

FULL-LENGTH REPORT



A 2-wave study on the associations between dissociative experiences, maladaptive daydreaming, bodily dissociation, and problematic social media use

SILVIA CASALE^{1*} , SIMON GHINASSI² and JON D. ELHAI^{3,4}

¹ Department of Health Sciences, University of Florence, Florence, Italy

² Department of Surgical, Medical and Molecular Pathology and Critical Care Medicine, University of Pisa, Pisa, Italy

³ Department of Psychology, University of Toledo, 2801 West Bancroft Street, Toledo, OH, 43606, USA

⁴ Department of Psychiatry, University of Toledo, 3000 Arlington Avenue, Toledo, OH, 43614, USA

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ABSTRACT

Background and Aims: Previous studies have reported an association between dissociative experiences (e.g., absorption, depersonalization) and Problematic Social Media Use (PSMU), but the directionality of these relationships remains unclear. Moreover, there is a dearth of research on the link between bodily dissociation and PSMU, despite the widespread practice of editing and manipulating pictures of oneself, which requires users to view themselves from a third-person perspective. The present study aimed to examine the directionality of the relationship between various dissociative-related experiences and PSMU through a longitudinal study. **Method:** A total of 216 participants (79.20% female; $M_{age} = 20.46 \pm 2.26$, range = 18–33), completed a survey twice, with a 4-month interval. A cross-lagged panel analysis within a Structural Equation Modeling framework was employed. **Results:** PSMU severity at T0 predicted Bodily dissociation ($\beta = 0.15$, $p = 0.005$) and Absorption and imaginative involvement ($\beta = 0.13$, $p = 0.026$) at T1. No other cross-lagged effects were detected. **Discussion and Conclusions:** Excessive involvement in social media activity, along with its emphasis on appearance, may contribute to increased dissociative experiences, including a weakened emotional connection with one's own body and reduced awareness of bodily sensations.

KEYWORDS

bodily dissociation, dissociative experiences, longitudinal, maladaptive daydreaming, problematic social media use, problematic social networking sites use

INTRODUCTION

The term dissociation refers to a range of phenomena that involve disruption or discontinuity in the normal integration of consciousness, memory, identity, emotion, bodily representation, and behavior (American Psychiatric Association, 2013). Dissociative experiences include self-absorption, compartmentalization of mental and behavioral states, and detachment from self and reality (Schimmenti & Sar, 2019). This normal process of the mind is activated in the face of potential stressors that exceed the individual's ability to process and integrate, such as traumatic experiences (Van der Kolk & McFarlane, 1996). However, when this process becomes rigid and pervasive (e.g., adopted regardless of the existence of the stressors), it contributes to the development of problematic behaviors (e.g., Guglielmucci et al., 2019; Noël, Saeremans, Kornreich, & Jaafari, 2018).

*Corresponding author.

E-mail: silvia.casale@unifi.it

Dissociative experiences have been proposed as a key transdiagnostic process in the psychopathology of addiction (Canan, Ataoglu, Ozcetin, & Icmeli, 2012; Grajewski & Dragan, 2020). Among these perspectives, the General Theory of Addiction (GTA; Jacobs, 1986) posits that individuals may be vulnerable to developing addictive behaviors when they (i) perceive their physiological arousal levels as chronically hypo- or hyper-tensive, and (ii) experience enduring feelings of inadequacy and rejection rooted in adverse childhood experiences, which predispose the individual to seek escape in fantasy. The key reinforcing factor that maintains the addictive behavior is that, while indulging in it, the individual can escape from painful reality and experience wish-fulfilling fantasies of being highly successful and admired, which possess a dissociative quality. Although formulated prior to the advent of the Internet, this theory remains consistent with more recent frameworks that seek to explain various forms of problematic Internet uses (PIUs). Some of these frameworks highlight the role of unmet psychological needs and motivational drives (e.g., Kardefelt-Winther, 2014), while others suggest that patterns of Internet use should be conceptualized along a continuum ranging from compensatory to dissociative engagement (Giardina et al., 2024). It is noteworthy that even theoretical models seemingly distant from the GTA—such as the Interaction of Person-Affect-Cognition-Execution (I-PACE) model of addictive behaviors (Brand et al., 2016, 2019)—include negative early childhood experiences (i.e. a major contributor to dissociative tendencies) among the predisposing variables for development of PIUs.

