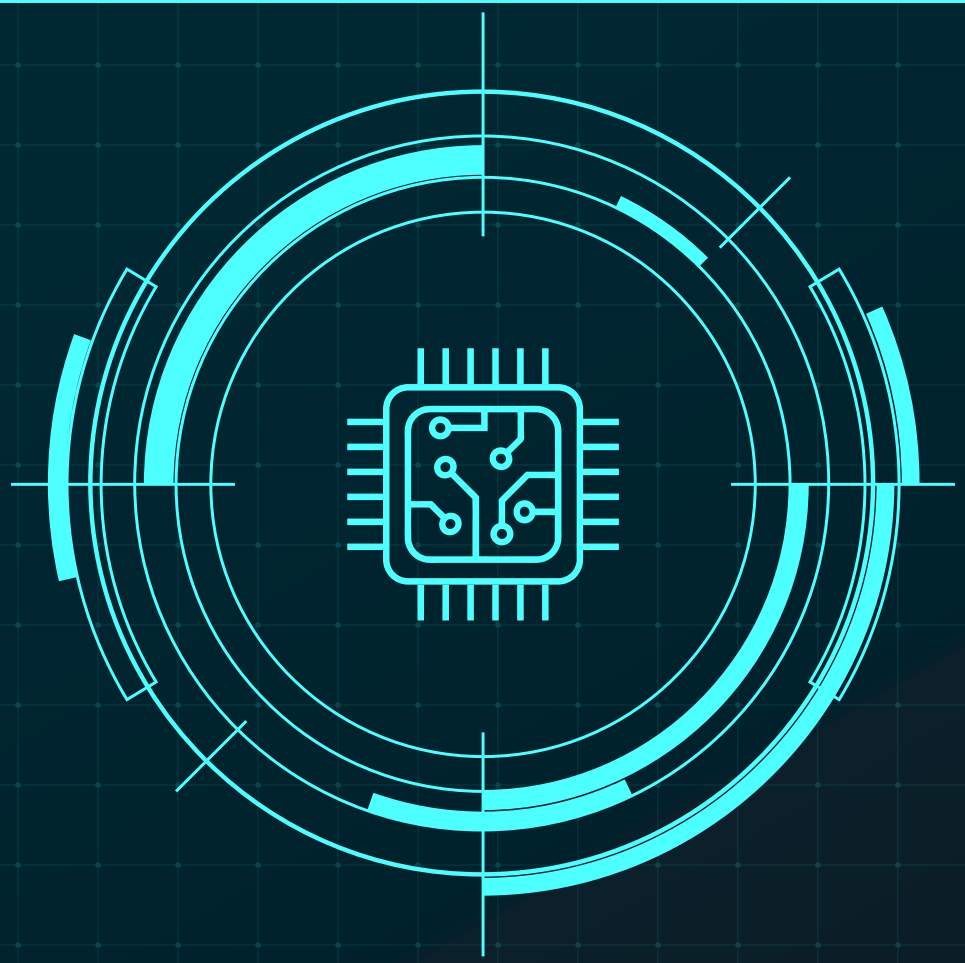


Mindful Tech: RCT Comparing DMH Modalities

2025 APS Festival of Psychology

ABOUT ME

BPsychSc (hons) | GCertHProfEd | PhD Clin Psych Candidate

SUBJECT: DALE ROWLAND

OCCUPATION: LECTURER/ PSYCHOLOGIST

RESEARCH INTERESTS:

DMH TRANSLATION

VR INTERVENTIONS

INDIGENOUS PSYCHOLOGY & SEWB

CLINICAL INTERESTS:

ATTACHMENT TRAUMA

EMOTIONAL DISORDERS

PERSONALITY DISORDERS

Virtual Reality

Why VR?

Accessibility
Home-use

Interactive
Novel
Enjoyable

Immersive
Engaging
Embodiement

Flexibility
Convenience
Dynamic

Cost
Availability

Personalisation/
Customisation

Virtual Reality

- VRI are a promising treatment modality
- Sub-optimal methodological reporting in previous research
- Significant translation issues

Rowland, D. P., Casey, L. M., Ganapathy, A., Cassimatis, M., & Clough, B. A. (2022). A decade in review: A systematic review of virtual reality interventions for emotional disorders.

