

## Interactive Virtual Reality Exposure Therapy for Selective Mutism

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### PROJECT DESCRIPTION:

#### Introduction

Selective Mutism (SM) is a psychiatric childhood anxiety disorder characterized by a lack of speech in settings where speaking is socially expected despite the presence of speech in other situations. This study evaluates the use of Virtual reality exposure therapy (VRET), which is a method of psychotherapy that uses virtual scenarios to treat patients with SM. The VRET system is specially programmed with artificially created scenes to give the child a simulated experience. This allows the creation of a virtual environment which serves as an extension of the exposure component of behavioral therapy, where patients are exposed to the feared context virtually as part of the treatment to overcome their anxiety. It can be as effective in inducing feared emotional responses as in real world settings and also offers several advantages such as providing a controlled artificial stimuli in the context of treatment, as well as being able to monitor the patients physiological reactions. This project is a collaboration between Institute of Mental Health (IMH) and NTU.





## Result

- The study is currently ongoing recruitment for more participants. Both the VRET system and the real time synchronized signal tracking for different levels of responses have been utilized.
- This system allows clinicians an alternative treatment modal that integrates having a controlled clinician assisted environment and having an anxiety provoking ‘real life’ situation that patients face difficulties with in their day to day lives.

## GRANT:

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## PERSONNEL:

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## PUBLICATIONS:

*Refereed Journal (Published/In Press):*

***Refereed Conference (Published/In Press):***

1. I-Ming Chen, T.A.K. Pham, Development of an Interactive Virtual System For Treatment of Selective Mutism, 3rd IFToMM International Symposium on Robotics and Mechatronics, pp659-667, Singapore, October 2013.
2. Kwan Hui Min, Clare, Online portal for treatment of children with Selective Mutism, Serious Games & Social Connect 2013, Singapore, August 2013