Suicide and the Solitary Life: Differential Risks of Living Alone Across Sociodemographic Groups

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See also Shaw, p. 1699 and Olfson et al., p. 1774.

At 77 years old, even after decades of prodigious philanthropy, George Eastman remained one of the wealthiest men in the world. The unmarried founder of Eastman–Kodak lived alone until March 14, 1932, when he revised his will in the presence of his lawyers, dismissed them from his study, folded a wet towel over his chest, and shot himself through the heart with his desk drawer revolver.[1] His obituary reported, "A sense of loneliness encompassed George Eastman, after the recent deaths of two of his closest friends, and led him to take his own life."[2(p5)]

Living alone, loneliness, and social disconnection have been proposed as suicide risk factors since the dawn of suicidology.[3] However, a lack of pre-death data on large samples of suicide decedents has prevented us from knowing the demographic characteristics of those at highest increased risk when living alone. A new study by Olfson et al. in this issue of *AJPH* (p. 1774) contributes evidence of the association between living alone and suicide as it varies across demographic and socioeconomic subgroups. The authors reviewed the 2008 American Community Survey, which includes more than 3 million adults linked to the National Death Index, to identify suicide deaths over the 11 succeeding years. The participants reported on their living situation as well as sociodemographic characteristics, self-reported disability, and housing information, including residential stability and homeownership.

Olfson et al. found the annual suicide rates of adults living alone to be almost twice that of adults living with others, confirming previous reports.[4,5] The authors went on to identify large differences in the strength of that association across specific subgroups. The associations between living alone and subsequent suicide were found to be strongest among wealthy, well-educated, male, White, and older age groups. Membership in some of these groups was previously known to independently increase suicide risk,[6] and their strong associations with living alone is tragically reminiscent of George Eastman. However, the recognition of low social integration as a risk factor for suicide dates back most prominently to Emile Durkheim's investigations in the 19th century.

In his landmark book *Suicide*, Durkheim cited the 1886 French census in pointing out that the lower the average number of persons living in the family home, the higher a region's suicide rate.[3] He raised this as a central tentpole of his theory of "egoistic" suicide, which is undertaken by those who see themselves as alone or disconnected from socially integrated groups. Egoistic suicide is thought to be more common in less socially integrated communities but is also noted to be associated with certain types of individuals in a given society. For instance, Durkheim posited that being unmarried or widowed was associated with increased suicide risk. This went against the earlier belief that marriage was the higher risk state, a finding that resulted from past failure to adjust for age in comparing married to unmarried individuals.

Like Olfson et al., Durkheim also related suicides of social isolation to the attainment of knowledge and education, although he did so indirectly by pointing to differential levels of education in distinct religious groups and their associated suicide rates at the time. He credited the higher rates of suicide among Protestants to their greater "pursuit of free inquiry" and learning compared with Catholics, who had a much lower suicide rate. Durkheim argued that this free inquiry steered some Protestants further from their church communities, resulting in weakened community bonds and more vulnerability to suicide. He further performed some intellectual gymnastics to explain the lower rates of Jewish suicides, despite higher levels of education, as evidence that Jewish education is in line with their religious doctrine and so serves to further socioreligious integration. However, in view of our modern understanding of stigma, it may be more likely that the stronger condemnation of suicide by Jewish and Catholic leaders provides a better

explanation for the lower suicide rates in those groups.

Aside from education level, Olfson et al. found the strongest association between living alone and suicide existed in high earners. In general, suicide risk is greater in persons experiencing poverty or homelessness.[7] However, in the context of living alone, Durkheim suggested an explanation for increased suicide among the wealthy. He theorized that the wealthy depended less on others for material support and, thus, felt less invested in the larger community. Durkheim wrote that for most, interdependency in a group creates a reciprocal investment in others that prevents one from being overwhelmed by one's own troubles and contextualizes them in larger communal joys, hopes, and a future. This allows a suffering individual to "share in collective energy and support his own when exhausted." By contrast, the wealthy individual may feel they owe society nothing and "have no reason to endure life's sufferings patiently."[3(p168)]

The recognition of social integration as suicide prevention did not end with Durkheim. Thomas Joiner's interpersonal theory of suicide[6] incorporated the concept of "thwarted belongingness" in recognition of the increased risk of an unmet need to belong. Thwarted belongingness is thought to partially explain the association between suicide and living alone[8] as well as its associated corollary, loneliness.[4] Rory C. O'Connor's integrated motivational–volitional model of suicide continued to develop this idea by highlighting loneliness as a key moderator between a sense of entrapment and subsequent suicidal acts.[9] These theories persistently recognize the importance of social integration because being alone continues to be identified as a risk factor for suicide both directly and as a contributor to mood disorders.[4]

Although the psychological impact of living alone and loneliness may add to suicide risk, there are also practical considerations to account for when considering the risks of living alone. In a secondary analysis, Olfson et al. found that the association between living alone and suicide varied significantly by suicide method. Poisoning, which accounts for most suicide attempts in the United States but a minority of suicide deaths,[10] demonstrated the strongest association. In comparison, for firearm suicides (the most common method of US suicide), living alone was less strongly related to suicide risk. This may be unsurprising, given that suicide attempts by poisoning leave time and opportunity for rescue by a housemate, whereas in firearm suicide attempts, rescue is usually impossible.

Safety planning interventions recognize access to lethal means as a prominent risk and suggest the use of social contacts both for emergency support and for making the environment safer by eliminating access to lethal means.[11] A recent study of veterans found that lack of social contacts on the safety plan was associated with more than double the risk of subsequent suicidal acts, further highlighting the role of social integration in practical safety considerations.[12]

Of note, this study was unable to exclude some important potential confounders of the association between living alone and suicide. Psychiatric illness, a major risk factor that was largely underappreciated by Durkheim, could not be reliably measured in this sample. Mood, anxiety, and substance use disorders have been independently associated with both suicide and living alone,[6,13,14] and so we cannot be certain that there is a causal relationship between living situation and subsequent suicide without these diagnoses included as covariates. However, as the authors point out, several previous studies have found that the association holds even when psychiatric morbidity was included in the models.[4,5]

The findings of Olfson et al. bolster more than a century of work underlining social isolation's association with suicide. By focusing on the objective measure of living alone, as opposed to the more difficult to quantify and evaluate concept of loneliness, the authors present clinicians with a potential risk factor that is easily identified in patients and can be integrated into existing risk stratification strategies. Beyond that, living alone is a modifiable risk factor that can be addressed by public health and social work interventions, much as we can address other major suicide risk factors, such as poverty, psychiatric illness, and lethal means access. AJPH

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CONFLICTS OF INTEREST

The author has no conflicts of interest to declare.

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