

EFFICACY OF AUGMENTED REALITY INTEGRATION IN ART THERAPY FOR
THE INDIVIDUALS WITH BORDERLINE PERSONALITY FEATURES IN
YOUNG ADULTS



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A thesis submitted in fulfilment of the
requirements for the award of the degree of
Doctor of Philosophy (Professional Psychology)

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For the love of my parents **and my kids**
Mir, Zarmina & Yousuf Mari

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ABSTRACT

Over the past decades, the application of augmented reality (AR) in clinical and health psychology—particularly for addressing chronic illnesses and personality disorders—has grown significantly (Hafsa et al., 2017). The present study aimed to examine the efficacy of integrating augmented reality into expressive art therapy for managing borderline personality features in young adults. The research was conducted in Karachi using private consulting clinics. Prior to the main study, a pilot study was conducted following approval from the ethical review committee regarding the treatment protocol and study procedures. The study proposed hypotheses are: (i) Borderline personality features in the experimental group would decrease in the post-test after the integration of AR in expressive art therapy. (ii) Borderline personality features in the experimental group would significantly decrease compared to the control group in the post-test. (iii) The borderline personality feature of self-destructive behavior in the experimental group would reduce post-intervention. (iv) The borderline personality feature of affect regulation in the experimental group would reduce post-intervention. (v) The borderline personality feature of negative self-perception in the experimental group would reduce post-intervention.

A total of 20 young adults aged 18–36 years (Klimczuk, 2016) exhibiting borderline personality features were screened using the Borderline Symptoms Checklist (Bohus et al., 2007) and recruited via social media. Participants were assigned to an experimental group ($n = 10$), which received the intervention, and a control group ($n = 10$) using a non-randomized convenience sampling method. The experimental group underwent 14 intervention sessions (trial registration ID: NCT05994105) and demonstrated significant improvement in borderline personality features ($p = 0.00$), assessed during post-test and follow-up.

The effectiveness of the intervention was evaluated using quantitative methods in SPSS-21. Independent samples t-tests and paired samples t-tests were applied, both showing significant results. All hypotheses were supported, indicating a significant and positive impact of the intervention. Post-assessment findings reflected a substantial reduction in the severity of borderline personality features ($p = 0.00$), including, self-

destruction ($p = 0.00$), mood dysregulation ($p = 0.00$) and negative self-perception ($p = 0.00$). Moreover; These results affirm the efficacy of integrating augmented reality into expressive art therapy for managing borderline personality features in young adults. Further implications and limitations of the study are discussed in detail.

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