Evidence-Base

Journal of Behavior Therapy and Experimental Psychiatry

Impact of virtual reality applications in the treatment of anxiety disorders: A systematic review and meta-analysis of randomized-controlled trials

Acta Psychiatrica Scandinavica

WILEY

META-ANALYSIS

The Effectiveness of Immersive Virtual Reality-Based Treatment for Mental Disorders: A Systematic Review With Meta-Analysis

Aims & Predictions

The aim of the current study was to better understand how VR compares to PC and Smartphone DMH modalities via the delivery of a single-session, remote, mindfulness-based VRI to improve wellbeing among university students.

All scores would improve from T1 to T2 irrespective of treatment condition

VR would outperform PC and Smartphone conditions

Maintenance of gains would not be achieved at T3 (1-month FU)

PARTICIPANTS

- University students (N = 171)
- Mostly undergraduate students (97%), studying psychology (54%)
- Aged between 17 – 69 years old (M = 24.4, SD = 9.10)
- Sample was predominantly female (79%)
- More than half the sample had previously engaged services with a Mental Health Professional before (57%)

STUDY DESIGN

- Mixed factorial design (4x3)
- Participants randomly allocated to VR, PC, and Smartphone (between groups factor)
- Primary outcomes measured at three time points (within groups factor): pre-intervention (T1), post-intervention (T2), and one-month follow-up (T3)

Credibility

CEQ
(Devilly & Borkovec, 2000)

Mindfulness

Toronto Mindfulness Scale
(Lau et al., 2006)

Mood

Brief Mood Introspection Scale
(Mayer & Salovey, 1993)

Affect

Positive and Negative Affect Scales
(Watson et al., 1988).

Acceptance

UTAUT-2
(Venkatesh et al., 2012)

Psychological Distress

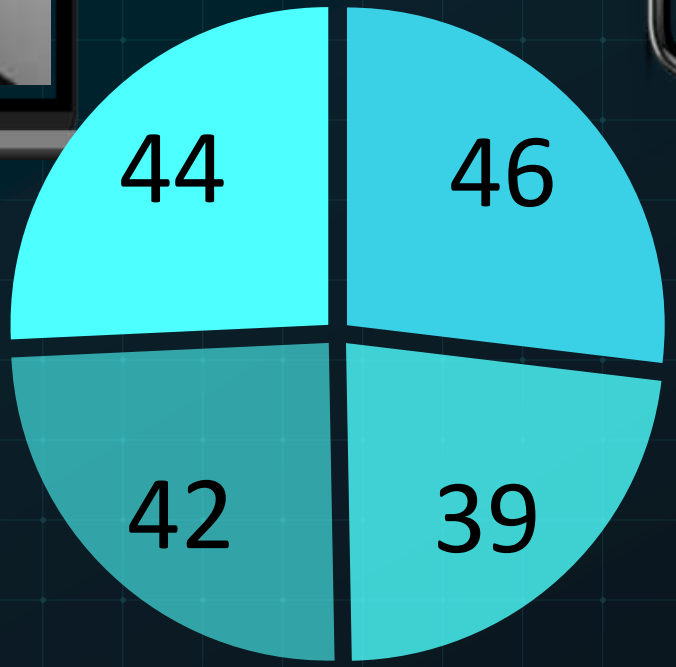
Kessler 6
(Kessler et al., 2002).

