

The feasibility of a virtual reality prototype in the treatment of school anxiety

Background

Anxiety related school avoidance affects up to 1% - 5% of primary and secondary school students each year (Sewell 2008). With close to a million students enrolled in primary and secondary schools in Ireland currently (Department of Education 2021), this amounts to a significant number (10,000 to 50,000). Exposure therapy is an effective treatment for many anxiety disorders (Shiban 2018). Virtual reality exposure therapy (VRET) involves controlled exposure to a virtual representation of the anxiety provoking stimulus. VRET has been shown to be as effective as conventional exposure therapy for treating many anxiety disorders (Carl et al. 2019). VRET also brings potential benefits in terms of costs and time savings, greater control and greater repeatability of the exposure. Despite the potential of VRET, and its obvious appeal to young people, there is limited research into its use in Child & Adolescent Mental Health Services (CAMHS).

Objectives:

1. To work collaboratively with teenage CAMHS attenders in co-designing and building a VRET for use in treating school attendance anxiety.
2. To perform a qualitative study to test the feasibility of this simulation technique as an intervention for school anxiety.

Method

An essential and innovative aspect of this project was the **co-creation** of a mental health intervention with patients. 17 teenage CAMHS attenders were invited to participate in workshops where they developed a script and story board reflecting their beliefs on the most stressful and anxiety provoking situations pertaining to school. Extensive collaboration took place with schools, primary care, youth services and young people not attending CAMHS. These workshops used design thinking principles to understand the problem and create novel solutions.

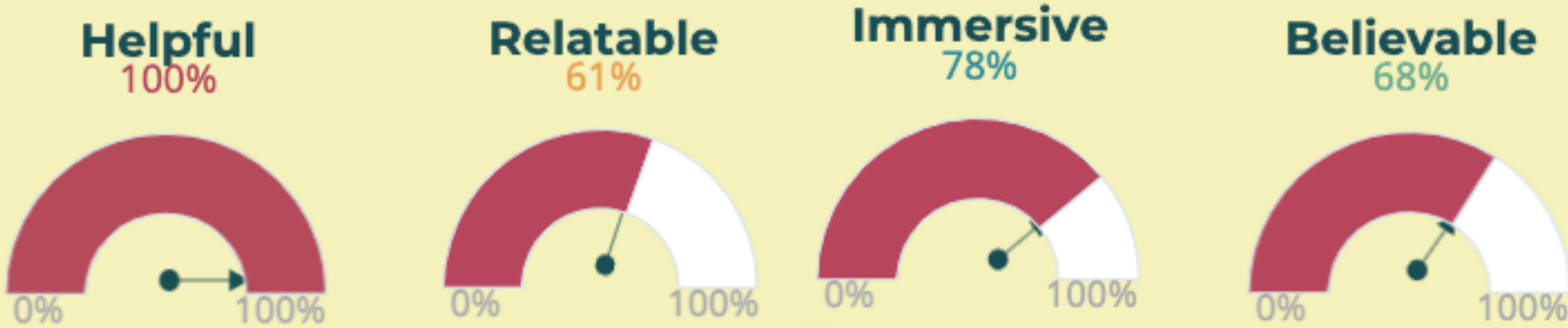
Three of these scenarios were developed into distinct virtual reality simulated school scenarios.

These prototype scenarios were then tested to understand the feasibility of using them as a therapy for school anxiety. 18 teenagers were recruited and consented for this study. Each participant trialed each of the three simulations. After each simulation trial, participants completed a questionnaire to capture their experience of the simulation.

Results

Questionnaire results demonstrated that 77% of participants found the simulations immersive, 68% found the scenarios believable and 61% could relate to Dala, the central character in story. 100% of participants believed that VRET would help with school anxiety and would try other VRET in CAMHS.

Participants found the prototype to be.....



The favourable face validity of VRET demonstrated in this qualitative study indicates potential promise for this mode of intervention for delivering psychotherapy to CAMHS attenders.

Having established evidence of good face validity, the next step is to organise a randomised control trial to assess the efficacy of this tool as a standalone treatment of school related anxiety and school avoidance. Should these trials be successful we envisage this tool being used as **an early intervention tool in schools and homes** to pre-emptively treat and prevent anxiety symptoms and associated behaviours, ultimately reducing the level of anxiety related school avoidance. Early intervention at home and in schools has the potential to significantly reduce the number of referrals to our overburdened CAMHS.

Funding: Funding for this study was provided by the public service innovation fund.

Ethical Approval: Ethical approval was provided by the Clinical Research Ethics Committee of University Hospital Galway.

Conclusion

References

- Carl, E., Stein, A.T., Leihn-Coon, A., Pogue, J.R., Rothbaum, B., Emmelkamp, P., Asmundson, G.J.G., Carlbring, P., Powers, M.B. (2019) 'Virtual reality exposure therapy for anxiety and related disorders: A meta-analysis of randomized controlled trials', Journal of Anxiety Disorders, 61, 27–36.
- Department of Education (2021) 'Statistical Bulletin - July 2021', available: <https://www.gov.ie/en/publication/055810-education-statistics/#latest-statistical-reports>.
- Sewell, J. (2008) 'School refusal', Australian Family Physician, 37(6), 406–408.
- Shiban, Y. (2018) '[Virtual reality exposure therapy for anxiety disorders]', Der Nervenarzt, 89(11), 1227–1231.

DIARMUID BOYLE¹, NIAMH MORRIN², JENNY SCARGILL³, FIONA MULVEY⁴, HENRY O'CONNELL¹, CIARA HEAVIN⁵

¹ Triogue Centre, Portlaoise, Co Laois

² Galway CAMHS< HSE West, Merlin Park Regional Hospital, Galway

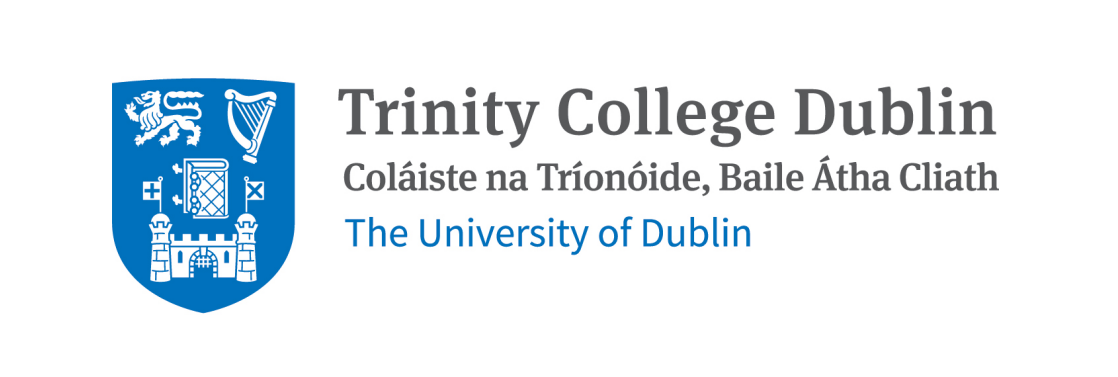
³ Unit 3 Adelphi House, George's Street, Dun Laoghaire, Co Dublin

⁴ Roscommon CAMHS, Castlecourt House, Co Roscommon

⁵ Cork University Business School, University College Cork, Co. Cork.

Authors

Contact: DIARMUID.BOYLE@GMAIL.COM



Scan here with your phone camera for a copy of this poster on your phone to save and view later.

