Suicide Studies, 2023, 4(1))
ISSN 2771-3415

Editorial Board:

John F Gunn, III PhD
David Lester, PhD

Contents

Murder-suicide: a review: David Lester **2-41**

Suicide Studies, 2023, 4(1), 2-41.

MURDER-SUICIDE: A REVIEW

David Lester

Abstract: Research on murder-suicide is reviewed, and it is concluded that the research has been quite poor, often simple descriptive samples being presented. Although a several variables that might impact murder-suicide have been studied, these variables have rarely been combined in multivariate analyses. Detailed psychological autopsy studies (with controls) have not appeared. The importance of typologies for meaningful research is stressed. Finally, a detailed life history of one murder-suicide perpetrator is presented which is possible only because the perpetrator was a famous person.

Traditionally, murder and suicide are viewed as opposed behavior. Under stress, people may direct their anger and aggression outwardly, becoming violent toward others, or inwardly, becoming violent toward themselves. Henry and Short (1954) cast murder and suicide as opposed behaviors both sociologically and psychologically. For example, if people have external sources to blame for their misery, then they are more likely to aggress outwardly whereas, if they have no external sources to blame for their misery, then they will blame themselves and become depressed and suicidal. At the psychological level, Henry and Short proposed that experience of physical punishment will increase the likelihood in later life of outwardly directed aggression, whereas experience of love-oriented punishment will increase the likelihood of depression and suicidal behavior later in life. Edwin Shneidman often described suicide as murder in the 180th degree.

Lester (1987) reviewed the sociological and psychological research on this idea and, although he found some support for this proposition, not all of the studies supported this proposal. At the sociological level, the higher the quality of life in regions (both countries and states of the USA) the higher the quality of life, the higher the suicide rate and the lower the homicide rate. At the psychological level, one study reported that suicidal psychiatric patients were more violent than non-suicidal psychiatric patients (Myers & Neal, 1987).

Confounding this polarity, there are behaviors that are mixtures of suicide and murder. For example, Meerloo (1962) described the behavior of *psychic*

homicide in which one person commits murder by encouraging another to die by suicide. More commonly, however, there are those individuals who kill others and then, shortly thereafter, die by suicide, thereby showing aggression directed outwardly and inwardly at the same time. The present paper reviews the research on murder-suicide to explore what research has found for this behavior.

The Incidence of Murder-Suicide[1]

The incidence of murder-suicide varies greatly by country. Many years ago, Wolfgang (1958b) in his study of murder in Philadelphia reported that 4% of the murderers died by suicide. In Hong Kong, Wong and Singer (1973) reported that 5% of murderers died by suicide. In Finland, Virkkunen (1974) reported that about 1,000 suicides occurred each year (in the period of 1955 to 1970), about 100 homicides and about 8 murder-suicides. The rate of murder-suicide was the same in urban and rural areas. In the Netherlands, from 1992 to 2006, the annual incidence of murder-suicide was 0.02 to 0.07 per 100,000 per year (Liem, et al., 2009). In Iceland from 1946 to 1970, there were only 19 murderers, and of these 16% died by suicide and 11 percent attempted suicide.

In India in 2014, Reddy, et al. (2016) found that 1.7% of homicides were murder suicides. The murder-suicides were most often motivated by domestic disputes and infidelity, followed by financial stress and debts. Chan, et al. (2004) reported a murder-suicide rate in Hong Kong from 1989-1998 of 0.09 per 100,000 per year, roughly 7% of all homicides. Compared to murder-suicide in western countries, the murder-suicides in Hong Kong were more often motivated by economic issues, less often were killings involving elderly couples, an infrequent use of firearms, and more child victims (aged 1-18).

In Tours, France, with a homicide rate of 1.55 per 100,000 per year, the murder-suicide rate was 0.19 (Saint-Martin, et al., 2008). Sturup and Caman (2015) noted that, in Sweden, 5.5% of homicides involved murder-suicide, with a rate of 0.05.[2] In contrast to these low rates, in an old study, West (1966) reported that 33% of murderers died by suicide in England.

Wolfgang's study on murder-suicide in Philadelphia is perhaps appropriate

---

[1] This review will focus on typical murder-suicide and ignore, on the whole, unusual types of murder-suicide. Unusual types include an airline pilot dying by suicide while flying a passenger airplane and killing all the passengers (Soubrier, 2016), a passenger killing the pilot resulting in a plane crash (Kenedi, et al., 2016), and dying by suicide by driving a car into a head-on collision and killing those in the other vehicle (Pridmore, et al., 2017).

[2] I assume that this rate is per year. They studied a three-year period.

only to the era and the region. Lester (1995) noted that murder-suicide was rare in the United States. The rate in America is about 0.2 per 100,000 per year (compared to a total murder rate of about 9). People who murder relatives or lovers are more likely to die by suicide, as are mothers who murder their children. Murder-suicide pacts, in which one person kills another (with their consent) and then dies by suicide are also very rare, accounting for no more than 0.7 percent of all suicides. In the United States from 1968 to 1975, Bridges and Lester (2011) identified 123,467 homicides including 2215 murder-suicides (1.8%). The murder-suicide rate was 0.134 per 100,000 per year.

National Differences

Liem, et al. (2011) compared murder-suicides using national data sets for the Netherlands, Switzerland and the United States. The suicide rate was highest in Switzerland while the homicide rate and rate of murder-suicide was highest in the United States. In the Netherlands, a child victim was more common and an intimate partner less common. Incidents involving multiple victims were less common in the United States. The use of firearms was less common in the Netherlands, but the location was similar in all three countries. Overall, however, murder-suicides were more likely to involve a female victim, multiple victims, take place in a residential setting, and the use of a a firearm than were other murders.

Simple Descriptions of Samples of Murder-Suicides

Many reports of murder-suicides simply report the incidence of murder-suicide and descriptive statistics of the modal case. Typically, men murder women and then die by suicide as a result of interpersonal stress (separation, divorce, infidelity) after a history of male-perpetrated domestic violence. Simple descriptions have appeared from the Caribbean (Emmanuel & Campbell, 2012), Ghana (Adinkrah, 2014), Fiji (Adinkrah 2003), Italy (Verzeletti, et al., 2014), and the United States (Palermo, et al., 1997). Although some of these samples are small, occasionally unique patterns emerge. For example, in ten murder-suicides in Fiji (Adinkrah, 2003), 50% were by women, 90% were Fiji Indians, and none used a firearm.

The United States

In the United States from 1968 to 1975, Bridges and Lester (2011) identified 123,467 homicides including 2,215 murder-suicides (1.8%). The murder-suicide victims were more likely to be killed with a gun and more often were females than

was the case for homicides in general. The family unit was involved in 75% of the murder-suicides and more so than for homicides in general. Murder during a felony was less common in the murder-suicides. The highest percentage of murder-suicide victims were children aged 5-9 (8.7%). A similar report was published by Logan, et al. (2008).

In Kentucky from 1985-1990, 6% of the homicides and 1% of the suicides were murder-suicides (Anon, 1991). The rate of murder-suicide was 0.3 - 0.27 in whites and 0.34 in blacks. Perpetrators were primarily male, mean age 41, while victims were primarily female, mean age 35. Ninety-two percent were intra-racial, and in 96% of the cases the perpetrator and victim were known to each other. Seventy percent of the perpetrators were husbands, ex-husbands or ex-boyfriends, and 45% of them were intoxicated with alcohol or drugs or both.

In Chicago, Stack (1997) found that murder-suicide was more likely than simple murder if the victim was a child/spouse/ex-lover/friend, a white victim, a white offender, a female victim, an older offender and a male offender.

Hanzlick and Koponen (1994) found that the modal murderer in Fulton County (Georgia) was male, black, using a firearm and 34 years old, while the modal victim was female, spouse or lover, of same race and 28 years old.

Wilson, et al. (1995) compared murderers of spouse and children with murderers of spouses or children only in a combined Canadian and English data set. More of the familicides were men and completed suicide after the murder than the uxoricides and the filicides.

In Cuyahoga County in Ohio from 1970-1985, Kratcoski (1990) found that, of 179 suicides over the age of 60, 9% had died by suicide after murdering another. All were husbands who had murdered wives, some of whom were terminally ill. Regoeczi and Gilson (2018) studied 100 murder-suicides, also in Cuyahoga County in Ohio, and classified them into Marzuk's typology (Marzuk, et al., 1992). Amorous jealousy was present in 52% of the cases, and mercy killings in only 8%. Interestingly, witnesses were present in 30% of the cases, but no data were reported on how these differed from murder-suicides with no witnesses.

Other Countries

Australia

McPhredan, et al. (2018) found that murder-suicides took place more often in residential settings than did murders and suicides, the perpetrators were more often married, more often not in the labor force, and more often involved in domestic violence. Overall, the murder-suicide perpetrators were similar in some respects to suicides (e.g., in mental health and in substance abuse), and less similar to the murderers. Milroy, et al. (1997) found that typical murder-suicide had a male assailant aged 30-39 who shot a spouse/lover aged 30-49.

Canada

Buteau, et al. (1993) found a murder-suicide rate in Quebec (Canada) in 1988-1990 of 0.18 as compared with a murder rates of 2.35 and a suicide rate of 13.13. The murderer-suicides were primarily men, under the age of 40, using firearms, with recent marital separation and mental disorder. They killed spouses (32%), children under the age of 14 (35%) and strangers (23%).

China

Densley, et al. (2017) studied murder-suicide cases in China based on newspaper reports. They found that murder–suicide offenders were typically married males living in rural cities who killed their intimate partners and/or children at home using knives. Intimate partner conflict and extramarital affairs were precipitating factors in almost half of the incidents. Interestingly, 29% of the suicides occurred more than 24 hours after the murder. This is a variable rarely reported or studied.

England

In England from 1887-1990, Danson and Sotthill (1996) found that *The Times* reported 2274 murders, of which 6% were murder-suicides. Most murder-suicides were family affairs with male murderers. Men killed wives and lovers more, while women killed children more. Males also more often killed strangers.

In England, Milroy (1993) found that 5%-10% of murders were followed by suicide. These incidents usually were male assailants killing spouses, followed by child victims. Shooting was the most common method. Milroy (1995a) noted that the typical English murder-suicide involved a male assailant murdering a spouse, after a breakdown in their relationship.