The role of dissociative experiences in PIUs has increasingly attracted scientific attention. In keeping with GTA, it has been proposed that individuals who have experienced childhood trauma may engage excessively in Internet activities as a means of maintaining the segregation of trauma-related mental states and exerting control over overwhelming emotions. However, these behaviors may have the detrimental effect of reinforcing discontinuities in self-experience (Rogier, Muzi, & Pace, 2024; Santoro, Musetti, Costanzo, & Schimmenti, 2025). Studies have consistently found a positive, moderate association between dissociative experiences—particularly absorption and depersonalization/derealization—and both generalized problematic Internet use (e.g., La Rosa, Gori, Faraci, Vicario, & Craparo, 2022) and gaming disorder (GD) severity (e.g., Gundogdu & Eruglu, 2022; Kandeğer, Şen, Tekdemir, Göl-pamuk, & Selvi, 2022).

Compared to more established behavioral addictions (e.g., GD), the relationship between Problematic Social Media Use (PSMU) and dissociative experiences has received less empirical attention. PSMU is a dysfunctional behavioral pattern characterized by a preference for online social interactions and compulsion to engage excessively in social media (SM) platforms despite negative consequences (Svicher, Fioravanti, & Casale, 2021). The present study focuses on PSMU, adopting GTA's perspective that addictive behaviors may be driven by an individual's need to escape painful realities and engage in wish-fulfilling

fantasies—making dissociation a central psychological process in PSMU. However, given that GTA is a general theory of addictive behaviors, we also aim to consider that the emphasis on bodily appearance of SM platforms may represent a specific risk factor contributing to the unique addictive dynamics associated with PSMU.

Dissociative experiences involved in PSMU

Only a few studies to date have specifically examined the link between dissociative experiences and PSMU. Kirca-burun, Demetrovics, Király, and Griffiths (2020) employed the Dissociative Experiences Scale-II (DES-II) and found that its total score was positively associated with PSMU. Summarizing various behavioral addictions into a single measure, Imperatori et al. (2023) found that pathological dissociation significantly mediated the association between childhood trauma and behavioral addictions. Other studies have focused on temporal dissociation occurring during online activities (e.g., Cannito et al., 2022; Ozturk et al., 2025), thereby conceptualizing dissociation in terms that do not fully align with GTA. This dearth of research may be attributable to the socially interactive nature of SM platforms, which—unlike more immersive and isolating activities such as gambling—are also used to communicate with offline peers, potentially mitigating the risk of detachment from the external environment.

That being said, SM—particularly widely-used platforms such as Instagram—enable users to selectively curate their self-presentation. Individuals can share enhanced, filtered, or strategically edited content that highlights idealized aspects of their lives (Harris & Bardey, 2019). These features might open the door to fantasy-like engagement, where individuals psychologically inhabit the role of a “better version” of themselves. Because SM allow exhibition of a public identity based on an idealized representation of the self (Tylka, Rodgers, Calogero, Thompson, & Harriger, 2023), they may facilitate entry into fantasy states in which individuals imagine themselves as admired or socially significant, thus offering the opportunity to experience those wish-fulfilling fantasies that possess a dissociative quality and have been proposed as a key factor in the GTA. In this perspective, maladaptive daydreaming (MD)—a clinical construct that describes pathological, chronic, and dissociative activity involving persistent engagement in imagined realities, with an adverse impact on actual life (Soffer-Dudek et al., 2025; Somer, 2002)—appears to be a promising concept for capturing the wish-fulfilling fantasies of being a significant figure. In particular, feelings of unworthiness and shame might lead individuals to escape into fantasies in which they can positively represent themselves; in turn, these fantasies might foster the use or overuse of SM platforms as a maladaptive emotion regulation strategy (Chirico et al., 2024). Costanzo et al. (2021) found a bivariate correlation of 0.42 between MD and PSMU severity, and another study highlighted that MD is more strongly associated with PSMU than with GD, problematic cybersex, and problematic online shopping (Pezzi et al., 2024).

