VIEWPOINT

Ways That Mental Health Professionals Can Encourage COVID-19 Vaccination

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The potential of mental health professionals and agencies to address barriers to COVID-19 vaccination has received inadequate attention. Mental health professionals and teams are trained to use empathy, reflective listening, and cooperative goal setting to help patients address challenges. These professionals actively support patients' well-being, including their adoption of health behaviors such as receiving COVID-19 vaccination. Around 18% of US adults see a mental health professional in a 12-month period, providing an important opportunity.[1] Such care may be particularly important in the context of greater mental health problems during the pandemic.[2] We briefly review what little is known about mental health and vaccination behavior and then address 3 areas for intervention by mental health professionals, based on the Increasing Vaccination Model (IVM).[3] The model identifies 3 main influences on vaccination behavior: what people think and feel, their social experiences, and opportunities for direct behavior change. This descriptive model of health behavior is in use in an adapted form by the World Health Organization and the US Centers for Disease Control and Prevention.

People with poor mental health are more likely to experience infectious diseases including seasonal influenza, herpes simplex virus, and hepatitis C, and less likely to engage in many routine health behaviors.[4] However, vaccination behavior among people facing mental health problems is not well understood, especially in comparison with other health behaviors. Mild psychological symptoms and more severe mental illness can interfere with planning and execution of preventive behaviors, likely including vaccination. It is plausible that anxiety could lead people to fixate on possible harms of vaccination; depression may disrupt seeing benefit from and goal setting for vaccination; and attentional limitations could undermine sifting through misinformation about vaccines. Thus, we conceptualize mental illness as a barrier to vaccination, one that may be even greater for people with severe mental illness.[5]

Thinking and Feeling

The IVM domain of thinking and feeling contains disease risk appraisals, vaccine confidence, and motivation.[3] Disease risk appraisals include perceived susceptibility, worry, fear, and anticipated regret. Meta-analyses show risk appraisals are reliably associated with being vaccinated. However, interventions to boost risk appraisals have been ineffective in increasing vaccine uptake, as shown in a recent meta-analyses of 16 randomized trials.[6] Vaccine confidence encompasses beliefs that vaccines are effective and concern that they are unsafe (eg, about vaccine development and authorization, short-term problems, and long-term harms). Interventions to boost vaccine confidence do not reliably show improvements in vaccination uptake and often fail for reasons that are unclear.[2] Even so, high vaccine confidence is needed to permit implementing the direct behavior change policies and programs described later in this commentary, meaning that national efforts to boost vaccine confidence may have large and beneficial indirect effects. Motivation to vaccinate includes willingness to get vaccinated, plans to do so, and vaccine hesitancy. No interventions are yet shown to reliably reduce hesitancy. Interventions in this area may suffer from delivering an insufficient dose, reactance, and the relatively fixed nature of vaccination attitudes.

Many of the shortcomings of these 3 areas change in the context of ongoing mental health care. Therapists are skilled at identifying and addressing internal conflicts, skills that may extend to allaying concerns about COVID-19 vaccination effectiveness and safety, the speed of vaccine development, and distrust of government.[7] While it is not yet clear whether unravelling such beliefs would increase COVID-19 vaccine uptake, an approach tested for other health behaviors is motivational interviewing.[8] Many primary care professionals may not have time to learn and use these techniques, but mental health professionals will quickly recognize opportunities to use behavior change principles (eg, rolling with resistance) and may have somewhat more time in therapeutic sessions to use them.

Social Processes

The IVM domain of social processes contains social networks, social norms, and social preferences. Social networks include the people we spend time with in person and through media. Social network interventions are effective for increasing healthier behaviors in several domains and are being evaluated at this time in vaccination. Social norms include descriptive norms (what people are doing) and injunctive norms (what people want you to do). Interventions using social norms are again promising but little evidence connects interventions to norms and then to vaccine uptake. Finally, social preferences include altruism and freeriding. Altruism is a common element of communication campaigns, and altruism messages test well with audiences, but it is unclear that altruism appeals change vaccination behavior.

A clinician recommendation builds on interpersonal trust that is often generated over many visits and imparts a potent signal (or social norm) about behavior that is desirable. It is unsurprising that clinician recommendations are one of the strongest motivators of

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uptake for all vaccines[9] and will likely do the same for COVID-19 vaccination. Interventions to improve the quality of primary care professional recommendations increase vaccine uptake. It seems reasonable to speculate that a recommendation from psychiatrists would be relevant given their medical training. The impact of recommendations from other mental health professionals is also potentially promising and merits further study. Of course, some patients could see a frank recommendation for vaccination as outside a mental health professional's role, and this interaction will vary depending on the duration and nature of the relationship. Counseling could also focus on helping people who want to be vaccinated but who worry that it may lead to ostracization by family and friends. Therapists could, for example, help clients plan how to handle these conversations.

