Health care serial murder

What can we learn from the Wettlaufer story?

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In 2016, Canadians were horrified to learn that an Ontario nurse, Elizabeth Wettlaufer, had confessed to killing 8 long-term care (LTC) residents. In July 2019, the Ontario Long-Term Care Homes Public Inquiry presented its recommendations.[1] Although serial murder committed by health care providers is rare, it is more common than most of us imagine. There are lessons to be learned from the Wettlaufer inquiry and from other health care serial murder (HCSM) cases.

It is estimated that an average of 35 Americans are killed by HCSM per year.[2] The true numbers are likely higher, given that these crimes are often missed for years. Most convicted of HCSM are charged with fewer murders than they admit to.

Why is this relevant to family physicians?

I became interested in this subject because I had a leadership role in patient safety for several vulnerable populations. The coverage of the Wettlaufer case made me consider, "Could this happen here?" This topic has limited academic focus, maybe because it is a topic we do not like to consider. The literature is mostly case analyses,[2,3] but government inquiries in several countries augment the academic literature.[4] Although seemingly distant from the world of family medicine, some of the most prolific serial murderers have been family physicians.[5] Also, LTC facilities are an increasingly common location for these crimes, and medical care in LTC homes is usually provided by family physicians.[2] Further, HCSM happens in outpatient, home care, and hospital settings, all places where family physicians provide important care roles.

The Wettlaufer inquiry recommends that health professionals be aware of HCSM and that they should consider the possibility when unusual clinical events occur. To my knowledge, there are no articles in the family medicine literature on this topic.

Two illustrative cases

Harold Shipman was a family physician in England who killed approximately 250 patients over a 27-year period. Early in his career, he was charged with forging meperidine prescriptions. His classic modus operandi was to use a lethal dose of opioids during home visits, complete the death certificate, and falsify his medical records. Although most of the patients killed were elderly, the youngest was aged 41. Most of the crimes had no financial motive, but he did falsify the will of an elderly patient. Suspicions had been raised to police by a local funeral home, which noted that Dr Shipman had a high death rate in his practice and that a number of cremation forms for older women were not countersigned. The initial investigation was terminated, in part because the physician who was asked to review the case could not envision that Dr Shipman could possibly be a killer. Three separate inquiries provided recommendations to prevent future serial killings by family physicians and other health care providers.[4,5]

Elizabeth Wettlaufer graduated in 1995. A year later she was caught stealing opioids from the nursing home where she worked. The College of Nurses of Ontario suspended her licence for 6 months, after which she was allowed to return to work with letters supporting her recovery. She spent much of her career working in LTC homes and had several complaints filed against her. She confessed, while an inpatient at a psychiatric facility, to using insulin to kill 8 LTC residents and to a further 6 attempted murders. Before she admitted to her crimes she avoided being terminated by one employer with the legally mandated support of the Ontario Nurses Association (ONA). It was negotiated that she would not have a mark on her record, and the LTC facility was not allowed to share information about the complaints with future employers. After this episode, she went on to work at another home and killed another resident. The inquiry opined that Wettlaufer would not have been caught if she had not confessed.[1]

Background of HCSM

The phenomenon of HCSM can be considered under the framework of patient safety.[6] Issues related to hiring and credentialing, policies and procedures, hierarchy, communication, and work culture were highlighted in the Ontario inquiry.[1] Clinical and administrative problems that reduce patient safety can increase the possibility of undetected murder by health professionals.

Nurses are the professionals most commonly charged with murder, accounting for 86% of criminal proceedings. Overall, 12% of those charged with HCSM are physicians.[2] Hospitals are the most common location for HCSM (70%),[2] but between 2009 and 2015, the estimated percentage of murders occurring in LTC rose from 20% to 32%,[6] which might reflect increasing frailty and vulnerability of LTC residents. Surprisingly, attacks do happen in outpatient settings. A German nurse was convicted of

killing 85 clinic patients; he cited boredom and the excitement of resuscitation as the driving force for murder.[7]

Box 1 summarizes characteristics of health care murderers described anecdotally in case reviews.[2,3,8] It is common for those committing HCSM to be caught because a colleague or staff member raises concerns based on suspicious characteristics in the context of unusual or concerning circumstances. An index of suspicion from other staff (including physicians) in response to unusual or repeated events is crucial to stopping HCSM; unfortunately, this commonly happens only after multiple deaths.