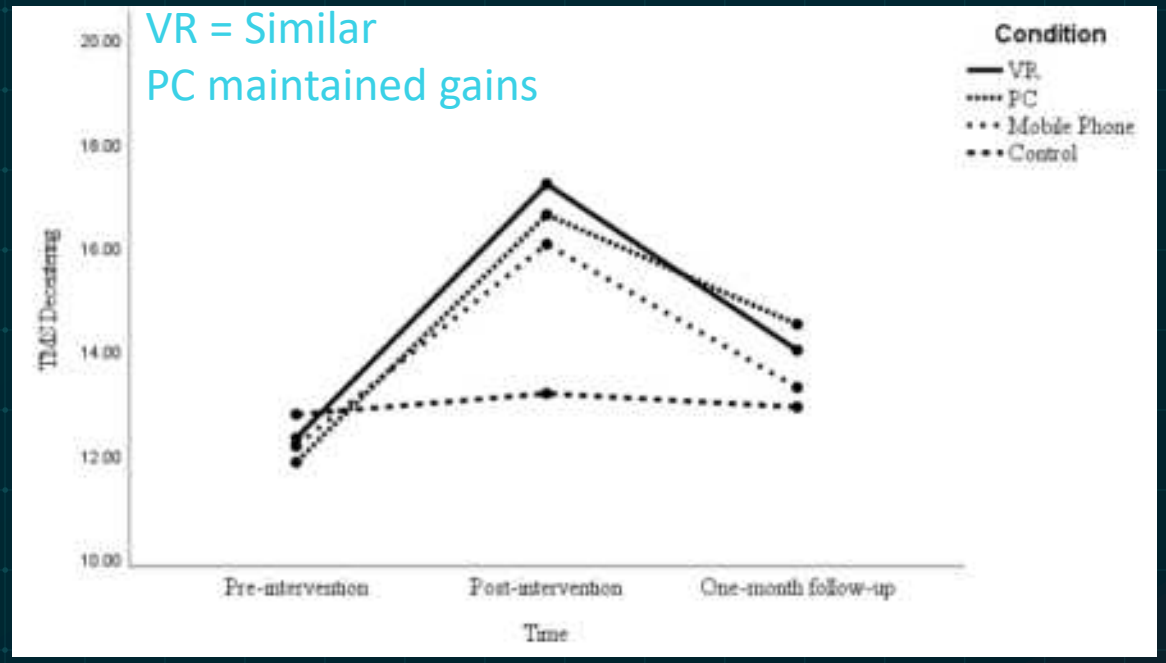
Engagement

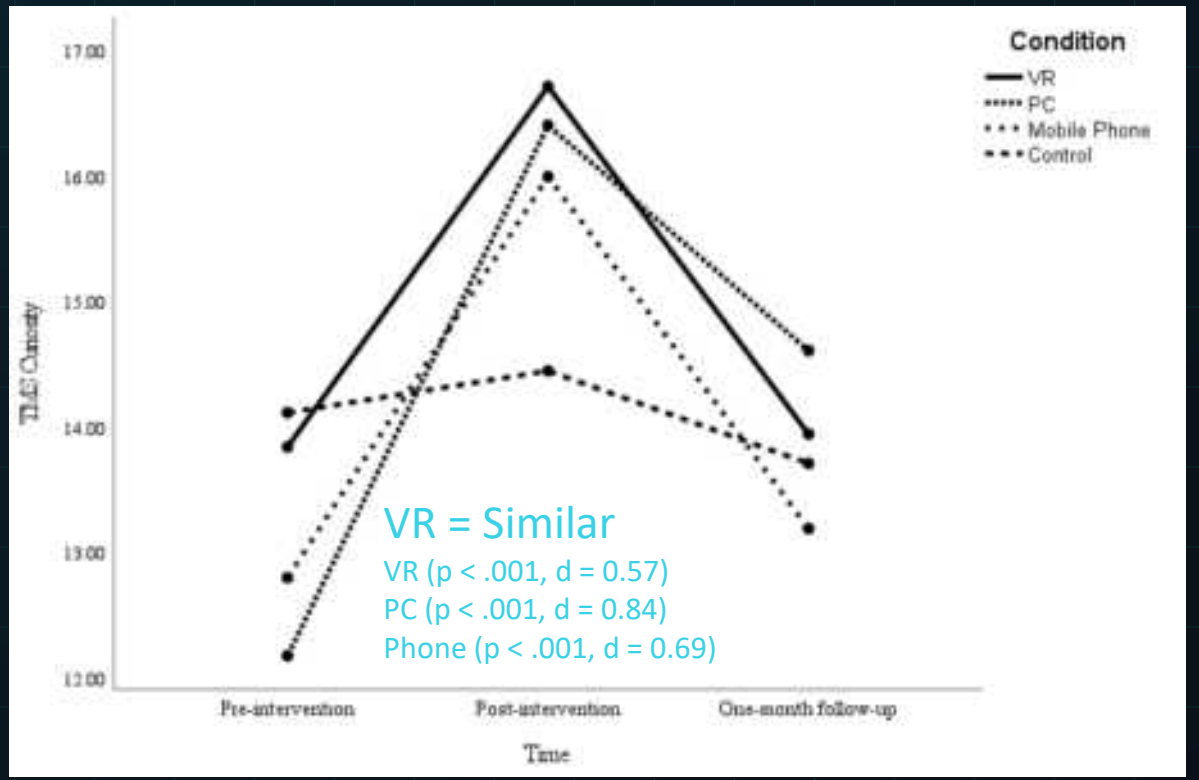
eTAP
(Clough et al., 2019)

