Published in final edited form as:

Am J Geriatr Psychiatry. 2021 August ; 29(8): 801–803. doi:10.1016/j.jagp.2021.04.016.

Improving Social Connections to Reduce Suicide Risk: A Promising Intervention Target?

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In their study, Van Orden and colleagues report results on a randomized control trial which examined the acceptability and efficacy of Engage Psychotherapy, a behavior therapy designed to increase social engagement.[1] The investigators recruited a cross-diagnostic sample of older adults who reported feeling lonely and/or like a burden, who were then randomly assigned to 10 sessions of Social Engage (n = 32) or care-as-usual (n = 30). The intervention was delivered in participants' homes, with follow-up assessments at 3, 6, and 10 weeks. The study premise is based on the idea that lack of social connectedness is a suicide risk factor, and therefore, increases in connectedness could mitigate suicide risk. Indeed, studies have reported lower social engagement in those elderly who died by suicide[2] or attempted suicide,[3] smaller social networks in older suicide attempters,[3] as well as a heightened sense of loneliness[4] and a weakened sense of belonging[4] in older suicide attempters and ideators. While it is plausible that social connections may mitigate the effects of stressors common in old age, such as disability or cognitive deficits, studies that prove this are lacking. Until the pioneering study of Van Orden, Arean, and Conwell,[1] no study had yet investigated improving social connections to reduce suicide risk through the implementation of a psychotheraptic intervention.

The results of the study were mixed. Although participants reported increased social engagement, insight and awareness of the importance of social connection, and acquisition of skills to manage barriers to social engagement, these changes did not translate to increased feelings of belongingness or a decreased sense of burdensomeness. Additionally, the intervention did not significantly reduce suicidal ideation compared to care-as-usual. However, in line with previous research that showed improving social connectedness reduces depression,[4] Social Engage was effective in reducing depressive symptoms and improving social-emotional quality of life. Engaging the most socially isolated older adults in interventions poses a significant challenge, and indeed, the authors ended with a smaller sample than planned, which was underpowered to detect small effect sizes. Thus, the reader wonders whether the negative findings in the primary outcomes are due to lack of power or the intervention's inability in its current form to provide the social connections changes that the investigators had hoped for.

One of the recurrent limitations of treatment studies is that they rarely include individuals with high levels of suicide ideation at study entry. While it seems that the investigators

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succeeded in recruiting depressed older adults, they did not succeed in recruiting high suicide risk individuals (19% reported suicide ideation in the past month). Although this is a limitation, the authors write that the study was not designed as a treatment study for suicidal older adults, but rather as a means of selective suicide prevention (i.e., hypothesizing that social connectedness can prevent the emergence of suicidal thoughts). Certainly, at the societal level, it is best to incorporate both high suicide risk (indicated), as well as selective (specific population subgroups), and population-based (universal) strategies to prevent suicide. However, in this treatment study the low level of average ideation may have reduced the possibility of showing the impact of the intervention on ideation.

The study's strengths included: (1) recruitment of an old-old sample (average age: 72), which is rare for intervention trials, (2) the novel adaptation of the Engage psychotherapy to include psychoeducational materials that address the importance of social connection, (3) a values clarification exercise on the aspects of connection most important to participants, and (4) specific instructions for therapists to focus action plans on social engagement.[1]

One of the possible reasons that Social Engage failed to improve social connectedness may be that feelings of burdensomeness and unbelonging could be part of an enduring pattern of interpersonal dys-function.[5,6] Previous research found that older suicide attempters had less connectedness in numerous indicators compared to not just non-psychiatric controls, but to similarly depressed non-attempters (e.g., similar number of children but less contact, indicating conflictual relationships with children, and fewer close friends).[3] Putative objective indicators of burdensomeness such as low income and physical illness often fail to show association with perceived burdensomeness, which instead has been linked to personality traits such as neuroticism, low extraversion, and anger rumination in depressed older adults.[6]

It is further unclear whether loneliness may only contribute to suicide risk in a specific subset of depressed elderly. Older suicide attempters are a het-erogenous group[7] that vary based on many factors, such as age of first suicide attempt.[8] Early-onset suicide attempters (those who first attempted before old age) have higher levels of neuroticism, low extraversion, and cluster B traits, as opposed to their late-onset counterparts,[8] who are more likely to have cognitive deficits resembling a dementia prodrome.[9] As interpersonal pathology is a predictor of non-response to psychotherapies in general, it may be that the same personality traits that contribute to suicide risk in a certain group may also impair willingness and ability to engage in an intervention that increases social engagement.

While several short interventions have shown a reduction in subsequent suicide attempt rate in younger age groups,[10] so far, there has been no psychotherapy that aimed to reduce suicide attempts and few therapies that aimed to reduce suicidal ideation in late-life.[11] However, promisingly, certain modifications of psychotherapeutic interventions designed to reduce suicidal ideation in younger populations have been adapted specifically for late-life populations, such as CBT modifications[12] and behavioral activation therapies.[1,13] Therapies using behavioral activation have been shown to positively reinforce patient behavior and encourage increased engagement in enjoyable activities, including social activities.[1,13] However, as Van Orden and colleagues correctly point out, many of these interventions may

influence multiple suicide risk factors (emotion dysregulation, social isolation, problem-solving deficits), thus it can be difficult to separate their key mechanism(s).

This is an important study which shows promise for Social Engage as a targeted intervention for suicide prevention in older adults. Van Orden and colleagues' study is exceptionally welcomed, as intervention studies that elucidate potential pathways to reduction of suicidal ideation are needed. They are especially timely during the Covid pandemic which has exacerbated the social isolation of many older adults, especially those who already had limited access to societal resources. The study displays the disconnect between objective measures of connectedness and subjective feelings of loneliness and belonging and highlights the complexity in developing intervention studies that can reduce suicide risk.

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