Health professionals have a status that places them outside of suspicion, and the status of physicians can make them above suspicion. Patients and families place their trust in their caregivers, and most would not consider the possibility of criminal activity by a provider. Health care murderers have a range of lethal approaches that can be hard to detect. Injected medications (opioids, potassium chloride, and insulin) are the "weapons" of choice (52%) and can be hard to identify after death. Suffocation, including forcing water into the victim's lungs, accounts for roughly 15% of deaths.[2]

Medication administration systems might be stretched or limited (eg, insulin administration records) in hospitals or LTC homes, and unless there are strong suspicions when a patient dies the "crime scene" is quickly cleaned and potential evidence disposed of. In LTC facilities it is sometimes said that "no death is unexpected." Even if the death of a frail person *is* unexpected, it is understandable that suspicions might be low unless there is egregious evidence or repeated episodes.

Victims of HCSM are usually vulnerable (often very young or old) but they are not usually terminally ill, even though some health care murderers consider themselves "mercy killers." Nursing home residents are particularly vulnerable given frailty, care needs, and cognitive impairment. In addition, there are many work force shortages. As happened with Elizabeth Wettlaufer, poorly performing or unsafe staff might be tolerated or hired with limited background checks. Legislation and threat of legal action complicate the approach to dealing with professionals engendering competence or patient-safety concerns.[6]

Box 1. Anecdotal "red flag" characteristics described in health care serial murderers

Personal traits
- History of substance abuse or active misuse
- Secretive or difficult personal relationships
- History of mental instability or depression, particularly a diagnosis of personality disorder
- Craving attention or enthusiastic about his or her skills
- History of criminal activities, especially falsification of credentials or work documentation

Work history
- Work instability (moves from one site to another)
- History of disciplinary problems
- Preference for work shifts when fewer co-workers are around
- History of incidents at other facilities

Characteristics that might be noted by co-workers or other staff
- Colleagues anxious or suspicious, especially when they are covering patients during breaks
- Might have nicknames such as "Angel of Death" or "Assassin"
- Makes predictions about who might die and when patients will die
- Found in places in the work environment where they should not be
- Higher incidence of death on his or her shift
- Makes inconsistent statements when challenged about deaths

Data from Yorker et al,[2] Karger et al,[3] and Yardley and Wilson.[8]

Systemic factors

The Ontario inquiry focused on systemic factors that allowed Wettlaufer to act undetected. The College of Nurses of Ontario faced questions about their approach to earlier complaints about her behaviour and unsafe practices and has revised policies related to complaints.[9]

Poor hiring and firing practices in LTC facilities were highlighted. The ONA was criticized for their role in shielding Wettlaufer and ensuring that future employers were not aware of disciplinary actions. The ONA was, however, acting under legislation that mandated this approach. Several American states have enacted legislation in response to HCSM cases to ensure organizations cannot block access to records relating to previous incidents or disciplinary actions.[2,10]

The definition of coroner cases in Ontario was changed in 2013, which has resulted in fewer investigations and autopsies, especially in LTC homes. The Office of the Chief Coroner for Ontario came under scrutiny at the inquiry, as several of the murders had been coroner cases that were not investigated.[1]

Prevention and recognition

Family physicians play important roles in patient safety in hospitals, LTC facilities, and community care. Participation in patient safety processes and good hiring, firing, and disciplinary practices are relevant to prevention and identification. The awareness of HCSM as a *possibility*, particularly when unusual or recurrent events occur, is crucial to earlier identification. In 1991, 4 children on a UK pediatric ward were killed with insulin by a nurse. At the resulting inquiry, the report stated that the "disaster should serve to heighten awareness ... of the possibility of malevolent intervention as a cause of unexplained clinical events."[11]

