

Homicide–suicide: practical implications for risk reduction and support services at primary care level

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Homicide–suicide (HS) has been defined as homicide committed by a person who subsequently commits suicide within one week of the homicide. In most cases it occurs within 24 hours. HS is a public health problem, victimising not only those directly involved in the act, but also family, friends, acquaintances, colleagues, witnesses and investigators.

The literature and findings of recent South African research regarding HS are discussed to highlight the practical implications for risk reduction at primary care level and to address the provision of support services after HS cases.

It has been consistently found that depressed men have the highest risk of committing HS, especially if they also abuse alcohol and have problematic personality traits/disorders, in the context of domestic violence or a problematic relationship. Delusional jealousy, although not a frequent finding, is a great risk for HS. The breakdown of an intimate relationship, with a recent or pending separation (real or imagined), has consistently been found to be the most common contributing factor to HS.

Primary health care practitioners are likely to be the first contact that these individuals or families might have with the healthcare system. Through a better understanding of risk factors involved in HS, prevention may be enhanced in clinical practice. HS has far-reaching effects and healthcare practitioners can offer support and treatment to people traumatised by these events.

Keywords: contributing factors, homicide-suicide, practical implications, risk reduction, support services

Introduction

Homicide–suicide (HS) is a relatively rare event that has a far-reaching impact on communities. HS has no standardised operational definition, but it has been defined as homicide committed by a person who subsequently commits suicide within one week of the homicide. In most cases the subsequent suicide occurs within a 24-hour period. HS is a public health problem and in some of these cases the perpetrator or another family member may have consulted with healthcare practitioners (HCPs). HCPs can also become involved after these events, because HS victimises not only those directly involved in the act but also family, friends, acquaintances, colleagues, witnesses and investigators.^{1–3}

The perception from media reports would be that the incidence of HS is greatly increasing, but the data show HSs to be rare events that seem to be relatively constant. The incidence of HS varies marginally around the world, but studies have shown a global incidence averaging 0.2–0.3 per 100 000 persons.^{1,4,5} Rates in the United States range from 0.134 to 0.55 per 100 000.⁶ Research in two different regions of South Africa reflects a slightly higher incidence than the mentioned international average. The annual incidence of HS in the Pretoria region of South Africa's Gauteng province from January 1997 to October 2001 averaged 1.0 per 100 000.⁷ In Durban, in South Africa's KwaZulu-Natal province, the incidence was 0.89 per 100 000 for the years 2000 to 2001.⁸

Other findings in the South African studies are generally similar to those found globally, in that the majority of HS cases are committed by middle-aged men, with most victims being female and the perpetrator's younger intimate partner. The most frequent apparent reason for murder is the breakdown of an

intimate relationship. Shooting is the commonest method used. Alcohol use is associated with perpetrators and victims at the time of the HS, with a preponderance in the former.^{5,9–13}

Most research suggests that perpetrators of HS differ from typical perpetrators of murder or those who commit suicide in terms of sociodemographic characteristics, and that they are usually older and more likely to be married or recently separated. HS seems more likely to be precipitated by interpersonal crises than suicide only.²

In a recent paper Flynn *et al.* acknowledged that it would be unrealistic to expect general practitioners and psychiatrists to prevent homicide–suicide directly, because these events are relatively rare. However, the number of HS incidents can be reduced by improvement of service delivery through the treatment of depression and recognising the risk associated with domestic violence and separation from a partner.¹⁴

Specific risk factors for HS are based on the relationship between the perpetrator and the victim such as: history of domestic violence; sex of perpetrator and victim; age of perpetrator; presence of divorce/separation; use and availability of a weapon; history of mental illness.⁵

Based on recent research by Kotzé *et al.* the practical implications to path the way of risk reduction in homicide–suicide will be discussed, emphasising the role of the primary care physician. The following aspects for risk reduction will be addressed, referring to this South African study: characteristics of perpetrators and victims; role of mental disorders; contributing events prior to the homicide–suicide. Another aspect of importance that will be addressed is the availability of support to people affected by HS events.¹⁵