Moving forward: expanding the dissociative framework in PSMU research by integrating bodily dissociation

An overlooked issue that warrants attention for a comprehensive understanding of the dissociative experiences involved in PSMU is the prominent emphasis on body image placed by most widely-used SM (e.g., YouTube, Instagram; Statista, 2024). Like other types of technological tools, SM use has greatly increased people's chances to move away from their embodied awareness (Goldberg, 2021), helping individuals feel timeless, able to temporarily abandon constraints of the physical body (Goldberg, 2020; Musicò, 2023). Previous studies from a different but related field—i.e., GD—have shown that spending time in a virtual body and experiencing high levels of identification with one's avatar increase a sense of detachment from oneself and/or one's own physical body (Casale, Musicò, & Fioravanti, 2022). A specific feature of SM which might further increase the risk of feeling separated by the physical body is that they are increasingly based on the creation and sharing of appearance-related images and videos. Moreover, SM allow individuals to carefully select the personal photos they wish to post and provide opportunities to digitally enhance one's appearance—through filters and editing tools. That is, the SM environment encourages individuals to engage with a modified representation of their physical self, offering opportunities to alter, extend, or bypass the body, and to temporarily identify with an idealized version of it. Such identification with a modified representation of the body may induce a sense of separation from one's physical bodily self, potentially diminishing sensitivity to internal bodily signals. Moreover, how SM platforms work—the practice of editing, manipulating, posting pictures of oneself—requires users to view themselves from a third-person perspective (Tylka et al., 2023), as they encourage users to be constantly aware of how they are perceived by others. Over time, this third-person view may contribute to a sense of detachment from one's bodily self and foster experiences of dissociation. In the present study we speculate that a focus on dissociation from bodily experience—i.e., the avoidance and separation from bodily experiences or the bodily self, as a strategy to protect oneself against painful thoughts or feelings (Price & Thompson, 2007)—is needed to advance the understanding of risk factors for PSMU.

THE PRESENT STUDY

Some previous studies have examined the relationship between PSMU and dissociative experiences, as measured by the DES-II, as well as maladaptive daydreaming. Yet, all prior relevant studies adopted a cross-sectional design (Chirico et al., 2024; Imperatori et al., 2023; Kircaburun et al., 2020; Pezzi et al., 2024). Longitudinal designs are needed because individuals who experience dissociation may be more prone to resorting to addictive behaviors for self-medication and avoidance as a coping mechanism for emotional distress, but high engagement in the online

activity could induce altered states of consciousness. Indeed, some authors (e.g., Ricci, Maina, & Martinotti, 2024) suggest that the relationship between substance abuse and dissociation is bidirectional. Regarding technology-related behaviors, dissociative experiences might also represent the side effects of an alteration in consciousness generated by excessive involvement in the activity (Guglielmucci et al., 2019). Consequently, we aim to test the link that PSMU has with both dissociative experiences and PSMU through a longitudinal design. Second, the study of dissociative experiences needs to be enhanced by including body-related dissociation, because experiencing high levels of identification with a manipulated body image might increase a sense of detachment from one's own physical body, which might represent a vulnerability that poses a risk for PSMU.

We posed the following hypotheses.

- H1: Dissociative experiences, MD, and bodily dissociation will be significantly and positively related to PSMU severity.
- H2: These associations will be bidirectional, i.e., higher dissociative experiences, MD, and bodily dissociation at T0 will predict greater PSMU levels at T1; and higher PSMU levels at T0 will predict greater dissociation at T1.

METHOD

Participants and procedure

The recruitment was carried out in Italy at university courses between October and November 2023 (T0) and between February and March 2024 (T1). Participants had to meet the following inclusion criteria: be 18 years or older, have fluent comprehension of Italian, and use SM on a daily basis. Participants were recruited in person at the end of their lessons by two research assistants and they were provided with detailed information on study procedures. Participants were informed that participation was entirely voluntary and that they retained the right to withdraw at any time without giving any explanation and without facing negative consequences. It was clarified that no incentives were offered for participation in the study. Participants were required to give their informed consent to participate. Data collection was carried out via an online survey platform. At T0, approximately 500 students were approached but some refused to participate due to a lack of time. The survey was completed by 426 participants (76.29% female; $M_{age} = 20.29 \pm 2.54$, range = 18–45). Of them, 216 participants (79.20% female; $M_{age} = 20.46 \pm 2.26$, range = 18–33), representing 50.70% of the original sample, also completed the second wave of the study.

