Task-Induced Dissociation During Binge-Scrolling as a Mediator Between Childhood Maltreatment and Problematic Social Media Use

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Abstract

Algorithmically curated short-form video platforms (e.g., TikTok) may disrupt attention, awareness, and foster problematic social media use (PSMU). While childhood maltreatment severity (CMS) was shown to exacerbate maladaptive behaviors, its link to PSMU in binge-scrolling contexts remains underexplored. This study examined whether a task-induced increase in dissociation (TID) during binge-scrolling mediates the CMS-PSMU relationship. One hundred and ninety-two emerging adults completed a 60-minute TikTok binge-scrolling task. Dissociation was assessed pre- and post-task, and PSMU severity measured at the 30-day follow-up. Additional measures included trait dissociation, emotional reactivity, and immersion.

CMS significantly predicted PSMU severity, marking a novel contribution to the literature on PSMU in a binge-scrolling context. Although TID increased from pre- to post-task, it did not mediate the CMS–PSMU link. Thus, while CMS appears to heighten vulnerability to PSMU, the mechanisms underlying this association remain unclear. Notably, immersion during the task was correlated with TID and PSMU severity, suggesting platform design features (e.g., infinite scroll, algorithmic unpredictability) may foster PSMU through states of reduced self-awareness.

Present findings propose refinements to digital overuse models by integrating immersion as a distinct pathway to PSMU and highlight the need for interventions that enhance users' self-monitoring capacities to mitigate PSMU.

Task-Induced Dissociation During Binge-Scrolling as a Mediator Between Childhood Maltreatment and Problematic Social Media Use

Digital engagement is increasingly shaped by short-form, swipe-based social media platforms that deliver algorithmically curated content designed to sustain user attention. TikTok stands out for its ability to personalize content streams based on micro-engagements such as viewing time, likes, or shares (Jain et al., 2025). Compared to other platforms, TikTok's continuous vertical feed, absence of stopping cues, emotionally volatile content, and rapid tempo were shown to heighten absorption and reduce self-monitoring, making it potentially conducive to dissociative engagement (Yao et al., 2023; Park & Jung, 2024). This design may foster a responsive feedback loop that draws users into prolonged, passive scrolling, reducing time awareness and reinforcing patterns of compulsive, dissociative use (Jain et al., 2025).

Given TikTok's vast global reach with over 1.5 billion monthly users (Statista, 2025), concerns have emerged over whether its design features contribute to problematic social media use (PSMU). One population in which elevated levels of PSMU have been observed is individuals with a history of childhood maltreatment severity (CMS; Worsley et al., 2018). However, the psychological mechanisms underlying this association remain insufficiently understood. A plausible pathway linking CMS and PSMU may be dissociation, specifically, transient, situational episodes of psychological detachment during repetitive digital activity. In the present study, task-induced dissociation (TID) was operationalized as the change in self-reported dissociative symptoms from pre- to post-task, allowing for the quantification of acute dissociative reactivity during binge-scrolling. This study tests whether binge-scrolling on TikTok evokes a measurable increase in dissociative symptoms, and whether this increase mediates the relationship between CMS and PSMU severity assessed 30 days later.

Childhood Maltreatment Severity and Dissociation: Developmental Disruption and Emotional Dysregulation

CMS refers to the extent of chronic adverse experiences occurring during childhood, including physical, sexual, and emotional abuse and neglect. Individuals exposed to childhood emotional abuse (CEA) or neglect (CEN) may exhibit significantly higher rates of psychopathology, with effect sizes ranging from d = 0.02 to 1.84 for CEA and d = 0.08 to 0.73 for CEN (k = 90, n = 132,082; Xiao et al., 2022). Notably, meta-analytic findings suggest that individuals with a history of CMS can score significantly higher on trait dissociation measures than non-maltreated controls (DES: M_{abuse} = 23.5, $M_{neglect}$ = 18.8, $M_{controls}$ = 13.4; k = 65, n = 7,352; Vonderlin et al., 2018). Further, dissociative symptom severity was significantly predicted by CMS characteristics such as earlier age of onset of maltreatment (b = -1.13), longer maltreatment duration (b = 1.83), and parental perpetration (b = 0.13). These findings may point toward a dose–response relationship between CMS and trait dissociation that highlights relational intrusiveness, chronicity, and developmental timing in the development of dissociative symptomatology. As a consequence, affective, cognitive, and relational systems implicated in psychological development may be disrupted (Putnam et al., 1993; Lyons-Ruth et al., 2006; van der Hart et al., 2006).

One mechanism previously linked to CMS and elevated trait dissociation is emotional dysregulation, broadly characterized by difficulties in modulating emotional responses and oscillations between overwhelm and numbness (Frewen et al., 2014; Reyno et al., 2020; Schimmenti et al., 2021). Such dysregulation may emerge if early caregivers are neglectful, punitive, or inconsistent, depriving the child of coregulatory experiences required to manage internal states (Lyons-Ruth et al., 2006). Indeed, in a recent meta-analysis, trait dissociation was significantly associated with emotional dysregulation strategies, including disengagement (e.g., avoidance, suppression; rw = .34) and aversive cognitive perseveration (e.g.,

rumination, worry; *rw* = .38; *k* = 57, *n* = 11,596; Cavicchioli et al., 2021). In the context of chronic maltreatment, such strategies may be reinforced through repeated use, become habitualized, and contribute to difficulties in identifying, tolerating, or resolving emotional states. Within this conceptualization, dissociation can be viewed as a disruption in consciousness during times of distress that emerges when more adaptive strategies of regulation are unavailable