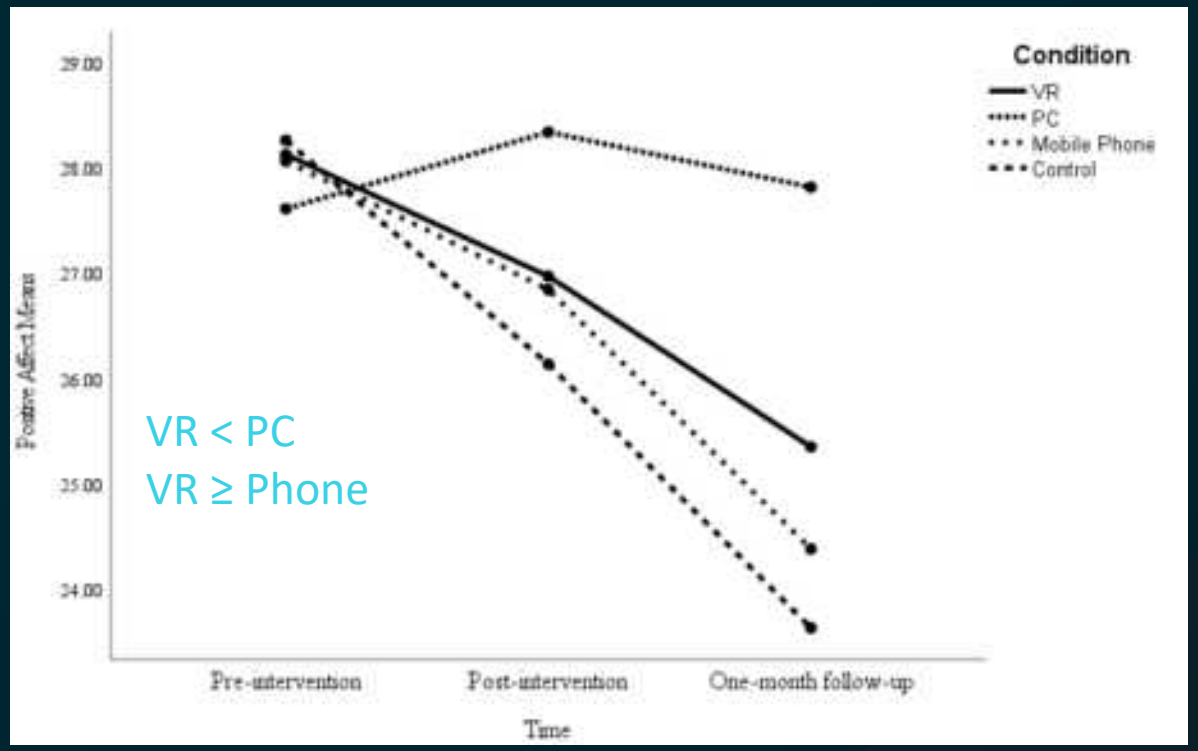
Satisfaction

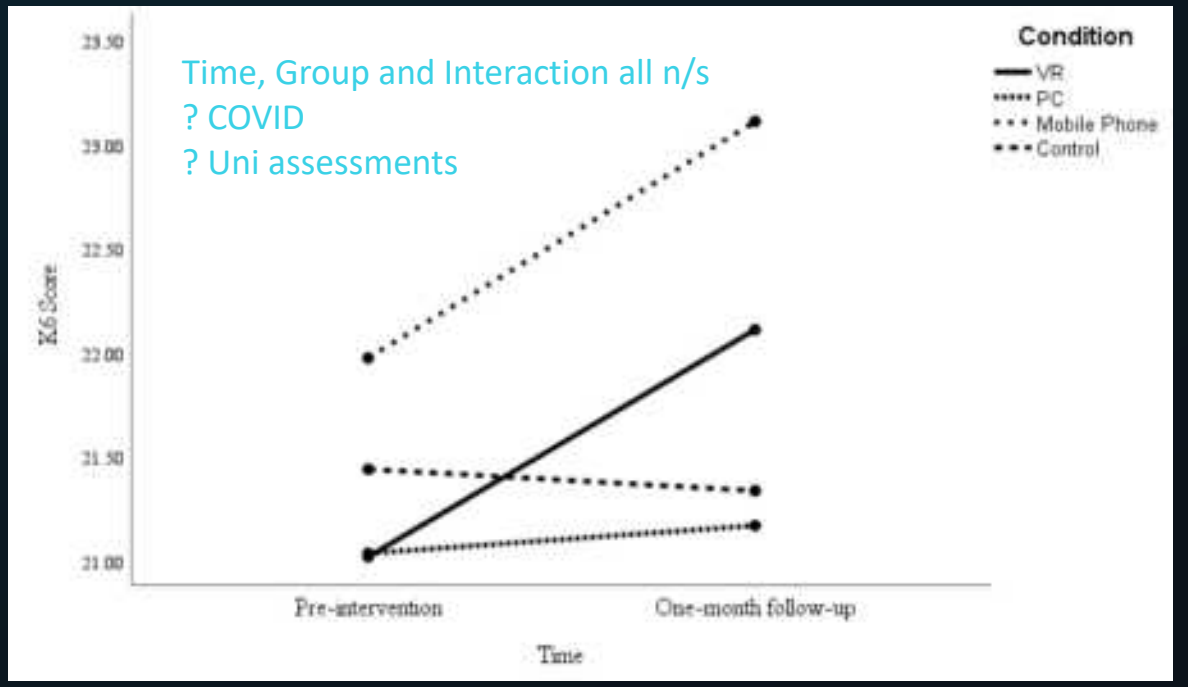
Client Satisfaction Questionnaire
(Larsen et al., 1979)