Measures

We queried sociodemographic characteristics and then we administered the following measures in the Italian language. Internal consistency estimates are provided in Table 2.

Higher scores correspond to higher levels of the investigated dimension for each measure.

SM use. At T0, participants were asked to report the average amount of time they actively use SM in minutes/hours in a typical day (less than 30 min, 31–60 min, 1–2 h, 2–3 h, 3–4 h, more than four hours), as well as the SM they used most.

Dissociation. The Italian version (Schimmenti, 2016) of the *Dissociative Experiences Scale-II* (DES-II; Carlson & Putnam, 1993) was used. The DES-II consists of 28 items rated on an 11-point Likert-type, ranging from 0% (*never*) to 100% (*always*), in which participants are asked for the rate of occurrence of various dissociative experiences. This questionnaire provides three sub-scales reflecting different dissociative phenomena: (i) Absorption and imaginative involvement (9 items, e.g., “Some people find that sometimes they are listening to someone talk and they suddenly realize that they did not hear part or all of what was said”), (ii) Dissociative amnesia (8 items, e.g., “Some people find evidence that they have done things that they do not remember doing”), and (iii) Depersonalization and derealization (6 items, e.g., “Some people sometimes feel as if they are looking at the world through a fog, so that people and objects appear far away or unclear”). The total score is given by the average of the respective items.

Bodily dissociation. The Italian version (Morganti, Rezzonico, Cheng, & Price, 2020) of the *Scale of Body Connection* (SBC; Price, Thompson, & Cheng, 2017) was utilized to assess the experience of separation from bodily experience or bodily self. The SBC is a self-report questionnaire consisting of 20 items rated on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*all of the time*) and assesses two distinct and unrelated dimensions: body awareness (12 items) and bodily dissociation (8 items). For the purposes of the present study, only bodily dissociation (i.e., experience of separation from bodily experience or bodily self) was analyzed. A sample item is “I feel like I am looking at my body from outside of my body”. The total score was calculated as the average of responses to the items.

Maladaptive daydreaming. The Italian version (Schimmenti, Sideli, La Marca, Gori, & Terrone, 2020) of the *Maladaptive Daydreaming Scale-16* (MDS-16; Somer, 2018) was used. The MDS-16 includes 16 items rated on an 11-point Likert-type, ranging from 0% (*never/none of the time*) to 100% (*all of the time/extreme amounts*), that assesses a global score of maladaptive daydreaming (e.g. of item, “Some people feel a need to continue a daydream that was interrupted by a real-world event at a later point. When a real-world event has interrupted one of your daydreams, how strong was your need or urge to return to that daydream as soon as possible?”). The total score is calculated as the average of all items.

PSMU. The Italian version (Monacis, De Palo, Griffiths, & Sinatra, 2017) of the 6-item *Bergen Social Media Addiction Scale* (BSMAS; Andreassen et al., 2016) was used.

The BSMAS is composed of six items (e.g., “How often during the last year have you used social media so much that it has had a negative impact on your job/studies?”), rated on a 5-point Likert scale from 1 (*very rarely*) to 5 (*very often*), that assess six components of addiction (i.e., salience, conflict, withdrawal, mood modification, tolerance, and relapse; Griffiths, 2005). The total score is obtained by the simple sum of items. For both the BSMAS and MDS-16, a one-month time frame was used.

Data usage transparency

A subset of the T0 maladaptive daydreaming data (76 out of 216 participants) has been used in a separate manuscript that is currently under review. However, all T0 data related to the remaining study variables, as well as all T1 data, are original and have not been previously published elsewhere.