In contrast to trait dissociation, which likely reflects a stable predisposition to disengage from internal or external experience (Putnam, 1997), dissociative symptoms can also arise acutely in response to environmental triggers, a phenomenon known as TID. TID normally encompasses brief, situational episodes of psychological detachment, often marked by depersonalization (a sense of disconnection from the self) and derealization (a sense of detachment from one's surroundings; Wang et al., 2024). Experimental studies demonstrated such states can be elicited in non-clinical samples through low-complexity paradigms involving mirror confrontation, dot-staring, audiovisual stimulation, or sensory deprivation (Leonard et al., 1999; Frewen et al., 2014; Krause-Utz et al., 2017). Theoretical models propose that individuals with elevated trait dissociation may exhibit a reduced threshold for TID, as previously internalized detachment strategies become readily reactivated by situational cues (Allen et al., 1999; Giesbrecht et al., 2008). Although trait dissociation has been extensively studied in clinical populations and linked to CMS, it remains an open question whether CMS increases susceptibility to TID in non-clinical individuals.

From Childhood Maltreatment to Problematic Social Media Use

In addition to its association with dissociation, CMS was linked to various forms of behavioral addiction, including internet addiction, disordered gaming, and problematic gambling. PSMU may share core features with these conditions, including compulsive engagement, diminished behavioral control, and continued use despite adverse consequences.

These similarities suggest that common underlying mechanisms may contribute to compulsive behavior across contexts. In a recent study, CMS was significantly correlated with internet addiction (r = .33), and this relationship was partially mediated by maladaptive emotion regulation strategies (β = 0.15; n = 4,163, M_{age} = 14.25; Gu et al., 2024). Similarly, emotional and sexual childhood abuse emerged as central bridge symptoms linking CMS and internet addiction within a psychopathological symptom network analysis (n = 332 adolescents with MDD, M_{age} = 15.32; Wang et al., 2024). Beyond internet use, CMS and household adversity were significantly associated with problematic gambling in a large adult sample, with odds ratios of 1.64 for sexual abuse and 2.08 for household incarceration (n = 13,217; Goodrich et al., 2023). Taken together, CMS may predispose individuals to engage in digital or behavioral addictions as compensatory coping mechanisms in the absence of healthier regulation strategies.

Furthermore, emotional and behavioral dysregulation, particularly externalizing and internalizing symptoms, were proposed as potential mediators of the CMS–behavioral addiction link. Indeed, the total number of adverse childhood experiences (ACEs) significantly predicted risk for problematic gambling (β = 0.08) and disordered gaming in a non-clinical adolescent sample (β = 0.20; n = 6,314; M_{age} = 14.86; Richard et al., 2024). Notably, CMS showed stronger predictive value for addiction outcomes than broader household adversity, underscoring the lasting impact of maltreatment on regulatory development. Furthermore, externalizing problems such as impulsivity and conduct issues fully accounted for the ACE–gambling link, while both, externalizing and internalizing symptoms (e.g., anxiety, withdrawal) explained the ACE–gaming association. Taken together, this supports the view that CMS may foster addiction vulnerability not only through maltreatment-related distress, but also through developmental disruptions in regulatory functioning.

Emerging research suggests that CMS may contribute to PSMU through dissociative, emotional, and relational vulnerabilities, positioning PSMU within a broader trajectory of maladaptive regulation (Musetti et al., 2020; Yigiter et al., 2018). A cross-sectional study of Italian young adults found childhood emotional abuse was the strongest predictor of trait dissociation ($\beta = 0.32$) and PSMU ($\beta = 0.31$). Trait dissociation partially mediated this relationship (indirect effect: $B = 0.023$), and the overall model accounted for 14% of the variance in PSMU ($R^2 = .14$; $n = 663$; $M_{age} = 24.46$; Imperatori et al., 2023). This partly supports the notion that trait dissociation may serve as an intermediate vulnerability linking CMS to PSMU. Similarly, in a sample of British university students, the association between CMS and PSMU was partially explained by anxious attachment and depressive symptoms (indirect effect: $b = 0.08$), explicating the potential role of relational and emotional vulnerability in PSMU ($n = 1029$, $M_{age} = 19.80$; Worsley et al., 2018). While most social media users do not meet clinical criteria for PSMU, large-scale studies indicate that up to 15% of adolescents may exceed clinical thresholds, even in non-clinical samples ($n = 5{,}005$, $M_{age} = 16.4$; Demetrovics et al., 2016). However, most available studies relied on cross-sectional designs, limiting causal interpretations and leaving the developmental pathways between CMS and PSMU insufficiently understood.

The Mediating Role of Task-Induced Dissociation

Emerging evidence suggests that immersive digital environments like TikTok may evoke dissociative states similar to those observed in problematic gaming, particularly when used to manage emotional distress. TikTok's design has been shown to promote automatic engagement (Yao et al., 2023) and temporarily impair time perception and reduce self-awareness (Baughan et al., 2022; Park & Jung, 2024). These effects potentially mirror mechanisms identified in a systematic review on gaming addiction, which found that dissociative symptoms including depersonalization, derealization, and temporal disorientation

were frequently described as secondary responses to emotional distress (k = 19; Guglielmucci et al., 2019). While the review did not consistently report effect sizes, one included study found a significant moderate correlation between dissociation and gaming addiction symptoms (r = .40; n = 221, M_{age} = 21.56; De Pasquale et al., 2018). Although the content and interactivity of social media and gaming differ, both environments can facilitate attentional absorption, emotional blunting, and impaired self-monitoring, features previously associated with dissociation.

