
Exploring Health Professional Criminality and Competence Using the Case of Canadian Health Care Serial Killer Elizabeth Wettlaufer

.....
Ai-Leng Foong-Reichert, BSc, PharmD; Kelly A. Grindrod, BScPharm, PharmD, MSc;
Sherilyn K.D. Houle, BSP, PhD

ABSTRACT: Health professional criminal behavior and clinical incompetence are distinct concepts that both endanger the public. In this paper, we compare and contrast these concepts using the case of convicted Canadian health care serial killer Elizabeth Wettlaufer, who also exhibited a pattern of clinical incompetence throughout her career. As one Canadian province is proposing changes to self-regulation to become more like the United Kingdom, we highlight four ways to improve protection of the public in a self-regulating system. These include meta-regulation, standardized hiring practices, increased transparency by regulatory bodies and improved communication across regulators and other agencies.

Introduction

Stories about health professionals who are in trouble with their regulatory bodies are often newsworthy, especially those involving explicit criminal acts such as murder, sexual assault, fraud or the diversion of opioids. In 2017, the case of Elizabeth Wettlaufer, Canada's first known health professional serial murderer, captured attention and outraged the public.¹ Wettlaufer was a registered nurse in Ontario who was sentenced to life in prison after confessing to killing eight residents of long-term care homes and attempting to murder four others, in all cases through the intentional misuse of insulin.¹ Following her criminal conviction, a public inquiry ("the public inquiry") also identified that Wettlaufer had ongoing issues with incompetence, medication errors, narcotic diversion, mental health and unprofessionalism that should have raised red flags earlier. While failures in Ontario's long-term care system contributed to Wettlaufer's crimes, the regulatory system missed opportunities to monitor her practice, intervene and investigate. In this way, the case of Wettlaufer provides a unique opportunity to distinguish between competence and criminality in health care and to identify changes to regulation in Canada that could better protect the public. We begin by providing background about the Canadian health care system, as well as a case summary of Elizabeth Wettlaufer.

Background

Health Care Regulation in Canada

Similar to the United States, where health care and health professionals are regulated at the state level, health care and health professionals in

Canada are regulated at the provincial or territorial level.² Certain aspects are regulated at the federal level, such as regulation of medications and medical devices, and provision of health care to certain groups, such as those in the Canadian Armed Forces, Indigenous peoples, veterans and refugees.² Health care delivery is administered by the province, including health insurance plans that apply to all residents, funding of hospitals, and fees that health professionals can charge for provincially-funded health. Differences exist in the health services and medications that are covered in each province. Health professionals are registered, licensed, regulated and disciplined by provincial

WHILE FAILURES IN ONTARIO'S LONG-TERM CARE SYSTEM CONTRIBUTED TO WETTLAUFER'S CRIMES, THE REGULATORY SYSTEM MISSED OPPORTUNITIES TO MONITOR HER PRACTICE, INTERVENE AND INVESTIGATE.

regulatory bodies that are often specific to one profession (e.g., College of Nurses of Ontario), although they sometimes include more than one profession. Both the United States and Canada have systems of self-regulation, with additional forms of oversight to ensure safety and accountability, such as independent government bodies, professional associations and employers.³

Complaints and disciplinary action investigations and processes are conducted by the provincial regulator. Unlike the United States, which has created the National Practitioner Data Bank, Canada does not have a central repository of discipline and

malpractice claims against professionals. Typically, the onus is on health professionals to self-report any past criminal activity or disciplinary decisions if they seek registration in another province.⁴ Case decisions are typically available online through the regulator's website or on the Canadian Legal Information Institute, which provides free access to all court decisions and includes some tribunal decisions. This means that any criminal or civil processes against a professional could be found on the Canadian Legal Information Institute, but that disciplinary decisions may not always be available, since they are decided upon by regulatory body

IN CANADA, REGULATORY BODIES CAN DISCIPLINE PRACTITIONERS FOR CRIMES COMMITTED DURING PROFESSIONAL PRACTICE, AS WELL AS FOR OTHER CRIMES, SUCH AS FAILING TO FILE TAX RETURNS OR VOYEURISM NOT RELATED TO PRACTICE.

disciplinary tribunals. In addition, not all provinces publish case decisions online or on the Canadian Legal Information Institute, depending on their provincial privacy laws, and some regulators state that they reserve the right not to publish certain cases.⁵