Data analyses

Descriptive statistics and bivariate correlations between all variables were calculated. Data were screened for the presence of outliers (i.e., z -scores $< |3.29|$; Tabachnick & Fidell, 2013) and for normality of distributions (i.e., Shapiro–Wilk test). A cross-lagged panel analysis within a structural equation modeling (SEM) framework was employed to explore longitudinal relationships between all dissociative experiences and PSMU severity using the lavaan package (Rosseel, 2012) for the R statistical software (version 4.2.1) with the Robust Maximum Likelihood (MLR) estimation method (all results from the Shapiro–Wilk test were statistically significant at $p < 0.001$, indicating that the variables deviate from a normal distribution). We conducted a post-hoc power analysis using the R package semPower (Moshagen & Bader, 2024). Based on a model with 20 degrees of freedom, an alpha level of 0.05, and a degree of misspecification corresponding to RMSEA = 0.08, the analysis yielded an obtained statistical power of 92%, which is considered satisfactory. We used observed scale scores for all variables. Goodness of fit was evaluated using the χ^2 (and its degrees of freedom and p -value), Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Tucker–Lewis Index (TLI), and Comparative Fit Index (CFI). For RMSEA, a value between 0.06 and 0.08 is considered adequate, while a value below 0.06 is considered excellent. For SRMR, values between 0.08 and 0.10 indicate adequate fit, while values below 0.08 indicate excellent fit. For CFI and TLI, values between 0.90 and 0.94 indicate adequate fit, whereas values above 0.94 indicate excellent fit (Hu & Bentler, 1999; Kline, 2011). In our model, we specifically tested stability paths (i.e., MD at T0 predicting MD at T1, Absorption and imaginative involvement at T0 predicting Absorption and imaginative involvement at T1, Dissociative amnesia at T0 predicting Dissociative amnesia at T1, Depersonalization/derealization at T0 predicting Depersonalization/derealization at T1, bodily dissociation at T0 predicting bodily dissociation at T1, and PSMU at T0 predicting PSMU at T1); within-time covariation among all variables at both T0 and T1; and the

following cross-lagged paths: MD, Absorption and imaginative involvement, Dissociative amnesia, Depersonalization/derealization, bodily dissociation at T0 predicting PSMU at T1 and PSMU at T0 predicting all dissociative dimensions at T1.

Ethics

The study was approved by the Ethical Committee of the University of Florence (number 187–188) and was in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments. Informed consent was obtained from all individual participants included in the study.

RESULTS

Preliminary analyses

Since all fields of the survey were mandatory, there were no missing data. No significant differences were found between those who participated in both or only one survey, in age ($M = 20.46 \pm 2.26$ and $M = 20.15 \pm 2.88$, respectively; $F_{(1,404)} = 1.475$, $p = 0.225$), PSMU ($M = 13.65 \pm 4.82$ and $M = 13.86 \pm 4.96$, respectively; $F_{(1,404)} = 1.86$, $p = 0.666$), bodily dissociation ($M = 2.20 \pm 0.613$ and $M = 2.29 \pm 0.67$, respectively; $F_{(1,404)} = 1.96$, $p = 0.162$), and maladaptive daydreaming ($M = 27.84 \pm 18.11$ and $M = 30.43 \pm 19.27$, respectively; $F_{(1,404)} = 1.96$, $p = 0.163$). Yet, those who did not participate in T1 scored significantly higher in Absorption and imaginative involvement ($M = 35.59 \pm 19.59$ and $M = 31.71 \pm 17.43$, respectively; $F_{(1,404)} = 4.467$, $p = 0.035$, eta square = 0.011), Dissociative amnesia ($M = 11.89 \pm 11.14$ and $M = 9.68 \pm 9.75$, respectively; $F_{(1,404)} = 4.529$, $p = 0.034$, eta square = 0.011), and (iii) Depersonalization and derealisation ($M = 18.43 \pm 21.23$ and $M = 12.08 \pm 15.83$, respectively; $F_{(1,404)} = 11.83$, $p < 0.001$, eta square = 0.028). Overall, neither of the significant findings had more than a minimal magnitude of effect.

SM use

Just over half (51.40%, $n = 111$) of the subsample who completed both the waves reported spending 2 h or more on SM per day. The most used SM platform was Instagram

(68.50%, i.e., $n = 148$), followed by Tik Tok (22.20%, i.e., $n = 48$). The remaining participants (9.30%, i.e., $n = 20$) reported using other platforms (e.g., X, Reddit).

Descriptives and bivariate correlations

Table 1 shows descriptive statistics and Table 2 shows bivariate correlations among the study variables. The T0–T1 stability correlation was very high for each variable, ranging from $r = 0.61$ for Dissociative Amnesia to $r = 0.79$ for both Depersonalization and derealisation, and PSMU. All dissociative experiences and PSMU were significantly and positively interrelated in both waves.