To situate this hypothesized pathway within a broader theoretical context, the Interaction of Person–Affect–Cognition–Execution (I-PACE) model provides a framework for understanding how personal vulnerabilities and situational platform features interact to reinforce maladaptive digital behaviors (Brand et al., 2019). Originally developed to explain the development of Internet-use disorders, the model suggests that person-level predispositions (e.g., CMS-related self-regulatory difficulties) may interact with situational features of digital platforms to evoke responses that, when reinforced over time, can evolve into PSMU. Within this framework, TikTok may be a context in which TID is more likely to emerge, especially among individuals with CMS-related vulnerabilities.

Research Objectives

The primary objective of this study is to empirically investigate whether the extent of task-induced increase in dissociation evoked by binge-scrolling mediates the relationship between CMS and PSMU severity. Specifically, the study seeks to answer the following research question: Does the extent of task-induced increase in dissociation evoked during a binge-scrolling TikTok task mediate the relationship between childhood maltreatment severity and problematic social media use severity 30 days later?

Methods

Research Design and Procedure

The present study employed a longitudinal, single-group design with repeated measures to investigate whether TID, elicited through a prolonged binge-scrolling task on TikTok, mediates the relationship between CMS and PSMU severity at follow-up. Data were collected in two phases: a laboratory session and a 30-day follow-up online assessment.

At the start of the laboratory session, a researcher briefed up to four participants simultaneously on the study procedure. To ensure privacy and minimize distractions, participants were assigned to individual cubicles, where the information sheet was reviewed and informed consent obtained. The researcher ensured participants had mobile devices set on Do Not Disturb. Participants then completed the initial self-report battery in Qualtrics.

Upon completing the first questionnaire block, participants opened the cubicle door to signal the researcher, who turned off the computer screen, ensured headphone use, and began timing the 60-minute binge-scrolling task. Participants were instructed to binge-scroll passively that is, to scroll, like videos, and read comments, but not to share content or send messages. Participants completed the task on their personal smartphones without direct supervision, reflecting a naturalistic engagement setting. No manipulation checks (e.g., screen recordings, eye-tracking, or interaction logs) were implemented to verify compliance. It remains possible that participants paused, disengaged, or browsed unrelated content during the 60-minute period. While this approach maximized ecological validity, it introduced uncertainty regarding uniformity of exposure, attentional focus, and adherence to the passive use instructions. Following binge-scrolling, participants completed the second block of questionnaires. Before concluding, an opportunity to provide qualitative feedback on the session was given. The full laboratory session, including questionnaire administration and

binge-scrolling, lasted 110 minutes (*Mdn*). Excluding the 60-minute task, questionnaire completion time was 50 minutes (*Mdn*).

Thirty days after the laboratory session, participants were invited to complete an online follow-up questionnaire via Qualtrics, including a repeated PSMU severity assessment and a screen time questionnaire to measure TikTok usage over the past month based on app-tracked data. A 30-day interval between the laboratory session and follow-up was chosen to allow for sufficient temporal separation between the proposed mediator and outcome variables, consistent with recommendations from prior longitudinal studies (Rabinovitch et al., 2014).

Ethical Considerations

The Ethics Committee of the Faculty of Behavioral and Social Sciences, University of Groningen, approved the study (approval number PSY-2324-S-0405). Participants were informed of the right to withdraw at any point during the study without penalty, and all data were anonymized to ensure confidentiality. The full briefing protocol is provided in Appendix A.

Participants

Participants were recruited from the pool of first-year Psychology students via SONA, a platform where participation credits for a methodology course are earned. To be eligible, students had to use TikTok at least once per week. No students from other bachelor's programs were included, and no additional exclusion criteria were applied.

A total of 284 participants took part in the laboratory session. Of these, 192 provided complete data across all relevant measures and time points and were retained for the final analyses. Of the 192 participants in the final sample, 159 (82.8%) identified as female, 31 (16.1%) as male, and 2 (1%) as non-binary. Participants ranged in age from 17 to 33 years (M = 19.26, SD = 1.78). Most were 18 (35.9%), 19 (25.0%), or 20 years old (21.9%).

Attrition Analysis

To assess whether participant attrition introduced systematic bias, independent samples *t*-tests and a chi-square test were conducted to compare those who completed all study components (n = 192) with those who dropped out after baseline (n = 92) on demographic and baseline variables. There were no statistically significant differences between completers and non-completers on CMS ($t(282) = -1.59$, $p = .114$, $d = -0.20$), TID ($t(282) = -1.47$, $p = .142$, $d = -0.19$), PSMU severity at baseline ($t(282) = -0.18$, $p = .855$, $d = 0.02$), trait dissociation ($t(282) = -0.12$, $p = .904$, $d = 0.02$), emotion reactivity ($t(282) = 1.85$, $p = .066$, $d = 0.23$), and emotional avoidance ($t(282) = 1.13$, $p = .258$, $d = 0.14$). There were also no significant differences in age ($t(282) = 1.21$, $p = .226$, $d = 0.15$) or sex ($\chi^2(2) = 1.90$, $p = .390$). Effect sizes indicated attrition was not systematically related to key study variables. All subsequent analyses were conducted on the final sample of completers (n = 192) using listwise deletion for cases with missing follow-up data.

Measures

Demographic information was collected at the start to assess individual differences and social media use patterns. Age, gender, nationality, and age of first smartphone ownership were recorded. Participants also reported frequency of use for YouTube, Facebook, Instagram, TikTok, Snapchat, and Reddit during the past month, along with the onset age for regular use (defined as at least once per week) and the estimated percentage of time spent reading comments relative to watching video content.

