. This methodology was originally developed as a procedure to resolve equivocal deaths in the US. These arise when the cause of death is known but the mode is not immediately clear and it is uncertain if it should be classified as a suicide (Shneidman, 1981). A psychological autopsy attempts to develop a profile of a victim from accounts gathered through interviews with family members, friends, co-workers, and other contacts (Litman, 1989). Medical examiner's and coroner's reports and other documentation may also be included in psychological autopsies.

Along the way their purpose narrowed. They became a "structured interview by a trained investigator" to "produce a psychological biography that creates a pathway to death" (Berman, 2013). The purpose of these "assessments in absentia" is try to reconstruct a victim's thoughts, feelings, and behaviors before the suicide (Clark & Horton-Deutsch, 1992). This methodology was first used with suicide cases in a 1959 study in which more than ninety percent of the victims were determined to be mentally ill at the time of death (Robbins et al., 1959). Similar subsequent research "established that more than 90% of completed suicides have suffered from usually co-morbid mental disorders" (Isometsa, 2001). Consequently it is "now generally accepted that 90%...of suicides have one or more psychiatric disorders…." (Roy, 2001)

Psychological autopsies so strongly joined suicide to pre-existing mental illness that one study saw it necessary to determine why mental illness had not been found in the other ten percent of suicides (Ernst et al., 2004). The authors concluded it was because researchers had simply "failed to detect" the signs of mental illness that must have been present. In other words, it may be assumed that fully one-hundred percent of suicide victims could be found to manifest signs and symptoms of psychiatric disorder if the researchers were more careful. Another explanation is that all suicide victims are mentally ill but in some symptoms are simply not sufficiently strong to support a formal psychiatric diagnosis (Joiner, 2005).

Issues with informants

A key issue with retrospective studies is the scope and depth of the informants' recollections. Shaffer (1988) points out that psychological autopsies are inherently limited to what the informant had opportunity to directly observe. Lichter (1981) saw psychological autopsies as open to bias and hearsay information. The effect of traumatic loss and bereavement on informants who were close relatives or friends of a suicide victim as well as the amount of time that may have elapsed between the death and the interview may be factors that affect the accuracy of the responses (Jacobs & Klein, 1993).

Concern has been expressed on how participation in a psychological autopsy may affect informants who are "suicide survivors" (Beskow et al., 1990). Those closest to the suicide victim in life may also very probably be severely traumatized by the loss and the circumstances in which it may have occurred (Cvinar, 2005). Behavioral science has not defined the timeframe for recovering from a suicide. Nonetheless psychological autopsy researchers do not hesitate to try to enlist the recently bereaved as informants. It has even been suggested that being an interviewee may be beneficial because it gives families to talk about the loss, unburden themselves of any guilt they might feel, and receive referrals to support groups (Henry & Greenfield, 2009).

The very nature of suicide bereavement raises questions about the reliability of suicide survivors in identifying signs and symptoms of possible mental illness in someone they cared about. Three potentially complicating aspects of suicide loss identified in the literature are: (i) the struggle to understand why the suicide happened; (ii) feelings of responsibility for not preventing the suicide; and (iii) negative sentiment towards the victims (Jordan, 2001). Any of these could color the survivor-informant's recall. Suicide survivors may seize upon mental

illness as an explanation for a loss that may be otherwise unexplainable. Attributing mental illness to the victim may lighten the burden of guilt that some may feel.

Suicide survivors are reported to experience self-stigmatization because of their relationship to the victims and to even question their own mental health (Jordan, 2001; Dunn & Morrish-Vidners, 1987). If many suicide survivors agonize over missing the warning signs of suicide in their family member or friend it may be asked how they can help in making a psychiatric diagnosis. There is also the possibility of projection. Studies of suicide survivors have found that they were more likely than controls to have histories of psychiatric disorders and to have close relatives with mental illness (McIntosh, 1993).

Concerns about the methodology

The prevailing view of the psychological autopsy in suicide studies may be that it has few methodological issues or only minor ones (Cavanaugh et al., 2003). This research modality has been described as "highly rigorous, population-based studies…invaluable…in verifying causal hypotheses" that are "generalizable to the population" (Mosciciki, 1997). Assessments such as this gave impetus to this growing stream of research, enhanced the credibility of its results, and possibly discouraged even constructive criticism.