Italy

Roma, et al. (2012) studied 662 cases of murder-suicide in Italy. The majority of murderers were male (85%), using a firearm, and motivated by romantic jealousy or economic stress. The average rate was 0.04 per 100,000 per year.

Japan

Kominato, et al. (1997) found that the majority of murder-suicides in one region of Japan involved family violence, primarily by men killing wives and/or children.

Sakuta (1995) described the modal case as a parent killing a child, at home, between 2 am and 10 am, with the assailant in the 30s, depressed, healthy, married, suffering from illness or economic hardship, and impulsive. The victim was a healthy child. About half of the murderers were women, and about half left wills.

The Netherlands

Liem, et al. (2009, 2010) studied 103 murder-suicides in the Netherlands. The majority involved intimate partners (50%), followed by child victims (18%) and extra-familial victims (13%). The majority (79%) involved one victim, and female victims ((68%). Females were the victims in 90% of the uxoricides, 46% of the children killed, and 31% of the extra-familial victims. Firearms were used most (36%) followed by knives (27%) and strangulation (18%). Compared to ordinary homicides, murder-suicides occurred more often occurred in the home, less often in urban areas, more often using a firearm, and with a child, female and Dutch victim, with the victim younger than the murderer. Compared to suicides, the suicides were more often female, were older, and more often Dutch. The suicides were less often in urban areas and less often used firearms for the act.

South Africa

Jena, et al. (2009) studied cases of murder-suicide in Pretoria, South Africa. The modal case involved a young, single, black male shooting his girl-friend and himself at home, followed by an older, married, white male shooting himself and his wife at home. The rate of murder-suicide was 1.0 per 100,000 per year.

Roberts, et al. (2010) studied murder-suicides in Durban and found that the modal case was black man murdering a woman, using a firearm. Employment in the security forces was over-represented in the murderers (305). The rate was 0.89 per 100,000 per year.

Sweden

In northern Sweden, Lindqvist and Gustafsson (1995) found that 16 of 156 murders were followed by the murderer dying by suicide. These murder-suicides were primarily men, with long-standing friction (usually marital) with victims known to the murderer. Thirteen of the murderers died by suicide within an hour of the murder and using the same method.

Somander and Rammer (1991) studied child victims of murder. Those whose murderers also died by suicide more often involved multiple victims, females killing children only or males killing wives and children, and these murderers less often had a criminal record or drug/alcohol abuse.

Regoeczi, et al. (2016) compared murder-suicides in Sweden with murder-suicides in one county in Ohio (USA). Murder-suicides in the two countries did not differ in the number of victims, victim sex, murderer sex, or witnesses present. The Swedish cases more often had victims under the age of 18 and older murderers, less often had alcohol or drugs present in the murderer and also psychiatric problems, less often used a gun, and less often had domestic violence present.

Switzerland

Shiferaw, et al. (2010) studied 50 years of murder-suicides in Switzerland. The typical murder-suicide was a man murdering a spouse or intimate partner or a child, using a firearm, and at the family residence.

Typologies

It is meaningless to discuss murder-suicide without a typology. For example, a husband murdering his wife and then dying by suicide after a history of domestic violence is very different from an elderly man killing his ailing wife as an act of mercy and then killing himself or from a mass murdering killing many strangers before killing himself.

An early typology based on murderer-victim relationship and motive was proposed by Marzuk, et al. (1992). Their categories were: spouse/intimate partner, familial and extra-familial. For familial, they proposed neonaticide (child < 24 hours old), infanticide (child under the age of 1), pedicide (child under the age of 16) and adult. For motive, they proposed

- Amorous jealousy

- Mercy killing (declining health)
- Altruistic
- Family financial or social stressors
- Retaliation
- Other

Aderibigbe (1997) also classified American murder-suicides in the United States from 1990 to 1995 into a typology for murder-suicide using the victim-murderer relationship. The most common types were fathers murdering children, spouses murdering each other, lovers murdering consorts and murderers killing extra-familial victims. Murders by mothers were less common than murders by fathers, and murders of children under the age of 16 were rare. Perpetrators were most often male and used firearms.

Knoll and Hatters-Friedman (2015) conducted psychological autopsies on 18 homicide-suicide cases in Dallas, Texas, and proposed the following typology:

- Intimate-possessive: mainly depressed men, abusing substances and undergoing separation.
- Intimate ailing: men seeking relief from physical illness or debt.
- Filial revenge: parents killing a child to seek revenge on their spouses.
- Familial or friend psychotic: murder-suicide by a psychotic individual.

Felthous and Hempel (1995) suggested two possible bases for a typology of murder-suicides.

- Psychiatric disorder: depression, sociopathy, psychosis, alcoholism, paranoia[3]
- Relationship: spouse/lover [possessive], spouse/intimate [ailing], adversarial [employee], filial, familial, pseudo-commandos, cult.

Hostile versus Non-Hostile Murder-Suicides

Chan (2007) compared murder-suicides in Hong Kong in which anger at the victim was clearly present with non-hostile murder-suicides (delusional altruistic murders or mercy killings). The hostile murder-suicides more often involved spouses/lovers and strangers and less often child victims and multiple victims. The non-hostile murderers more often had physical and mental problems (including

[3] They also included jealousy, but that is not a psychiatric disorder.

psychosis), more often had financial problems, and less often had relationship problems. Their relationships more often had mutual affection and less often confrontational or love-hate. The non-hostile murderers were more often female and more often suffered from depression. They used different methods for the murder (more often gas or poison and less often stabbing) and more often used the same method for their suicide as for the murder.

Although Chan based his typology on the presence of hostility, the type of murder-suicide also differed, for example, the non-hostile murder-suicides were more often parents killing children and more often mercy killings. Therefore, that typology may be preferable to Chan's hostile/non-hostile.

Joiner's Typology of Perversions

Joiner (2014) saw murder-suicide perpetrators as narcissists with distorted thoughts that the perpetrators sometimes viewed as virtues, but which Joiner labelled as *perversions*. *Perversion of mercy* applied, for example, to mothers who killed their children in order to spare their children future suffering before dying by suicide. *Perversion of duty* aims to prevent placing future burden on others of caring for the victim as, for example, when an elderly person plans to die by suicide and wants to eliminate the burden for others of taking care of a spouse. *Perversion of justice* aims to punish those that the perpetrator holds as responsible for his or her suffering, as in many workplace murder-suicides and those occurring when a spouse or lover rejects the murderer in some (by leaving or by being unfaithful). *Perversion of glory* is motivated by a desire to be remembered either in glory or in infamy as, for example, in suicide terrorists and mass murderers.

Comment

With more than one basis for a typology, there may be, of course, associations between the types. For example, those killing an ailing spouse may also have a depressive disorder. Clearly, more research needs to be conducted on typologies, their bases and their interactions.

Distal Variables

Some studies report on general samples of murder suicides without indicating that they chose one type of murder-suicide. However, the research does examine variables that might impact murder-suicide, and they compare murder-suicides with simple murders and suicides.

Age

Adolescent Murderers

Adhia, et al. (2020) studied adolescent and young adult murder-suicides (28 years old or younger) using a national data base for the United States (National Violent Death Reporting System: NVDRS). They identified 47 murderers with 56 victims. The modal murderer was a black non-Hispanic, male 18-20 years old, using a handgun, in a house or apartment, and involved in an argument at the time of the murder. Intimate partner violence was identified in 44% of the murders, with legal issues involved in 35%, and a break-up in 44%. Psychiatric problems were identified in 28% of the murderers. The modal victim was white, female 12-20 years old, and an intimate partner (41%). Twenty of 47 cases could not be categorized. Of the remaining 17 cases, 11 were perversion of self-control, 8 were perversions of justice and one was a perversion of mercy, using Joiner's (2014) typology.

Elderly Murderers

Salari (2007) studied 225 murder-suicides where at least one of the pair was over the age of 60. Typically, the murderer was man using a firearm in the home. Only 123 of the couples had health problems (30% of these the murderer, 34% the victim and 36% both). Dementia was present in 7.5% of the victims, but "rarely" in the murderers. In cases where the motive was apparent, 74% were judged to be primarily suicidal and 24% primarily murderous. Only 4% were clearly suicide pact cases. Salari noted that the suicide notes, if written, were either self-centered (narcissistic) or blamed the victim.

Bourget, et al. (2010) studied 27 elderly murderers in Quebec, Canada. The majority of the victims were spouses (85%). Data were absent for many of the cases, but several victims had pre-existing medical illnesses, and some of the murders had a psychiatric disorder, primarily depression. Domestic violence was documented in only 30% of the murder-suicides where data were available (5 out of 17 cases). Nineteen ((70%) of the murders were followed by suicidal behavior. Thirteen were completed suicides and five others attempted suicide. Eleven of the 19 murder-suicides left suicide notes. Thirteen of the murder-suicide perpetrators had a major depression and two others a different psychiatric disorder.

A Comparison of Age Groups

Salari and Sillito (2016) compared murder-suicides committed by those aged 18-44, 45-59 and over 60. The younger murderers were almost all male, more often family annihilators (3+victims), and more often had taken alcohol or drugs. The young and middle-aged group more often had a history of interpersonal violence and had homicidal intent. The elderly group more often had suicidal intent, a mental breakdown (although this was rare - 3%) or classified as a mercy killing (2.5%), and less often had a history of interpersonal violence.

Suicidal versus homicidal intent was predicted by being elderly or middle aged and not being estranged. The method used (firearm) and location (at the victim's home versus not) did not contribute significantly to the prediction of intent.

Alcohol and Drugs

In a study of only 20 murder-suicides in Texas, primarily murders of spouses/intimates, Felthous, et al. (2001) had data on the alcohol content of the murders and victims. Of the 13 murderers tested, eight tested positive for alcohol, two for cocaine/cocaine metabolites, one for diazepam and one for 9-carboxy THC (a metabolite of cannabis). For the victims, two of the 14 tested were positive for alcohol. Incidentally two of the 20 murderers had previous attempted suicide, and one had suicidal ideation.