Direct Behavior Change

The IVM domain of direct behavior change contains approaches that change behavior directly without attempting to change what people think or feel or their social world. Some call these behavioral nudges. Direct behavior change interventions are reliably effective, in contrast to the other areas. Interventions that help people act on existing good intentions include reminders and primes, automatic appointments, and presumptive health care professional communication. For patients who do not intend to get vaccinated, work and school requirements and incentives have been effective for other vaccines.[10]

In a mental health context, the success of direct behavior change approaches suggests a focus on the mechanics of identifying points of access and reducing barriers. The focus on action planning could be as direct as sitting with clients as they book an appointment and helping them to think through and plan for potential barriers they may face. Reminding clients of the opportunity to vaccinate and upcoming appointments may also be effective in increasing vaccine uptake.

Conclusions

Uptake of COVID-19 and other vaccines is low among younger adults, the age at onset for any mental health problems. Uptake is also lower in communities disproportionately affected by COVID-19. Creating opportunities for equitable access to COVID-19 vaccination has helped US efforts reach disproportionately affected communities to increase vaccine uptake. Engaging new approaches for increasing adult vaccination is a national priority. Although mental health is not the first thing that comes to mind when thinking about vaccination, strategic use of mental health professionals' expertise could provide new opportunities to encourage COVID-19 vaccination. A better understanding of how mental health affects receipt of COVID-19 vaccines and better defining how mental health professionals can help, particularly for disproportionately affected communities, is fundamentally important now and could strengthen vaccination efforts. Engagement by mental health professionals' organizations, and possibly trainings for their members, could be another important step.

ARTICLE INFORMATION

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REFERENCES

1. Holland KM, Jones C, Vivolo-Kantor AM, et al. Trends in US emergency department visits for mental health, overdose, and violence outcomes before and during the COVID-19 pandemic. *JAMA Psychiatry*. 2021;78(4):372-379. doi:10.1001/jamapsychiatry.2020.4402

2. Brewer NT, Chapman GB, Rothman AJ, Leask J, Kempe A. Increasing vaccination: putting psychological science into action. *Psychol Sci Public Interest*. 2017;18(3):149-207. doi:10.1177/1529100618760521

3. Wang PS, Aguilar-Gaxiola S, Alonso J, et al. Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO world mental health surveys. *Lancet*. 2007;370(9590):841-850. doi:10.1016/S0140-6736(07)61414-7

4. Coughlin SS. Anxiety and depression: linkages with viral diseases. *Public Health Rev*. 2012;34(2):7. doi:10.1007/BF03391675

5. Warren N, Kisely S, Siskind D. Maximizing the uptake of a COVID-19 vaccine in people with severe mental illness: a public health priority. *JAMA Psychiatry*. 2021;78(6):589-590. doi:10.1001/jamapsychiatry.2020.4396

6. Parsons JE, Newby KV, French DP. Do interventions containing risk messages increase risk appraisal and the subsequent vaccination intentions and uptake?: a systematic review and meta-analysis. *Br J Health Psychol*. 2018;23(4):1084-1106. doi:10.1111/bjhp.12340

7. Nguyen KH, Srivastav A, Razzaghi H, et al. COVID-19 Vaccination intent, perceptions, and reasons for not vaccinating among groups prioritized for early vaccination—United States, September and December 2020. *MMWR Morb Mortal Wkly Rep*. 2021;70(6):217-222. doi:10.15585/mmwr.mm7006e3

8. Gagneur A, Lemaître T, Gosselin V, et al. A postpartum vaccination promotion intervention using motivational interviewing techniques improves short-term vaccine coverage: PromoVac study. *BMC Public Health*. 2018;18(1):811. doi:10.1186/s12889-018-5724-y

9. Oh NL, Biddell CB, Rhodes BE, Brewer NT. Provider communication and HPV vaccine uptake: a meta-analysis and systematic review. *Prev Med*. 2021;148:106554. doi:10.1016/j.ypmed.2021.106554

10. Greyson D, Vriesema-Magnuson C, Bettinger JA. Impact of school vaccination mandates on pediatric vaccination coverage: a systematic review. *CMAJ Open*. 2019;7(3):E524-E536. doi:10.9778/cmajo.20180191