

## EMOTIONAL INTELLIGENCE AND SOCIAL MEDIA USE: DISSOCIATIVE EXPERIENCES AND FEAR OF MISSING OUT AS MEDIATORS

Danilo Calaresi<sup>1</sup>, Francesca Cuzzocrea<sup>1</sup>, Valeria Saladino<sup>2</sup>,  
Francesca Liga<sup>3</sup>, & Valeria Verrastrò<sup>1</sup>

<sup>1</sup>Department of Health Sciences, Magna Graecia University of Catanzaro (Italy)

<sup>2</sup>Department of Human, Social and Health Sciences, University of Cassino and Southern Lazio (Italy)

<sup>3</sup>Department of Clinical and Experimental Medicine, University of Messina (Italy)

### Abstract

The increasing prevalence of social media usage has sparked a growing interest in understanding the factors contributing to problematic social media use (PSMU). This study explores this phenomenon through the lens of the Interaction Person-Affect-Cognition-Execution (I-PACE) model. Specifically, it investigates whether the fear of missing out (FoMO) and dissociative experiences (DE) serve as sequential mediators in the relationship between trait emotional intelligence (trait EI) and PSMU, and whether the proposed model remains consistent across genders. The study involved 1216 adolescents in Italy (comprising 608 girls) aged between 14 and 17 years ( $M = 15.43$ ,  $SD = 0.86$ ). Participants completed several self-report assessments: the Trait Emotional Intelligence Questionnaire – Adolescent Short Form (TEIQue-ASF), Fear of Missing Out Scale (FoMOs), Adolescent Dissociative Experiences Scale (A-DES), and Bergen Social Media Addiction Scale (BSMAS). A Multivariate Analysis of Covariance (MANCOVA) was conducted to account for the influence of background variables. Subsequently, Structural Equation Modeling (SEM) with latent variables was employed to evaluate the mediation model. Finally, a Multiple-Group Path Analysis (MGPA) was conducted to assess the invariance of the mediation pattern across genders. Gender and parental educational level were controlled for in the main analyses based on MANCOVA's findings. SEM revealed exceptional fit indices for the hypothesized model:  $\chi^2(72) = 220.11$ ;  $p < .001$ , CFI = 0.99, RMSEA = 0.04 (90% CI = 0.04 – 0.05), SRMR = 0.02. All direct and indirect paths were statistically significant ( $p < .001$ ): from trait EI to FoMO ( $\beta = -.67$ ), to DE ( $\beta = -.22$ ), to PSMU ( $\beta = -.24$ ); from FoMO to DE ( $\beta = .43$ ), to PSMU ( $\beta = .43$ ); from DE to PSMU ( $\beta = .19$ ); from trait EI to DE through FoMO ( $\beta = -.29$ ), to PSMU through FoMO ( $\beta = -.29$ ); from trait EI to PSMU through DE ( $\beta = -.04$ ); from FoMO to PSMU through DE ( $\beta = .08$ ). MGPA highlighted the gender invariance of the model:  $\Delta\chi^2(14) = 22.17$ ,  $p = 0.08$ ,  $\Delta CFI = 0.001$ . The results of our study support the I-PACE framework, suggesting that trait EI may play a preventive role in mitigating PSMU by reducing the likelihood of experiencing FoMO and DE. Therefore, interventions aimed at enhancing emotional intelligence could be effective in minimizing the adverse consequences associated with PSMU. Additionally, addressing issues related to FoMO and DE and promoting the adoption of adaptive coping strategies may be valuable in fostering healthier patterns of social media usage.

**Keywords:** *Trait emotional intelligence, dissociative experiences, fear of missing out, problematic social media use, adolescence.*

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### 1. Introduction

Social media has revolutionized communication and information access, offering improved connections but also posing challenges such as problematic social media use (PSMU) (Kuss & Griffiths, 2017). This study explores factors linked to PSMU, examining the role of trait emotional intelligence (trait EI), fear of missing out (FoMO), and dissociative experiences. The Interaction Person-Affect-Cognition-Execution (I-PACE) model (Brand et al., 2019) provides a framework, suggesting that trait EI may influence PSMU through FoMO and dissociative experiences. Trait EI impacts cognitive processes and emotional management related to online experiences (Arrivillaga et al., 2022). FoMO involves emotional responses to potential online exclusions, driving continued engagement (Arrivillaga et al., 2023). Dissociative experiences reflect cognitive detachment in excessive social media use (Imperatori et al., 2023). Lower trait EI is associated with higher FoMO and possibly unhealthy

coping strategies, while higher trait EI is linked to effective emotion control and stress management (Brackett et al., 2011; Durao et al., 2023). Gender differences in PSMU are inconclusive, with varying findings across studies (Ahmed et al., 2021; Su et al., 2020).

