Zero Suicide
The Dogged Pursuit of Perfection in Health Care

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Is it rational to pursue zero suicide among patients in health care? This question was posed by Mokkenstorm and colleagues1 as they addressed objections that the science and published results aren’t yet in. Growing evidence, however, demonstrates remarkable success at reducing the number of lives lost to suicide in health care systems that have committed to the systematic “suicide care” approach known as “Zero Suicide.”

Psychiatric leadership is essential to the success of efforts toward zero suicide. More than a slogan, the approach applies evidence about what works in the detection, treatment, and management of individuals with intense suicidality within a culture determined to learn together and make a dramatic difference. Three essential steps—routinely asking about suicide, developing a collaborative crisis/safety plan including counseling on lethal means, and delivering direct treatment for suicidality for those at elevated risk—have produced exceptional results in several systems.

The concept of zero in quality improvement has been around for more than 50 years, with James Halpin introducing the zero defects movement in 1966. By 1976, the concept of “target zero” had moved to reducing accidents in Japan. In the 1980s, Dr Don Berwick and the Institute for Healthcare Improvement reached out to NASA for a dialogue about applying quality improvement to health care, i.e., one small step for quality and one giant leap for health care safety. More recently, “Innovating to Zero” has been called one of the 10 megatrends for innovation.2

Efforts by the mental health system to realize zero suicide
Health care in the United States has focused on quality improvement since the 1960s, but it has only introduced the concepts of high-reliability science in the past 20 years. High-reliability organizations aggressively pursue perfection, an approach, for example, that has driven commercial aviation in the US to achieve remarkable levels of safety in air travel. This approach is characterized by a deference to front-line expertise, a preoccupation with learning about failures and “near misses” and a relentless focus on the target of zero defects.

The Henry Ford Health System (HFHS) in Detroit was the first to apply these concepts in behavioral health care, which focused on the relentless assessment of suicidality across their continuum of psychiatric care. The result was an audacious goal to achieve zero suicides in their mental health programs. The effort was labelled “perfect depression care.” In a 2015 National Public Radio story, Silberner wrote: “The story of the health system’s success is a story of persistence, confidence, hope, and a strict adherence to a very specific approach.”3

The population served by HFHS includes individuals with acute and serious mental illness whose hazard ratio suggests they are 12 times more likely to die of suicide than are those in the general population.4 Nevertheless, HFHS reported a 75% reduction in the first 4 years of implementation of their perfect depression care model and zero deaths during all of 2009. Over the period of implementation, the effort succeeded in reducing suicide deaths among a population under psychiatric care to about the level in the general population.

This success did not occur in the context of the rigors of a funded research project but as part of an intensive “commitment to radical quality” within usual health care. The results are clearly impressive and demand attention. At the same time, the effort was not a randomized trial. Some have discounted the results, minimizing the approach as “clever sloganeering” and re-packaging. One implication clearly is the need to complete the science and verify the results of applying new knowledge to the care of suicidal individuals.

The US National Institute of Mental Health is doing this with a series of research awards. One is a 5-year grant to the HFHS and Brian Ahmedani to conduct a large-scale review of an implementation of Zero Suicide across most of the Kaiser Permanente Health System. Another is a grant to Barbara Stanley to evaluate enhanced versus routine implementation of Zero Suicide in over 160 mental health clinics in New York State.

Results are starting to emerge. In 2015, Centerstone partnered with the Suicide Prevention Resource Center and will soon submit its Zero Suicide results with the aim of publishing in a peer-reviewed journal, although reductions in the death rate at this large multistate nonprofit community mental health provider have been previously reported.5 Centerstone achieved a 64% reduction in suicide deaths.

The National Action Alliance for Suicide Prevention task force
In 2010, when a task force commissioned by the National Action Alliance for Suicide Prevention and Dr Richard McKeon of the Substance Abuse and Mental Health Services Administration, US Department of Health and Human Services, studied the HFHS story, comprehensive evaluations of good suicide care were not yet available.6 The task force quickly learned that usual care is disastrous when it comes to preventing loss of life by suicide. By 2010, striking evidence of the impact of good care was starting to emerge, such as the study by Motto and Bostrom7 showing that “caring letters” to individuals who had been hospitalized following an attempt dramatically reduced subsequent attempts and deaths.

In 2010, Forbes magazine published an article asserting that few suicidal patients receive good treatment, a claim no one seemed to contest.8 Few in the field escaped their criticism, including drug companies, the National Institutes of Health, therapists, and university clinical study review boards. At the time, Dr McKeon challenged our Action Alliance task force: “Over the decades individual clinicians have made heroic efforts to save lives, but systems of care have done very little.” His statement reveals one of the core challenges in suicide care: Individual clinicians (especially psychiatrists, often called on to make medicolegal decisions in the case of suicidal individuals) face great pressures, but institutions have not provided training, care pathways, and access to effective brief treatments and supports such as caring letters.