Pouliot & De Leo (2006) offered a critique that identified a number of shortcomings with psychological autopsy suicide research, the most serious of which was an absence of standardization. Nonetheless these authors did not question this approach or the findings produced to date. A test of the validity of proxy reports concluded that they best captured actual suicidal behavior but they were not as useful in regard to data such as emotional support (Connor et al., 2001). The victim's ideation, threats, or past attempts were found to stand out more vividly than the emotions that may have drove them. This may be the proper area of inquiry for this type of study.

A comprehensive 2012 review asked: "Is it really possible to assign psychiatric diagnoses to someone who is dead by interviewing someone else?" (Hjelmeland et al., 2012) Concerns about interviewer and respondent bias, timing of the inquiry, and how mental illness was identified were raised. The authors concluded that it is impossible to diagnose the deceased by proxy and that psychological autopsy studies cannot "serve as an evidence base for the claim that most people who die by suicide are mentally ill." This objection seems to have been overlooked as the number of mutually supportive psychological autopsy reports mounted.

Psychological autopsies are vulnerable to "confirmatory bias." If the purpose is to try to make a psychiatric diagnosis, researchers may give more attention to responses indicating signs of mental illness than those that do not (Rogers & Lester, 2010). Perhaps the high incidence of mental illness found in suicide victims by psychological autopsies comes close to a self-fulfilling prophecy. Objectivity might be better assured if the study were not narrowly focused on a specific suicide risk factor. This is supported by a review of the psychological autopsy as a forensic tool in determining "proximate cause" in regard to malpractice suits and other legal cases. It was found to have utility in identifying "the role of a variety of factors in bringing about a suicidal death" (Jacobs & Klein-Benheim, 1996). If its use is not constricted it is "the

best method available to study the detailed characteristics of suicide victims" (Jacobs & Klein-Benheim, 1996).

The "notable finding" of psychological autopsy suicide research yielding "similarity of results over four decades of investigation" has been pointed out (Maris et al., 2000), but this remarkable track record is not questioned because "it does not appear that the…method significantly overestimates the presence of disorder." As a result of this record, and regardless of any lingering methodological concerns, this finding is now an "established 'truth' among suicidologists" (Hjelmeland et al., 2012). It has such strength that it satisfies the definition of an "iron law" in being a "principle that is incontrovertible and inexorable" (Merriam-Webster, 2004).

The nature of a psychiatric evaluation

Psychological autopsies purport to be able to establish a psychiatric diagnosis ex post facto. There are many studies that have validated this capability (e.g., Brent et al., 2007). However, psychiatric diagnoses are customarily performed in the course of communication between two living beings (even when telepsychiatry is used). In practice, psychiatric diagnoses are the product of an individual clinical interview by a psychiatrist or other clinician with the necessary skills. The clinical interview is how the personal problems and symptoms used to formulate a psychiatric diagnosis are identified.

The essence of this process is that it at least involves the actual person on whom the diagnosis is to be made. It begins with a "doctor-patient relationship" that is the context for (i) eliciting personal information about emotions, feelings, attitudes, and relationships, (ii) sorting, testing, and prioritizing of this information, and (iii) arriving at a diagnosis (McCready, 1986). A psychiatric diagnosis is not, however, the result of simply taking a clinical history; it involves determining how the individual is affected by her or his history. This does not seem derivable from someone else's memories however strong or an interviewer's skills or tools.

Psychiatric interviews are intended to be comprehensive and multidimensional. The American Psychiatric Association (2013) has guidelines outlining the scope of a psychiatric evaluation. One facet of the evaluation is the "Mental Status Examination" that looks at personal appearance, speech, affect, behavior, stream of thought, and other items that require first-hand observation. A psychiatric diagnosis is the outcome of a highly structured assessment process that even when done "by the book" is still a clinical judgment call. While "real time" psychiatric evaluations may incorporate collateral sources they are never solely based on such sources as are psychological autopsies.

Some countervailing data

The Centers for Disease Control and Prevention's (2014a) National Violent Death Reporting System (NVDRS), has collected data on suicide from multiple sources from sixteen states in the US. There are four principal sources of data: death certificates, medical examiner and coroner reports, law enforcement reports, and vital statistics records. There are no interviews of family or friends. NVDRS data may include information on mental health

problems and treatment, recent employment problems, finances, interpersonal relationships; physical health problems; and the means and circumstances of death.