Emigration for Work

Balica and Stöckl (2016) compared cases of murder-suicide in Romania where one of the people had emigrated at some point for work. Murder-suicide for those who had emigrated mostly involved partners (84%) but, for non-emigrants, murder of the whole family (12%) and murder of parents (7%) occurred. The modal case in this Romanian sample involved a male murderer, a single victim, and a female victim.

Child Victims of Murder-Suicide

When children are victims of murder-suicide, the type of murder-suicide is often associated with domestic violence. Holland, et al. (2018) studied murder-suicide with child victims in the United States. Only 17% of the incidents involved custody disputes, and the remaining cases involved disputes between the adults. The murderers were mostly men (76%) with a mean age of 38. The child victims

were roughly half boys (53%), with a mean age of 8. Just over half of the cases (54%) involved only children or step-children as victims. In only 10% of the cases was the child unrelated to the murderer. The filicides were mostly spousal revenge murders (40%) or acute psychotic murderers ((29%). In Australia, Alder and Baker (1997) found that 25 % of mothers who killed children completed suicide and 9% attempted suicide. All killed their biological children, often motivated by delusional altruism (that is, that the children would be better off dead than living without their mother).

The Presence of Children

Sillito and Salari (2011) studied murder-suicides with perpetrators aged 18-44 with children involved. There were 208 families with 441 children. The majority of children (53%) witnessed the murder-suicide, in 23% of the cases the child was also killed, and in 24% the child was absent. The majority of the children killed were in an intact family. while the majority of the children absent were from estranged parents. Children killed were more often killed by a biological parent, had a perpetrator with suicidal intent (rather than homicidal intent), without a family history of violence, and lived in the West or South of the United States. In a multiple regression, the child killed (versus being a witness) was predicted by biological father, parents estranged, parent had suicidal intent and living in the West or South. There were no differences between the two groups of children in the sex of the child, the number of siblings, or whether a gun was used for the murder-suicide.

Mental Illness

Moskowitz, et al. (2006) identified 33 murder-suicide cases in New Zealand in a 10-year period (1991-2000),[4] a rate of 0.08 per 100,000 per year. Of these cases, 14 (42%) were judged to have a mental illness, including all five female murderers. The most common victim was a partner, followed by a child. The most common psychiatric disorder was mood disorder (9 cases, of whom 3 had psychotic features), followed by schizophrenia or other psychosis (4 cases).

Flynn, et al. (2016) studied 60 murder-suicides in England and Wales. The modal case was a man killing a woman, preceded by relationship break-down and separations. Self-harm was present in 26% of the murderers and domestic violence in 39%. Nearly two-thirds (62%) were judged to have mental health problems, but

[4] Three additional cases died by suicide more than a week after the murder.

it must be noted that murder is less common in Europe than in the United States, and mental illness is more common in European murderers. The most common diagnosis was depressive disorder (53% of the 60 murderers). Only 12% had recent contact with mental health services (within a year).

Military versus Civilian Murder-Suicides

Patton, et al. (2017) compared murder-suicides committed by military personnel versus civilians. The military perpetrators were older, more often married/widowed and less often never married, and more often in declining health. In a multiple regression, military perpetrators were predicted by age, declining health and physical health problems.

Murder-Suicide in the Workplace

Lester (2014) analyzed 105 incidents of murder in the workplace. The media gives more attention to these incidents in schools and, in the past, at post offices. However, these incidents occurred most often in corporate and business settings and also in government facilities. The murderer died by suicide in 32% of these incidents, and these murderers killed more victims than did those arrested.

Murder-Suicide and Domestic Violence

Separated versus Not Separated Partners

Morton, et al. (1998) compared female victims of murder-suicide by their partners who were separated versus not separated. Morton, et al. did not report tests of statistical significance, but the separated murder-suicides were less often in disputes/conflict with the partner, more often motivated by jealousy, more often with a history of domestic violence, more often with a criminal history, less often with a mental illness, less often positive for blood alcohol content, and less often with evidence of a physical illness in the murderer or the victim.

Familial Murder-Suicides

In British Columbia (Canada), Cooper and Eaves (1996) found that 18% of murderers of family members completed suicide and 5% made serious suicide attempts. All of these killed partners or offspring. The completed/attempted suicides were more often males and more often killed females and biological children and less often step-children. Murder-suicide was more common after

separation or if the murderer was mentally ill. Violence by the victims, family conflict and financial/criminal motives were less likely to result in the suicide of the murderers. When men killed women, the suicidal murderers used firearms more often, less force, less often in the home and more often after separation. For the filicides, none of the child abuse cases died by suicide.

Dawson (2005) studied murders of female intimates in Canada. The murder-suicides more often showed premeditation, had the motivation of jealousy and ill health, used a gun and killed in a private setting, and less often had a violent or criminal history. The murderers in murder-suicides were more often over the age of 55.

Comparing Murder-Suicides with Suicides and with Murderers

Murder-Suicide versus Suicide

Carretta, et al. (2015) compared murder-suicides with suicides for their toxicology status. The suicides had higher blood alcohol levels but half the level of stimulants. The predictors of suicide were a history of substance abuse, a higher number of drugs in their systems, death inside a house, and legal impairment from alcohol. The suicides had a higher proportion of females compared to the perpetrators of murder-suicide. Predictors of murder-suicide were the use of a gun, domestic conflict, children living in the home and prior arrest for substance abuse. Carretta, et al. noted that not all of the cases in their samples received a toxicological analysis.

Fridel and Zimmerman (2019 used national data to distinguish murder-suicides from suicides and homicides. Their regression results indicated that interpersonal stressors and criminal history were positive predictors of murder-suicide compared to suicide, while physical and mental health were negative predictors. Compared to the suicides, the murder-suicides were a little older, more often males, more often African American and more often with intimate partner problems, and less often with psychiatric and physical health problems and alcohol abuse, and less often with job or financial problems. One half of the murder-suicides were classified as primarily homicidal and just under one-quarter as suicidal.

Kalesan, et al. (2018) compared firearm murder-suicides in the United States with firearm suicides. The murder-suicides were more often male, Black, Hispanic, previously married, with interpersonal conflict, recent criminal or legal issues, and

a crisis in the past two weeks as compared to the suicides. The murder-suicides were less likely to have a history of suicide, a job or school issue, suicide or death of a family member, a history of alcohol dependency, a mental health issue, or a physical health problem. The impact of interpersonal conflict and a recent crisis was greater for the older (> 30) subjects of the study.

Haines, et al. (2010) compared 22 murder-suicides in Australia with 22 suicides matched for age and sex. The murderers tended to be more often married and to be less often unemployed. The two groups did not differ in a history of attempted suicide, prior communication of suicidal intent or leaving a suicide note. The murderers were less often in medical care and had less often recently visited a GP. They were in better health than the suicides. There was no difference in psychiatric status. Prior to the act, the murderers were more often described as angry/hostile/violent and less often as quiet/withdrawn, and there was a trend toward being judged to be behaving in an erratic/bizarre manner. The motive for the suicide was more often interpersonal conflict than for the murderers, less often physical illness, and a trend to be less often socially isolated.

In Finland, Saleva, et al. (2007) found that the perpetrators of murder-suicide more often were involved in separation or divorce and used a firearm compared to suicides, None of the ten perpetrators of murder-suicide were psychotic, but three had major depression.

Fishbain, et al. (1985) compared women who committed murder-suicides with female suicides. The female perpetrators of murder-suicide more often lived in a mobile home, were more often living with a lover and less often with parents or alone, and less often had a history of depression.

Murder-Suicide versus Homicide Victims

Bridges (2013) compared the elderly victims (mean age 73) of murder-suicides with victims of simple homicides and found that murder-suicides occurred more often in the family unit, (especially involving female spouses), involved whites and used firearms. Murder-suicide was predicted by victims being white, female, use of firearms, being a spouse or parent, and with family conflicts.

Lund and Smorodinsky (2001) studied murders of intimate partners in California and compared the victims in which the murderer died by suicide with those who do not. The victims of murder-suicide were less often males and African

American, more often over the aged of 50, less often dating, and more often married/cohabiting or former spouses.

Murder-Suicides versus Simple Murderers

Palmer and Humphrey (1980) studied cases of homicide followed by suicide in North Carolina and found a rate of 0.19 (which compares with the rates of 0.20 found by West in England and 0.23 by Wolfgang in Philadelphia). Murder-suicides were more often killing members of the families (and especially husbands killing wives) than were other murderers. The murder-suicides were more often male, and the victims female. The murderers were older (and more likely to be older than the victim) and were more often white. They resembled suicides more than other murderers.

Zimmerman, et al. (2021) compared murder-suicides and homicides in the United States. Compared to murderers, the murder-suicides were older (and murdered older victims), more often murdering female victims, more often white, more often killing a spouse and more often using a firearm, and less often was the murder drug-related. The murder-suicides were more often intra-racial. In a multiple regression, all of these variables contributed to the prediction of murder-suicide versus homicide.

Banks, et al. (2008) compared intimate partner homicides with intimate partner murder-suicides in New Mexico (USA). The murder-suicides were older than the homicides (both the murderer and the victim) and the age difference between the murderer and victim was greater. Increasing age was associated with a greater probability of murder-suicide. The murder-suicides were more likely to involve a spouse or ex-spouse and more likely to involve a firearm for the murder. The victims of murder-suicide were less likely to have high levels of alcohol in their blood.

Rosenbaum (1990) compared couples in Albuquerque, New Mexico, in which murder/suicide occurred with those in which only murder occurred. The perpetrators of murder/suicides were more often men, depressed, older, white, of higher social class and married or separated, and less often alcohol/drug abusers or drunk at the time of the act. The victims of the murder/suicides were less often alcohol/drug abusers and less often had an antisocial personality disorder.

Lund and Smorodinsky (2001) studied murders of intimate partners in California and compared those in which the murderer died by suicide with those

who did not. The perpetrators of murder-suicide were less often African American and female, and more often over the age of 60 and using a firearm for the murder.

Easteal (1994) found that Australian murderers of intimates more often completed suicide than other murderers. Among murderers of intimates, suicide was more likely if a gun was used, the murderer was born overseas, a male, estranged from the partner or partner was ailing, non-aboriginal, and over the age of 60. They less often used alcohol and more often killed more than one victim. They did not differ in their history of domestic violence or unemployment.