Case Summary

Elizabeth Wettlaufer was born in southwestern Ontario in 1967.¹ After graduation as a registered nurse, she worked at Geraldton District Hospital, where she was fired for stealing benzodiazepines and working while under the influence. She later worked predominantly in long-term care facilities, where she committed her crimes at Meadow Park, Caressant Care, Telfer Place and a private home in southwestern Ontario from 2007 to 2016, using lethal injections of insulin. Throughout her life, she struggled with mental health issues, substance use and sexual identity. Professionally, her career was marred by medication errors, professionalism concerns and two terminations. In 2016, she checked in to the Centre for Addiction and Mental Health, Canada's largest mental health teaching hospital, and confessed to her crimes; without this confession, she likely would have gone undetected. In 2017, she was convicted of eight counts of murder, four counts of attempted murder, and two counts of aggravated assault, motivated not by mercy killings or concern for the victims, but for personal gratification and anger about her life and personal circumstances. She was sentenced to

life in prison with no chance of parole for 25 years. This case has highlighted problems with the current long-term care system in Ontario, as well as challenges regarding regulation of health professionals that commit crimes during practice.

Criminality

Criminality and competence are distinct concepts that endanger the public in different ways. While criminal behavior is an ethical violation that involves breaking the law, incompetence is a violation of a regulatory body's standard of practice. Cases involving criminal activity are often processed through a criminal justice system as well as investigated by the regulatory body. Cases involving incompetence are typically investigated only by the regulatory body, but can be the subject of a civil lawsuit if a patient is harmed.

In Canada, regulatory bodies can discipline practitioners for crimes committed during professional practice, as well as for other crimes, such as failing to file tax returns or voyeurism not related to practice. Professionals are often required by the regulator to self-report any charges or guilty findings they might have against them. In this paper, we focus on crimes committed during practice. From the perspective of a regulatory body, a health professional who commits a crime is not necessarily incompetent and the crime may or may not endanger the public. For example, health care fraud is illegal in the regulatory sense, but it violates professionalism rather than clinical standards as long as it does not pose a serious danger to the public. Some crimes do pose a danger to the public, such as sexual assault or murder in the case of Wettlaufer, but this does not always imply incompetence. In contrast, a clinician who provides substandard care does not commit a crime but does violate regulatory body standards of practice and could then be dealt with by the regulatory body to ensure the public is protected.

The study of crime and its perpetrators is complex and multifactorial. Health professional criminality activity includes fraud, sexual assault, drug trafficking, and in the case of Wettlaufer, serial murder. Wettlaufer had many of the characteristics shared with health professional serial killers — she was a nurse (in a study of 90 health care serial killers, 86% were nurses), she targeted vulnerable patients during the night shift, she injected a non-narcotic medication as her weapon and she continued killing across multiple jobs over time.⁶

Her murders were not easy to detect and the public inquiry into the Wettlaufer case found that she would not have been discovered had she not confessed.¹

Competence and Engagement

Incompetence differs from criminality because incompetence does not involve the breaking of specific laws. Rather, it involves a breach in the public's expectation of the quality and level of care that a health professional is expected to provide. Competence involves a clinician's fitness to practice, which refers to having the "skills, knowledge, character, and health to practice safely and effectively."⁷

In the 1990s, competence-based frameworks originated in education as a way to demonstrate accountability and real-world significance of what was being taught.^{8,9} Prior to this, the education model was process-focused. In other words, time spent on a rotation or in the program combined with passing knowledge-based exams was the measure of successful program completion; in contrast, competence frameworks are outcomes-focused and value the skills and abilities acquired.^{8,10,11} In competence-based education, the clinician's role is thusly translated into various competencies that describe the profession's work.¹⁰ Curriculum and assessments are created based on the competencies to determine minimum standards for passing.^{8,10} By the 2000s, regulatory and accreditation bodies were adopting competence frameworks more broadly.^{9,12} In Canada, for example, the CanMEDS competency framework was first developed in 1996

IN THE 1990S, COMPETENCE-BASED FRAMEWORKS ORIGINATED IN EDUCATION AS A WAY TO DEMONSTRATE ACCOUNTABILITY AND REAL-WORLD SIGNIFICANCE OF WHAT WAS BEING TAUGHT.

by the Royal College of Physicians and Surgeons of Canada (the licensing and accreditation body for medical education and medical residencies).⁹ Since 2005, the College has adopted the CanMEDS maintenance of competence program, and it is the most widely adopted competence framework for medical education worldwide.^{9,13}

Competence tests have been criticized for reducing the complex work of a professional to a list of discrete tasks.¹⁰ One criticism of competence

frameworks is that minimum standards for assessment or accreditation demotivate learners by encouraging students to strive for minimal competency.¹⁰ The focus shifts from critically thinking about their role as a clinician to performing a