## **2. Objectives**

This study aims to fill gaps in existing research by investigating the interconnections among trait emotional intelligence (trait EI), fear of missing out (FoMO), dissociative experiences, and problematic social media use (PSMU) collectively. Additionally, the study aims to assess whether the hypothesized model remains consistent across genders.

## **3. Methods**

### **3.1. Participants**

The study involved 1216 Italian adolescents, evenly divided between girls and boys (608 each), aged 14 to 17 years, attending various high schools, including technical colleges, vocational colleges, and lyceums. Participants were recruited from different Italian cities using both offline and online methods by a team of forty-nine trained assistants located across Italy. Inclusion criteria specified individuals aged 14 to 17, fluent in Italian, engaging in social media for at least 1 hour daily on average, and with a minimum of six months' social media usage. Parents' educational attainment varied, with 17% of mothers and fathers having an elementary school diploma, 25% with a middle school diploma, 37% with a high school diploma, and 21% of mothers and 20% of fathers having a university degree.

### **3.2. Procedure**

This study received approval from the Institutional Review Board of the Institute for the Study of Psychotherapy, School of Specialization in Brief Psychotherapies with a Strategic Approach, in accordance with international standards such as the Helsinki Declaration and the Italian Association of Psychology (AIP). The study utilized Google Forms for participants to respond to an online questionnaire, with an average completion time of 15 to 20 minutes. All questions were mandatory, ensuring no missing data. Adolescents could only participate if their parents provided written informed consent. Participation was voluntary, with no rewards or compensations offered, and the privacy of participants was ensured throughout the research process. The study utilized IBM SPSS for descriptive statistics, correlations, and preliminary analyses, while the main analyses were conducted in RStudio using the lavaan package.

### **3.3. Measures**

Adolescents' trait emotional intelligence (EI) was assessed using the Trait Emotional Intelligence Questionnaire – Adolescent Short Form (TEIQue-ASF, Petrides et al., 2006). This questionnaire, demonstrated to have good validity in Italian adolescents, consists of 30 items rated on a 7-point Likert scale (1 to 7), where higher scores indicate elevated levels of trait EI.

Fear of Missing Out (FoMO) in adolescents was measured using the Fear of Missing Out Scale (FoMOs; Przybylski et al., 2013), known for its validity in Italian adolescents. Participants responded to 10 items on a 5-point Likert scale (1 to 5), where higher scores reflect greater levels of FoMO.

Dissociative experiences in adolescents were assessed using the Adolescent Dissociative Experiences Scale (A-DES; Armstrong et al., 1997), known for its validity in Italian adolescents. The scale consists of 30 items rated on an 11-point Likert-type scale (0 to 10), where higher scores indicate a higher degree of dissociative experiences.

Problematic Social Media Use (PSMU) was assessed using the Bergen Social Media Addiction Scale (BSMAS; Schou Andreassen et al., 2016), known for its validity in Italian adolescents and young adults. Participants responded to 6 items on a 5-point Likert-type scale (1 to 5), providing insight into the frequency of social media use. Higher scores reflect a greater degree of PSMU.

## **4. Results**

### **4.1. Descriptive statistics, correlations, and preliminary analyses**

Table 1 presents descriptive statistics and correlations among all study variables.

Table 1. Descriptive Analysis and Correlations.

	Min	Max	M	SD	Ske	Kur	$\alpha$	1	2	3
1. Trait Emotional Intelligence	1.47	7.00	4.94	.99	-.83	-.17	.91	-	-	-
2. Fear of Missing Out	1.00	5.00	2.51	.92	.82	-.35	.89	-.62*	-	-
3. Dissociative Experiences	.00	6.67	2.03	.94	.40	.21	.87	-.47*	.52*	-
4. Problematic Social Media Use	1.00	5.00	2.49	1.05	.42	-.92	.83	-.57*	.65*	.52*