Manning's Views

Based on Black's (1998) ideas and his own theory of suicide (Manning, 2015a), Manning (2015b) argued that murder-suicide perpetrators should by closer relationally and culturally to their victims, more functionally dependent on their victims, lower in status than their victims, and have less access to third parties who could support them against the victim. Relational closeness refers to the frequency and scope of contact between the murderer and the victim. Closeness may be measured by marriage versus living together and by the length of the relationship. The greater the closeness, the greater the probability of murder-suicide rather than simple murder. It may be that greater relational closeness will result in greater guilt or remorse. The role of relative status predicts that murder-suicide will be more common when the murderer is of lower status than the victim.

Manning tested these ideas by comparing 20 murder-suicides and 20 homicides of intimate partners. Unfortunately, these small sample sizes meant that differences between the two groups did not often reach statistical significance. The murder-suicides more often had multiple victims and more often used firearms (and less often stabbing and bare hands). The murder-suicides more often showed premeditation, both of the murder and the suicide. The murder-suicide perpetrators tended to be a little older (both the murderer and the victim), in the relationship longer (means 12.6 versus 5.2 years) and more often married. There were too few data for education to be studied.

Manning concluded by viewing murder-suicide as midway between homicide and suicide on the dimensions of: (1) relational closeness-distance, (2) cultural closeness-distance, (3) functional interdependence-independence, (4) superior adversary-inferior adversary, and (5) no third party support versus strong third party support. Manning noted that forms of suicide, such as those that

traumatize another, might lie somewhere between suicide and murder-suicide. It is interesting to note here that suicides that traumatize witnesses have been rarely studied and compared with other suicides.

The Suicidal Murder

West's Study

West (1966) looked at murderers i n England who died by suicide after murdering others. In England this was common, and about 33% of murderers died by suicide subsequently. West compared the suicidal murderers with a group of nonsuicidal murderers and found that the suicidal murderers were more often females, were older, killed victims who were more often close relatives, used gas and shooting more, and tended to kill earlier in the week and more often in midsummer than nonsuicidal murderers. They had fewer criminal convictions than the nonsuicidal murderers. The two groups did not differ in marital status (except that the nonsuicidal group had an excess of single males) or in the time of day for the murder.

Two things emerge from these data. First, the suicidal murderer is on the whole a very different kind of person from the nonsuicidal murderer. He is much more likely to be killing a spouse or children and is less likely to use brutal methods such as strangulation, blows, stabbing, or use a blunt instrument. Gas and shooting are used more often, and these methods are distinguished by the fact that they involve killing at a di stance. This makes sense when we remember that the suicidal murderers are more often killing close relatives and so may not be able to bring themselves to kill in a more brutal way.

The second feature is that the suicidal murderers lie between the nonsuicidal murderers and the nonhomicidal suicides in characteristics. The nonsuicidal murderers contained about 11% females, the suicidal murderers about 40% and completed suicides in England about 39%. In age, the suicidal murderers were somewhere between the younger age range typical of murderers and the older age range typical of suicides.

West concluded that the suicidal murderer was representative of the general community, unlike the nonsuicidal murderers were more often single males and from the lower classes. He found that the suicidal murderers were neither all insane nor all sane. The proportion of offenders with psychiatric disturbances was roughly the same as that in the nonsuicidal murderers.

West found very little evidence that the suicidal murderer killed himself in order to avoid punishment. West felt that the large number of infanticides, possible death pacts, mercy killings, and possibly accidental killings indicated that a large number of the suicidal murders were motivated by feelings of despair rather than hostility. In other cases, there appeared to be long-standing histories of violent and suicidal behavior, and West felt that a large number of suicidal murderers were individuals with a high level of aggression which could turn against others or themselves according to circumstances. The aggression is the kind aroused in their personal relations rather than in conventional criminal acts.

West felt that the suicidal murderers resembled completed suicides more than murderers and he concluded that homicidal/suicidal acts were extensions of suicidal acts. The suicidal individual is likely to be as angry and outwardly aggressive as the nonsuicidal person. If we accept the theory that the typical suicide is a frustrated murderer, it is quite conceivable that the aggression might spill over and manifest itself in outwardly aggressive acts, even to the point of murder.

It should be noted that West's study is old and may be relevant only to countries where the homicide rate is low.

Other Research

Dorpat (1966) looked at eight murderers who died by suicide after killing their victim. His data support those of West. The suicide followed closely upon the murder, and there was an intimate relationship between the murderer and the victim. The relationship was one of conflict, and the murder frequently followed real or threatened separation. The murderer was frequently found to be psychiatrically disturbed. Dorpat suggested that the threat of separation led to regression of the ego to an undifferentiated phase of psychic development in which there is fusion of the self and object. In this state the aggression can be directed at either the self or the significant other. Dorpat also felt that murder-suicide could represent an acting out of reunion fantasies.

Berman (1979) reported on twenty cases, again mainly white males in their 30s, killing spouses or lovers by gun in the bedroom. Berman felt that there were two types of murder-suicides: (i) erotic-aggressive in which an angry lover murders a sexual partner and then dies by suicide, and (ii) dependent-protective in which a suicidal person kills a dependent in order to prevent their suffering.

Wolfgang (1958a) looked at wives who killed their husbands and husbands who killed their wives. He found that 10 of the 53 husbands subsequently died by suicide, whereas only one of the 47 wives did so. Wolfgang hypothesized that husbands were more likely to precipitate their death by provoking their wives (by beating them, for example), and so their wives feel less guilt after murdering them than husbands do after murdering their wives. Wolfgang noted, in support of his hypothesis, that 28 of the murdered husbands were classified as victim-precipitated homicides, whereas only five of the murdered wives were so classified.

Wolfgang (1958b) also studied murderers who died by suicide after murdering another, and his results led to conclusions similar to those of West. The suicide occurred very soon after the murder in most cases, and the victim was much more likely to be a relative or lover than in other murders. Unlike West's finding in England, Wolfgang found, in Philadelphia, that the suicidal murderers were more likely to be males than the nonsuicidal murderers and that they were more likely to be brutal in their killing. Wolfgang attributed the excessive brutality to a greater reservoir of frustration and anger, but the factor of the sex of the killer must be taken into account before this conclusion is accepted. West's suicidal murderers used less violent methods and were predominantly females.

Wolfgang also noted that the suicidal murderers were older, more often white, and their victims younger than in the case of the nonsuicidal murderers. The suicidal murders were more likely to take place in the home, and the killer and victim were more likely to be of opposite sexes. Wolfgang noted that the two possible reasons for some murderers killing themselves after the murder (excessive frustration and guilt) were difficult to demonstrate. However, he noted that the murderers who killed themselves were less likely to have records of arrests than nonsuicidal murderers, and this perhaps indicated a greater degree of law-abiding and conformity to the social mores. Therefore, the notion that guilt may be responsible for the subsequent suicides of murderers may have some degree of validity.

Gregory (2012) examined only 30 cases of murder-suicide which did differ in type (for example, family annihilator and domestic abuse cases). However, she looked at the cases in more depth than other researchers, and she noted the relevance of threats to the perpetrator's hegemonic masculinity (which holds that men are dominant in the society and have the traits of strength, competitiveness, assertiveness, confidence, and independence). Gregory suggested that the perpetrators have been rendered emotionally vulnerable in their relationships with

women and children, which conflicts with the demands of hegemonic masculinity to which they feel they must conform. Gregory found that many of the perpetrators had decided to die by suicide before the murder which may be motivated by (misplaced) altruism or to punish the victim.

Oliffe, et al. (2015) examined three types of murder-suicide in North America (using newspaper reports) and found three types differing in motivation. Cases involving domestic desperation involved the murder of a family member, and the men felt that they had failed to provide economic security. Murder-suicides in the workplace were motivated by grievances (about pay, job insecurity, and bullying and marginalization by co-workers and supervisors). School murder-suicides were motivated by pay-back for perceived injustices. All of the men seemed to perceive a loss of control over their lives, hopelessness and marginalized masculine identity. Their alignment to hegemonic masculinity led them to reassert their masculinity through their murderous acts.

Mass Murderers versus Serial Killers

It is common for mass murderers to die by suicide. For example, Hempel, et al. (1999) searched the literature for accounts of mass murderers who used firearms, all over the age of 18, killing alone, and killing at least three victims, and they located data on thirty such individuals. Fifty-three percent of the mass murderers died by suicide after the murder, 37% were captured, 10% were killed.

Lester (2010b) reported that 34.7% of rampage (mass) murders died by suicide after the action as compared to only 4.4% of serial killers. All of the suicides of the mass murderers occurred during attempts to arrest them, whereas 52% of the suicides in the serial killers occurred after arrest.

Holmes and Holmes (1992) noted that mass and serial murders differ in several ways. Mass murderers much more often die at the scene, either from suicide or by being killed by police officers. Mass murderers are more often viewed (by psychiatrists and by the general public) as mentally ill or demented. After the incident, people report how the murderer was angry, violent and irritable and how they are not surprised that he snapped. Serial murderers, on the other hand, often appear to be normal to their friends and co-workers.

Norris (1989) noted that several serial murderers died by suicide or had a history of suicidal ideation and suicide attempts, and he suggested that many serial murderers are chronically suicidal. Some deal with this by becoming careless in

their pattern, letting a victim escape for example, so that they are caught and imprisoned.

Many mass murderers which take place in the workplace died by suicide. Seger (1993) noted that the profile for the workplace killer was:

middle-aged white male
frustrated employee in menial jobs
professional with personal frustration, such as rejected suitors
bitter and dissatisfied
quick to perceive injustice
blaming others for his problems
enormous pent-up rage
few support systems (from friends, family, and neighbors)
familiarity with firearms
depressed and suicidal who sees no solution for his problems

Seger searched newspapers for accounts of workplace murders and located 23 incidents, although he did not specify the time period he chose. Fifteen of these were simple murders, five were murder-suicides in which a worker killed others and then himself, two were attempted murders and one involved threats of murder. Nine of the 23 incidents were at postal offices or workplaces. [5]

Holmes and Holmes (1992) and Dietz (1986) described one type of mass murder who is more likely to die by suicide. The *family annihilator* kills his entire family (including in-laws) at one time, sometimes including the family pets. This person is often the male head of household, with a history of physical abuse, alcoholism and depression, and he usually dies by suicide after the acts. If he survives, he may claim that his family is better off dead – he sees his actions as altruistic! Resnick (1969) also described one type of filicide similar to this (*altruistic*), performed with the object of preventing the children from suffering should their lives continue. This suffering may be real (the child may be chronically ill) or only in the parent's imagination. The mother may, for example, intend to die by suicide and thinks that the children will suffer without her.