AUSTIN AND GREGORY FOUND THAT THE MOST COMMONLY USED METHODS ARE THE LEAST EVIDENCE-BASED FOR ENSURING CONTINUED PROFESSIONAL LEARNING AND COMPETENCE.

checklist of tasks. Further, this may present a false binary, where those who meet the competencies are deemed "competent" while those who do not meet competencies are "incompetent."¹⁴ In their review of quality assurance and maintenance of competence practices across jurisdictions and professions, Austin and Gregory found that the most commonly used methods are the least evidence-based for ensuring continued professional learning and competence—such metrics include continuing education or professional development requirements, and learning portfolios.¹⁵ In contrast, practice-based assessments such as direct peer assessment or concealed observation have more evidence for their use in evaluating continued competence. In Wettlaufer's case, she initially met minimal competency by graduating from nursing school and becoming licensed, but over time she made numerous medication errors at multiple workplaces.¹ Perhaps more rigorous competency assessments would have flagged Wettlaufer's behavior earlier, especially in light of her termination due to competence concerns.

Frank et al. recognize competence as "an ever-changing, contextual construction" and note that there is a "progression of competence" over one's career where certain skills become well-developed while others are unneeded depending on the work environment.¹¹ Austin and Gregory also conceptualize competence as dynamic, proposing that competence is a continuum rather than a binary construct, where health care providers drift along the spectrum from competence to incompetence.¹⁴ Research in pharmacists has shown that this drift can result from disengagement from the profession, which is fueled by professional isolation (e.g., working alone), or more years in practice due to the change in scope of practice of pharmacists in recent years and the challenge to stay up-to-date

with current treatment guidelines.¹⁴ This may in part explain the loss of competence in Wettlaufer's case, who engaged in staff training and participation on other committees earlier in her career but appears to have disengaged.¹

Austin and Gregory argue that engagement is a more useful marker of continued competence than a binary competence test.¹⁴ Alternative metrics that may better capture engagement are involvement in teaching/mentoring, professional associations and non-mandatory continuing education sessions.¹⁴ Aside from overseeing medication training in 2001, the public inquiry into the Wettlaufer case was not able to identify any of these additional activities.¹ Validated tools to measure workplace engagement have been developed, but the relation of these tools to clinical incompetence in health professionals has not been studied.¹⁶

Improving Self-Regulation

There is no easy solution to decrease or better detect crime or incompetence. Criminality is hard to predict, and continued competence is difficult to measure.

Profiling of clinicians based on characteristics associated with crime, incompetence, or disciplinary action can lead to discrimination, and most clinicians that fit one of these profiles do not go on to offend.¹⁷

The public inquiry into the Wettlaufer case made more than 90 recommendations to address what was found to be a system failure that had created the circumstances that enabled her behavior. Recommendations from the public inquiry to better protect patients address both criminality and competence and include improvements to medication safety strategies, reporting and investigation of errors, death investigations and long-term care hiring processes and staff training.¹ Nine recommendations were specifically for the College of Nurses of Ontario (CNO), including strengthening the investigation process in cases of termination or mandatory reporting (i.e., where employers or health professionals must report termination of a health care employee in cases of incompetence, incapacity, misconduct, or sexual abuse^{4,18}), improvement of mandatory reporting process by long-term care homes and education of nurses and trainees on mandatory reporting and the phenomenon of health care serial murderers.¹ Here, we discuss four ways to improve protection

of the public through regulation in light of the Wettlaufer case.

1. Meta-Regulation in Canada

Historically, many Western countries have opted for self-regulation based on the idea that ensuring competence requires a profession's unique knowledge that government regulation might not be able to provide.¹⁹ However, over the last 20 years, the United Kingdom and Australia have undergone changes in self-regulation fueled by a variety of factors, including a desire to improve personnel and cost efficiency, criticism that self-regulation prioritizes the profession's interest over the public interest and health professional scandals that resulted in calls for better protection of the public.²⁰ The United Kingdom transitioned to government regulation for increased oversight, and regulatory boards are now comprised of a majority of non-professionals.²¹ Australia, while still self-regulated, has also made changes to increase government oversight and now regulates a number of health

THERE IS NO EASY SOLUTION TO DECREASE OR BETTER DETECT CRIME OR INCOMPETENCE. CRIMINALITY IS HARD TO PREDICT, AND CONTINUED COMPETENCE IS DIFFICULT TO MEASURE.

professionals on a national level rather than a state level.²⁰ Australia's disciplinary action process, similar to the UK's General Medical Council, is administered by an independent adjudicator outside of the regulatory body to prevent conflicts of interest.²¹ Canada, however, has been called "the last bastion of unfettered self-regulation" in the world.¹⁹ Similar to the United States, professions are self-regulated on a provincial level, resulting in variations across jurisdictions and professions with provinces often having upwards of 20 regulatory bodies.

