

Peer Review

Review of: "The Potential of Conversational AI for Mental Health Support in UK Armed Forces Personnel and Veterans: A Mixed-Methods Health Needs Assessment and Feasibility Study"

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My thoughts from the perspective of a social cognitive psychologist who has worked on military mental health interventions, treatments, and research for about 15 years. This study provides a glimpse into issues related to perceptions about artificial intelligence (AI)-driven solutions in the mental healthcare system, military culture and stigma, and discrepancies between leadership's and service users' perspectives.

From my perspective, the major questions about AI-delivered interventions or treatment for mental health might be:

1. Can an AI triage accurately and make proper referrals?
2. Can AI provide any psychoeducation (do-it-yourself help) to address subclinical needs?
3. Can AI deliver therapy-level help for more serious mental health problems as adjunctive or standalone treatment?

Understandably, a giant first step for gathering evidence about the potential for using in military mental healthcare would be understanding barriers and facilitators of AI voicebots from the perspectives of providers and patients in the military healthcare system.

This study had a small convenience sample recruited from a social media group, which the researchers acknowledged as being a source of bias. The recommendation to pilot voicebots in a limited role (as psychoeducation) is a good one, and also tailoring the voicebot to potential populations would seem like a

smart decision. While the study found that mid-to-late career military personnel were receptive to voicebots, it is not clear what the key problems are and who has the problems. For example, sleep is a problem, and would younger cohorts benefit from a sleep voicebot?

I'd like to see an analysis of mental health needs based on key sociodemographic characteristics in future research. Actual piloting of the voicebot will surely reveal how effective AI is in dealing with interventions in subclinical and clinical populations and settings. Safety is another issue, and surely more AI-driven solutions are needed to identify risk.

Decision makers demand evidence that an intervention can work, will work, and does work before allocating resources toward the particular effort. Supplying the proof calls for research on the specific population of military beneficiaries, a tall order when little money is earmarked for research and other barriers like institutional approvals make testing difficult, if not impossible.

Declarations

Potential competing interests: No potential competing interests to declare.