The independent variable CMS, was measured using the short form of the Childhood Trauma Questionnaire (CTQ; 28 items; Bernstein et al., 2003), which measures experiences of emotional, physical, and sexual abuse, as well as emotional and physical neglect retrospectively. Items were rated on a 5-point Likert scale, ranging from 1 (*never true*) to 5 (*very often true*), with higher scores indicating greater CMS.

Each subscale ranges from 5 to 25, and the total CTQ ranges from 25 to 125. In non-clinical samples, mean total scores between 25 and 41 generally reflect low exposure, 41–60 indicate moderate exposure, and scores above 60 suggest high levels of CMS (Bernstein et al., 2003). An example item is: "*My parents were too drunk or high to take care of the family.*" Total scores were computed based on the standard 25-item scoring procedure, which excludes three minimization/denial items (items 10, 16, and 22) that serve as validity checks and are not part of the core maltreatment subscales. The resulting 25-item version demonstrated acceptable internal consistency in the current sample (Cronbach's α = .748).

The mediator, TID, was operationalized as a change score based on the dissociation subscale of the Responses to Script-Driven Imagery (RSDI; Hopper et al., 2007), which captures state symptoms of depersonalization and derealization. TID was calculated by subtracting pre-scrolling scores from post-scrolling scores, with positive values indicating an increase in TID. The RSDI (6 items per administration) was completed before and after the binge-scrolling task to capture TID (detachment, altered perception, and emotional numbing). Items were rated on a 6-point Likert scale ranging from 1 (*not at all*) to 6 (*a great deal*), with each administration yielding a total score from 6 to 36. An example item is: "*Did what you were experiencing seem unreal to you, like you were in a dream or watching a movie or play?*" The scale demonstrated good internal consistency before the task (α = .849) and high consistency after (α = .879). The RSDI has no established normative cut-offs for interpreting change scores. It is primarily designed to detect changes in TID in response to acute internal or external stimuli, and is most commonly used to compare pre–post scores across experimental conditions (Hopper et al., 2007).

To measure the dependent variable, PSMU severity, participants completed an adapted version of the Problematic Internet Use Questionnaire (PIUQ; 18 items; Demetrovics et al., 2008), modified for problematic scrolling behavior on TikTok. The original items were reworded to reference scrolling instead of general internet use. For example, item "*How often do you fantasize about the internet?*" was adapted to "*How often do you fantasize about scrolling?*" The PIUQ evaluates compulsive engagement, loss of control, and negative consequences of excessive use. Responses are recorded on a 5-point Likert scale ranging from 1 (*never*) to 5 (*almost always*), with higher scores reflecting greater PSMU severity. Total scores range from 18 to 90. Scores between 33 and 40 are considered normative in general populations, 41–50 may reflect emerging problematic use, and scores above 50 are thought to indicate clinically relevant problematic behavior (Demetrovics et al., 2008). The PIUQ demonstrated high internal consistency during the laboratory session (α = .875) and remained high at follow-up (α = .893).

To further characterize the sample, additional instruments were administered: The Dissociative Experiences Scale-II (DES-II; 28 items; Carlson & Putnam, 1993) captures habitual dissociative phenomena in daily life, including depersonalization, derealization, amnesia, and absorption. An example item is: *"Some people have the experience of finding themselves in a place and having no idea how they got there."* Items are rated from 0% to 100% of the time, with higher values indicating more frequent dissociative experiences. Scores are averaged to yield a total ranging from 0% to 100%. In non-clinical samples, scores typically range from 8% to 15%, while scores above 30% are common in clinical populations (Carlsion & Putnam, 1993). Internal consistency in the present sample was excellent (α = .936). Participants also completed the Flow subscale of the Game Engagement Questionnaire (GEQf; 5 items; Brockmyer et al., 2009), which measures immersion. Items were rated on a 5-point Likert scale

from 0 *(not at all*) to 4 (*extremely relatable*), with total scores ranging from 0 to 20; higher scores indicate deeper flow states. An example item is: "*I lost connection with the outside world.*" The GEQf showed good internal consistency (α = .822). Emotional reactivity was assessed using the Emotion Reactivity Scale (ERS; Nock et al., 2008), a 21-item measure capturing emotional intensity, sensitivity, and persistence. Responses were rated on a 5-point scale (0 = *not at all like me* to 4 = *completely like me*), with higher scores indicating greater emotional reactivity. Internal consistency was high (α = .935). Emotional avoidance was measured using the Emotional Avoidance Questionnaire (EAQ; Taylor et al., 2004), which assesses the tendency to suppress or avoid negative emotional experiences. The EAQ contains 6 items rated on a 5-point Likert scale, with higher scores reflecting greater avoidance. Internal consistency in the current sample was acceptable (α = .792). Interpretive labels (e.g., moderate, elevated) are based on the scale's original validation studies and normative guidelines, where available (Carlson & Putnam, 1993; Bernstein et al., 2003; Taylor et al., 2004; Hopper et al., 2007; Demetrovics et al., 2008; Nock et al., 2008; Brockmyer et al., 2009).