So, the task force reviewed the specific practices. What did the
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Three approaches to reaching zero suicide

First, we need to routinely ask about suicide risk. In 2013, Simon and colleagues concluded that the PHQ-9 question 9 regarding thoughts that you would be better off dead, or of hurting yourself, “identifies outpatients at increased risk for suicide attempt or death.” They added: “This excess risk emerges over several days and continues to grow for several months,” with an accuracy about twice as predictive of future suicide behavior as cholesterol scores are of future heart disease. Thus, a simple screening question (which obviously must be followed by a full clinical evaluation) matches effectiveness of a cardiac care metric widely acknowledged as significant and warranting care throughout the health care industry. Psychiatrists and others engaged in the delivery of mental health services are offered a great opportunity to positively affect the lives of those they serve through a relentless application of this question as part of their standard of care.

Zero Suicide requires a standardized methodology for screening and assessing risk, and HFHS was relentless in its search of individuals in care who were at risk. Although science leading to better specificity in prediction is needed, we have the information we require to improve care today. Starting the conversation about suicide is a crucial first step. It creates connection, acknowledges the pain and distress individuals experience, and provides a foundation for effective emerging treatments.

Second, individuals at risk should complete a collaborative safety/crisis plan that includes counseling to help them reduce and manage access to lethal means. When we reviewed the HFHS practices in 2010, there were few research studies of safety planning. The findings of Bryan and colleagues are promising, however. In the largest-scale study of crisis planning to date, the collaborative safety planning intervention by Stanley and Brown reduced suicidal behavior by an extraordinary 50%.

Use of this brief intervention for individuals with acute, elevated risk who are able to participate in it should be part of a new standard of care, as has been cited in a recent report from the Action Alliance.

Third, individuals at risk should receive direct treatment targeting suicidality and the care should extend into follow-up. The very significant suicide risks for individuals in the immediate aftermath of a psychiatric hospitalization have been carefully described by Olsson, providing a clear message for the efficacy of universal and continuing interventions and support following hospital discharge. Yet, even when we know the practice works, HEDIS [Healthcare Effectiveness Data and Information Set] tells us that only about half of US patients receive any outpatient care during the first week after psychiatric hospital discharge and one-third receive no mental health care during the first month.

Let’s rework into the care itself. When acute or outpatient mental health care is received, the vast majority of individuals at risk do not receive any direct treatment for their suicidality. Dialectical behavior therapy, cognitive behavioral therapy, and the Collaborative Assessment and Management of Suicidality have all been shown to reduce suicide risk. As well, new brief treatments are being developed, including the three-session ASSIP [Attempted Suicide Short Intervention Program] which reduced subsequent attempts by 80% compared with usual care.

Outside inpatient settings, health care systems have simply not been accountable for suicide. Mental health professionals frequently report a complete lack of training to deliver interventions and care to prevent suicide. These standard approaches came under criticism in the New Zealand national media in 2017. The Minister of Health’s response after studying Zero Suicide was to change the culture within the mental health workforce and galvanize society around known interventions. As Dr Jonathan Coleman explained: “It does seem that setting a goal, and it may be aspirational... actually just focuses efforts.”

A 2016 study by Erlangsen and Nordenfelt showed a lower risk of deliberate self-harm and general mortality for those who received psychosocial therapy. In fact, direct treatment of suicide is more effective and cost-efficient than statins are for the prevention of heart disease. (One fatal myocardial infarction is prevented for every 83 people treated with statins versus one self-harm episode prevented for every 44 persons treated with psychosocial therapy.) When compared to this outcome of a well-established standard of care in the physical health world, we can clearly argue the case for direct care for suicidality becoming a standard practice expectation.

So, if we know that these three practices work and have increased and been repeatedly supported by research, why aren’t they readily available?

The way forward

Zero Suicide attempts to break through these challenges of the status quo and forgotten patients. It states that the logic and the literature base on quality improvement suggests that we need a systematic, leadership-driven quality improvement approach for a “wicked problem” like suicide. The “Suicide Care in Systems Framework” report, recommending a systematic approach, was published virtually at the same time While and colleagues were concluding that a systematic implementation of crisis intervention and other recommended steps in England and Wales saved hundreds of lives compared to incomplete implementation. Zero Suicide is also activated by a significant inclusion of the lived experience and expertise of those who have been there—that is, those who have made a suicide attempt but recovered and found some way forward.

The model is being implemented globally. More than 90 organizations and individuals have signed on to the Zero Suicide Alliance in the United Kingdom, including half of the National Health Service Trusts. In Queensland, Australia, 11 of 16 health districts are deploying the Zero Suicide Alliance model. In South Australia, 10/13 health districts have deployed the Alliance model. In Ontario, Canada, published “Strengthening Suicide Prevention in Ontario Hospitals,” which had as its top recommendation implement the Zero Suicide model in hospitals across the province. As well, the fourth Zero Suicide International Summit with more than 100 leaders from nearly 20 countries was recently hosted in Rotterdam by 113 Suicide Prevention and Deloitte. The program also showcased their Super-Net and SuperNet Zero Suicide initiatives in Holland.

As a scientific matter, we need more data. As a public health and quality-of-care matter, the evidence is already in. The time is now. Together, we can, and must, do this. It is our hope that Zero Suicide motivates health care and other leaders to move from half measures to full measures in suicide prevention and better health care.

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References

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