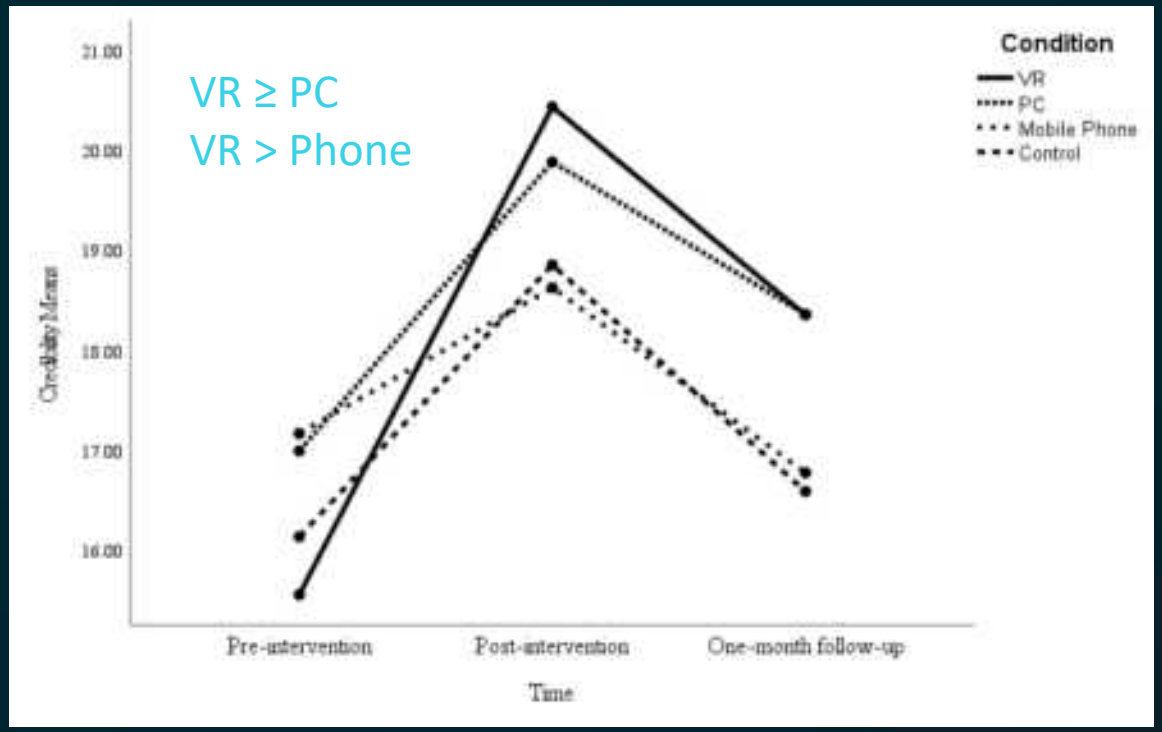

44
46
42
39

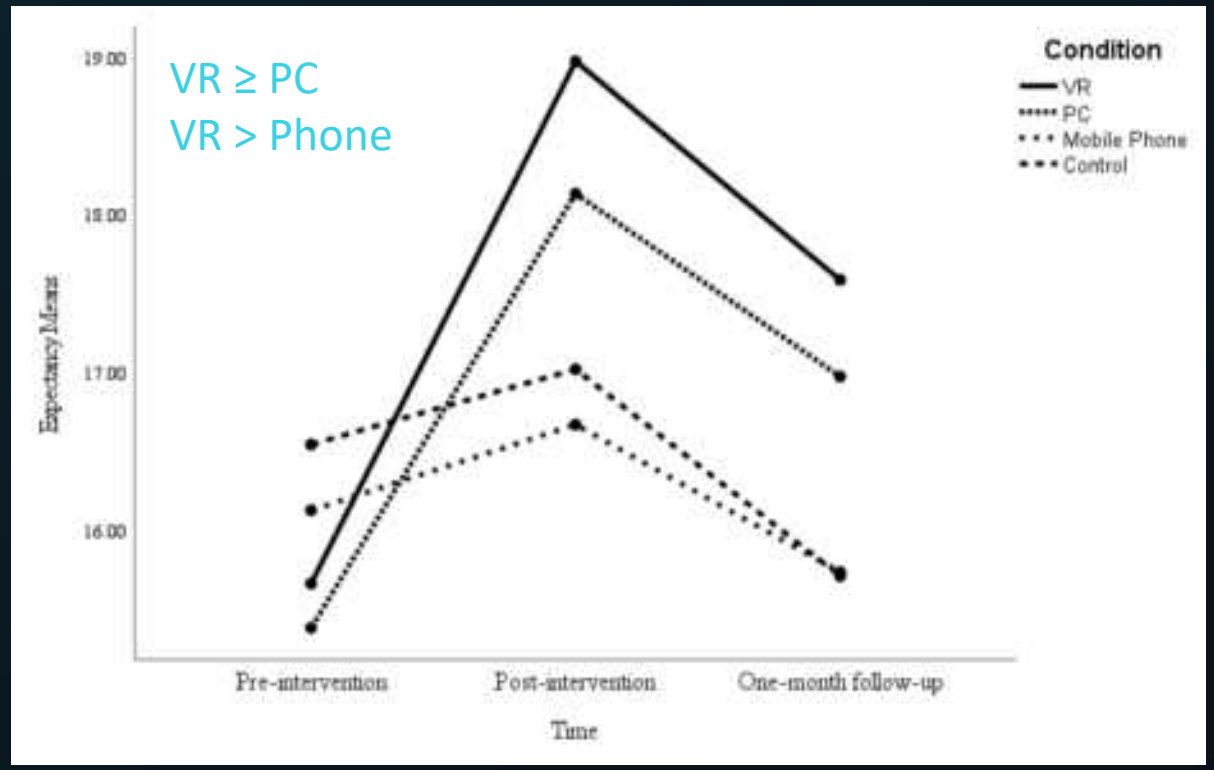

VR = Similar
PC maintained gains
Condition
VR
PC
Mobile Phone
Control
20.00
18.00
16.00
14.00
12.00
10.00
Pre-intervention
Post-intervention
One-month follow-up
Time