Fridel (2022) noted, however, that the modal mass murderer differed in personal characteristics significantly from murder-suicide perpetrators and from ordinary murderers (for example, in sex, type of victims, method used for the

[5] Flynn, et al., (2015) noted how newspaper reports of murder-suicide are distorted from the true facts of the cases.

murder and location). Similarly, Felthous, et al. (2019) noted that female murder-suicide perpetrators differed significantly from female terrorist bombers. Felthous, et al. noted that female murders in murder-suicides were more often killing children and less often their spouses/intimates.

Psychological Research

Psychological research on murder-suicide murderers is rare. Lester (2010a) examined the online blog of one murder-suicide (a mass murderer who shot 12 women at a health club, killing three), using a linguistic analysis program, and found no similarities over time between the blog and a diary written by a suicide. Of course, this compared only two written texts, and the authors differed in age, sex, type of text and action.

Lester and Gunn (2021) compared suicide notes from six murder-suicides with 190 suicide notes from male suicides. Some of the differences had minimal psychological relevance (such as the use of abbreviations). However, the suicide notes from murder-suicides did have fewer words expressing positive emotions and optimism, but they did not differ in words expressing anger. The suicide notes from the murder-suicides were more concerned with social processes (relationships with others) and less concerned with hobbies and activities (music, religion, eating and grooming). These notes were less concerned with the present but did not differ in past tense verbs. This suggests that the murder-suicides were not simply angry over their interpersonal conflicts but rather more generally distressed. For example, this suicide note written by a murder-suicide was addressed to his parents:

> I cannot cope with life anymore. I am that twisted up inside. By the time you get this note [my wife and son] and me your son will be all dead. No one else is getting my wife and son, so we will all die together. I am so sorry to kill [my son] but, if he grows up and knows that I killed his mum and myself, he will hate me.

The writer was 28 years and separated from his wife. He used a gun, and his psychological state was described as distressed; angry/hostile/violent, and sad/tearful/depressed. His motivation for the suicide was described as interpersonal conflict and loss. This extract from his suicide note does not express anger, but there are no positive emotions, and the note is concerned with social processes (with his parents to whom the note is addressed and his wife and son).[6]

---

[6] His note also contained a last will and testament and instructions.

Weeke and Oberwittler (2018) compared German murder-suicide perpetrators who left suicide notes with those who did not. Suicide notes were written more often by both men and women in cases of filicide, if there were children living with the murderers, if there was evidence of planning and if there was evidence of declared suicidal intentions. No effect was found for the sex or age of the murderer, the number of victims, marital status, academic achievement, prior suicide attempts, and psychological issues in the murderer.

Psychological Autopsy Studies

Kotzé, et al. (2018) carried out a psychological autopsy study on 35 murder-suicides in a region of South Africa, but only 26 of these were truly psychological autopsies with interviews of friends and relatives. Interestingly, in eight cases, the perpetrator's work allowed them to carry a weapon (e.g., security guard). Twenty-two of the cases were classified as intimate-possessive, seven involved killing children, and four involved killing more than one family members. The three female murderers killed their children. Fifteen of the murderers (56% of the psychological autopsy cases) received a psychiatric diagnosis, most often a mood disorder (35%). For those for whom there was a psychological autopsy, 92% had relationship problems, 69% had financial or work stressors, 31% had a history of domestic violence and 11.5% had physical illnesses.

In a Norwegian sample, Vatnar, et al. (2021) compared murders of intimate partners followed by suicide with those where the murderer did not die by suicide, using official documents and interviews with the bereaved. Of the 177 murders, 44 (25%) involved murder-suicide, giving a murder-suicide rate in Norway of 0.04 per 100,000 per year. The murder-suicide perpetrators were more often men, older, more often married (and less often cohabiting), had been married longer, more often native Norwegians, more educated, less often unemployed, less often substance abusers, and less often with criminal/legal problems. The murder-suicide perpetrators less often made threats to kill and were less often involved in domestic violence. They were probably less motivated by disputes (although there were missing data here), more likely to use a firearm, and less often had economic problems, custody disputes or threatened with a break-up/separation. Both the murderer and victim in the murder-suicide cases were less likely to have been in contact with police or health and social services. The bereaved of the murder-suicides noted the loss of hope or loss of a future and an inability of the murderer to cope with disappointments.

The males (61% of the sample) were older than the females, more often never married, and less often had a history of attempted suicide. The motivations of the men were less often delirious altruism and more often hallucination/delusion, but they did not differ in family problems. Schizophrenia was diagnosed in 25% of the sample, major depression in 42%, bipolar disorder in 8% and organic issues in 7%. Overall, the victim was a child in 38% of the incidents, parents 10%, intimate partners 14%, other family members 10%, acquaintances 25% and strangers 5%.

Research on Survivors of Murder-Suicide

Sun, et al. (2021) studied 125 perpetrators of murder-suicide in China who survived their suicidal behavior. About 90% were diagnosed with psychiatric disorders, but only 45% of the sample had consulted a doctor about the disorder. Only one murderer had adhered to the recommended treatment.

Sociological Research

Zimmerman and Fridel (2020) studied the presence of firearms across 1,584 counties and the 50 states of the United States and rates of murder-suicide, murder and suicide. The presence of higher rates of gun ownership increased the likelihood of suicide after a homicide. A 1% increase in the gun ownership rate increased the rate of murder-suicide by 3%.

After a review of research on murder-suicide, Panczak, et al. (2013) concluded that the proportion of firearm use in murder-suicides varied across countries. It was highest in the USA, Switzerland and South Africa, followed by Australia, Canada, the Netherlands and England and Wales. There was a strong correlation between the use of firearms for murder-suicide and the level of civilian gun ownership in the country.

Large, et al. (2009) identified 64 samples of murder-suicides (often involving the same country more than once and typically involving only one region of the country) and presented data on the rate of murder-suicide as well as suicide and homicide rates. Because of the selective choices made by Large, et al. in their data analysis, the present author re-calculated the correlations. For 21 samples from the United States, murder-suicide rates were associated with homicide rates ($r=0.77$, $p<.001$) and with suicide rates ($r=0.48$, $p<.001$). For the 43 non-USA samples, the murder-suicide rate was associated with the homicide rate ($r=0.81$, $p<.001$) and the suicide rate ($r=0.60$, $p<.001$). Large, et al. felt that data from

Bermuda and Greenland should be excluded and so, excluding these samples, the correlations of the murder-suicide rate and the homicide rate and the suicide rate remained positive but no longer statistically significant (r=0.20 and 0.30, respectively).

This was an impressive study but unfortunately, does not match typical research on homicide and suicide rates which are based on countries as a whole, rather than regions of a country. National governments do not presently collect and report homicide-suicide rates for the countries as a whole, and so an ideal study is not yet possible.

Murder-Suicide in Movies

Stack, et al. (2012) compared 166 cases of murder-suicide in film (dating from 1903-2006) with data on murder-suicides in Chicago. The murder-suicides in films were less apt to take place in the context of in the context of domestic violence than in Chicago (10% vs. 55% respectively). Only 29% of homicide victims in film were females compared to 80% of victims the real world. Whites were overrepresented both as victims and offenders. There were no significant changes in the film portrayal of murder-suicide during the time period studied.

The Results of Reviews of the Research

There have been many reviews of research on murder-suicide, but they rarely draw useful conclusions. Panczak, et al. (2013) review research on murder-suicide and concluded that the murderers were older and more likely to be male and married to or separated from their victims than those engaging in simple homicide or suicide. Alcohol use and a history of domestic violence or unemployment were *less* common in homicide-suicides than in homicides.

After reviewing the research, Rouchy, et al. (2020) concluded that the perpetrators of homicide-suicides were older and more likely to be male, older than homicide or suicide perpetrators, to have an early history of adversity during childhood, legal issues in the past, and exposure to stressful or traumatic events shortly before the murder-suicide. Most murder-suicides are perpetrated in an intra-familial setting and occur in the context of recent separation, divorce, and domestic conflicts. Depression and psychotic delusions often play a role.

Discussion

It is evident that the research on murder-suicide is poor. The majority of researchers have simply reported on small numbers of cases, with simple descriptive statistics. The journals also have not shown much editorial review as to whether the papers merits publication. The topic itself in the title seems to warrant acceptance for publication.

A Case of Murder-Suicide

There follows one case of murder-suicide which is *not presented* as being a typical case. It is a case, however, in which the life-history of the perpetrator is known, permitting a greater understanding of the life leading up to the act. The case is of Gig Young, written by Lester (1992)

Gig Young (Byron Barr)[7]

Byron Barr was born in St. Cloud, Minnesota, on November 4, 1913, the third of three children and an unplanned baby. His father, stern and distant, ran a pickling and preserving company, while his mother was repressed and neurasthenic. His older brother domineering. Byron was close only to his sister Genevieve and remained so all of his life. In his early years, his mother often took to her room sick, and her step-sister, Jessie, came to live with the Barrs to help with the children. Byron grew close to Jessie, but eventually he realized that Jessie liked his older brother, Don, better than she liked him. Thus, both female caretakers had rejected him.

Byron developed a number of psychosomatic complaints, including convulsions and a stiff neck and, at elementary school, he soon fell behind and was placed with the group of slow learners. His second-grade teacher sadistically beat him and, when his mother found out about this, she placed him in a school associated with the local university. Byron had to repeat second- grade.

---

[7] This essay is based on Eells (1991).

Byron rarely expressed his pain or resentment. He learned to hide behind a smiling countenance, revealing his true feelings only to his sister. His older brother had worked in his father's company successfully, and Byron too was forced to work there after school. There he failed too. The foreman fired him, not realizing he was the boss's son, and his father rehired him, but at reduced pay. As a teenager, Byron was attracted by the movies, and he got a job as an usher at the local theater so that he could go often. He day-dreamt about being an actor.

