A Virtual Psychiatry Ward For Orientation Patients Admitted For The First Time

LAU, Wai Chi (1), CHOI, Kap Sze (2), CHUNG, Wai Yee, Joanne (3)
(1) Department of Psychiatry, QMH, (2) School of Nursing, The Hong Kong Polytechnic University, (3) The Hong Kong Institution of Education

Introduction

Misconception about psychiatric ward and misunderstand regulations and rules of wards, resulting in refusal of treatment and delayed in-patient psychiatric management with potential detrimental effects. Orientation program is useful to introduce relevant information about the wards to new patients, and is effective in reducing patient’s anxiety in different clinical settings, including psychiatric units. Virtual Reality is well-known to be an effective aid to the treatment of physical and mental patients. With these advantages, attempt is made to adopt Virtual Reality technology in ward orientation program in this study.

Aim

To evaluate the effectiveness of a Virtual Reality (VR) orientation program developed for those who are admitted into a psychiatric unit for the first time.

Objectives

To evaluate the developed VR-based orientation program in terms of
1) The effectiveness in reducing anxiety of patient first-time admitted to psychiatric ward.
2) The usability
3) The participants’ understanding of wards by VR-based orientation program.

Methodology

It was a randomized controlled trial (RCT) study. Consecutive sampling method was adopted, where patients were selected according to the inclusion and exclusion criteria. Participants were randomly assigned into a VR based orientation group (intervention group) and non-VR based orientation group (control group). The effectiveness of the VR based orientation program was evaluated by 4 assessment tools: the Heart Rate Variability (HRV) measurements, the six-item version Chinese State Trait Anxiety Inventory (the C-STAI), the level of understanding test (LUT), and the IBM usability test (intervention group only).

Results

A total 54 participants were recruited between May to October, 2008. Each half of the total participants was divided into the VR based orientation group and non-VR based orientation group, respectively. The findings showed that anxiety was significantly reduced in the participants of VR based orientation, as evident from the HRV measurements (except for LF, $r_p=0.84$ the C-STAI ($p=0.00$). Moreover, all participants in the intervention group commented that the program was user-friendly, and they showed higher level of understanding (LUT, $p=0.00$) about ward condition, regulations and environment.

Conclusion

The developed VR approach orientation program is useful in reducing the first-time admitted psychiatric patient’s anxiety. It is also practically to improve the patients understanding about ward condition, regulations and environment.

A Study Flow

[Diagram showing the study flow with steps like: Subjects fit the inclusion and stay who fit any one of exclusion criteria, Willing to participate (an information sheet given and signed consent with clear explanation), Unwilling to participate the study, Complete the simple computer test by answering a question “Do you feel discomfort and frightened toward using computers?”, Answer the Chinese six-items STAI questionnaires as pre-test anxiety level test, Randomization, VR Group (Patients are oriented by the VR-based orientation programme for approximate 10-15 minutes), Non-VR Group (Patients are oriented by electronic form ward regulations and materials for approximate 10-15 minutes), Answer the six-item C-STAI questionnaire again as post anxiety level test: 8 questions about ward regulations and rules; and the 8 questions IBM usability test, Re-test the level of understanding and complete the six-item C-STAI form on the next day of orientation programme.]