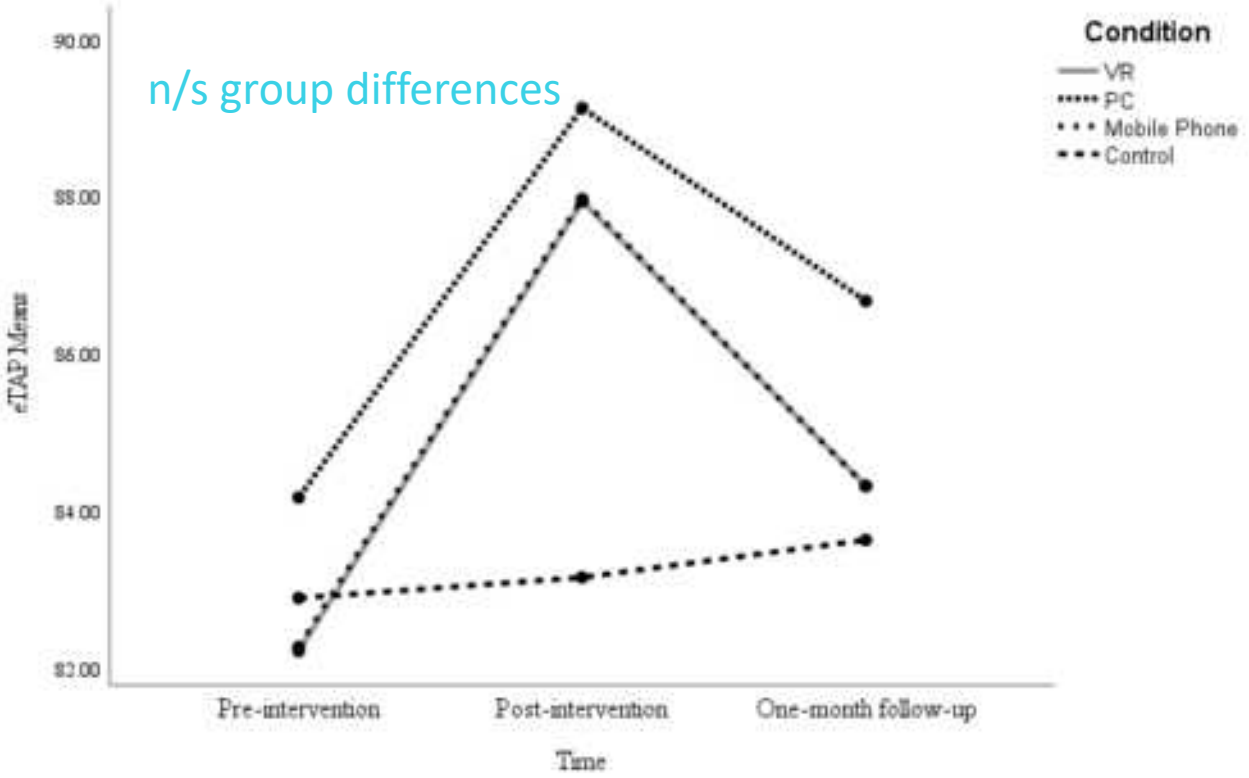

Condition
VR
PC
Mobile Phone
Control
17.00
16.00
15.00
14.00
13.00
12.00
Pre-intervention
Post-intervention
One-month follow-up
Time
VR = Similar
VR (p < .001, d = 0.57)
PC (p < .001, d = 0.84)
Phone (p < .001, d = 0.69)


Condition
VR
PC
Mobile Phone
Control
29.00
28.00
27.00
26.00
25.00
24.00
Positive Affect Means
Pre-intervention
Post-intervention
One-month follow-up
Time
VR < PC
VR ≥ Phone