But change is coming — the Canadian province of British Columbia is currently proposing an overhaul of its health care regulation, making it the province with the most progressive regulation and the most similar to the UK system.²² In response to an inquiry by the Minister of Health, the 2019 Cayton Report (conducted by Harry Cayton, the former head of the UK meta-regulator, the Professional Standards Authority) reviewed health professional regulation in British Columbia.²² It provided key

recommendations, including the creation of a meta-regulator — an oversight body independent from government to audit regulators, set regulation policies and practices and oversee the appointment of the Board of Directors of each regulatory body.²²

Ontario is Canada's most populous province and has a form of meta-regulation — The Office of the Fairness Commissioner — which ensures that registration practices for health professionals are transparent, objective, impartial and fair, especially for internationally trained clinicians.²³ However, The Office of the Fairness Commissioner focuses on the process of becoming licensed as a health professional in Ontario and does not report on other regulatory body practices after licensure. Manitoba and Nova Scotia also have fairness commissioners to ensure fair registration practices, but other provinces still lack the transparency provided by such a body.^{24,25} Even if a meta-regulator had been in place at the time of the Wettlaufer killings, the meta-regulator still may have missed key factors — such as the involvement of the regulatory body, nurses' union and professional association — but may have been better positioned to deter unethical practices and raise the standard of regulation overall.

2. Standardized Hiring Practices

In a study of health care serial murders, Yorker et al. observed that while few health care killers had a criminal record, many had lied about their credentials or background.⁶ Employers should seriously consider past fraud or misrepresentation before hiring.⁶ Wettlaufer misrepresented her employment history throughout her career. She was fired twice — once from her first job at Geraldton District Hospital — where she stole benzodiazepines and worked while under the influence — and once by Caressant Care for unprofessionalism and incompetence.¹ On all subsequent job applications, Wettlaufer omitted her employment at Geraldton District Hospital and the fact that she was under investigation by the CNO. She successfully grieved both terminations through the Ontario Nurses Association (the provincial nurses' union), resulting in both terminations being recorded as resignations, and requiring the employers to write letters of recommendation, and in the case of Caressant Care, make a payment of \$2,000 in damages.¹

Yorker et al. urge employers to provide accurate letters of reference, especially when an employee is fired or when there is an adverse clinical outcome.⁶ In 2008, the National Health Service in the UK

provided additional guidelines for pre-employment checks after the 2002 conviction of Colin Norris, a Scottish RN who murdered four patients using insulin and whose student record included concerns that were not communicated to his employer.²⁶ Scotland has also revamped university practices when providing references to graduating nursing students.²⁷ The new reference check provides more detailed information about concerns raised during the student's academic career, such as concerns about integrity, attendance or any events involving the criminal system that would show up on a criminal record check.^{27,28} Although the effects of rigorous and standardized reference checks has not been validated (and some argue that the risk will never be eliminated)²⁶ it seems likely to improve transparency in hiring. Some defend concerns during school, saying that it is a time to learn, but students who have professionalism concerns on their academic record are at higher risk of being disciplined later in their career, as are students who struggle academically early in medical school.²⁹⁻³¹

After she was fired from Caressant Care in 2014, Wettlaufer applied to work at Meadow Park in London, Ontario, where references from multiple workplaces were contacted but were not transparent.¹ As mentioned previously, Wettlaufer grieved two terminations of employment during her career, and in both cases, the employers had to provide a letter of reference according to the terms of the settlement.¹ Accurate reference checks could have uncovered some of the problems with medication errors, absenteeism, unprofessional conduct or reasons for dismissal, but might have been more useful for competency concerns than for criminality. The responsibility for reformed hiring practices lies

IN A STUDY OF HEALTH CARE SERIAL MURDERS, YORKER ET AL. OBSERVED THAT WHILE FEW HEALTH CARE KILLERS HAD A CRIMINAL RECORD, MANY HAD LIED ABOUT THEIR CREDENTIALS OR BACKGROUND.

with both past and future employers. Lax hiring practices or reference letters that include half-truths have serious consequences for patient safety. While some employers are rightfully concerned about being sued for defamation, employers should recognize that they could also be sued for concealing information from another employer doing their due diligence when hiring.³² Two Ontario