Data Analysis

Data were screened for assumptions of ordinary least squares regression following Ernst and Albers' (2017) recommendations (see Appendix B). Outlier analysis using boxplots revealed mild outliers, but standardized residuals did not exceed ± 3.29, indicating no extreme outliers influenced the model. Visual inspection of scatterplots supported linearity between the independent variable (CMS), the mediator (TID), and the dependent variable (PSMU severity at follow-up). Plots of standardized residuals against standardized predicted values indicated no clear pattern or funnel shape, suggesting homoscedasticity was not violated. Q-Q plots of residuals showed minor deviations from normality, particularly for TID change score, but the residuals generally aligned with the normal distribution. Descriptive statistics were

computed to summarize the characteristics of the sample. A simple mediation analysis was tested using ordinary least squares regression via the PROCESS macro for SPSS (Model 4; version 4.2; Hayes, 2017), with 5,000 bootstrap samples to estimate bias-corrected confidence intervals for the indirect effect. No covariates were included in the model. All analyses were conducted in IBM SPSS Statistics (version 30), with a significance level set at $p < .05$ (two-sided).

Results

Descriptive Statistics

The age at first smartphone ownership ranged from six to 16 years. On average, the onset of regular weekly use was earlier for YouTube and Instagram and later for TikTok and Reddit (see Table 1). Social media use frequencies over the past month were highest for Instagram, TikTok, and Snapchat and lowest for Facebook and Reddit, with ratings ranging from 0 (*not at all*) to 6 (*several times a day*). An average of approximately 26% of total social media time was spent reading comments.

Mean CMS scores reflected moderate exposure levels (for scale ranges and normative guidelines, see methods). A paired-samples *t*-test indicated that, on average, TID scores increased significantly ($t(191) = 9.30$, $p < .001$) from pre- ($M = 9.30$, $SD = 4.28$) to post-task ($M = 13.20$, $SD = 6.20$) with a mean change score of 3.91 reflecting a medium-to-large effect size ($d = 0.67$). Mean PSMU severity scores were slightly lower at follow-up compared to baseline although this change was not significant. Trait dissociation scores reflected moderate dispositional tendencies on average. Mean emotional reactivity scores indicated frequent and intense emotional experiences, while mean emotional avoidance scores suggested a moderate tendency to disengage from emotional processing.

Table 1

Descriptive Statistics for Technology Use, Social Media Engagement, and Study Variables

Variable	M	SD	Min	Max	n
Onset					–
Smartphone	11.92	11.88	6	22	
Instagram	12.96	1.78	8	27	
TikTok	14.27	2.22	7	33	189
Snapchat	13.16	1.83	9	19	166
Youtube	11.88	2.28	4	20	191
Facebook	14.55	3.73	4	20	118
Reddit	15.83	2.01	13	31	106
Use Frequency					–
Instagram	5.21	1.02	0	6	

Variable	M	SD	Min	Max	n
TikTok	4.99	1.34	1	6	189
Snapchat	4.80	1.78	0	6	166
YouTube	3.31	1.65	0	6	191
Facebook	1.12	1.34	0	6	118
Reddit	.96	1.21	0	5	106
Comment reading	26.39	18.12	1	98	191
Continuous Variables					–
CMS	42.90	7.72	30.00	67.00	
TID pre	9.30	4.27	6.00	27.00	
TID-post	13.20	6.19	6.00	32.00	
TID-change	3.91	5.82	-15.00	25.00	
PSMU pre	41.71	8.71	24.00	68.00	
PSMU follow-up	39.87	9.32	18.00	67.00	
Trait Dissociation	20.59	13.18	2.14	72.50	
Immersion	9.81	3.24	2.50	18.50	
Emotion reactivity	56.14	14.33	26.00	89.00	
Emotional avoidance	9.03	3.98	.00	18.00	

Note. n = 192 unless otherwise specified. Sample sizes vary slightly across variables due to platform-specific non-use or missing responses.

Onset = age at first smartphone ownership and of first weekly use. Use Frequency = (0 = *not at all,* 6 = *several times per day*. Comment reading = percentage of time spent reading comments; CMS = childhood maltreatment severity; TID = task-induced dissociation; PSMU = problematic social media use severity.

Correlational Analysis

Several patterns emerged in the correlational analysis (see Table 2). CMS showed weak-to-moderate positive correlations with trait dissociation, emotional avoidance, and emotional reactivity. PSMU severity at follow-up was moderately correlated with trait dissociation, immersion, and emotional reactivity, and showed no significant association with emotional avoidance or TID. Trait dissociation was moderately correlated with immersion, emotional avoidance, and emotional reactivity. Immersion showed moderate correlations with most variables except emotional avoidance. Emotional avoidance demonstrated consistently weak associations across variables. Emotional reactivity showed moderate correlations with

CMS, trait dissociation, and PSMU severity. Overall, trait dissociation, emotional reactivity, and immersion were the most strongly interrelated constructs.

Table 2

Bivariate Correlations Among Study Variables

Variable	1	2	3	4	5	6	7
1. CMS	—	-.04	.16*	.38**	.11	.19**	.20**
2. TID	-.04	—	.07	.07	.41**	.07	-.02
3. PSMU follow-up	.16*	.07	—	.16*	.27**	.05	.31**
4. Trait dissociation	.38**	.07	.16*	—	.26**	.39**	.27**
5. Immersion	.11	.41**	.27**	.26**	—	.05	.25**
6. Emotional avoidance	.19**	.07	.05	.39**	.05	—	-.03
7. Emotional reactivity	.20**	-.02	.31**	.27**	.25**	-.03	—

Note. n = 192. CMS = childhood maltreatment severity; TID = task-induced dissociation; PSMU follow-up = problematic social media use severity at follow-up. $p < .05$ (*), $p < .01$ (**). Asterisks indicate two-tailed statistical significance levels.

