

Global Health Day

Jobs in the Garden (JIG): A Mixed Methods, Evaluative Study of the Chicago Botanic Garden's Veteran Internship Program (VIP)

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The absence of reciprocal relationships between human and non-human nature contributes both to poor mental health among humans and to global environmental crises. Thus, programs that connect humans to non-human nature, may provide opportunities to improve mental health and encourage pro-environmental behavior.

As an example, military veterans face challenges when transitioning from active duty to civilian life. While much attention is given to veterans suffering from trauma-related symptoms, even veterans without trauma-related symptoms often find it difficult to find a job in the civilian sector. These challenges include work-skills mismatch, workplace culture mismatch, and mental or behavioral barriers resulting from a loss of military identity and sense of mission. Thus, transitioning from military to civilian life is often filled with anxiety and stress for veterans. To facilitate the reintegration of veterans into the civilian workforce, the Chicago Botanic Gardens (CBG) established the Veterans Internship Program (VIP), a 14 week summer internship program centered on three components: Job Training, Professional Development, and Horticultural Therapy. Researchers from Northwestern University evaluated the CBG-VIP in the summers of 2017 (n = 8) and 2018 (n = 6). Validated survey instruments were used to collect quantitative data on 9 psychological measures and 2 measures of nature engagement; qualitative data were collected via semi-structured interviews. This mixed-methods study was intended to outline how the three project components and psychological resources of the CBG-VIP are leveraged to reduce stress and anxiety in veteran participants.

Analysis of psychological survey results indicated that participants' saw reductions in stress and anxiety; 86% (n=12) of participants had scores that placed them at the lowest risk for stress-related complications late program data collection. The improvement in post-traumatic stress symptoms was statistically significant ($p < 0.02$) in the 2018 cohort (n=6). Thematic analysis of the semi-structured interviews indicated that the VIP successfully engaged veterans in all three project components. Observed themes attributed to the Job Skills component include increased self-confidence and self-efficacy regarding job performance and search, acquisition of vocational skills, and transition of skills to civilian workplace. Themes attributed to the Professional Development component include familiarity with resumes and mock interviews as well as an expanded professional network. Themes attributed to the Therapeutic Horticulture component include increased nature engagement, awareness of the need to care for nature, use of nature as a wellness tool, and interest in life science careers. The interviews

revealed a fourth component that was equally important to the success of the program – the supportive and nurturing environment created by veteran-specific programming and the staff of the CBG.

Overall, the CBG-VIP had positive effects on all participants resulting from increased connections with their veteran colleagues, Garden staff, and to nature itself. Garden programs are often seen as a way to provide nutritious low-cost food. This and other studies suggest that garden-based programs may have additional benefits by fostering connections to human and non-human nature. The use of gardening interventions in a variety of situations may improve health related quality of life and increase pro-environmental behavior.

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