Impulsive Versus Planned Suicide Attempts: Different Phenotypes?

In clinical settings, one often thinks of suicidal ideation and behavior as following a somewhat linear trajectory. It stands to reason, the clinician often surmises, that patients start with suicidal ideation, progress to making a plan, and then implement the plan for suicide. Even with the understanding that people may go from one step to the next at different rates, it seems unfathomable that a patient would take such drastic action as to attempt suicide without having made some sort of plan or, at the very least, given the thought serious, deliberate consideration. Yet, as clinicians, we see patients every day who say that they did not have a plan. Patients may tell us that something catastrophic happened and they “just did it” or that the psychic or physical pain simply became unbearable and they acted out of desperation. Would it make a difference if the patients had better insight into their situation? Would appreciating that there may be other ways to bring about change help patients refrain from attempting suicide? Or are biological interventions more likely to make a difference than cognitive or psychological ones? Will biological and cognitive interventions be complementary?

In this month’s Focus on Suicide section, several articles take on different aspects of this conundrum. Han and colleagues examine a large, representative dataset to identify factors that may move an individual along the path toward a suicide attempt. The study used cross-sectional data from the 2008–2012 National Survey on Drug Use and Health, which asked respondents, “At any time during the past 12 months, did you seriously think about trying to kill yourself?” Participants were also assessed for presence of major depression, substance misuse, and anxiety disorders. Almost 4% of respondents reported seriously considering suicide in the past 12 months. The authors found that those ideators who reported making a suicide plan in the last 12 months had a greater likelihood of having made a suicide attempt in the past 12 months as well. As one might expect, those with major depression and a suicide plan in the last 12 months were somewhat more likely to report a past attempt than those with a plan but without major depression. Of note, alcohol use disorders were associated with the likelihood of a past suicide attempt in those with suicidal ideation but no plan, raising the question of whether alcohol plays a role in unplanned, impulsive suicide attempts. Indeed, the linear pathway from ideation to plan to action is only occasionally taken.

Using a very different methodology, a web-based questionnaire, Araújo et al obtained usable data from 48,569 volunteers. They asked participants the question, “Have you ever thought about or attempted to kill yourself?” to which one possible answer was “It was just a passing thought.” Possibly due to the fact that this was a web-based questionnaire, which might encourage more candid responses, and that even passing thoughts of suicide were counted as positive, upwards of 60% of the sample reported suicidal thoughts, and 6.8% reported a lifetime suicide attempt. However, most of the attempted suicides were impulsive (64.0%). Only a minority of attempters reported having a defined plan (13.8%) for the attempt. Interestingly, 22.2% of attempters reported making both impulsive and planned attempts, suggesting that the tendency to act on suicidal thoughts in a planned way does not mitigate against the possibility of impulsive suicide attempts in that same individual at a later date.

The role of insight in augmenting risk for suicide, especially in psychotic disorders, has been the focus of interest for several decades. However, information on the role of insight in suicide risk in mood disorders, the conditions most often associated with suicidal behavior, has been scant. Vilaplana et al examined the literature and conducted a small cross-sectional study to understand the effects of insight on risk for suicidal behavior. A meta-analytic approach revealed that, across
studies, there was heterogeneity in the aspects of insight that appeared to increase risk for suicidal behavior. While on the whole the meta-analysis supported some role for better insight in raising risk, as did the cross-sectional study, the effect is likely to be modest at best, if confirmed. The authors themselves note the weak effect and explain that depressed suicide attempters display a disconnection between what they “know” (explicit understanding) and what they “do,” suggesting that a cognitive grasp on one’s affliction may not have an effect on behavior, suicidal or otherwise.

Finally, using a completely different strategy, Ishii and colleagues examine the effects of lithium in drinking water on suicide rates in Kyushu Island in Japan. Using weighted least squares regression analysis, they tested the association of lithium levels with suicide standardized mortality ratios (SMRs). Carefully adjusting for possible confounds, they reported that lithium levels in drinking water were weakly and inversely associated with male suicide SMRs. They did not observe an effect on female suicide SMRs. Why a sex difference was observed was not apparent. However, one might surmise that the effects of lithium in a general population may be to decrease aggressive behaviors, including suicide. If indeed the mediator of lithium’s effect is a decrease in aggression, women, with their generally very low rates of aggressive behavior, may be simply displaying a floor effect below which aggression cannot be pushed.

Together, these articles suggest that there may be modest markers of risk that the clinician can take into account when evaluating patients: plans for suicide, insight, aggressive behaviors. Importantly, clinicians cannot be reassured by the methodical individual who, because of planning for a past suicide attempt, may have permitted more time to intervene. Those patients may also resort to impulsive suicidal behaviors, and those with no plan still engage in suicidal acts. Thus, uncovering phenotypes along these lines will necessitate a more fine-grained approach, quite likely requiring integration of both clinical and biological features.

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