Superior Court cases from 2017 illustrate that employers can be found guilty of defamation for providing references that include negative comments about an employee.³³ In both cases, employers were cleared of liability but two lessons can be learned: 1) Ensure that anything in the reference given is truthful and without malice, and that any negative comments made about the employee are documented in the employee's record; and 2) in Ontario, case law has demonstrated that references are protected by "qualified privilege," meaning that the employer must be able to provide positive and negative elements in a reference without fear of defamation in order to preserve the value of reference letters. A reference is protected if employers say or write what they believe to be true at the time. To avoid liability, keeping accurate documentation is key.^{32,33} Negative information can be conveyed if the information is provided in good faith on a need-to-know basis and is in the person's employment record. Subjective information about personality or attitude or information that is not related to the job is more likely to be grounds for a defamation suit.

3. Increased Transparency by Regulatory Bodies

DuBois and colleagues have extensively researched serious ethical violations by health care professionals, specifically sexual assault of patients, unnecessary invasive procedures and improper prescribing of controlled substances, all of which involve criminal behavior.¹⁷ They call for regulatory bodies to keep a complete record of accusations against physicians, which can be extrapolated to all regulated health professionals.¹⁷ This would allow trends relating to unprofessionalism or incompetence to be identified earlier, and could also be used by different jurisdictions if a health professional moved to another state or province. While some might find this unforgiving, perhaps such a record should be accepted as part of self-regulation in order to protect the public.¹⁷ Interestingly, as a result of the Cayton Report on health care regulation in British Columbia, the province is considering making all founded complaints public — a significant change since across Canada complaints are largely unpublished.²² The National Practitioner Data Bank in the United States is an example of a reporting system where adverse actions against a health practitioner — including malpractice payments, disciplinary findings from regulatory bodies or hospitals and civil or criminal convictions — are recorded in a national database to increase transparency, protect the public and prevent practitioners

from moving to another state without disclosure.^{34,35} While investigations that did not result in a formal action or rulings in favor of the practitioner are not reported,^{34,36} and some suggest variation in institution and board reporting,³⁴ a similar national repository would be useful in Canada.

In the case of Wettlaufer, the Geraldton District Hospital incident was reported to the CNO in November 1995, but the incapacity decision was not made until May 1997.¹ Until this point, there was no record that Wettlaufer was under investigation. Even when the decision was made public by the CNO, only the incapacity decision was published, not the actual conditions imposed on her license. In addition, the record of the finding was required to be published on the CNO for only six years. By the time Wettlaufer applied to work at

BY THE TIME WETTLAUFER APPLIED TO WORK AT CARESSANT CARE AND SUBSEQUENT FACILITIES WHERE SHE CONDUCTED HER KILLINGS, SHE APPEARED TO HAVE NO DISCIPLINARY RECORD WITH THE REGULATORY BODY.

Caressant Care and subsequent facilities where she conducted her killings, she appeared to have no disciplinary record with the regulatory body. A complete record maintained by the regulatory body should also include a record of terminations due to misconduct or incompetence, which would help inform employers when hiring and patients when choosing a practitioner.

The public inquiry also recommended that the CNO strengthen its investigation process when facilities report terminations or other mandatory reports. Wettlaufer had a history of substance use disorder and struggled with multiple mental health issues. Research has shown that profiling health professionals based on psychological profiles to identify health care serial killers is not accurate or effective, because there are no specific psychological profiles associated with health care serial killers.¹⁷ Dubois et al. studied serious ethical violations by health professionals, but found that many who fit the profile would not go on to offend.¹⁷ Wettlaufer's termination from Caressant Care for multiple medication errors was not investigated by the CNO, an investigation that should have resulted from the mandatory report in itself but was further warranted given her history of documented substance use disorder and mental health issues.¹ While Wettlaufer

might not have been easily detected solely based on her psychological profile, her incompetence could have served as an opportunity for the regulator to investigate and discover her crimes. At the least, the investigation could have resulted in some limitations or increased monitoring being put on Wettlaufer's license to practice, possibly preventing further crimes.

Standards and requirements for documentation and disclosure issues set at a national level could improve transparency for health professionals and health care facilities across Canada. In Canada, the Health Standards Organization sets standards and assessment programs for health and social services organizations in Canada,³⁷ while Accreditation Canada conducts the actual accreditation process for these organizations.³⁸ Both are non-profit organizations independent of government. There are also provincial governmental organizations that set standards, such as Health Quality Ontario, that report on health care quality and improvement.³⁹ Implementing standards for disclosure of regulatory body discipline or organizational discipline and professionalism concerns would improve safety and quality of health care.