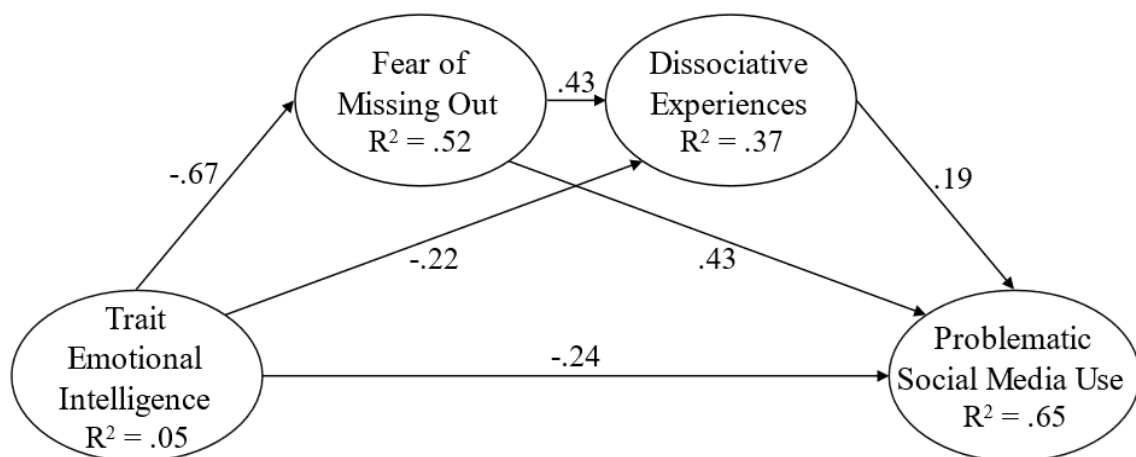
Note: \* $p < .01$ .

Preliminary analyses investigated the impact of gender and parental educational levels on study variables. A multivariate analysis of covariance (MANCOVA) revealed significant multivariate effects for both mothers' educational level (Wilks's  $\lambda = .96$ ,  $F(4, 1209) = 13.41$ ,  $p < .001$ ,  $\eta^2 = .04$ ) and fathers' educational level (Wilks's  $\lambda = .98$ ,  $F(4, 1209) = 7.52$ ,  $p < .001$ ,  $\eta^2 = .02$ ). Further analyses, conducted through univariate ANOVAs, highlighted the impact of parents' educational levels on specific study variables. Maternal education significantly affected trait EI ( $F(1, 1212) = 22.44$ ,  $p < .001$ ,  $\eta^2 = .02$ ), FoMO ( $F(1, 1212) = 46.80$ ,  $p < .001$ ,  $\eta^2 = .04$ ), dissociative experiences ( $F(1, 1212) = 19.78$ ,  $p < .001$ ,  $\eta^2 = .02$ ), and PSMU ( $F(1, 1212) = 39.19$ ,  $p < .001$ ,  $\eta^2 = .03$ ). Specifically, adolescents with more highly educated mothers reported higher trait EI and lower levels of FoMO, dissociative experiences, and PSMU. Similarly, paternal education had a significant effect on trait EI ( $F(1, 1212) = 8.28$ ,  $p = .004$ ,  $\eta^2 = .01$ ), FoMO ( $F(1, 1212) = 13.26$ ,  $p < .001$ ,  $\eta^2 = .01$ ), dissociative experiences ( $F(1, 1212) = 4.04$ ,  $p = .045$ ,  $\eta^2 = .003$ ), and PSMU ( $F(1, 1212) = 29.16$ ,  $p < .001$ ,  $\eta^2 = .02$ ). Adolescents with more highly educated fathers reported higher trait EI and lower levels of FoMO, dissociative experiences, and PSMU. No significant multivariate effects for gender were found (Wilks's  $\lambda = .99$ ,  $F(4, 1209) = .22$ ,  $p = .93$ ,  $\eta^2 = .001$ ). Although only mothers' and fathers' educational levels had multivariate effects on the study variables, the primary analyses were conducted with controls for gender, as well as both mothers' and fathers' educational levels. This approach aimed to ensure a conservative testing of hypotheses.

#### 4.2. Mediation model

The hypothesized mediation model was examined through Structural Equation Modeling (SEM) with latent variables (see Figure 2). The analysis revealed excellent fit indices, with  $\chi^2(72) = 220.11$  ( $p < .001$ ), CFI = .99, RMSEA = .04 (90% CI = .04 – .05), and SRMR = .02. Notably, significant paths were observed among all direct and indirect pathways, as detailed in Table 2.

Figure 1. Structural model of associations between Trait Emotional Intelligence, Fear of Missing Out, Dissociative Experiences, and Problematic Social Media Use.



