Designing Digital Treatment for Eating Disorders in Military Personnel

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Abstract

The number cases of eating disorders (ED) such as anorexia nervosa and bulimia nervosa observed in military populations is over double that of civilian populations. Progress in the development of digital mental health technology offer new opportunities for affordable and accessible treatment for ED. However, currently most commercially available mobile applications that target ED do not use evidence-based treatment practices and have not been empirically evaluated. Further research is needed on the design of digital tools that can restore a positive relationship with food particularly in military populations.

Author Keywords

Digital mental health; eating disorder; military

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous

Introduction

Studies on military populations show that rates of eating disorders (ED) in both women and men exceed that found in the general population [3]. Researchers found that active service personnel used ED practices such as fasting and purging to meet body measurement and fitness standards required for service which may contribute to the

development of EDs [5,6]. EDs are also highly comorbid with other psychiatric disorders such as depressive disorder, mood disorders, and posttraumatic stress disorder, the latter of which also sees higher incidences in military populations [2, 10].

While a growing number of digital mental health interventions that tackle psychiatric disorders are becoming commercially available, many focus on weight loss and self-tracking of physical activity [7] which may be counterproductive to the treatment of ED [9]. Furthermore, Juarascio and Manasse conducted a review of publicly available smartphone applications that seek to aid in the treatment of EDs and found that the majority of these applications were not empirically evaluated and did not integrate evidence-based treatment practices [4].

Designing for the Military Experience

Military personnel and civilians exhibit different habits and attitudes when it comes to health and health behaviors [1]. There is a distinct culture derived from the experience of being in the military that includes values, obedience to leadership, and selfless duty [8]. As a result there exist treatment options for military personnel provided by specialists specifically trained on needs of servicemen. When designing digital mental health technology for a particular population, it is critical to weigh the target users' culture and perspective.

During the workshop, I hope to discuss the influence of the military culture on the perception of food and how this perception should be reflected in the design of digital treatments of ED: *How can we design technologies to aid military personnel with an eating disorder and possible psychiatric comorbidities in their journey towards a healthier relationship with food?*

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