Mediation Analysis

A mediation analysis (see Table 3) indicated that CMS was a significant predictor of PSMU severity both before (total effect) and after controlling for TID (direct effect). However, CMS did not significantly predict TID, nor did TID predict PSMU severity at follow-up. The indirect effect through TID was not significant, suggesting it does not mediate the association between CMS and PSMU severity at follow-up (see Figure 1). The overall model accounted for a small proportion of variance in PSMU severity (R^2 = .03), indicating limited explanatory power.

Table 3

Mediation Analysis of the Association Between CMS as thePredictor, TID Change Score as the Mediator, and PSMU severity at Follow-up as the Outcome

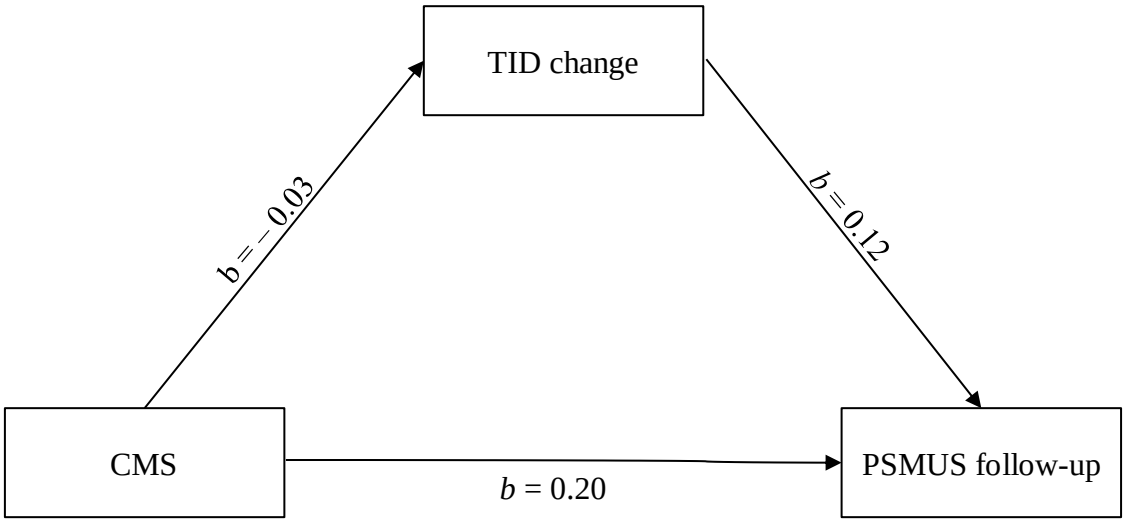
Path	b	SE	p	95% CI
CMS → TID	-0.03	0.05	.552	[-0.15, 0.09]
TID → PSMU	0.12	0.13	.342	[-0.15, 0.37]
CMS → PSMU (total effect)	0.19	0.09	.026	[0.02, 0.36]

Path	b	SE	p	95% CI
CMS → PSMU SEVERITY (direct effect)	0.20	0.09	.023	[0.03, 0.37]
Indirect effect (a × b)	-0.004	0.012		[-0.038, 0.013]

Note. n = 192. *b* = unstandardized regression coefficient; *SE* = standard error; *CI* = confidence interval; CMS = childhood maltreatment severity; TID = task-induced dissociation; PSMU = problematic social media use severity at follow-up. The indirect effect was estimated using 5,000 bootstrap samples. A 95 % CI that does not include a zero indicates a significant indirect effect.

Figure 1

Simple Mediation Model with CM as the Predictor, TID change score as the Mediator, and PSMU at follow-up as the Outcome Variable



Note. Unstandardized path coefficients (*b*) are presented. CMS = childhood maltreatment severity; TID change = task-induced dissociation change score; PSMU severity follow-up = problematic social media use severity at follow-up. The direct effect of CMS on PSMU was statistically significant before and after accounting for TID. The indirect effect through TID was not statistically significant.

Discussion

This study examined whether a task-induced increase in dissociation (TID), elicited during a 60-minute binge-scrolling TikTok session, mediates the link between childhood maltreatment severity (CMS) and problematic social media use (PSMU) severity at follow-up. Although dissociative symptoms significantly increased at the group level, TID did not explain the relationship between CMS and PSMU. Nonetheless, CMS directly predicted PSMU severity at follow-up, reinforcing prior evidence of this link and extending it into the context of binge-scrolling among emerging adults. These findings suggest that while binge-scrolling may heighten dissociative states, the pathway from early adversity to problematic engagement likely involves mechanisms beyond transient state changes.

Comparison to Previous Samples

Descriptive Context

Participants began using TikTok at an average age of 14-15 and reported using it at least once or twice per day, supporting the task's ecological validity. CMS scores (M = 42.09) were elevated compared to adolescent norms (M = 33.17, n = 20,951; Peng et al., 2023), with no current participants scoring below 30 (scale *min* = 25). This indicates universal exposure to some form of at least mild maltreatment.

On average, TID increased significantly from pre- to post-task (M = 3.91), suggesting binge-scrolling can induce dissociative symptoms, with some participants reaching scores as high as 32 (scale *max* = 36), though individual change scores varied widely indicating heterogeneity in dissociative reactivity. Comparing to other dissociation inducing paradigms, binge-scrolling task induced, on average, a three times smaller increase in dissociation than a ten-minute eye-gazing task used in another study (M = 9.19, SD = 6.86; $t(150) = 16.45$, $p < .001$, d = 1.34; Daniels et al., in progress). This may be because binge-scrolling lacks the

interpersonal resonance or emotional intensity of paradigms previously shown to induce dissociation (Putnam et al., 1996; van der Hart et al., 2006).