At the Technical High School, Byron was a good-looking young man, and he was popular, even getting elected class president. Since his father's business was profitable, Byron had lots of nice clothes and use of the family car, and he developed more confidence.

In 1931, the Depression brought hard times, and the company folded. Byron's father took a job as a food broker in Washington, DC, while Byron stayed in St. Cloud to take of his ailing mother. As he finished his junior year of high school, his father summoned them to Washington and so, in April 1932, Byron drove his sick and depressed mother down to join his father.

Since his father lived far from the high school there, Byron persuaded his parents to let him board near his school. His landlady, Mrs. Harry Kaines, liked him and became his surrogate mother. She was thrilled by his athletic success, and one her tenants got him a job at the local drug store. When his parents moved to North Carolina, Byron persuaded them to let him stay with Mrs. Kaines. Mrs. Kaines helped get him a job as a ballroom dancing instructor and encouraged him to join the local semi-professional theater group. At this time too, he had the gap in his front teeth closed and a testicular inflammation forced him to have a vasectomy. Finally, in1939, he set out for California, hitching his way across America.

Hollywood

Arriving in California, Byron got work, starting at a gas station, and managed to study and work building scenery at an acting school. He auditioned successfully at the Pasadena Playhouse, and participated in many plays for them. There he met a fellow actress, Sheila Stapler, with whom he fell in love. Sheila was very nurturing and was happy to defer to Byron. They slipped off to Las Vegas in August 1940, to marry.

In 1941, Byron was asked to take a screen test for Warner Brothers (his father sent him funds so that he could join the Screen Actors Guild), and he was signed up at $75 a week. He worked diligently there, but also remained a family man, spending time with Sheila and working on his house.

When America entered the war in 1941, the movie studios lost many male actors, and Warner Brothers persuaded Byron not to enlist. They upgraded the roles given to Byron, and he took as his name the role he played in *The Gay Sisters*, Gig Young. His next film was *Old Acquaintance* with Bette Davis, and Gig and Bette had an affair, a portent that Gig was most likely not going to be a stable husband.

Gig finally had to enlist, joining the Coast Guard in 1943, but Sheila moved with him until he was shipped off to sea as a pharmacist's mate in late 1944, just after his mother died. He got malaria soon afterwards and was released on July 4, 1945. Warner Brotherss threw a welcome back party for him and several other returning actors, and Gig hoped that his fortunes would improve. However, Warner Brothers gave him second-string and unflattering roles in many of their run-of-the-mill movies, and his career ran down.

He grew closer to Sophie Rosenstein, a drama coach for the studio (the two couples socialized a lot together), and Gig and Sophie fell in love. Sophie worked hard to encourage Gig and to help him land better roles. She urged him to act on the stage in order to expand his horizons, but in the summer of 1947 while he was appearing in *Biography* with the La Jolla Playhouse, Warner Brotherss dropped his option. Although he had always resented his brother, Don died in September 1949 of tubercular meningitis, and Gig was depressed by this loss. His marriage to Sheila deteriorated and, as his drinking increased, Gig took to breaking the furniture during their rows. They separated after Christmas 1948 and divorced in 1949. Gig persuaded Sophie to divorce her husband, and they married on January 1, 1951.

Working as an independent, Gig let his agent sign him up for mediocre roles and, after getting and breaking a contract with Columbia, rarely worked in 1949 and 1950. He freelanced a few roles in 1951, but then signed with the Louis Shurr Agency. He obtained a good part and turned in a good performance in *Come Fill The Cup* for which he was nominated as best supporting actor in 1952, but then he signed with M-G-M who put him in mediocre films, and his career fizzled again.

He failed to insist on better roles, and Sophie could not help him since she was diagnosed with cervical cancer just three months after their marriage. Gig held the knowledge from Sophie and spent most of his energy taking care of her. By October 1952, she spent most of her time in bed, and Gig stayed with her, reading to her and holding her hand. She had to be hospitalized in October 1952, and she died on November 10. Gig was devastated and seriously depressed. He drank heavily and took Miltown to help him sleep.

When his contract with M-G-M expired, Gig decided to go to New York to act on the stage. He got his first part in *Oh Men! Oh Women!* in 1953 and received great reviews. He also began to recover from his bereavement and had two affairs. First there was Sherry Britton, a stripper, to whom Gig proposed marriage. She refused. (She reported that Gig was unable to have an orgasm for months at a time.) Elaine Stritch was acting in a show in a neighboring theater and met Gig at a party she gave. He stayed overnight to help her wash dishes and slept in a separate bed. The virgin Elaine was impressed, and they began dating. Soon she fell in love with him, and Gig tried to have his first marriage annulled and planned to convert to Roman Catholicism in order to marry her. After they went back to Hollywood where Gig had a role in a movie, the church found out that he had been baptized as a Methodist and that annulment was impossible. Their relationship broke up soon after.

His Mid-Life Career

For a while, Gig shuttled back and forth between New York and Hollywood, but he found few good roles and took any that were offered. He met Elizabeth Montgomery, and they married in December 1956. Gig had the vasectomy reversed so they could have children, and Gig finally had a good role in *Teacher's Pet* which got him his second Oscar nomination. This led to lots of offers, and Gig and Liz moved to the West Coast. Gig was still drinking heavily, but Liz seemed to be able match him in this.

Returning to the East Coast for *Under the Yum Yum Tree*, Gig began to show signs of what later became a severe trouble, his inability to master the lines for a play. As his marriage with Liz grew worse, Gig found a new mother-figure, Doris Rich, a character actress in her mid- sixties, whose closeness to Gig threatened Liz. Gig had a liaison with Sophia Loren during the filming *of Five Miles to Midnight* in 1962, but he then became paranoid about Liz having affairs. Eventually, Liz obtained a Mexican divorce in March 1963.

Gig drowned his sorrows in alcohol, but he soon met Elaine Whitman who was, at the time, selling real estate. Soon after their affair began, Elaine discovered she was pregnant, and Gig, overjoyed, married her, although friends thought it was a terrible match. Elaine was twenty- eight, Gig forty-nine. Elaine and Gig had a daughter, Jennifer, in April 1964. Elaine turned to domesticity, Gig tried AA, dieted and acquired toupees for his receding hairline. His failing career soon brought financial worries. He starred in a television series for a year, *The Rogues*, but it was cancelled. He was in a successfully touring company of *The Music Man*, but Gig and Elaine had to sell their luxurious house and move into a smaller place.

Gig's paranoia now focused on Elaine, and he tapped his own telephone line in order to record her conversations. Gig persuaded Elaine to go into counseling with him, but he chose a charlatan therapist who practiced orgone therapy. Elaine refused to continue, and then Gig went to Vancouver for a course of LSD therapy. Their arguments about Gig's drinking continued, and Elaine divorced Gig in July 1967.

Gig was getting almost no offers for films and appeared only in touring companies and occasionally in New York City. An affair there with a young actress (Skye Aubrey) was ruined by his drinking and his impotence and, although she would have married him, she says, Gig refused to consider it. At this nadir in his life, he was recommended for the role of Rockie Gravo in *They Shoot Horses, Don't They?,* and he won an Oscar for best supporting actor in 1970 for this role.

Then his career plummeted again! Elaine sued him in court for more alimony and child support, and Gig tried to deny paternity for Jennifer. He lost in court after five years of legal battles which created great animosity between him and Elaine. (Gig never saw Jennifer again.) In addition, public opinion turned against him. Then in his touring company for *Harvey*, there was great conflict between Gig and other actors and, although the production was a success, Gig acquired a reputation for being difficult. The stress of this experience led to severe neurodermatitis on his face.

Next, Gig was hired for a film, *Blazing Saddles*, but he had problems learning the lines, and his anxiety led to several collapses on the set. He was fired. His reputation for being unreliable grew. Luckily though, he found another supporter, Harriette Vine Douglas, a woman in her fifties, who became his friend, confidante and lover. She protected him in every way she could, and he often hid out with her for months.

He finally tried plastic surgery for his aging face, but the surgeon botched the operation and Gig required remedial surgery. His teeth bothered him so that, on tour with *On A Clear Day You Can See Forever*, he could hardly eat. After his weight dropped from 185 to 145, he had all of his teeth recapped. In 1972, he developed numbness in his feet and was treated for circulatory problems and had his gallbladder removed. After this, he stayed with Harriette for almost a year.

In 1974 and 1975, he appeared in five movies. He went on the wagon, relying more heavily on Valium and Placidyl, and he made a television movie which became a series. He had problems learning the lines and hired a good psychologist who helped him. But after the series, when the psychologist tried to get Gig to deal with his underlying and chronic problems (his alcoholism, sexual impotence and paranoia), Gig quit therapy. Gig had his teeth redone and had plastic surgery on his chin and eyelids.

Back in New York, he was fired from Arthur Miller's *The Archbishop's Ceiling* because he could not remember his lines despite help from his voice-coach there, Bert Knapp, who had managed to become Gig's therapist although unqualified to fill that role. In 1977, Gig went to Hong Kong to make a kung fu film (his last film) and met Kim Schmidt.

Death

Kim was the thirty-year-old script-girl for the film, and they soon became involved. Their relationship was volatile, with Kim desperately trying to get Gig to stop drinking. Gig returned to New York, and the relationship improved by telephone. Kim joined him in New York in October 1977.

He signed up to perform in a college production of *Long Day's Journey into Night* at the University of Memphis, where his memorization problems led to the first performance ending forty-five minutes early as Gig forget large chunks of his lines. Back in New York, Gig and Kim quarreled, made up, split and got back together again. Gig proposed marriage, but Kim resisted. In May, Gig appeared drunk to introduce a friend's concert performance, and his voice-coach ended his relationship with Gig In June 1978, Gig and Kim went to Edmonton where Gig was to perform in *Nobody Loves an Albatross*. Gig had fantasies of taking the show on tour, but friends who came to advise him on it thought the production was terrible.

Back in New York, Gig and Kim bought an apartment and, on September 27, 1978, finally married. Finances were poor because of their heavy spending and the expense of fixing up the apartment. On October 19, 1978, Gig shot Kim in the back of the head and then shot himself in the head. After their deaths, no barbiturates or alcohol was found in Gig's system. The apartment had two bottles of wine, seven tablets of Oxazepam and several bottles of vitamins.