4. Transparent Communication Across Regulatory Bodies and Other Agencies

Wettlaufer misrepresented her employment history, but the public inquiry concluded that her misrepresentation was enabled by the nurses' union, her employers and the CNO. One recommendation in the public inquiry into the Wettlaufer case identified the need for better communication between the government and the CNO, particularly information relating to investigations of potential harms to patient safety.¹ Further, as a result of the Cayton Report on health care regulation in British Columbia, better information-sharing across regulatory bodies and other agencies is one of the five recommendations for health care regulation reform.²² Reviews of disciplinary action have found that half of complaints to regulatory bodies come from patients or their families.⁴⁰⁻⁴² This reflects a significant onus on patients to detect and report incompetence. As regulatory bodies are the main pathway through which patients lodge complaints and incompetence is investigated, regulatory bodies need to communicate transparently with relevant organizations (e.g., law enforcement, hospitals or practice sites).

Some argue that more involvement of legal authorities is a drawback because it decreases self-regulation,¹⁷ but perhaps more oversight and coordination is

needed to repair a system facing criticism. In cases where the health professional does not voluntarily resign their license or the employer does not restrict it, it is unclear as to when the regulator should step in to protect the public from a criminal who could hurt someone intentionally or from an incompetent provider who could cause harm unintentionally. Most regulatory bodies have the authority to temporarily suspend a license to practice or place conditions on a license until the full investigation is complete, but regulatory bodies in Canada are not automatically notified when health professionals face criminal action. Automatic notification would allow regulators to quickly investigate and sanction as required.⁴³

In Wettlaufer's case, a temporary suspension was not needed because she gave up her license shortly after her confession to the murders, but the CNO still permanently revoked her license after her conviction.¹ Interestingly, police asked the CNO to limit its investigation in light of the criminal investigation, which presumably is a position the CNO could take because Wettlaufer was no longer employed as a nurse.⁴⁴ Similarly, in the case of Dr. Mohammed Shamji, the Toronto neurosurgeon who murdered his wife Dr. Elana Fric (a family doctor and associate professor at the University of Toronto), the hospital revoked his privileges days after the murder and his license eventually expired, meaning the regulatory body did not need to suspend his license.⁴⁵ Shamji's license was ultimately revoked by the college a year after his conviction. In contrast, Ontario neurologist Dr. Jeffrey Sloka, who faces more than 60 charges of sexual assault, did not give up his license and his privileges were not

WETTLAUFER MISPRESENTED HER EMPLOYMENT HISTORY, BUT THE PUBLIC INQUIRY CONCLUDED THAT HER MISREPRESENTATION WAS ENABLED BY THE NURSES' UNION, HER EMPLOYERS AND THE CNO.

revoked by his employer. The regulatory body placed conditions on his license and revoked his license before he was arrested a few months later.⁴⁶ These three cases highlight how it is difficult to rely on self-reporting in cases where a license should be restricted. Open communication and strong collaboration among agencies will reduce uncertainty in cases where both the criminal justice system and the regulatory body are involved.

Conclusion

Serial murders by health professionals like Wettlaufer are rare (131 prosecutions worldwide as of 2006), but the case of Canada's first known health care professional serial murderer has already led to improvements in health care delivery and regulation and should continue to do so in the coming years.⁶ The Wettlaufer case highlights that criminality and incompetence are distinct but equally dangerous, and can overlap. Wettlaufer's repeated medication errors involving insulin and narcotic administration were likely signs of criminal behavior as well as

AS COUNTRIES TRANSITION AWAY FROM TRADITIONAL SELF-REGULATION TOWARD MODELS WITH INCREASED GOVERNMENT OVERSIGHT AND ACCOUNTABILITY, IT SEEMS THAT CANADA MIGHT SOON FOLLOW SUIT.

incompetence, and failing to properly deal with these signs had serious consequences. As countries transition away from traditional self-regulation toward models with increased government oversight and accountability, it seems that Canada might soon follow suit. Given the responsibility and power that health professionals hold, the changes that might be seen as an erosion of traditional self-regulation should be pursued and welcomed as ways to better protect the public. ■

Acknowledgements

We gratefully acknowledge the contributions of Dr. David Edwards and Dr. Zubin Austin for their guidance in developing this paper and in revising early drafts.

Funding: Ai-Leng Foong-Reichert was funded by the Canadian Institutes of Health Research and the Ontario Graduate Scholarship.

About the Authors

Ai-Leng Foong-Reichert, BSc, PharmD, is a PhD Candidate at the University of Waterloo School of Pharmacy.

