

# ENHANCING MEN'S AWARENESS OF TESTICULAR DISORDERS (E-MAT) USING A VIRTUAL REALITY INTERVENTION: A PRE-POST STUDY

Mohamad M. Saab,<sup>a</sup> PhD; Margaret Landers, PhD; Eoghan Cooke, MSc; David Murphy, BMus; Martin Davoren, PhD; Josephine Hegarty, PhD

## BACKGROUND

- Testicular cancer (TC) is the most common solid tumour among men aged 18 to 50 years.<sup>b</sup>
- The incidence of benign testicular disorders (e.g. testicular torsion, epididymitis, and orchitis) is higher than that of TC.
- Men's awareness of diseases of the testes is lacking and their intentions to seek help for testicular symptoms are low.
- We interviewed men about their preferred strategies for learning about testicular disorders and designed E-MAT accordingly.
- Men recommended strategies that are:



## AIM

The aim of this one-group pre-post study was to enhance men's awareness of testicular disorders, improve their help-seeking intentions for testicular symptoms, and increase their intention and behaviour to feel their testes.

## INTERVENTION

E-MAT was developed in the form of a virtual reality experience with three levels:

*Virtual reality headset used*



*Controller with haptic feedback used*



### THE LEVELS IN E-MAT

- Level I** Men were asked to familiarise themselves with the normal testes and common testicular symptoms
- Level II** Men were exposed to a 3D model of real testes and were asked to identify the most common disorders (testicular torsion, epididymitis, and TC)
- Level III** Information from the first two level were reiterated and the importance of early help-seeking was stressed

## DATA COLLECTION

Males, residing in the Republic of Ireland, and aged 18-50 years were recruited from a university

A questionnaire was completed at baseline (n=53)

Participants (n=53) were exposed to the intervention

A questionnaire was completed immediately post-test (n=53)

A questionnaire was completed one month post-test (n=49)

## FINDINGS

- At post-test, there was increase in:
- 1) Knowledge and awareness of the normal testes, testicular symptoms, and disorders.
  - 2) Intentions to feel own testes and advise other men to feel their own testes.
  - 3) Intentions to seek help for swelling, lumpiness, and pain.
  - 4) Behaviour in relation to feeling own testes and advising other men to do the same.

11 (22.4%) participants did not intend to feel their testes at baseline

Of those, 6 (54.5%) reported having done that one month later (p=0.019)

32 (65.3%) participants did not intend to advise other men to feel their own testes at baseline

Of those, 8 (25%) reported having done that one month later (p<0.001)

## CONCLUSION

- Full-scale testing and public dissemination of E-MAT are recommended.
- Virtual reality can be used in various health contexts.

<sup>a</sup> Mohamad M. Saab is a lecturer in the School of Nursing and Midwifery in UCC.  
E-mail: msaab@ucc.ie

<sup>b</sup> References available upon request