Nobody is sure what the arguments between them were about. Perhaps it was the fears of aging and sickness, perhaps his sexual impotence or arguments over money. Perhaps it was a fight over the will (with Kim wanting all the inheritance and Gig wanting to split it between Kim and his sister), or perhaps his withdrawal from alcohol and drugs led to an acute psychosis? He did telephone Harriette on October 18 to beg her to come to New York and take him back to Hollywood. She refused.

Discussion

Gig Young was a man whose life disintegrated slowly, interspersed with occasional successes and critical turning points. From a difficult childhood, filled with rejection, he built a career, but he lacked the skills to manage it well. As he progressed from relationship to relationship and from performance to performance, his alcohol abuse worsened, his distrust of others and his paranoia worsened, and his violent behavior escalated. The eventual end of his life was hardly predictable. Murder-suicide is rare. But a decline was inevitable, perhaps into bankruptcy and alcoholism.

But there were also critical turning points. What if Sophie, his second wife, had not died of cancer? He loved her, and she was good for him and his career. What if he had not quit the first decent psychotherapist that he had found but stayed to work through his problems?[8] What if?

It is also clear from this full life biography that the roots of a murder-suicide cannot be summarized briefly and simply. Rather, there is a life course which leads to and results in a murder suicide. This description of Gig’s life shows how superficial the research on murder-suicide is.

---

[8] This illustrates the danger of an unqualified person trying to be a psychotherapist.

References

Aderibigbe, Y. A. (1997). Violence in America. *Journal of Forensic Sciences, 42,* 662-665.

Adhia, A., DeCou, C. R., Huppert, T., & Ayvadari, R. ((2020). Murder-suicides perpetrated by adolescents. *Suicide & Life-Threatening Behavior, 50,* 534-544.

Adinkrah, M. (2003). Homicide-suicides in Fiji. *Suicide & Life-Threatening Behavior, 33,* 65-73.

Adinkrah, M. (2014). Homicide-suicide in Ghana. *International Journal of Offender Therapy & Comparative Criminology, 58,* 364-387.

Alder, C. M., & Baker, J. (1997). Maternal filicide. *Women & Criminal Justice, 9(*2), 15-39.

Anon. (1991). Homicide followed by suicide. *Morbidity & Mortality Weekly Report, 40*(38), 652-659.

Balica, E., & Stöckl, H. (2016). Homicides-suicides in Romania and the role of migration. *European Journal of Criminology, 13,* 517-534.

Banks, L., Crandall, C., Sklar, D., & Bauer, M. (2008). A comparison of intimate partner homicide to intimate partner homicide-suicide. *Violence against Women, 14,* 1065-1078.

Berman, A. (1979). Dyadic death. *Suicide & Life-Threatening Behavior, 9,* 15-23.

Black, D. (1998). *The social structure of right and wrong*. San Diego, CA: Academic.

Bourget, D., Gagné, P., & Whitehurst, L. (2010). Domestic homicide and homicide-suicide. *Journal of the American Academy of Psychiatry & the Law,38*, 305-311.

Bridges, F. S. (2013). Estimates of homicides-suicides among the elderly, 1968 to 1975. *Homicide Studies, 17,* 224-236.

Bridges, F. S., & Lester, D. (23011). Homicide-suicide in the United States, 1968-1975. *Forensic Science International, 206,* 185-189.

Buteau, J., Lesage, A. D., & Kiely, M. C. (1993). Homicide followed by suicide. *Canadian Journal of Psychiatry, 38,* 552-556.

Carretta, C. M., Burgess, A. W., & Welner, M. (2015). Gaps in crisis mental health. *Archives of Psychiatric Nursing, 29,* 339-345.

Chan, C. Y. A. (2007). Hostility in homicide-suicide events. Asian Criminology, 2, 1-18.

Chan, C. Y., Beh, S. L., & Broadhurst, R. G. (2004). Homicide-suicide in Hong Kong, 1989-1998. *Forensic Science International, 140,* 261-267.

Cooper, M., & Eaves, D. (1996). Suicide following homicide in the family. *Violence & Victims, 11,* 99-112.

Danson, L., & Sotthill, K. (1996). Murder followed by suicide. *Journal of Forensic Psychiatry, 7,* 310-322.

Dawson, M. (2005). Intimate femicide followed by suicide. *Suicide & Life-Threatening Behavior, 35,* 76-90.

Densley, J. A., Hilal, S. M., Li, S. d., & Tang, W. (2017). Homicide-suicide in China. *Asian Criminology, 12,* 199-216.

Dietz, P. E. (1986). Mass, serial and sensational homicides. *Bulletin of the New York Academy of Medicine, 62,* 477-491.

Dorpat, T. (1966). Suicide in murderers. *Psychiatry Digest, 27*(June), 51-55.

Easteal, P. (1994). Homicides-suicides between adult sexual intimates. *Suicide & Life-Threatening Behavior, 24,* 140-151.

Eells, G. (1991). *Final Gig*. San Diego: Harcourt Brace Jovanovich.

Emmanuel, M. K., & Campbell, M. H. (2012). Homicide-suicide in the Caribbean. *Journal of the American Academy of Psychiatry & the Law, 40,* 469-471.

Felthous, A. R., & Hempel, A. (1995). Combined homicide-suicides. *Journal of Forensic Sciences, 40,* 846-857.

Felthous, A. R., Hempel, A. G., Heredia, A., Freeman, E., Goodness, K., Holzer, c., Bennett, T. J., & Korndorffer, W. E. (2001). Combined homicide-suicide in Galveston County. *Journal of Forensic Sciences, 46,* 586-592.

Felthous, A. R., Samantarai, S., & Mukhtar, A. (2019). Gender differences in combined homicide-suicide with consideration of female terrorist bombers *Behavioral Sciences & the Law, 37,* 614-631.

Fishbain, D. A., Rao, V. J., & Aldrich, T. E. (1985). Female homicide-suicide perpetrators. *Journal of Forensic Sciences, 30,* 1148-1156.

Flynn, S., Gask, L., Appleby, L., & Shaw, J. (2016). Homicide-suicide and the role of mental disorder. *Social Psychiatry & Psychiatric Epidemiology, 51,* 877-884.

Flynn, S., Gask, L., & Shaw, J. (2015). Newspaper reporting of homicide-suicide and mental illness. *British Journal of Psychiatry Bulletin [BJPsych Bull], 39,* 268-272.

Fridel, E. E. (2022). Integrating the literature on lethal violence. *Homicide Studies, 26,* 123-147.

Fridel, E. E., & Zimmerman, G. M. (2019). Examining homicide-suicide as a current in the stream analogy of lethal violence. *Social Forces, 97,* 1177-1204.

Gregory, M. (2012). Masculinity and homicide-suicide. *International Journal of Law, Crime & Justice, 40,* 133-151.

Haines, J., Williams, C. L., & Lester, D. (2010). Murder-suicide. *Forensic Science International, 202,* 93-06.

Hanzlick, R., & Koponen, M. (1994). Murder-suicide in Fulton County, Georgia, 1988-1991. *American Journal of Forensic Medicine & Pathology, 15,* 168-173.

Hempel, A. G., Meloy, J. R., & Richards, T. C. (1999). Offenders and offense characteristics of a nonrandom sample of mass murderers. *Journal of the American Academy of Psychiatry & Law, 27,* 213-225.

Henry, A., & Short. J. (1954). *Suicide and homicide*. New York: Free Press.

Holland, K. M., Brown, S. V., Hall, J. E., & Logan, J. E. (2018). Circumstances preceding homicide-suicides involving child victims. *Journal of Interpersonal Violence, 33,* 379-401.

Holmes, R. M., & Holmes, S. T. (1992). Understanding mass murder. *Federal Probation, 56*(1), 53-61.

Jena, S., Mountany, L., & Muller, A. (2009)> A demographic study of homicide-suicide in the Pretoria region over a 5 year period. *Journal of Forensic & Legal Medicine, 16,* 261-265.

Joiner, T. E. (2014). *The perversion of virtue: Understanding murder-suicide.* New York: Oxford University Press.

Kalesan, B., Mobily, M. E., Vasan, S., Siegel, M., & Galea, S. ((2018). The role of interpersonal conflict as a determinant of firearm related homicide-suicides at different ages. *Journal of Interpersonal Violence, 33,* 2335-2351.

Kenedi, C., Friedman, H. S., Watson, D., & Preitner, C. (2016). Suicide and murder-suicide involving aircraft. *Aerospace Medicine & Human Performance, 87,* 388-396.

Knoll, J. L., & Hatters-Friedman, S. (2015). The homicide-suicide phenomenon. *Journal of Forensic Sciences, 60,* 1253-1257.

Kominato, Y., Shimada, I., Hata, N., Takizawa, H., & Fujikura, T. (1997). Homicide patterns in the Toyama prefecture, Japan. *Medicine, Science & the Law, 37,* 316-320.

Kotzé,, C., Khamker, N., Lippi, G., Naidu, K., Pooe, J. M., Sokudela, F. B., & Roos, J. L. (2018). Psychiatric and other contributing factors in homicide-suicide cases, from Northern Gauteng, South Africa over a six-year period. *International Journal of Forensic Mental Health, 17,* 35-44.

Kratcoski, P. C. (1990). Circumstances surrounding homicides by older offenders. *Criminal Justice & Behavior, 17,* 420-430.

Joiner, T. E. (2014). *The perversion of virtue*. New York: Oxford University Press.

Large, M. M., Smith, G., & Nielssen, O. (2009). The epidemiology of homicide followed by suicide. *Suicide & Life-Threatening Behavior, 39,* 294-306.

Lester, D. (1987). Murders and suicide: Are they polar opposites? *Behavioral Sciences & the Law, 5,* 49-60.

Lester, D. (1992). Gig Young. *Biographical Studies of Suicide, 3,* 23-27. (see www.drdavidlester.net.

Lester, D. (1995). *Serial killers*. Philadelphia, PA: Charles Press.

Lester, D. (2010a). Linguistic analysis of the blog from a murder-suicide. *Psychological Reports, 106,* 342.

