

# An exploratory analysis of the relationship of problematic Facebook use with loneliness and self-esteem: The mediating roles of extraversion and self-presentation

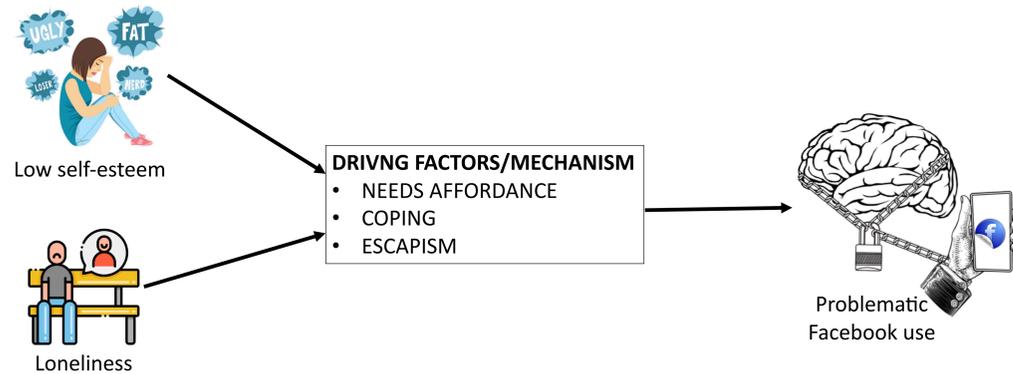
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## INTRODUCTION

SOCIAL MEDIA and your mental health



The objective of this study is to

- 1) Confirms the relationship of loneliness and self-esteem with problematic Facebook use (PFU)
- 2) Investigates self-presentation and extraversion as mediators of the relationship between loneliness and self-esteem with PFU

## METHODS & MEASURES

477 university students ( $\geq 18$ ) filled out self-administered questionnaires online

- 63.7% 🧑 36.3% 🧑
- Age,  $\bar{x} = 26.9$  (SD = 8.3)
- Variables
  - Loneliness (UCLA 3-item loneliness scale)
  - Self-esteem (Rosenberg Self-esteem scale)
  - Bergen Facebook Addiction Scale (BFAS)
  - Self-presentation (adapted from Liu et al., 2010)
  - Extraversion (Ten-Item Personality Inventory)
- Mediation analysis
  - 4-step test for mediational hypotheses (Baron & Kenny, 1986)
  - Generalized Linear Model (GLM) mediation analysis (Jamovi Project, 2021)
    - Bootstrapping approach (MacKinnon et al., 2004)

## RESULTS

The prevalence of 'at-risk' users was 6.0%

- Usage intensity of 'at-risk' users significant different from other Facebook users

### Direct effects (on PFU)

- loneliness ( $\beta = .12$ ,  $z = 2.34$ ,  $p = .020$ ) i.e., positive relationship
- self-esteem ( $\beta = -.19$ ,  $z = -3.40$ ,  $p < .001$ ) i.e., negative relationship

### Indirect effects

- Self-presentation significantly mediated the relationship of loneliness (effect = .09, 95% C.I. [0.01,0.19],  $p = .030$ ) with PFU.
  - Partial mediation
- Self-presentation significantly mediated the relationship of self-esteem (effect = .03, 95% C.I. [0.01,0.05],  $p = .004$ ) with PFU.
  - Inconsistent mediation
- Extraversion only significantly mediated the relationship between self-esteem and PFU (effect = .06, 95% C.I. [0.01,0.1],  $p = .008$ )
  - Inconsistent mediation

### Overall effects

Self-presentation accounts for 33.6% of the total effect of loneliness on PFU

- Overall effect remained positive

The cumulative interaction of extraversion and self-presentation results in a 47.6% decrease in the direct effect of self-esteem on PFU.

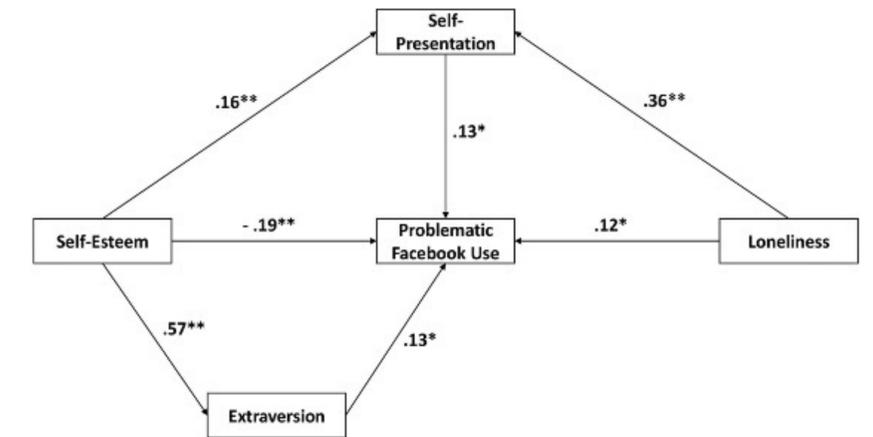
- Overall effect remained negative

## CONCLUSION

- Self-esteem has a dual effect on PFU with low self-esteem increasing PFU through a coping mechanism and high self-esteem potentially increasing PFU through its interaction with other personality traits and use motives.
- Personality traits and use motives are essential in understanding the relationship between psychological factors and PFU
- The interaction between psychological factors and PFU is complex and cannot be fully understood in isolation from other factors.

**Figure 1**

The proposed model for the mediated connection of loneliness and self-esteem on PFU



Note: All reported estimates are the maximum likelihood standardized point-estimates. Significant point estimates with  $p < .05$  are marked with an asterisk, while those with  $p < .001$  are marked with two asterisks.

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