Hypotheses testing

The cross-lagged panel model is depicted in Fig. 1. The tested model produced excellent fit indices: $\chi^2 = 34.773$, $df = 20$, $p < 0.05$; $RMSEA = 0.058$ (90% C.I. = 0.026–0.088); $SRMR = 0.067$; $TLI = 0.959$; $CFI = 0.988$. All stability paths were statistically significant (autoregressive path coefficients ranging from 0.57 to 0.75, $p < 0.01$). PSMU at T0 predicted Bodily dissociation ($\beta = 0.15$, $p = 0.005$) and Absorption and imaginative involvement ($\beta = 0.13$, $p = 0.026$) at T1. No other cross-lagged effects were detected. The model explained a substantial proportion of the variance for all latent constructs at W2 (i.e., $R^2_{MD} = 60.10$, $R^2_{Absorption_imaginative_involvement} = 45.20$, $R^2_{Dissociative_amnesia} = 34.50$, $R^2_{Depersonalization_derealization} = 56.60$, $R^2_{Bodily_dissociation} = 52.00$ and $R^2_{PSMU} = 63.50$). The standardized estimates are shown in Fig. 1.

DISCUSSION

This study tested temporal relationships between dissociative experiences, maladaptive daydreaming, bodily dissociation, and PSMU severity. In accordance with previous cross-sectional findings (e.g., Kircaburun et al., 2020), we found significant low-to-moderate positive correlations between PSMU severity and DES-II scores at both waves, indicating that they tend to co-vary. Results regarding prospective effects seem to highlight that some specific dissociative experiences could be a consequence of PSMU. PSMU severity was found to predict the dissociative factor of “absorption and imaginative involvement” from the DES-II, i.e.

Table 1. Descriptive statistics

Variables	T0			T1		
	M (SD)	Skewness (SE)	Kurtosis (SE)	M (SD)	Skewness (SE)	Kurtosis (SE)
Absorption and imaginative involvement	31.71 (17.43)	0.47 (0.17)	−0.61 (0.33)	26.52 (16.54)	0.60 (0.17)	−0.41 (0.33)
Dissociative amnesia	9.68 (9.75)	1.54 (0.17)	2.03 (0.33)	7.38 (8.05)	1.58 (0.17)	2.42 (0.33)
Depersonalization and derealization	12.08 (15.83)	1.79 (0.17)	3.03 (0.33)	11.43 (15.49)	1.76 (0.17)	2.40 (0.33)
Bodily Dissociation	2.20 (0.61)	0.69 (0.17)	−0.04 (0.33)	2.17 (0.61)	0.50 (0.17)	−0.32 (0.33)
Maladaptive Daydreaming	27.84 (18.11)	0.88 (0.17)	0.49 (0.33)	24.38 (17.77)	0.85 (0.17)	0.17 (0.33)
Problematic Social Media Use	13.65 (4.82)	0.77 (0.17)	0.14 (0.33)	13.20 (5.14)	0.60 (0.17)	−0.43 (0.33)

Table 2. Bivariate correlations between all variables

Variables	α	ω	1	2	3	4	5	6	7	8	9	10	11	12
1. Absorption and imaginative involvement (T0)	0.83	0.83	–											
2. Absorption and imaginative involvement (T1)	0.86	0.86	0.69*	–										
3. Dissociative amnesia (T0)	0.73	0.74	0.65*	0.46*	–									
4. Dissociative amnesia (T1)	0.73	0.73	0.52*	0.64*	0.61*	–								
5. Depersonalization and derealization (T0)	0.83	0.85	0.61*	0.53*	0.56*	0.47*	–							
6. Depersonalization and derealization (T1)	0.85	0.86	0.46*	0.65*	0.44*	0.65*	0.79*	–						
7. Bodily Dissociation (T0)	0.70	0.72	0.48*	0.41*	0.36*	0.34*	0.58*	0.50*	–					
8. Bodily Dissociation (T1)	0.72	0.74	0.41*	0.52*	0.39*	0.50*	0.54*	0.62*	0.73*	–				
9. Maladaptive Daydreaming (T0)	0.92	0.93	0.51*	0.49*	0.37*	0.39*	0.38*	0.38*	0.33*	0.32*	–			
10. Maladaptive Daydreaming (T1)	0.93	0.94	0.40*	0.52*	0.30*	0.41*	0.31*	0.41*	0.28*	0.36*	0.79*	–		
11. Problematic Social Media Use (T0)	0.77	0.78	0.27*	0.29*	0.31*	0.22*	0.32*	0.29*	0.17*	0.26*	0.43*	0.38*	–	
12. Problematic Social Media Use (T1)	0.83	0.83	0.28*	0.35*	0.28*	0.30*	0.36*	0.42*	0.23*	0.41*	0.43*	0.47*	0.79*	–