Recent findings from South African research

Characteristics of perpetrators and victims

Knoll suggested a classification of HS cases into major patterns that involve a two-part label. The first part is based on the perpetrator's relationship to the victim and the second part specifies the motive of the perpetrator.¹⁶ Recent research into HS in South Africa included 35 HS cases from 2009 to 2014, with a total of 43 victims. The HS classifications found in this study were 22 cases of intimate-possessive HS, 7 cases of filicide-suicide, 4 cases of familicide-suicide, 1 case of extrafamilial HS, and 1 case of familial-psychotic HS.¹⁵

A review done in 2007 included 21 studies and 16 of these studies reported that more than 90% of perpetrators are male with a mean age of 40–50 years. In almost all HS between intimate partners the victims were female.¹⁷ In the recent South African study it was also found that middle-aged men (mean age 38.6 years) committed the majority of HS incidents. Most victims were female and the perpetrator's younger intimate partner (mean age 26.0 years).¹⁵

It has been reported before that full-time employment is not protective against HS.⁵ The most frequent findings with regard to the employment status of the perpetrator in the recent study were unemployment and employment in the security sector that requires carrying of a firearm (e.g. private security services, South African Police Services [SAPS], Correctional Services). The overrepresentation of employment in the security sector was also found in both of the previously mentioned South African studies and all three of the local studies found that shooting was the most common method of committing homicide and suicide.^{7,8,15}

The recent study included three female perpetrators, and in all three cases they killed their children. The one extrafamilial case in this study, where the victim was not a partner or family member, followed the pattern that has been described as adversarial HS and involved a disgruntled individual.^{15,18}

These perpetrators or later victims may present at a primary care level prior to the event. Primary care physicians should be aware of these characteristics and keep this in mind when consulting with these patients, as it may change the approach to the consultation.

Role of mental disorders

In the recent research, a psychiatric diagnosis was made in 15 (42.9%) of the 35 cases.¹⁵ A depressive disorder diagnosis was made in nine (34.6%) of the perpetrators. The specific diagnoses included major depressive disorder and adjustment disorder with depressed mood. Only two of the perpetrators were receiving antidepressant treatment at the time of the incident. At least six but possibly more of the perpetrators had contact with the health services in the weeks before the HS. In three of the cases of adjustment disorder with depressed mood, the diagnosis was related to a diagnosis of HIV.

Co-morbid diagnoses were common with the depressive disorders and included alcohol and substance use disorders, and personality disorders/traits. Six (23.1%) individuals with traits suggestive of different types of personality disorders were identified. Seven (26.9%) of the perpetrators had a substance- or alcohol-related disorder diagnosis. Only one perpetrator was

diagnosed with a psychotic disorder, specifically Othello syndrome or delusional jealousy.¹⁵

A review on mental illness in HS found that depression was the most frequent psychiatric disorder reported (39% of the offenders), followed by substance abuse (20% of the offenders) and psychosis (17% of the offenders).¹⁹ It has also been suggested that depressed patients most at risk for homicide–suicide are those suffering from one of the following: a personality disorder or traits of a personality disorder; a history of child abuse; a history of alcohol and substance abuse; suicidal behaviour; or depression precipitated by sexual infidelity (real or imagined).²⁰

When patients with these characteristics consult with HCPs, the management should always include appropriate risk assessment and management.

Contributing events prior to homicide–suicide

In the recent study by Kotzé et al.¹⁵, relationship problems, infidelity, recent or pending separation, domestic violence, financial/work-related stressors and physical illness were the most frequent contributing factors found. Similar to previous studies, the most frequent contributing factor in HS was found to be the real or threatened loss of an intimate partner.^{2,14,15,21,22}

There were five cases in the recent study where the perpetrators were served with protection orders prior to the HS incident. It may be interpreted that in 5 (14%) of 35 cases examined, the threats of violence by the perpetrator were so serious that the court granted a protection order to the applicant.¹⁵

Support services

The availability of support for people affected by HS events is not addressed in the available literature where the focus is mostly on epidemiology of and risk factors for HS. Of all the family members or friends interviewed for the recent study, only four reported that they received some form of counselling, professional support or treatment after the HS. In all these cases, they consulted with an HCP, usually their family physician, of their own accord. All the people who were interviewed were offered psychiatric/psychological treatment and a few referrals were arranged. None of the family or friends who participated in the research was offered any form of support before they participated in the research.