PSMU severity scores in the current study (M = 41.71) characterize this sample as problematic, aligning with validated classifications of problematic use; for example, problematic adolescents (M = 41.23; n = 438, M_{age} = 16.0) and adults (M = 41.09; n = 963, M_{age} = 33.6; Koronczai et al., 2011) showed similar PSMU severity scores in a different study. Such PSMU scores may be manifested in compulsive checking, difficulty disengaging, and perceived loss of control (k = 12, n = 4,009 young adults within the 18–30 age range; Pezzi et al., 2024). These parallels suggest that participants in the current sample may exhibit signs of dysfunctional, problematic engagement in the absence of clinical diagnosis.

In addition to main analysis, trait dissociation was elevated (M = 20.59) relative to general population norms, which typically range from 8 to 10, compared to scores above 25 in individuals with PTSD and around 48 in those diagnosed with dissociative identity disorder, based on a meta-analysis of DES-II data (k = 216, n = 15,219; Lyssenko et al., 2018). The scores in the current sample may reflect stable psychological tendencies toward detachment and absorption.

Participants also reported elevated levels of emotional reactivity (M = 56.14) and avoidance (M = 9.03), both of which were positively correlated with CMS (r = .20 and r = .19, respectively, both $p < .01$). These associations reinforce the previously-established link between CMS and emotion regulation difficulties, suggesting that individuals exposed to higher levels of maltreatment may be more prone to affective instability and maladaptive coping (Cavicchioli et al., 2021). Such emotional vulnerabilities may increase susceptibility to affective overload and stress-related disengagement, patterns previously linked to dissociation (Putnam, 1997; Lyssenko et al., 2018).

Interpretation of Mediation Paths

CMS significantly predicted PSMU severity at follow-up (b = .20, p = .023), suggesting a small-to-moderate association (r = .16) in line with prior work linking maltreatment to PSMU (Yang et al., 2022; Quaglieri et al., 2021). Specifically, childhood emotional abuse predicted trait dissociation (β = 0.19, p < .001) and PSMU severity (β = 0.26, p < .001), with trait dissociation independently predicting PSMU in a recent study (β = 0.36, p < .001, n = 1,074; Verrastro et al., 2024). The present study is among the first to demonstrate this link in the behavioral context of TikTok binge-scrolling, which differs from traditional social media use due to its immersive design (Conte et al., 2024). The modest effect size suggests that while CMS contributes to PSMU severity, its influence is likely mediated or moderated by additional psychological factors.

The first path in the mediation model, CMS predicting TID was not significant (b = -0.03, p = .55). However, CMS was significantly associated with trait dissociation (r = .38). Although this association has been reported in previous studies, its strength appears to vary considerably across samples. For instance, Schulze et al. (2024) reported a substantially weaker CMS–trait dissociation correlation (r = .18) in a large non-clinical sample (n = 921). Furthermore, trait dissociation scores were only weakly and non-significantly related to TID (r = .07). This may highlight a conceptual distinction between trait dissociation and TID: while trait dissociation likely captures a habitual cognitive–affective style of functioning marked by daydreaming, absorption, or compartmentalization that unfolds across daily life (Putnam et al., 1996), TID attempted to capture momentary, context-dependent shifts in consciousness, specifically depersonalization and derealization. These findings suggest that while CMS may influence trait dissociation, it does not appear to predict the specific, situational dissociative responses elicited during binge-scrolling.

Beyond task characteristics, the non-significant result may reflect individual differences in developmental trajectories following maltreatment. A longitudinal study

tracking individuals from infancy to early adulthood found that quality of early caregiving, particularly low maternal affective involvement and disrupted communication accounted for half of the variance in trait dissociation in young adulthood ($R^2 = .50$, $p < .001$), while CMS accounted for 7% of the variance and was not a significant predictor of trait dissociation ($n = 56$, $M_{age} = 19.6$; Dutra et al., 2009).Unmeasured protective factors such as these may have buffered against TID in the present non-clinical sample.

The second path in the mediation model, TID predicting PSMU at follow-up was not significant ($b = 0.12$, $p = .34$). Although there were no previous studies found that examined this exact link, one study found that problematic adolescent users (24% of $n = 341$) exhibited significantly higher levels of online dissociation compared to non-problematic users ($\omega^2 = .713$; Çelik et al., 2025). However, the dissociation measure used by Celik et al., (2025) captured a broad construct of online dissociative experiences, including detachment, identity confusion, absorption, and impaired reality monitoring. In contrast, the present study employed a narrower operationalization that focused on transient, task-induced symptoms of depersonalization and derealization. This difference in conceptual scope may partly account for the null finding.

Growing evidence suggests that stable emotional vulnerabilities rather than momentary cognitive disruptions may underlie PSMU. Indeed, PSMU has been previously linked to internalizing symptoms, such as depression ($r = .31$), anxiety ($r = .29$), and psychological distress ($r = .34$; $k = 13$, $n = 21{,}231$ adolescents; Keles et al., 2020) and maladaptive emotion regulation strategies, such as rumination ($r = .49$, $k = 42$), avoidance ($r = .38$, $k = 30$), and suppression ($r = .34$, $k = 19$; Aldao et al., 2010). Emotion regulation difficulties, specifically heightened emotional reactivity, was significantly associated with PSMU in this sample ($r = .31$), partly supporting this line of interpretation. Furthermore, a recent longitudinal study on Tiktok addiction found that symptoms of depression and social

anxiety predicted increases in TikTok addiction over time through distress intolerance (β = 0.10 for depression and β = 0.11 for social anxiety, both p < .001; n = 822; Yao et al., 2023).

