

elite athletes, medical personnel, lawyers, architects). Prevention is also needed to counter the impact of settings that promote unrealistic and unrelenting pressure to be perfect (e.g., schools and communities where high achievement is prescribed and seems normative).

Treatment and prevention offer hope and promise for perfectionists in general, including people experiencing suicidal tendencies that may or may not be openly expressed.

Gordon L. Flett¹, Paul L. Hewitt²

¹Department of Psychology, York University, Toronto, ON, Canada; ²Department of Psychology, University of British Columbia, Vancouver, BC, Canada

1. Curran T, Hill AP. *Psychol Bull* 2019;145:410-29.
2. Fry PS, Debats DL. *J Health Psychol* 2009;14:513-24.
3. Smith M, Sherry SB, Chen S et al. *J Pers* 2018;86:522-42.
4. Flett GL, Hewitt PL, Heisel MJ. *Rev Gen Psychol* 2014;18:156-72.
5. Flett GL, Hewitt PL, Nepon T et al. *Clin Psychol Rev* 2022;93:102130.
6. Blatt S. *Am Psychol* 1995;50:1003-20.
7. Flett GL, Hewitt PL. *Perfectionism in childhood and adolescence: a developmental approach*. Washington: American Psychological Association, 2022.
8. Galloway R, Watson H, Greene D et al. *Cogn Behav Ther* 2022;51:170-84.
9. Hewitt PL, Flett GL, Mikail SF. *Perfectionism: a relational approach to conceptualization, assessment, and treatment*. New York: Guilford, 2017.

DOI:10.1002/wps.21157

Can a practical process-oriented strategy prevent suicidal ideation and behavior?

For several decades, research-based efforts have sought broadly applicable suicide prevention methods. A recent umbrella review of meta-analyses or systematic reviews of primary prevention found some limited evidence for multicomponent programs tailored for specific populations, and the possible value of restricting access to lethal means such as guns or pesticides, but concluded that there is “insufficient evidence to recommend a widespread implementation of suicide primary prevention in the general population”¹.

Such slow progress is paradoxical, given that reduction in suicidal ideation and behavior can be obtained from specific evidence-based psychotherapy methods for psychiatric disorders commonly associated with suicide. New research strategies for possible prevention approaches appear to be needed. A practical process-oriented strategy might provide a possible pathway forward, deploying methods that meet a wide range of other specific needs while altering processes of change that are known to link to suicidal ideation and behavior. The literature on acceptance and commitment therapy (or “acceptance and commitment training” outside of psychotherapy; “ACT” in either case) provides an example.

With nearly 1,050 randomized controlled trials spread across virtually every area of mental and behavioral health, performance, and social wellness², ACT is one of the most widely studied evidence-based psychological interventions. It is a transdiagnostic approach from within the behavioral and cognitive therapy tradition that uses acceptance, mindfulness, commitment, and behavior change methods to increase psychological flexibility³.

Psychological flexibility is an integrated collection of six key processes of change that involve emotional openness, cognitive flexibility, flexible attention to the now, a perspective-taking sense of self, chosen values, and committed values-based action. The first four of these are taken to represent mindfulness processes within the ACT model, and it is argued that all six support each other interactively. Psychological inflexibility, conversely, involves experiential avoidance and emotional clinging; cognitive fusion and entanglement; worrying, rumination or other attentional problems; defensive attachment to a conceptualized self; absence of

values clarity; and behavioral impulsivity, procrastination, or avoidant persistence³. Psychological flexibility/inflexibility and its components, in combination with closely allied processes such as self-compassion or behavioral activation, account for over half of all significant mediational findings on processes of change yielding improvements in mental health outcomes in randomized controlled trials of psychosocial interventions of all kinds⁴.

In areas such as depression, there are randomized trials documenting both the direct effects of ACT on suicidal ideation and behavior, and the link between changes in psychological flexibility/inflexibility and these outcomes⁵. Those findings, however, do not assess whether suicidal ideation and behavior can be prevented using ACT.

Data on ACT processes of change are suggestive. Cross-sectional and longitudinal studies have found that psychological flexibility/inflexibility directly predicts suicidal ideation and behavior, controlling for relevant predictors such as distress and baseline levels of suicidality⁶. All six processes seem relevant to this issue. For example, greater cognitive flexibility and defusion skills might help reduce self-amplifying entanglement with suicidal thoughts; greater acceptance and emotional openness skills might help individuals feel and learn from losses and betrayals without suicide as an attractive avoidance strategy, using instead past pains to motivate healthy values-based behavior. As is predicted by the model, these effects appear empirically to be combinatorial. For example, psychological distress, cognitive fusion, and absence of values-based behavior have the strongest association with suicidal ideation among those individuals who are high in psychological inflexibility more generally⁶.

