Chapter 12
Using Virtual Reality in College Student Mental Health Treatment

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ABSTRACT
When students leave home to attend college, they encounter many adjustments and new experiences. Some students have difficulty coping with the challenges they experience and over time may develop mild to severe mental health issues. Mental health illness among college students is associated with long-term adverse academic outcomes, including dropout. With an exponential rise in mental health issues among university students, there is a dire need to reach out to newer technologies to help students effectively cope with academic and social challenges. Given the increased accessibility and practicality of virtual reality (VR) use in mental health, it becomes paramount to extend the utility of VR to university counselling settings including the preliminary assessment, diagnosis, and treatment strategies to guide students to effectively address any mental health challenges. There are potential implications and challenges associated with the use of VR within universities’ counselling settings as well.

INTRODUCTION
With the advent of technological advancement in the counselling and psychotherapy, Virtual Reality (VR) has emerged as a promising tool, which has demonstrated its utility in assessing, diagnosing and treating mental health conditions, as precisely indicated by the last two decades of research in this area (Emmelkamp et al., 2002; Krijn et al., 2004; Krijn et al., 2007). The subsequent paragraphs, therefore, aim to provide a richer understanding of the rising mental health issues among university students, followed by a brief glimpse into the existing applications of VR for mental health treatment in clinical settings. Moreover, with an overview of an existing subset of literature in the field of VR with a particular emphasis of its application in mental health, this chapter also aspires to illuminate its readers.

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and campus counselling services to identify opportunities, strengths, and future directions to integrate virtual reality in university settings.

BACKGROUND

Mental Health Among University Students

Even though university years are touted as a decisive developmental period where most of the personal and professional development of an individual occurs (Evans et al., 2009), it also marks a time which is highly represented by the onset and prevalence of mental illnesses (Ibrahim et al., 2013). As research studies highlight, 12-46 percent of university students are estimated to experience mental health issues in learning, relationships, family and employment at a point of their academic life (Auerbach et al., 2016; Blanco et al., 2008; Eisenberg et al., 2013). According to the World Health Organization (WHO), mental disorders account for at least half of the illness burden of young adults in high-income countries. This illness burden among young students is broadly associated with long-term adverse academic outcomes, including dropout (Hysenbegasi et al., 2005; Ishii et al., 2018).

Despite the availability of treatments for mental disorders, there is a severe treatment gap in university students afflicted with mental illness, with only one in five students receiving care and treatment (Auerbach et al., 2016). The analysis of data on mental health problems of university students by Auerbach and colleagues (2016) also found that individuals suffering from psychological issues were least likely to attend university and were also unable to receive necessary treatment for their illnesses when attending university. Multiple cases of untreated mental disorders have documented poor clinical outcomes in later life. Depression, eating disorders, phobia and social anxiety are some of the prominent mental disorders that affect students (Ricky & O’Donnell Siobhan, 2017). Likewise, in their cross-cultural study of 23 nations, Steptoe et al. (2007) investigated the prevalence of depressive symptoms in 17,348 university going students between the ages of 17 and 30. The findings of this study concluded in context with mental health hazards among this college-going population. It was found that the extent of severe depressive symptoms was most common in students from East Asia (e.g., Japan and Korea) with 38 percent of students self-reporting experiencing such symptoms, followed by students from western countries with 31 percent.

In a similar vein, excessive academic burden and failure to achieve goals in both academic and personal domains has been also found to be contributory in suicidal tendencies among students; suicide among college students has tripled since the 1950s (Burrell, 2020). An undergraduate mental health survey of a premier Indian engineering institute found that approximately 84 percent engineering students felt that mental health was a real challenge on the campus, with 72 percent having experienced depression or anxiety and 24 percent having suicidal ideations at one point of their academic lives. One of the reasons for the increasing prevalence of mental illness within campuses could be because of many students are unable to cope up with this invariable amount of pressure they encounter ( Deb, 2019). Considering that most of the universities are residential in nature, establishing and defining a proper support system within the university campus deems essential for better and faster accessibility to mental health services (McLaughlin, 1999).

In summary, mental health issues among university students leave landmark negative footprints on their academic performance and social functioning (Richardson et al., 2012). Failing to provide early
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