There are calls to develop formal guidelines on HCSM to give organizations a template to investigate and

manage concerns. In the United Kingdom there have been recommendations for development of specialized assessment teams to decrease the chance that inexperienced staff will miss opportunities to stop culprits early.[4]

In most jurisdictions better reporting systems about incidents and about professional standards of health practitioners are crucial. Legislation to improve hiring and firing practices of hospitals and health organizations is needed to decrease the risk of high-risk staff being hired in the first place and to stop organizations from keeping quiet about concerns owing to fear of legal action on the part of a disciplined staff member.

The families of Elizabeth Wettlaufer's victims believed that the system had let them down by putting the health professional before the patient. Comments from family members of victims reflected this anger: "They put money and reputation in front of a human life."[12] Health care serial murder is an extreme failure of patient safety processes. Relevant recommendations from the inquiry to help address these concerns are outlined in **Box 2,** and the executive summary and full report of the Ontario inquiry is available from **https://longtermcareinquiry.ca/en/final-report**.[1]

Has this knowledge changed my practice?

Awareness has changed my practice in small but relevant ways. When unusual events happen on my wards, I consider the remote possibility of malevolent actions. I participate fully in the patient safety processes of my organization, including paying close attention to credentialing processes. Medication safety is another area of focus for me. I now try to identify and address concerning problematic behaviour or less-than-optimal care in a clear and direct manner, through direct feedback and using official processes, rather than just tolerating it. After a patient dies, I give closer consideration to the criteria for coroner review. I have also been active in sharing information about HCSM and the Ontario Long-Term Care Homes Public Inquiry in hospitals, family medicine grand rounds, and LTC homes in my area.

Although HCSM is very rare, Elizabeth Wettlaufer showed that it happens in Canada, and we need to be aware and to play a role in prevention and early identification.

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Competing interests
None declared

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Box 2. Selected recommendations from the Ontario Long-Term Care Homes Public Inquiry

Education and training

- The organizations and institutions responsible for educating and training the groups that make up the health care system must be responsible for the delivery of education and training on the possibility that health care providers might intentionally harm those in their care
- LTC homes should amend their contracts with medical directors to require them to complete the Ontario Long-Term Care Clinicians' medical director course within 2 years of assuming the role
- If local coroners continue to perform death investigations of residents in LTC homes, the Office of the Chief Coroner should require that they take ongoing training on performing death investigations in LTC homes

Hiring and firing in LTC homes

- LTC homes should adopt a hiring and screening process that includes robust reference checking, background checks when there are gaps in a resume or if the candidate was terminated from previous employment, and close supervision of the candidate during the probationary period
- LTC homes must maintain a complete discipline history for each employee so management can easily review it when making discipline decisions

Prevention

- LTC homes should require directors of nursing to conduct unannounced spot checks on evening and night shifts, including weekends
- LTC homes should take reasonable steps to limit the supply of insulin
- A 3-pronged approach should be taken to deter wrongdoers from intentionally harming residents through the use of medication:
  -strengthen the medication management system in LTC homes;
  -improve medication incident analysis in LTC homes; and
  -increase the number of registered staff in LTC homes
- The Office of the Chief Coroner and the Ontario Forensic Pathology Service should increase the number of death investigations of residents in LTC homes using information from the redesigned Institutional Patient Death Record
- The Office of the Chief Coroner and the Ontario Forensic Pathology Service should replace the Institutional Patient Death Record with a redesigned evidence-based resident death record, following consultation with stakeholders

Detection

- The College of Nurses of Ontario should strengthen its intake investigation process following receipt of termination and other reports by training intake investigators on the health care serial murder phenomenon and how to conduct their inquiries in light of it
- The Office of the Chief Coroner should develop protocols and policies on the involvement of forensic pathologists in the death investigation process of residents in LTC homes

LTC—long-term care.
Data from Gillese.[1]

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