Note. * = $p < 0.01$.

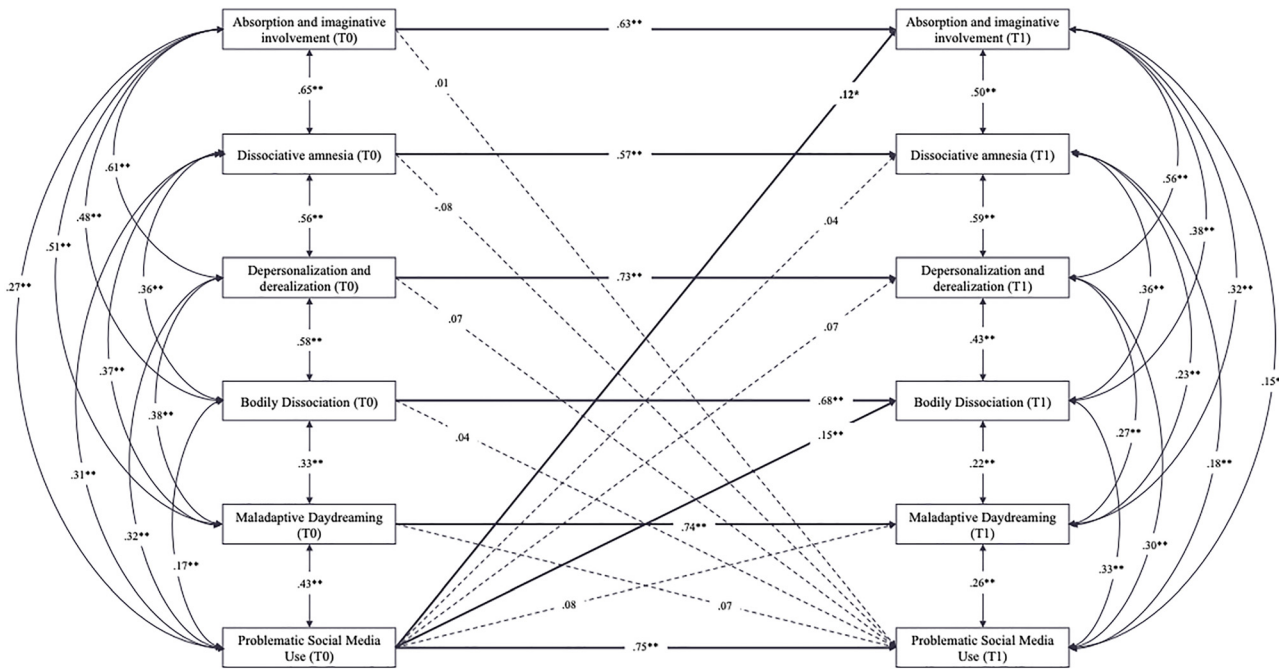


Fig. 1. Results of tested model and its standardized solution

Note. ** = $p < 0.01$; * = $p < 0.05$.

the tendency to allocate total attention to a stimulus, becoming completely engrossed in it. This finding suggests that compulsive engagement with SM fosters a tendency to become deeply absorbed in fantasies or daydreams, leading to diminished awareness of one’s surroundings. Such dynamics lend support to the notion that intense involvement in online activities may elicit altered states of consciousness (Guglielmucci et al., 2019).

