



Injury Control Research Center
for Suicide Prevention

Concepts Matter: Ending the Self-injury Mortality (SIM) Epidemic is an Early 21st Century Imperative

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Wednesday, September 5, 2018

It is common knowledge that words matter. Suicide and self-injury mortality are synonymous in the vital statistics, in contrast to suicide attempts and self-injury morbidity, where the latter also encompasses nonsuicidal self-injury. This false equivalence in mortality dilutes and greatly confounds societal perception of the scope and the nature of the major mental health crisis afflicting our nation. The overlapping suicide and poisoning mortality epidemics really represent a single self-injury mortality (SIM) epidemic. I welcome this opportunity to elucidate my perspective on SIM.



We all experience 'aha' moments. One such flash, in the early 1990s, led me to think elderly female suicides in Japan were highly susceptible to misclassification within the accidental or unintentional drowning mortality category.¹ As odd as this may seem, it piqued my now long-held interest in investigating suicide data quality. Many years later, a second 'aha' moment fueled my suspicion that the accidental and undetermined poisoning death categories, especially opioid intoxication, were heavily implicated in suicide undercounting in the United States² — and potentially posed a serious impediment to surveillance, understanding and prevention of suicide and other SIM.

The bulk of my research, as an injury epidemiologist and suicidologist, has positioned me far from victims and high-risk individuals. I neither see patients nor conduct autopsies or toxicology. To help compensate for these profound deficits as a researcher, I enlisted psychiatrists, emergency physicians,

medical examiners, toxicologists, and other professionals to inform my conceptualization of research issues and help me interpret findings. Our recent collaborative analyses of the rich microdata from the National Violent Death Reporting System reinforced my expectation that suicide notes, together with documentation of psychiatric disorders and any prior suicide attempts, are far more critical for detecting suicides by drug intoxication than those by the other two major and more forensically overt methods of firearm and hanging/suffocation.^{3,4} However, complicating suicide case ascertainment by medical examiners and coroners, there is a dearth of such frequently pivotal evidence, especially physical evidence on the proximal intent of the deceased in an authenticated suicide note.

In the interim, colleagues and I had come to understand that when drug intoxication deaths are viewed behaviorally, rather than through problematic post-mortem inference of decedent intent, most involve repetitive self-harm behaviors. Comprehensive accounting of SIM must transcend registered or known suicides. As a first step to improving SIM characterization as well as accounting, we developed a new concept we labeled death from drug self-intoxication (DDSI).⁵ We proposed that the great preponderance of drug intoxication deaths reflect self-harm. Appropriately motivated and resourced medicolegal death investigation offices could collect corroborating behavioral data, exemplified by records of doctor/pharmacy shopping and nonmedical use of prescription opioids, use of lethal illicit drugs, and drug paraphernalia at the death scene. Without routine and comprehensive collection of these data, to substantiate DDSI as a working concept, we assumed 80% of accidental (unintentional) drug intoxication deaths and 90% of undetermined counterparts were DDSIs.⁶ We then combined these estimated deaths with suicides by any method to compute an enhanced rate of SIM. We showed the national SIM rate had converged with the mortality rate for diabetes by 2014, at 24 deaths per 100,000 population, and had clearly surpassed it by 2016 (29.1 versus 24.8 per 100,000).⁷ A no-brainer and a runaway tragedy, I predict the rate gap will widen through 2018 and beyond. Whereas diabetes is officially the 7th leading cause of death behind Alzheimer's disease (suicide alone is 10th), self-injury exerts a much more devastating impact upon the middle aged and younger populations than those two diseases, although I acknowledge drug misuse and abuse are implicated in all.

Our newest paper makes the case that reversing and ending the SIM epidemic will demand societal attention to upstream factors,⁷ such as growing income inequality, economic dislocation, and underemployment. Resolution of the burgeoning mental health crisis cannot be achieved by the healthcare system alone. With clear definitions, accurate measurement, and political will, together with comprehensive and sustained collaborations among multidisciplinary professionals, government agencies, private sector partners, and community stakeholders, the 20th century witnessed monumental reductions in mortality from cardiovascular disease, tobacco-related lung cancer, HIV, and motor vehicle traffic trauma. Noteworthy, in the context of suicide, substance abuse and SIM, social de-stigmatization was a critical element in generating the necessary political will, scientific innovation, resource mobilization, and clinical and public health reforms to end the HIV mortality epidemic. Lessons from these success stories are translatable for ending the 21st century SIM epidemic.

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