Kelly A. Grindrod, BScPharm, PharmD, MSc, is an Associate Professor at the University of Waterloo School of Pharmacy.

Sherilyn K.D. Houle, BSP, PhD, is an Assistant Professor at the University of Waterloo School of Pharmacy.

References

1. Gillese EE. *Public Inquiry into the Safety and Security of Residents in the Long-Term Care Homes System*. Toronto. July 31, 2019. Accessed June 10, 2021. <https://longtermcareinquiry.ca/en/final-report/>.
2. Government of Canada. Canada's Health Care System. Published 2019. Accessed May 31, 2021. <https://www.canada.ca/en/health-canada/services/health-care-system/reports-publications/health-care-system/canada.html>.
3. Adams T. Health professional regulation in historical context: Canada, the USA and the UK (19th century to present). *Human Resources for Health*. 2020;18(72).
4. Ontario College of Pharmacists. Pharmacy Connection: Mandatory Reporting. Published 2013. Accessed May 12, 2021. <https://www.ocpinfo.com/library/practice-related/download/Mandatory%20Reporting.pdf>.
5. Alberta College of Pharmacy. Hearing decisions disclaimer. Published 2020. Accessed May 31, 2021. <https://abpharmacy.ca/hearing-decisions/disclaimer>.
6. Yorker BC, Kizer KW, Lampe P, Forrest AR, Lannan JM, Russell DA. Serial murder by healthcare professionals. *Journal of forensic sciences*. 2006;51(6):1362-1371.
7. Health and Care Professions Council. Information for employers and managers: The fitness to practice process. Published 2019. Accessed June 10, 2021. <http://www.hpc-uk.org/globalassets/resources/guidance/the-fitness-to-practise-process-information-for-employers-and-managers.pdf>.
8. Health and Care Professions Council. *Preventing small problems from becoming big problems in health and care*. Published 2015. Accessed June 10, 2021. <https://www.hpc-uk.org/globalassets/resources/reports/preventing-small-problems-from-becoming-big-problems-in-health-and-care.pdf?v=636785062220000000>.
9. Frank JR, Danoff D. The CanMEDS initiative: implementing an outcomes-based framework of physician competencies. *Medical Teacher*. 2007;29(7):642-647.
10. Leung W. Competency based medical training: review. *BMJ*. 2002;325:693-696.
11. Frank JR, Snell L, Cate OT, Holmboe ES, Carraccio C, Swing SR et al. Competency-based medical education: theory to practice. *Medical Teacher*. 2010;32(8):638-645.
12. Iobst W, Sherbino J, Cate OT, Richardson DL, Dath D, Swing SR. Competency-based medical education in postgraduate medical education. *Medical Teacher*. 2010;32(8):651-656.
13. Royal College of Physicians and Surgeons of Canada. History of CanMEDS. Published 2020. Accessed November 2, 2020. <https://www.royalcollege.ca/rcsite/canmeds/about/history-canmeds-e>.
14. Austin Z, Gregory PAM. The role of disengagement in the psychology of competence drift. *Res Social Adm Pharm*. 2019;15(1):45-52.
15. Austin Z, Gregory P. Quality assurance and maintenance of competence assessment mechanisms in the professions: A multi-jurisdictional, multi-professional review. *J Med Reg*. 2017;103(2):22-34.
16. Bakker AB, Schaufeli WB, Leiter MP, Taris TW. Work engagement: An emerging concept in occupational health psychology. *Work & Stress*. 2008;22(3):187-200.
17. DuBois JM, Anderson EE, Chibnall JT, Mozersky J, Walsh HA. Serious Ethical Violations in Medicine: A Statistical and Ethical Analysis of 280 Cases in the United States From 2008-2016. *The American Journal of Bioethics : AJOB*. 2019;19(1):16-34.

