

## **Mitigating Social Media Addiction and Screen Time Among Female Dancers: A Longitudinal Study on Mental Toughness Intervention Effects**

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### **ABSTRACT**

The pervasive nature of social media has significantly impacted the lifestyle and well-being of university students. The role of *mental toughness* (MT) in mitigating compulsive digital behaviors is unknown.

**PURPOSE:** To explore the efficacy of an MT intervention in reducing social media addiction and phone screen time among female athletes, while also delineating the distribution of screen time across various digital activities. **METHODS:** Nineteen female dancers participated in weekly MT workshops with a focus on minimizing social media dependency and screen time, utilizing the Social Media Addiction Scale – Student Form and iPhone usage data collected bi-weekly over six weeks. The study applied repeated measures analysis, Spearman's correlation, and Cohen's  $d$  and  $f^2$  within MATLAB to evaluate temporal changes and the interplay between social media addiction and screen time behaviors.

**RESULTS:** The intervention significantly decreased social media addiction scores, from an initial average of 53.79 to 47.00 ( $p < .001$ ;  $d = 1.43$ ) and reduced total screen time from 370.16 to 331.47 minutes ( $p = .031$ ;  $d = 1.33$ ). Correlation analysis revealed a moderate positive relationship ( $r = 0.59$ ,  $p < .001$ ;  $f^2 = 0.54$ ) between addiction scores and screen time at baseline, which notably weakened across subsequent measures ( $r = 0.25$ ,  $p = .30$ ;  $f^2 = 0.07$ ) to a non-significant level ( $r = 0.11$ ,  $p = .66$ ;  $f^2 = 0.01$ ) by the final collection. Category analysis underscored a persistent preference for *Social* (51 occurrences; e.g., TikTok) and *Entertainment* (47 occurrences; e.g., Netflix), with a marked shift towards *Creativity* by the study's conclusion (19 occurrences: from 5 occurrences in the first two measurements to 9 occurrences in the third; e.g., Camera). **CONCLUSION:** Initial correlations affirm the expected link between social media addiction and screen engagement, primarily within passive content categories. The intervention's progression coincided with a significant reduction in this correlation and an encouraging pivot towards creative digital engagements. These outcomes not only highlight the MT intervention's success in reducing detrimental screen habits but also underscore the potential adaptive capacity of participants to redirect their screen time towards more enriching and active forms of digital interaction.