Lester, D. (2010b). Suicide in mass murderers and serial killers. *Suicidology Online, 1,* 19-27.

Lester, D. (2014). Murder-suicide in workplace violence. *Psychological Reports, 115,* 28-31.

Lester, D., & Gunn, J. F. (2021). The suicide notes of murder-suicides. *Suicide Studies, 2*(4), 2-4.

Liem, M., Barber, C., Markwalder, N., Killias, M., & Nieuwbeerta, P. (2011). Homicide-suicide and other violent deaths. *Forensic Science International, 207,* 70-76.

Liem, M., & Nieuwbeerta, P. (2010). Homicide followed by suicide. *Suicide & Life-Threatening Behavior, 40,* 133-145.

Liem, M., Postulart, M., & Nieuwbeerta, P. (2009). Homicide-suicide in the Netherlands. *Homicide Studies, 13,* 99-123.

Lindqvist, P., & Gustafsson, L. (1995). Homicide followed by the offender's suicide in northern Sweden. *Nordic Journal of Psychiatry, 49,* 17-24.

Logan, J., Hill, H. A., Black, M. L., Crosby, A. E., Karch, D. L., Barnes, J. D., & Lubell, K. M. (2008). Characteristics of perpetrators in homicide-followed-by-suicide incidents. *American Journal of Epidemiology, 168,* 1056-1064.

Lund, L. F., & Smorodinsky, S. (2001). Violent death among intimate partners. *Suicide & Life-Threatening Behavior, 31,* 451-459.

Manning, J. (2015a). Suicide and social time. *Dilemas: Revistas de Estudos de Conflicto e Controle Social*, *8*, 97-126.

Manning, J. (2015b). The social structure of homicide-suicide. *Homicide Studies, 19,* 350-369.

Marzuk, P. M., Tardiff, K., & Hirsch, C. S. (1992). The epidemiology of murder-suicide. *Journal of the American Medical Association, 267*, 3179-3183.

McPhredan, S., Eriksson, L., Mazerolle, P., De Leo, D., Johnson, H., & Wortley, R. (2018). Characteristics on homicide-suicide in Australia. *Journal of Interpersonal Violence, 33,* 1805-1829.

Meerloo, J. ((1962). *Suicide and mass suicide*. New York: Grune & Stratton.

Milroy, C. M. (1993). Homicide followed by suicide (dyadic death) in Yorkshire and Humberside. *Medicine, Science & the Law, 33,* 167-171.

Milroy, C. M. (1995b). The epidemiology of murder-suicide. *Forensic Science International, 71,* 117-122.

Milroy, C. M.)1995a). Reasons for homicide and suicide in episodes by dyadic death in Yorkshire and Humberside. *Medicine, Science & the Law, 35,* 213-217.

Milroy, C. M., Dratsas, M., & Ranson, D. L. (1997). Homicide-suicide in Victoria, Australia. *American Journal of Forensic Medicine & Pathology, 18,* 369-373.

Morton, E. Runyan, C. W., Moracco, K. E., & Butts, J. (1998). Partner homicide-suicide involving female homicide victims. *Violence & Victims, 13,* 91-106.

Moskowitz, A. Simpson, A. I. F., McKenna, B., Skipworth, J., & Barry-Walsh, J. (2006). The role of mental illness in homicide-suicide in New Zealand, 1991-2000. *Journal of Forensic Psychiatry & Psychology, 17,* 417-430.

Myers, D., & Neal, C. (1987). Suicide in psychiatric patients. *British Journal of Psychiatry, 133,* 38-44.

Norris, J. (1989). *Serial killers*. New York: Anchor.

Oliffe, J. L., Han, C. S. E., Drummond, M., Maria, E. S., Bottorff, J. L., & Creighton, G. (2015). Men, masculinities, and murder-suicide. *American Journal of Men's Health, 9,* 473-485.

Palermo, G. B., Smith, M. B., Jenzten, J., Henry, T. E., Konicek, P. J., Peterson, G. F., Singh, R. P., & Witeck, M. J. (1997). Murder-suicide of the jealous paranoia type. *American Journal of Forensic Medicine & Pathology, 18,* 374-383.

Palmer, S., & Humphrey, J. (1980). Offender-victim relationships in criminal homicide followed by offender's suicide. *Suicide & Life-Threatening Behavior. 10,* 106-118.

Panczak, R., Geissbühler, M., Zwahlen, M., Tal, K., & Egger, M. (2013). Homicide-suicides compared to homicides and suicide. *Forensic Science International, 233,* 28-36.

Patton, C. L., McNally, M. R., & Fremouw, W. J. (2017). Military versus civilian murder-suicide. *Journal of Interpersonal Violence, 32,* 2566-2590.

Pridmore, S., Varbanov, S., & Sale, I. (2017). Suicide and murder-suicide involving automobiles. *Australasian Psychiatry, 25,* 32-34.

Reddy, S. K., Sukanya, P, & Khalid, A. M. (2016). Murder-suicide cases. *Indian Journal of Forensic Medicine & Toxicology, 10,* 291-294.

Regoeczi, W. C., & Gilson, T. (2018). Homicide–suicide in Cuyahoga County, Ohio, 1991–2016. *Journal of Forensic Sciences, 63,* 1539-1544.

Regoeczi, W. C., Granath, S., Issa, R., Gilson, T., & Sturup, J. (2016). Comparing homicide-suicides in the United States and Sweden. *Journal of Forensic Sciences, 61,* 1524-1530.

Resnick, P. (1969). Child murder by parents. *American Journal of Psychiatry, 126,* 325-334.

Roberts, K., Wassenaar, D., Canetto, S. S., & Pillay, A. (2010). Homicide-suicide in Durban, South Africa. *Journal of Interpersonal Violence, 25,* 877-899.

Roma, P., Spacca, A., Pompili, M., Lester, D., Tatarelli, R., Girardi, P., & Ferracuti, S. (2012). The epidemiology of homicide-suicide in Italy. *Forensic Science International*, *214*, e1-e5.

Rosenbaum, M. (1990). The role of depression in couples involved in murder-suicide and homicide. *American Journal of Psychiatry, 147,* 1036-1039.

Rouchy, E., Germanaud, E., Garcia, M., & Michel, G. (2020). Characteristics of homicide-suicide offenders. *Aggression & Violent Behavior, 55*, #101490.

Saint-Martin, P., Bouyssy, M., & O'Byrne, P. (2008). Homicide-suicide in Tours, France (2000-2005). *Journal of Forensic & Legal Medicine, 15,* 104-109.

Sakuta, T. (1995). A study of murder followed by suicide. *Medicine & Law, 14,* 141-153.

Salari, S. (2007). Patterns of intimate partner homicide suicide in later life. *Clinical Interventions in Aging, 2,* 441-452.

Salari, S., & Sillito, C. L. (2016). Intimate partner homicide-suicide. *Aggression & Violent Behavior, 26,* 26-34.

Saleva, O., Putkonen, H., Kiviruusu, O., & L önnqvist, J. (2007). Homicide-suicide. *Forensic Science International, 166*, 204-208.

Seger, K. A. (1993). Violence in the workplace. *Security Journal, 4,* 139-149.

Shiferaw, K., Burkhardt, S. Lardi, C., Mangin, P., & La Harpe, R. (2010). A half century retrospective study of homicide-suicide in Geneva – Switzerland. *Journal of Forensic & Legal Medicine, 17,* 62-66.

Sillito, C. L., & Salari, S. (2011). Child outcomes and risk factors in U.S. homicide-suicide cases 1999–2004. *Journal of Family Violence, 26,* 285-297.

Somander, L. K. H., & Rammer, L. M. (1991). Intra- and extrafamilial child homicide in Sweden 1971-1980. *Child Abuse & Neglect, 15,* 45-55.

Soubrier, J. P. (2016). Self-crash murder-suicide. *Crisis, 37,* 399-401.

Stack, S. (1997). Homicide followed by suicide. *Criminology, 35,* 435-453.

Stack, S., Bowman, B., & Lester, D. (2012). Suicide by cop in film and society. *Suicide & Life-Threatening Behavior, 42,* 359-376.

Sturup, J., & Caman, S. (2015). Homicide-suicide offenses. *Journal of Criminal Psychology, 6,* 177-187.

Sun, Q., Zhou, J., Guo, H., Gou, N., Lin, R., Huang, Y., Guo, W., & Wang, X. (2021). Incomplete homicide-suicide in Hunan China from 2010 to 2019. *BMC Psychiatry, 21,* #577.

Vatnar, S. K. b., Friestad, C., & Bjørkly, S. (2021). A comparison of intimate partner homicide with intimate partner homicide-suicide. *Journal of Interpersonal Violence, 36,* 8231-8256.

Verzeletti, A., Russo, M. C., & De Ferrari, F. (2014). Homicide-suicide in Brescia County (Northern Italy). *Journal of Forensic & Legal Medicine, 25,* 62-66.

Virkkunen, M. (1974). Suicide linked to homicide. *Psychiatric Quarterly, 48,* 276-282.

Weeke, A., & Oberwittler, D. (2018). A comparison of note writers and no note writers in homicide-suicide cases in Germany. *Archives of Suicide Research, 22,* 11-19.

West, D. (1966). *Murder followed by suicide*. Cambridge, MA: Harvard University Press.

Wilson, M., Daly, M., & Daniele, A. (1995). Familicide. *Aggressive Behavior, 21,* 275-291.

Wolfgang, M. (1958a). Husband-wife homicides. *Journal of Social Therapy, 2,* 263-271.

Wolfgang, M. (1958b). An analysis of homicide-suicide. *Journal of Clinical & Experimental Psychopathology, 19,* 208-217.

Wong, M., & Singer. K. (1973). Abnormal homicide in Hong Kong. *British Journal of Psychiatry, 123,* 295-298.

Zimmerman, G. M., & Fridel, E. E. (2020). Contextualizing homicide-suicide. *Homicide Studies, 24,* 151-177.

Zimmerman, G. M., Fridel, E. E., & Gerdes, M. (2021). Examining the racial dynamic of the victim-offender dyad in homicide-suicide. *Journal of Research in Crime & Delinquency, 58,* 420-466.