Given that individuals high in dissociative absorption frequently engage in vivid fantasy and daydreaming (Bregman-Hai et al., 2018), one would expect PSMU to longitudinally predict MD. Yet, MD and PSMU were related only at the cross-sectional level. Taken together, these findings suggest that PSMU fosters a tendency toward selective attentional immersion and engagement in fantasy, without necessarily increasing the risk of pathological involvement in

imagined realities. The previously reported cross-sectional association between MD and PSMU (Costanzo et al., 2021) might be due to the effects of different variables (not assessed in the present study) that might explain their covariation. However, our results cannot rule out that MD causes short-term changes in PSMU, i.e., higher MD levels could be related to increasingly negative effects over the week or might predict negative outcomes on a daily basis. The moderate cross-sectional correlations between MD and PSMU suggest an interplay between them, and their reciprocal influences should be examined through repeated assessments over a short time-lag.

The most interesting result concerns the effect of PSMU in increasing avoidance of internal experiential information and distraction from bodily experience. Two non-mutually exclusive explanations could be proposed. The first concerns the peculiarities of SM, which often involve high exposure to appearance-focused images and requires users to view themselves from a third-person perspective (Tylka et al., 2023). The self-objectification theory (Fredrickson & Roberts, 1997) offers a useful framework for explaining this process. High SM use exposes individuals to objectification experiences (e.g., sexualized gazing, unsolicited sexualized commentary), which reduces individuals (especially women) to their physical appearance, treating them as objects and/or separating out their sexualized bodies or body parts from their personhood, and/or regarding their bodies and appearance as capable of representing them. A key consequence of regularly encountering objectification is that individuals come to internalize this objectifying gaze. Self-objectification is characterized by viewing one's own body as belonging less to oneself and more to others, and this could lead to disruptions to bodily connection. Moreover, most users post photos in which they look good and unrealistically attractive (enhanced by the application of filters or digital editing tools), and this may play a role in inducing not only the well-established body dissatisfaction (Brown & Tiggemann, 2016) but also the experience of separation from bodily experience or bodily self. This interpretation is further supported by the presence of an effect of PSMU on bodily dissociation in absence of effects on feelings of unreality or detachment from the self (as captured by the depersonalization/derealization subscale of the DES-II). Overall, these results suggest a dissociative pattern that may be more grounded in interoceptive avoidance than in disruptions of identity or perceptual reality. Given the highly visual and body-focused nature of SM platforms, individuals may shift their attention outward—toward digitally mediated representations of their bodies—while simultaneously distancing themselves from internal bodily sensations. In contrast, experiences of unreality or depersonalization may require more profound affective or cognitive disintegration, which PSMU might only trigger when it stems from poor self-concept clarity or identity-related distress (Rogier et al., 2024). Yet, an alternative explanation is that high engagement in internet technology promotes separation from bodily experience, independent of the service used. This interpretation could be supported if future studies find that

different forms of problematic technology use (i.e., GD or online compulsive shopping) are related to bodily dissociation with similar strength. Indeed, a few studies have already shown that bodily dissociation is associated with GD symptoms over and beyond internalizing and externalizing symptoms (Casale, Musicò, & Schimmenti, 2021), and problematic players show high body disconnection, regardless of the type of game most frequently used (Casale et al., 2022).

LIMITATIONS

While our study has some strengths, including the investigation of longitudinal directionality between various dissociative experiences and PSMU severity, several limitations should also be noted. Firstly, only two time points of data collection were considered. Additional waves of data collection are needed to disentangle between-person from within-person effects (Berry & Willoughby, 2017). Moreover, the selection of time points (four months apart) was based on practical considerations rather than a theoretically driven rationale. Although efforts were made to balance the interval to avoid both intervening life events and habituation to self-report measures, future studies should consider adopting time frames grounded in theoretical models. Secondly, our sample was relatively small, comprised mostly women, and was recruited based on self-selection. Regarding body image dimensions, both sex and gender need to be taken into account since it is well-established that body image concerns are more salient among women, who also experience more negative consequences following exposure to appearance-based images (Casale, Gemelli, et al., 2021). This issue leads to the hypothesis that the effect of PSMU on body dissociation might be moderated by gender. Finally, participants were not instructed to consider a specific SM platform when completing the BSMAS, and users do not necessarily share personal photos across SM platforms. Nonetheless, Instagram emerged as the most frequently used platform among participants, and a substantial proportion of adolescents and young adults use it to share selfies and body-focused content (Gioia, McLean, Griffiths, & Boursier, 2023).

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