SAPS members indicated that counselling services are made available to them, but that they seldom make use of the facility. SAPS members were concerned about confidentiality and that receiving psychiatric treatment may influence their career in the SAPS. None of the SAPS investigators accepted offers for referrals for psychiatric assessment and treatment.¹⁵

Discussion

Contributing factors to HS events are multifactorial in nature and motivations are very complex. Rare events such as suicide and HS cannot be accurately predicted to a degree of accuracy that is clinically meaningful, but precipitating factors can be delineated that might assist in a reduction of the number of incidents. Psychopathology, health factors, interpersonal dynamics, domestic violence or previous episodes of violence, possession of firearms, psychosocial stressors and other community factors, such as help from healthcare professionals, family and friends, are all implicated. If prevention and intervention strategies are not sensitive to the understanding and worldview

of the individual, then these strategies may not be effective, or may even fail completely.^{14,15,23–26}

One study in Finland has shown that about 3 out of 10 HS cases might have been prevented if intervention had taken place for suicide or homicide–suicide threats, or if the perpetrator had received treatment for alcohol use problems.²⁷ As reflected in the South African findings and the available literature, men are consistently shown as the most frequent perpetrators, who mostly kill their younger female partners, or in a few cases their whole family, before killing themselves. Young children are the second most frequent homicide victims.^{5,11,14,15}

The role of depression in HS has been reported by numerous studies and was confirmed again in the recent study by Kotzé et al.¹⁵ Depressed men are more at risk of committing HS if they also abuse alcohol and have problematic personality traits/disorders. Delusional jealousy, although not a frequent finding, should be considered as a great risk for HS. This is especially important considering that the breakdown of an intimate relationship, with a recent or pending separation (real or imagined), is consistently found to be the most common apparent contributing factor to HS. Estranged intimate partners carry additional risk when the terminated relationship is dependent or symbiotic in nature.^{10,14,15,22}

Between 2013 and 2017, 4 400 women were murdered by their partners in South Africa. In 2015–2016, 275 536 domestic violence protection order applications were made. The Domestic Violence Act, 1998 (Act No. 116 of 1998) provides for the implementation of protection orders that prohibit those who have been alleged to have committed act(s) of domestic violence from committing further acts of violence. It does not criminalise domestic violence, but criminalises the violation of the protection order. It is meant to be preventative and to be used as a means to control domestic violence. HCPs may interpret this as a protection measure against the occurrence of HS, but in 2009 it was reported that approximately 1 in 20 of the women killed by their intimate partners was in possession of a protection order. A protection order should alert the HCP to the seriousness of the threats. The protection order information must not create a false sense of security that the perpetrator will not complete his actions. It is a false belief that women are safe from the perpetrator once the relationship is terminated.^{22,28–30}

While past behaviour can be a helpful indicator of future behaviour, the perpetrators of HS usually have a low rate of criminal behaviour. Preventative measures in the area of intimate partner HS should focus on the presence of domestic violence as well as signs of premeditation, including previous suicide or homicide threats. The Health Professionals Council of South Africa released a domestic violence protocol in 2012, which includes guidelines for screening and risk assessment, provision of supportive bio-psycho-social care, documentation of evidence of abuse and informing patients of their rights. HCPs should familiarise them with these guidelines to be able to address domestic violence appropriately and to help victims to access support systems, preventing escalation of the violence to the point where it can become fatal.³⁰

An over-representation of the security sector and specifically the SAPS was found in three of the mentioned South African studies. Data from the USA suggest that HS in police families appears to be increasing, and in almost all cases of police family HS,

the police service firearms were used. It was suggested that domestic violence coupled with exposure to violence at work might be a common trigger for HS in police families. While exposure to violence at work cannot be changed, the extension of such violence into the police family can be reduced. The key to prevention of HS may thus be the reduction of domestic violence.^{7,8,15,31}

