CHRONIC PAIN: GAINING UNDERSTANDING AND EMPATHY THROUGH AN INTERACTIVE SYSTEM

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INTRODUCTION / AIM

The individual suffering of chronic pain is unseen and incommunicable. This makes it difficult for healthcare professionals, family and society to believe and understand chronic pain patients’ sufferings, let alone empathize and support them. Not feeling believed and understood leads patients to confusion, frustration, anger, shame and social isolation (Osborn and Smith, 2015). Furthermore, gaining an empathetic understanding of patients’ experience is not an adjunct, but integral to help patients to move forward alongside their pain (Toye et al., 2013). Therefore, we aim to design an interactive system called “AS IF”, to educate the public, raise awareness and gain empathy with chronic pain.

METHODS

We built an interactive system to help non-patients gain empathy with chronic pain patients, i.e.: put non-patients into patients’ shoes. In the system, the participant interacts with their altered body image to complete object-oriented motor tasks. The system is developed in Unity3D. We use Microsoft Kinect Sensor as input device to detect and track the participant’s position and movements, a projector as an output device to act as a virtual mirror.

RESULTS

During the interaction, the participant manipulates his/her virtual body image as silhouette in the virtual mirror, and reaches out to connect dots with lines to form a meaningful shape that is related to chronic pain experience. After the participant gets used to the interaction in the “normal body mode”, the system will turn to “chronic pain body mode”. In it pain randomly attacks different part of the body shown by various visual particle motion. The pain will limit the body movement and hinder the participant reaching the dots. The virtual mirror provides a visual simulation of living within the body of chronic pain. The whole interactive experience lasts for 5-10 minutes.

DISCUSSION / CONCLUSIONS

By putting the non-patient into the virtual body of chronic pain sufferer, the interactive application visually shows the altered body schema caused by chronic pain, and allows the participant to gain the experience and empathy of living within a virtual body of chronic pain.

OTHER AUTHORS

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