In 2008, of 9276 suicides on which data was compiled, approximately 45.4% had a diagnosed mental illness at death. The NVDRS has found that "mental health problems were the most common circumstances among suicide decedents" in the US. However, the incidence in a very large population of victims is half that routinely reported by psychological autopsy studies. Though not yet nationally representative, the NVDRS culls data from a larger and far more consistent source than any psychological autopsy. NVDRS data in the incidence of psychiatric diagnoses in suicide victims at the time of their deaths has been available for several years and its usefulness in suicide prevention planning has been highlighted, but psychological autopsy studies far overshadow it as a primary source for exploring the suicide-mental illness link. This may change after NVDRS data includes 32 states (Centers for Disease Control, 2014b).

The US public sector also conducts large scale population surveys that ask about suicidal behavior. One is the National Survey on Drug Use and Health (NSDUH) administered under the Substance Abuse and Mental Health Services Administration (SAMHSA). In 2004-05 the NSDUH asked a national sample of adults age 18 and older about depressive episodes and suicidal behavior (Substance Abuse and Mental Health Services Administration, 2006). During their worst or most recent depressive episode just over one-half thought it would be better if they were dead, two-fifths had suicidal ideation, and one-fourth made a suicide plan or an attempt. The latter group must be considered at very high risk, but does not come close to the proportion of suicide completers found to have a psychiatric disorder in psychological autopsies. Depression does not represent the totality of psychiatric disorders, but in some form it is the diagnosis most given in psychological autopsies (Hjelmeland, 2012). It has been suggested that suicide attempters and completers are two different populations for reasons such as males typically account for more of the latter while females comprise most of the former (Maris et al., 2000). Perhaps one further difference is that mental illness has a more deleterious effect on those individuals going on to make fatal attempts.

What do the new suicide theories have to say?

The "Interpersonal Psychological Theory of Suicide" proposes that a potentially fatal suicide attempt requires: (1) a strong belief that one is a liability and not fulfilling expectations, (2) a deep sense of loneliness and isolation; and (3) a sense of fearlessness about lethal self-harm (Joiner, 2005). These beliefs may commonly occur in those with serious mental illness, but the theory does not assign primacy to mental illness as the reason why people die by suicide. According to this theory, the capability for making a suicide attempt emerges, via inurement to repeated physically painful or fear-inducing behaviors or experiences, which reduce the innate drive for self-preservation. Joiner explicitly observes that "mental illness alone does not provide a satisfying explanation for suicide because mental illness is much more common than suicide." Life experiences common to those with serious mental illness, such as loss of self-esteem, weakened or failed social supports, self-injury, exposure to violence, disability, among others, contribute to a sense of burdensomeness, a lack of social

connectiveness, and an acquired capability for lethal self-harm. These are the elements that place an individual at grave risk of suicide.

The "Integrated Motivational-Volitional Model" sees a suicide attempt as the outcome of a three-phased process — premotivational, motivational, and volitional (O'Connor, 2011). An individual may progress from low to high danger of suicide through the interplay of fixed risk factors, triggers, ideation, intent, formation of a plan, and attempting suicide. An individual may progress from low suicide risk to high risk through the interplay of fixed background factors (e.g., gender or mental illness), triggers (e.g., a recent loss), ideation, intent, formation of a plan, and completion of the plan to commit suicide. At the premotivational phase, an individual has serious risk factors for suicide but is not suicidal. These include financial problems, legal issues, divorce or other interpersonal conflicts, substance abuse, and mental illness. Strong self-criticism, negative self-appraisal, and a sense of failure in meeting one's expectations often emerge at this stage. All are preconditions for the possible onset of suicidality. The motivational phase begins with suicidal ideation and ends with a specific plan. Intent to die appears in this phase, and the person communicates this by voice, text, or some other method. The individual is suicidal, at high risk, and possibly moving toward a suicide attempt, but has not set a plan in motion. In the volitional phase, the individual's suicide plan is underway and death may be imminent. There is a resolute commitment to terminating one's life per a specific plan. The person has established means and the capability for lethal self-harm is operational. The individual is at or nearing the point of no return. In this theory, mental illness may be a risk factor at the premotivational phase, but it may be only one of many present and any or all may be preconditions for suicidality.