Shooting is the most frequently used method of both homicide and suicide in most Western countries.^{5,15,18,32} In China and Japan, the most frequent methods used are strangulation/hanging and stabbing.^{9,33} Cross-national differences in the availability of firearms may explain international variations of HS rates and patterns, and restricted access to guns may be one of the most potent ways to prevent HS and other lethal intentional violence.^{24,34,35}

The far-reaching effects of HS were evident in family, friends and SAPS members who have to investigate these events. They all struggled to make sense of the driving forces behind such an act and the impact on their mental health has been a neglected area in research.¹⁵

Practical implications

Through a better understanding of risk factors involved in HS, prevention may be enhanced in clinical practice. For HCPs and therapists, obtaining collateral information may be helpful in augmenting a violence risk assessment of a potential HS perpetrator. A depressed male, with access to a firearm, in a relationship that is characterised by discord, domestic violence and pending separation is the highest risk individual for perpetration of HS.^{2,14,15,19,20,22}

To address all the risk factors in high-risk depressed patients, a multi-professional approach is essential. This should include primary or family HCPs, psychiatrists, social workers and psychologists. In the management of patients with depressive disorders, mental health and primary HCPs must not only enquire about suicidal ideation but must also explore homicidal thoughts. HCPs cannot be expected to prevent homicide–suicide directly, but they can reduce risk generally if they treat depression and recognise and manage the risks associated with domestic violence.^{14,15}

Primary health care services are an ideal place to detect domestic violence. HCPs should be aware that in certain cases where protection orders have been granted, this might create a false sense of security. HS and other forms of domestic violence can only be addressed if HCPs and SAPS members are properly trained to deal with these matters and act more decisively and consistently. HCPs should ensure privacy, as victims are unlikely to disclose domestic violence in the presence of other patients or the perpetrators. Screening for domestic violence should become part of routine health history-taking and HCPs should establish relationships with social workers and SAPS to ensure cooperation and adequate protection of patients. Victims should be provided with information about referral options, support services and available criminal justice options. To treat only the physical manifestations of domestic violence is not an option, as it is well established to be recurrent and can become progressively more dangerous, leading to HS.^{28,30}

It has also been suggested that a detailed tool must be developed to assist coroners and investigators in the field to gather

specific information that will be of use to clinical researchers. This would involve for instance collecting collateral information from neighbours and relatives concerning the background of individuals, specifically past violence and psychiatric history. This will constitute a further step in understanding domestic violence and HS.^{15,28,36}

We will never be able to prevent all cases of homicide–suicide. There will always be family, friends and other contacts of the perpetrators who may be traumatised after these events. The most likely contact that they will have with the healthcare system is through primary care or family practitioners and they should be offered multidisciplinary support services, including referral to social workers and psychologists. Members of police services and emergency personnel must also be kept in mind and measures for early referral to support services must be put in place. Any reluctance to seek professional help must be addressed by educating people and reassuring SAPS members specifically about confidentiality and the nature of available treatment options.

Conclusions

Although it is unrealistic to expect mental health and primary HCPs to prevent HS, it must be seen as a public health concern and the identification of precipitating factors and high-risk individuals can assist in reducing the number of incidents. The South African study found that early recognition and effective treatment of psychiatric illness, particularly depression and substance use problems, in people experiencing relationship issues (with pending/recent separations) should be an essential component in the prevention of HS incidents.¹⁵ A multidisciplinary approach is essential, but primary HCPs are usually the first contact with the health system. Improvements in service delivery will have to focus on direct questioning about these risk factors, including domestic violence, and suicidal and homicidal ideations.

The establishment of a system to collect data, with a special register of HS cases, will assist future research into this phenomenon. The other area that needs urgent attention and where service delivery will have to be improved is the availability of support and treatment for investigators and surviving family and friends. Their overall well-being should be addressed through meaningful social support and effective health care.

It will never be possible to prevent all HS cases, but prevention of even one case will contribute to a decrease in traumatic events that have far-reaching consequences and affect many people. For those cases that cannot be prevented, HCPs, mental health and social services have a definite role to play in offering comfort, support and treatment to all those who remain behind after these events.¹⁵

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