This same basic pattern had been shown in response to significant life stressors such as physical disease, relationship break-ups, and enacted stigma. For instance, during the height of the COVID-19 outbreak, pandemic-related stressors such as resource strain and the death of loved ones led to an increased desire for death among individuals who perceived themselves to be a burden to others due to their struggles, but only for those with high levels of psychological inflexibility⁷.

The extensive mediational data on psychological flexibility prove that it can be taught by ACT and some other intervention methods⁴, but the weak data on universal prevention suggest that relevant preventive skills will be better learned and retained when doing so is personally and practically relevant. Because ACT is such a broadly applicable approach, however, a targeted process-oriented prevention strategy can be pursued by developing psychological flexibility in the context of spiritual care, routine medical care, self-help, or social wellness programs. Much as vectors are used in gene therapy to insert needed genes into cells, these programs can be thought of as psychiatric vectors for healthy change processes that might later deflect suicidality, if it emerges in the individual. Importantly, given the extreme level of mental health provider shortages, ACT can be successfully deployed for a wide variety of behavioral health and social wellness problems by non-mental health professionals.

A good example of this approach is the decision by the US military chaplains to establish a training program in three specific forms of psychosocial intervention thought to be especially easy to integrate with spiritual care: motivational interviewing, problem-solving therapy, and ACT. Training chaplains in such evidence-based methods makes practical sense, since military personnel often avoid psychiatric care because of its possible career-impacting consequences, but can freely access spiritual care without such difficulties. Chaplains who completed training in these methods both used them and found them helpful as part of spiritual care when military personnel were struggling with suicidality. ACT methods were particularly popular, being used 14 to 56% more frequently as compared to the other methods with recipients of care who were either at risk for suicide, or were acutely suicidal⁸.

In another example, there is a large body of work on adding ACT methods to routine medical care, often by general medical personnel, for such problems as post-surgical care, advanced cancer, diabetes, chronic pain, traumatic brain injury, spinal cord injuries, multiple sclerosis, stroke, and Parkinson's disease. Generally, these methods produce positive changes in psychological flexibility/inflexibility while impacting health outcomes and psychological distress. Importantly, as psychological flexibility/inflexibility pro-

cesses change, so too does suicidal ideation, such as in a recent study with ACT for treatment adherence and psychological distress in patients with multi-drug resistant tuberculosis⁹.

Still other “vectors” seem available. ACT self-help has ballooned, with hundreds of titles and millions of copies in print addressing a myriad of problems in all major languages – but always targeting the same small set of psychological flexibility/inflexibility processes. Indeed, the World Health Organization now deploys ACT self-help for free worldwide in more than 20 different languages, because well-crafted studies showed that it both treated and prevented mental and behavioral health problems for victims of war, stating that their program is “for anyone who experiences stress, wherever they live and whatever their circumstances” (<https://www.who.int/publications/i/item/9789240003927>). Sport, business and diversity programs provide other possible vectors with a growing body of data.

There is no available turnkey solution to suicide prevention, but the degree of social and clinical need demands that new strategies be explored. A practical process-oriented approach seems worth testing. Using ACT and other interventions targeting a wider range of practical processes that also modify psychological flexibility/inflexibility should be tested as a possible psychiatric vector for building resilience against entanglement with suicidal ideation and behavior.

Steven C. Hayes¹, Jacqueline Pistorello²

¹Department of Psychology, University of Nevada, Reno, NV, USA; ²Counseling Services, University of Nevada, Reno, NV, USA

1. Altavini CS, Ascutti APR, Solis ACO et al. *J Affect Dis* 2022;297:641-56.
2. Hayes SC, Hofmann SG. *World Psychiatry* 2021;20:363-75.
3. Hayes SC, Strosahl K, Wilson KG. *Acceptance and commitment therapy: the process and practice of mindful change*, 2nd ed. New York: Guilford, 2012.
4. Hayes SC, Ciarrochi J, Hofmann SG et al. *Behav Res Ther* 2022;156:104155.
5. Walser RD, Garvert DW, Karlin BE et al. *Behav Res Ther* 2015;74:25-31.
6. Krafft J, Hick ET, Mack SA et al. *Suicide Life Threat Behav* 2022;49:1488-96.
7. Crasta D, Daks JS, Rogge RD. *J Context Behav Sci* 2020;18:117-27.
8. Arnold T, Haubrick KK, Klasko-Foster LB et al. *J Context Behav Sci* 2022;24:185-96.
9. As'hab PP, Keliat BA, Wardani IY. *J Public Health Res* 2022;11:2737.

DOI:10.1002/wps.21158