These two theories acknowledge that mental illness plays a role in the onset of suicidality, but do not position it as a principal driver. Suicide is seen as the outcome of a complex, multifactorial process involving the interplay of many variables rather than just a byproduct of mental illness. These theories would seem to readily lend themselves to research using the psychological autopsy method to search out evidence of burdensomeness, social disconnectiveness, and acquired capability for lethal self-harm in a suicide victim's life or the passage from the pre-motivational to the motivational and volitional stages.

How are mental illness and suicide related?

Mental illness is a strong risk factor for suicide. This was confirmed by a 1997 meta-analysis of well over two hundred studies of suicides of patients with a known diagnosis that found that almost all psychiatric disorders conferred an increased risk of suicide (Harris and Barraclough, 1997). These findings were confirmed by a more recent meta-review (Chesney et al., 2014). A review of studies published between 1959-2001 of suicide victims with and without a psychiatric hospitalization "showed that 98% of those who committed suicide had a diagnosable mental disorder" (Bertolete et al., 2002). A related study found that mood disorder diagnoses predominated and were attributed to just less than one-third of the suicide victims (Bertolete et al., 2004). These findings do not mean that almost every suicide victim had a diagnosable mental illness or at least appeared to prior to her or his death.

Many factors can add to suicide risk, and those for one person may not be so for another. Each may have an array of risk factors, and they may act and interact differently from person to person. This is the case with psychiatric disorders, which may add to suicide risk, but have "little predictive power and…do not account for why people try to kill themselves" (O'Connor & Nock, 2014). The proper perspective to take seems to be that "a psychiatric disorder is generally a necessary but insufficient condition for suicide" (Mann et al., 1999). The overstating of the role of mental illness in suicides has skewed the perception of its place as a stressor. This can be corrected by turning to the Stress-Diathesis Model that attempted to specifically explain suicidal behavior in individuals with psychiatric disorder and situates mental illness as the source of stress which interacts individual characteristics (Mann et al., 1999).

In its well-received publication, *Preventing Suicide: A Global Imperative* the World Health Organization (2014) includes "only people with mental disorders are suicidal" among the "myths of suicide." WHO explicitly notes that "not all people who take their own lives have a mental disorder." WHO seems to go on to perpetuate this very myth (with some socioeconomic limitation) by stating: "In high-income countries, mental disorders are present in up to 90% of people who die by suicide, and among the 10% without clear diagnoses, psychiatric symptoms resemble those of people who die by suicide."

Concluding comments

These final points may be made about the use of the psychological autopsy in suicide research in finding signs of psychopathology in suicide victims:

- Psychological autopsies originated as a tool for equivocal death investigations without a singular focus on psychopathology and were later adopted to make psychiatric diagnoses on samples of suicide victims.
- Suicide survivors are the main informants for psychological autopsies but the trauma, the emotional effects of their loss, and other factors may compromise the validity of their responses.
- As psychological autopsy studies came to specifically target signs of mental illness in suicide victims through proxies they may have inadvertently found what they were seeking by only looking in one area of the victims' lives.
- Despite ever greater methodological rigor, psychological autopsies remain a poor surrogate for a psychiatric evaluation based on a first-hand exchange between the diagnostician and the person to be evaluated.
- "Hard data" from the NVDRS confirms the presence of mental illness among US suicide victims but to a far lesser extent than that found through psychological autopsies.
- New theoretical conceptions of suicide as a process do not assign prominence to mental illness (but psychological autopsies could prove useful in ferreting out the life events that these theories see as underlying the emergence of serious suicide risk).

Psychological autopsies remain a practical research strategy for use in gathering information about the background, actions, and experiences of suicide victims but should not be restricted

to trying to define their mental states. As such they might be better termed "psychosocial autopsies."

However, even if the findings of psychological autopsies are taken at face value three questions come to mind:

1. What difference have these studies and their findings made in either the behavioral health or suicide prevention fields?
2. Have they increased awareness of suicide risk among providers serving individuals with mental illness?
3. Have they driven implementation of evidence-based suicide prevention programs to address this risk?

These questions have not been given attention in the suicide prevention literature. They should be weighed before drawing on psychological autopsy studies to buttress the case for mental illness as the overarching risk factor for suicide or asserting that ninety percent of suicide victims had a psychiatric disorder.

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