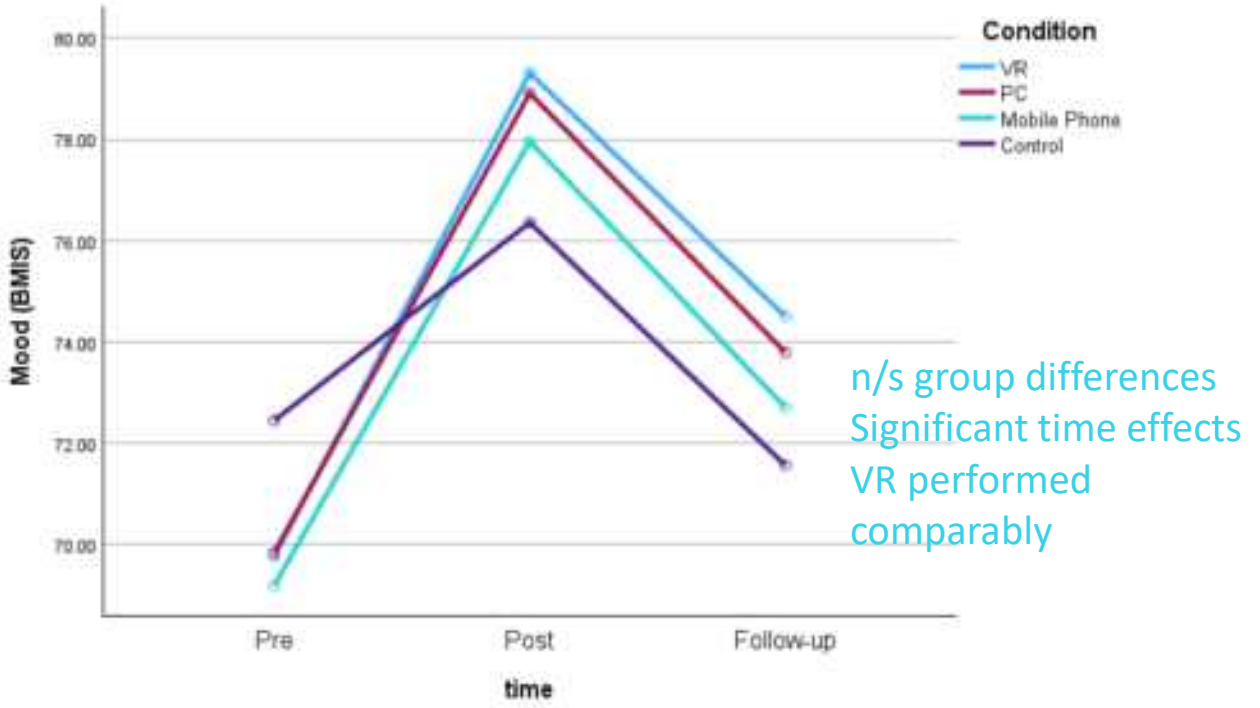

Condition
VR
PC
Mobile Phone
Control
23.50
23.00
22.50
22.00
21.50
21.00
K6 Score
Pre-intervention
One-month follow-up
Time
Time, Group and Interaction all n/s
? COVID
? Uni assessments


VR ≥ PC
VR > Phone
Condition
VR
PC
Mobile Phone
Control
21.00
20.00
19.00
18.00
17.00
16.00
Pre-intervention
Post-intervention
One-month follow-up
Time


VR ≥ PC
VR > Phone
Condition
VR
PC
Mobile Phone
Control
19.00
18.00
17.00
16.00
Pre-intervention
Post-intervention
One-month follow-up
Time



Satisfaction:
There were no significant differences in treatment satisfaction between conditions (F(3, 163) = .560, p = .642, n2 = .010, 95% CIs = [22.42, 23.73]), with no significant differences observed between groups (ps > .05).



01

PC and VR were effective in enhancing awareness and decentring

02

Gains diminished within one month
Top-up sessions needed
Reminders encouraged

03

Client attitudes biggest predictor of outcome
Belief in an intervention (CEQ) supports this
Frame DMH interventions as evidence based and check for quality and professionalism of programs

04

VR likely more appealing to younger, tech literate individuals.
Ubiquity of computers likely strikes balance between effectiveness and accessibiliyu

05

Participants satisfied irrespective of condition

06

Consider cybersickness, screening client attitudes, client health history etc.

THANKYOU

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