University of Utah UNDERGRADUATE RESEARCH JOURNAL

CHOREOGRAFISH – A VR GAME EXPLORING ANXIETY REDUCTION IN YOUNG ADULTS ON THE AUTISM SPECTRUM

Taylor Russell (Cheryl Wright, Ph.D, Valerie D'Astous, Ph.D) **Department of Family and Consumer Studies**

The purpose of this pilot research was to explore if a virtual reality (VR) game developed with students on the autism spectrum called Choreografish has the potential to decrease anxiety in young adults with autism spectrum disorder (ASD). Studies show that individuals with ASD tend to have heightened visual thinking and learning, which is why virtual reality gaming may be useful as a therapeutic tool. Anxiety levels of 7 young adult participants were measured with self-assessment questionnaires at three points in time. A general anxiety assessment was taken prior to the first VR session and was used to obtain a baseline anxiety score. A pre-assessment was taken immediately before playing the VR game and the last was taken after playing Choreografish for ten minutes. Responses were calculated by assigning scores on a four point scale. Data showed a trend in decreasing anxiety among the majority of participants after playing Choreografish and 71% of participants reported feeling more calm after. These results suggest that VR has the potential for anxiety reduction due to its controlled environment, soothing color scheme, and predictable patterns. Individuals with ASD have learning differences not yet understood by researchers and because of this, there are limited tools and techniques available directly tailored to meet their needs. With the development of this new VR technology, people with ASD may be able to reduce their level of anxiety in a fun and enjoyable way.

Keywords: autism, autism spectrum disorder, virtual reality, anxiety

