

## COMMENTARY

# Community mental health services may be life-saving for middle-aged and older adults with hospital-treated intentional self-harm

Commentary on “Exploring community mental health service use following hospital-treated intentional self-harm among older Australians: A survival analysis” by Sharwood *et al.*

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It is a tragic but well-established fact that people who are hospitalized for suicidal thoughts and behaviors are at heightened risk of dying by suicide within a short period of time after discharge from the hospital (Chung *et al.*, 2017; O’Connell *et al.*, 2021). Several types of community-based interventions have shown promise for reducing rates of death by suicide. These include caring letters after hospital discharge (Motto and Bostrom, 2001), safety planning (Ferguson *et al.*, 2022), as well as screening for depression, implementing workplace-based strategies, and restricting access to lethal means (Linskens *et al.*, 2023), among others. Since most people who die by suicide meet criteria for a psychiatric diagnosis, however, it is also worth noting that individuals with psychiatric disorders have higher rates of all-cause mortality than do those without such disorders and they are, in fact, more likely to die from physical illness than from suicide (Kisely *et al.*, 2013).

Research on the effects of community mental health (CMH) interventions on mortality among psychiatric patients has been sparse but encouraging. In one promising study, Kisely *et al.* (2013) found that psychiatric inpatients and outpatients who received mandated community treatment orders had lower all-cause mortality than matched controls. This study was not specific to individuals at risk of suicide. Thus, it is of great importance to know whether CMH interventions may reduce all-cause mortality among suicidal individuals.

Sharwood *et al.* (2023) set out to test whether engagement with CMH services would mitigate excess mortality among individuals who presented to a hospital or emergency department (ED) with intentional self-harm (referred to as “hospital-treated intentional self-harm”). The authors conducted a

longitudinal record linkage study on all adults aged 45 and older in the state of New South Wales, Australia, with non-fatal hospital-treated intentional self-harm ( $N = 24,544$ ). A Cox proportional hazards analysis was used to evaluate the risk of all-cause mortality over six years (2014–2019) among these individuals (with non-fatal hospital-treated intentional self-harm) as a function of engagement with CMH services within 14 days after the index episode. Analyses controlled for sex, age, marital status, principal diagnosis, readmission within 14 days, and whether the person was previously known to CMH. A secondary aim of the study was to characterize CMH engagement before and after the index episode of hospital-treated intentional self-harm.

Results showed that more than half (56%) of the individuals presenting with hospital-treated intentional self-harm received CMH care within 14 days of the index episode, and receipt of CMH care was associated with a significant 34% reduction in all-cause mortality. Notably, however, the individuals who were least likely to receive CMH care within 14 days of the index episode were males and older adults (aged 65–84 or 85+), the demographic groups at greatest risk for suicide. Males, older adults, and those with chronic physical conditions were more likely to die during the period covered by the study. Specifically, those aged 85+ had 6x the risk of death of people aged 45–64, and those aged 65–84 had 3x the risk of death of people aged 45–64. Older adults were also less likely to have had contact with CMH prior to the index episode. Interestingly, however, older adults who did have contact with CMH prior to the index episode had levels of post-discharge CMH attendance that were similar to those of younger people.

There are several possible mechanisms through which CMH involvement may lead to a significant reduction in mortality. Sharwood and colleagues suggest that the process of connecting with CMH may have encouraged some individuals to connect with other healthcare and mental healthcare providers as well, making it more likely that treatments could have been provided for health and mental health problems. The article also reported that individuals who engaged with CMH services were more likely to be readmitted to the hospital after the index episode, which the authors presumed may have been because the CMH clinician they were working with detected a worsening of their condition. The re-admissions may have resolved issues that could otherwise have led to death. On the other hand, the authors also acknowledged the possibility that individuals who accessed CMH services within 14 days of the index episode of ISH may have been a healthier group that was more likely to engage with other types of healthcare.

Bidirectional associations between psychiatric disorders and chronic physical conditions may underlie the link between ISH and all-cause mortality. Psychiatric disorders such as depression and bipolar disorder, which are predominant risk factors for suicidal thoughts and behaviors, may lead to reduced motivation to attend to one's health, thus increasing the risk of all-cause mortality. A study recently published in *International Psychogeriatrics* supports this possible trajectory. Chang *et al.* (2022) conducted a prospective study of incident frailty among older adults, a condition that often leads to hospitalization, disability, and death. They found that older adults who had significant depressive symptoms at baseline were more than twice as likely to develop frailty as those without significant depressive symptoms. In addition, the increased risk for all-cause mortality could be explained by the fact that numerous chronic health problems that are associated with mortality risk are also risk factors for depression and suicidal behavior. Another study recently published in *International Psychogeriatrics* used a mediation analysis to understand the relation between chronic health problems and suicidal ideation specifically in older adults. Lutzman *et al.* (2021) interviewed men aged 65 and older regarding physical pain and found that it was associated with suicidal ideation. The relation was mediated by loneliness and social integration, but only among men who were not married or partnered.