Note: only direct paths are reported for presentation and clarity purposes; paths from background variables were not presented for presentation and clarity purposes; parcels were not presented for presentation and clarity purposes.

Table 2. Path Estimates, SEs and 95% CIs.

	$\beta$	$p$	SE	Lower Bound (BC) 95% CI	Upper Bound (BC) 95% CI
<i>Direct Effect</i>					
Trait Emotional Intelligence → Fear of Missing Out	-.67	< .001	.03	-.68	-.55
Trait Emotional Intelligence → Dissociative Experiences	-.22	< .001	.05	-.31	-.11
Trait Emotional Intelligence → Problematic Social Media Use	-.24	< .001	.05	-.33	-.15
Fear of Missing Out → Dissociative Experiences	.43	< .001	.05	.34	.55
Fear of Missing Out → Problematic Social Media Use	.43	< .001	.06	.37	.58
Dissociative Experiences → Problematic Social Media Use	.19	< .001	.04	.13	.28
<i>Indirect Effect via Fear of Missing Out</i>					
Trait Emotional Intelligence → Dissociative Experiences	-.29	< .001	.04	-.36	-.20
Trait Emotional Intelligence → Problematic Social Media Use	-.29	< .001	.04	-.38	-.22
<i>Indirect Effect via Dissociative Experiences</i>					
Trait Emotional Intelligence → Problematic Social Media Use	-.04	< .001	.01	-.07	-.02
Fear of Missing Out → Problematic Social Media Use	.08	< .001	.02	.05	.14

Note:  $p$  = level of significance; SE = Standards Errors; BC 95% CI = Bias Corrected-Confidence Interval.

### 4.3. Moderating role of gender

A multigroup path analysis was conducted on the hypothesized model to explore potential differences in structural paths between boys and girls. The analysis compared a constrained model where paths were set equal across the two groups ( $\chi^2(142) = 311.78, p < .001, CFI = .984$ ) with an unconstrained model allowing all paths to vary between the groups ( $\chi^2(128) = 286.44, p < .001, CFI = .985$ ). The fit indices of the unconstrained model were not significantly different from the constrained model, indicating structural equivalence across the two groups ( $\Delta\chi^2(14) = 22.17, p = .08, \Delta CFI = .001$ ). Therefore, the links between variables were found to be comparable for both boys and girls.

## 5. Discussion

The study, aligned with the I-PACE model, indicates that individual characteristics can act as protective or vulnerability factors in internet-related issues (Brand et al., 2019). Individuals with high trait emotional intelligence may be more attuned to social dynamics and relationships. If they lack emotional regulation skills, they might be more prone to experiencing FOMO, as they could have a heightened sensitivity to social cues and a desire to maintain social connections (Arrivillaga et al., 2023). The fear of missing out might drive individuals to continuously check social media, leading to a form of escapism or dissociation from their immediate surroundings or emotions. Hence, this can become a coping mechanism to alleviate the anxiety associated with missing out (Budnick et al., 2020). Using social media as a means of dissociation may contribute to problematic social media use. If individuals frequently resort to social media to detach from reality, it could lead to excessive use, neglect of other responsibilities, and potential negative impacts on mental health (Imperatori et al., 2023). The present study also supports the generalizability of results across genders, suggesting that variations in PSMU between boys and girls found in literature may stem from individual distinctions in trait EI, FoMO, and dissociative experiences. However, the study has limitations, including its cross-sectional design, which hinders establishing definite causal relationships. Furthermore, the online data collection method may introduce participant selection concerns and limit result generalization. Finally, reliance on self-report measures introduces the possibility of response biases, impacting the accuracy and reliability of observed associations.

## 6. Conclusion

The study's clinical implications are significant. Firstly, focusing on improving emotional regulation skills through enhancing trait EI in therapeutic approaches may empower individuals to effectively manage distressing emotions, potentially reducing impulsive social media engagement. Addressing avoidance strategies and helping individuals develop adaptive coping mechanisms could contribute to mitigating PSMU. Educational institutions could implement prevention programs fostering emotional intelligence, equipping young individuals to navigate online interactions judiciously. The study also suggests avenues for future research. While the current model provides valuable insights into trait EI, FoMO, dissociative experiences, and PSMU, longitudinal designs may reveal temporal stability and causal relationships. Investigating the influence of cultural and contextual factors on these relationships could offer further illumination. Additionally, evaluating technology-enhanced interventions, such as smartphone apps, for addressing PSMU may provide accessible solutions.

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