18. College of Nurses of Ontario. Reporting Guide: What to report. Published 2020. Updated February 7, 2020. Accessed May 12, 2021. <https://www.cno.org/en/protect-public/employers-nurses/reporting-guide/what-to-report/>.
19. Adams T. Professional self-regulation and the public interest in Canada. *Professions & Professionalism*. 2016;6(3).
20. Leslie KM. *Balancing tensions in regulatory reform: changes to regulation of health professions in Australia, the United Kingdom, and Ontario, Canada*. Toronto: Graduate Department of Nursing Science, University of Toronto; 2017.
21. Gallagher CT, Mukhtar F, Sarfaraz T, Chaar B. Fit to practise? Processes for dealing with misconduct among pharmacists in Australia, Canada, the UK and US. *Res Social Adm Pharm*; 2018.
22. McConnell S. Change is coming to British Columbia's health professional regulatory framework - here is what is being proposed. Gowling WLG. Published 2020. Accessed August 18, 2020. <https://gowlingwlg.com/en/insights-resources/articles/2020/change-coming-to-bc-s-health-regulatory-framework/>.
23. Office of the Fairness Commissioner. About: Our four principles. Queen's Printer for Ontario. Published 2017. Accessed June 10, 2019. http://www.fairnesscommissioner.ca/index_en.php?page=about/four_principles.
24. Office of the Manitoba Fairness Commissioner. Province of Manitoba. Published 2020. Accessed August 18, 2020. <http://www.manitobafairnesscommissioner.ca/>.
25. Province of Nova Scotia. Fair Registration Practices. Published 2020. Accessed August 18, 2020. Province of Nova Scotia. <https://novascotia.ca/lae/RplLabourMobility/FRRasp>.
26. Harrison S, Liple N. Update for pre-employment checks. *Nursing Management*. 2008;15(1).
27. Dean E. New nurse references to include practice placement behaviour. *Nursing Standard*. 2010;24(51).
28. Dean E. Serial killer inquiry prompts call for student practice passports. *Nursing Standard*. 2010;24(22).
29. Papadakis MA, Hodgson CS, Teherani A, Kohatsu ND. Unprofessional behavior in medical school is associated with subsequent disciplinary action by a state medical board. *Academic medicine: Journal of the Association of American Medical Colleges*. 2004;79(3):244-249.
30. Papadakis MA, Teherani A, Banach MA, et al. Disciplinary action by medical boards and prior behavior in medical school. *The N Eng J Med*; 2005;353(25):2673-2682.
31. Yates J, James D. Risk factors at medical school for subsequent professional misconduct: multicentre retrospective case-control study. *BMJ*. 2010;340(c2040).
32. McConnell C. Employment references: walking scared between the minefield of defamation and the specter of negligent hiring. *Health Care Manager*. 2000;19(2):78-90.
33. Saint-Cyr J. Employers can be found liable for negative employment references. Published Nov 2, 2017. Accessed June 9, 2021. <http://www.slw.ca/2017/11/02/employers-can-be-found-liable-for-negative-employment-references/>.
34. Harris JA, Byhoff E. Variations by state in physician disciplinary actions by US medical licensure boards. *BMJ Qual Saf*. 2017;26(3):200-208. doi:10.1136/bmjqs-2015-004974.
35. National Practitioner Data Bank. About Us. Accessed Sept. 22, 2021. <https://www.npdb.hrsa.gov/topNavigation/aboutUs.jsp>
36. AbuDagga A, Wolfe SM, Carome M, Oshel RE. Cross-sectional analysis of the 1039 U.S. physicians reported to the national practitioner data bank for sexual misconduct, 2003-2013. *PLoS One*. 2016;11(2): e0147800. doi:10.1371/journal.pone.0147800
37. Organization HS. What is HSO? Published 2021. Accessed June 10, 2021. <https://healthstandards.org/about/>.
38. Accreditation Canada. About Accreditation Canada. Updated 2021. Accessed June 10, 2021. <https://accreditation.ca/about/>. Published 2021.
39. Health Quality Ontario. About us. Government of Ontario. Published 2021. Accessed June 10, 2021. <https://www.hqontario.ca/About-us/Our-Mandate-and-Our-People/Our-Mandate-Vision-and-Mission>.
40. Spittal MJ, Studdert DM, Paterson R, Bismark MM. Outcomes of notifications to health practitioner boards: a retrospective cohort study. *BMC medicine*. 2016;14(1):198.
41. Enbom JA, Parshley P, Kollath J. A follow-up evaluation of sexual misconduct complaints: The Oregon Board of Medical Examiners, 1998 through 2002. *Am J Obstet Gynecol*; 2004;190:1642-1653.
42. Elkin K, Spittal D, Studdert D. Removal of doctors from practise for professional misconduct in Australia and New Zealand. *BMJ Qual Saf*. 2012;21:1027-1033.
43. Davis C, Carr D. Self-regulating profession? Administrative discipline of "pill mill" physicians in Florida. *Substance Abuse*. 2017;38(3):265-268.
44. *College of Nurses of Ontario v Wettlaufer*, (ON CNO 2017).
45. *R v Shamji*, (ONSC 2017).
46. *Ontario (College of Physicians and Surgeons of Ontario) v Sloka*, (ONCPSD 2019).