The Sharwood *et al.* study has several important strengths. It was a large, whole-of-population study. It focused specifically on individuals with hospital-treated intentional self-harm, unlike many other studies of this type, which have followed individuals with psychiatric disorders more broadly. This study

tracked not only suicidal deaths but also all-cause mortality. Furthermore, the study focused on middle-aged and older adults (45–64, 65–84, and 85+), capturing information from individuals during the periods of highest suicide risk. In addition, longitudinal data linkage provided information about trajectories of care for people with non-fatal intentional self-harm, both before and after the index episode.

The study also has several inherent limitations. The most significant is the observational design, which leaves open the possibility that variables related to both CMH involvement and mortality were not identified. It would be important in future research to consider and address potentially confounding variables, either through experimental designs or quasi-experimental designs (e.g., through propensity score matching). Another issue is that the authors did not fully specify how CMH was defined for the purpose of this study. It would be helpful for readers to know the types of settings and interventions that were included in this category. As noted earlier, Sharwood and colleagues also mentioned additional limitations in the study design which could be addressed in future research, including the possibility that participants may have seen mental health providers outside of the CMH system or that some cases of self-harm did not involve suicidal intent.

A question inspired by the Sharwood *et al.* article but not discussed in detail is whether social connectedness may be an important variable to consider when examining the relation between CMH services and all-cause mortality in patients with hospital-treated ISH and particularly among older adults. Sharwood and colleagues note that among individuals visiting the ED, older adults are more likely than younger individuals to report social disconnection (Kandasamy *et al.*, 2018). Both social isolation and loneliness are associated with suicidal thoughts and behaviors (Calati *et al.*, 2019; McClelland *et al.*, 2020) as well as risk of mortality (Wang *et al.*, 2023). In addition, many CMH interventions directly address social connectedness. The landmark research conducted by Motto and Bostrom (2001) illustrated the power of social connectedness among individuals at risk of suicide. The study demonstrated that sending caring letters to individuals who had recently been discharged following hospitalization for suicide risk was associated with a decrease in subsequent suicide deaths. Other CMH approaches that involve social connectedness, including friendly visitor or telephone support programs, have shown promise for addressing suicidal thoughts and behaviors, particularly among older adults, but higher quality research is needed (Okolie *et al.*, 2017). A novel treatment approach, using aging-related strengths in resilience and

wisdom to reduce stress and loneliness in older adults, has recently been pilot-tested, with promising results (Jeste *et al.*, 2023). It would be of interest to see whether it might be effective for older adults with intentional self-harm. A particularly dramatic example of improving social connectedness for individuals with psychiatric disorders on a large scale can be seen in the Belgian community of Geel (Goldstein and Godemont, 2003). For the past 700 years, the residents of Geel have been taking in individuals with psychiatric disorders as “boarders” in their homes and treating them like family. A description of Geel suggests a well-functioning community with low levels of violence and a normative attitude of acceptance toward individuals with various psychiatric disorders. Although socio-economic changes in the region appear to be changing the frequency of “boarding” within Geel in recent years, the town’s 700-year record serves as an example and an inspiration. Thus, it appears that there are multiple types of interventions that could be implemented in a community context that would address social isolation and loneliness among individuals with psychiatric disorders, with the aim of reducing mortality.

Above all, however, an important lesson that can be learned from Sharwood *et al.* (2023), if their findings are supported in future research, is that continuity of care matters after a person with hospital-treated ISH leaves the hospital. This finding suggests that suicidal crises cannot necessarily be fully resolved in a single visit to a hospital or Emergency Department, or even in the short time generally allotted to inpatient psychiatric care. Rudd’s (2006) Fluid Vulnerability Theory reminds us that suicide risk factors fluctuate over time, and the Cusp Catastrophe model of Bryan and colleagues (Bryan *et al.*, 2020) provides a framework for characterizing stability or change in suicide risk. Based on empirical findings, the Cusp Catastrophe model suggests that suicide risk can be: relatively stable, in a state of homeostatic equilibrium; dysregulated, in a state of downward spiral; or discontinuous, appearing out of the blue. Viewed from this perspective, the critical need for ongoing community mental health services, especially for individuals with dysregulated or discontinuous suicide risk, is evident. Additional research, building on the findings of Sharwood and colleagues, is urgently needed to further clarify the potentially life-saving role of community mental health services for suicidal older adults.

### Conflicts of interest

None.

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