The indirect effect of CMS on PSMUS via TID was not significant ($a \times b$ = -0.004). This null finding mirrors a broader challenge in the field: consistently identifying psychological mechanisms that may explain how CMS contributes to PSMU. Despite some previous attempts to find a mediator in the relationship between CMS and PSMU, evidence for potential mediators remains scarce and inconsistent. For instance, a small mediation effect for emotional dysregulation in predicting digital behavioral addiction among Italian young adults was found in one study (B = 0.02, SE = 0.01, R^2 = .14; n = 297, M_{age} = 22; Quaglieri et al., 2021), but no support for rumination as a mediator in the CMS-PSMU relationship was found in another study (n = 219; Yang et al., 2022). Given the limited and inconsistent support for internal psychological mediators, researchers have begun to explore whether platform-level factors might independently contribute to the development of PSMU.

Indeed, the influence of design features during the binge-scrolling task may have played a role in the current study. Emerging evidence suggests that platform-level features may elicit psychological states that resemble TID. In particular, TikTok's frictionless interface and algorithmic curation have been shown to induce attentional narrowing, time distortion, and reduced self-reflection (Jain et al., 2025). These effects are often described in terms of immersion, a construct that can refer both to a user's subjective sense of absorption and to design features that structurally promote such states. The latter, sometimes termed immersive design, includes mechanisms such as infinite scroll and auto-play to keep users engaged. In the present study, subjective immersion during binge-scrolling was significantly associated with TID (r = .41) and PSMU severity (r = .27), but not with CMS (r = .11). These findings, while correlational, suggest that immersive platform features may evoke transient shifts in awareness resembling dissociation, independent of CMS.

Theoretical Implications

Present results may warrant a cautious extension of the Interaction of Person–Affect–Cognition–Execution (I-PACE) model (Brand et al., 2019), which emphasizes person-level vulnerabilities and affective reactivity as drivers of compulsive digital behavior. The observed dissociative symptoms in the absence of CMS raise the possibility of a complementary, platform-driven pathway, one not rooted in CMS but potentially in sustained interaction with immersive design features. To tentatively capture this speculative mechanism, the researcher proposes *algorithmic dissociation*: a momentary induced dissociative-like state that may arise through prolonged attentional capture and structural immersion during binge-scrolling.

This construct remains entirely theoretical. The present study was not designed to empirically test or isolate such a mechanism, and no validated instruments currently exist to assess it directly. Nevertheless, the idea is grounded in observed associations between immersion, TID, and PSMU, independent of CMS. Algorithmic dissociation, as proposed, differs from traditional dissociation models in that it is not defensive or rooted in avoidance, but potentially emerges from interaction with reinforcement-driven interface elements, such as infinite scroll, algorithmic unpredictability, and rapid audiovisual pacing which have been shown to alter time perception, reduce self-monitoring, and narrow attentional scope (Montag et al., 2021; Park & Jung, 2024; Zannettou et al., 2024; Jain et al., 2025).

This proposed pathway aligns with prior showing that passive, non-interactive use of TikTok is linked to PSMU (Keles et al., 2020) and that scrolling affects users unevenly depending on emotional vulnerability (Beyens et al., 2020). However, unlike dissociation described in the DSM-5, algorithmic dissociation may be pleasurable, platform-induced, and unrelated to clinical risk. Whether it should be conceptualized as a subtype of dissociation or as a qualitatively separate construct remains an open empirical question.

Future research is needed to operationalize and validate this idea. Experimental studies could investigate whether specific platform features predict dissociative reactivity and whether modifying these features alters psychological outcomes. While highly tentative, the proposal of algorithmic dissociation underscores the importance of integrating platform design into psychological models of digital overuse, not simply as a background factor but as a possible co-determinant of PSMU.

Practical Implication

The present findings carry distinct implications for clinical and non-clinical interventions. For clinical users, improving emotion regulation should remain a primary treatment target, as unresolved emotional vulnerabilities may still underlie PSMU in some individuals. Cavicchioli et al. (2021) found that trauma-focused interventions targeting emotion expression, distress tolerance, and adaptive coping reduced PSMU severity by 40% in clinical populations (k = 57, n = 11,596). Similar strategies may benefit at-risk users with a history of CMS.

For the broader population, intervention efforts could raise algorithmic awareness to counteract the immersive effects of design features. One study found that enhancing users' understanding of TikTok's recommendation algorithm significantly reduced PSMU (β = -0.38, $p < .001$) and digital fatigue (β = -0.27, $p < .001$; n = 379, M_{age} = 19.80; Wang & Shang, 2024). These findings suggest that making users more conscious of how platform mechanics shape engagement may help reengage self-monitoring processes and mitigate the development of PSMU.

Building on this, future interventions could integrate real-time prompts, such as subtle in-app messages that reveal why a certain video was recommended, or reminders of how long the user has been scrolling within the same reinforcement loop (e.g., *"You've been shown 30 consecutive videos based on the same interest"*). These nudges may help disrupt automatic

engagement and restore reflective awareness, thereby reducing the likelihood of immersion exacerbating PSMU. While such features are unlikely to be implemented by platforms that profit from sustained engagement, ethical tech developers might explore third-party overlays or companion apps that introduce reflective prompts during use.

Finally, policy-level measures may be necessary for lasting, systemic impact. Given the demonstrated effectiveness of algorithmic awareness and interface friction in reducing PSMU, regulators should focus on mandating customizable interface settings, transparent labeling of algorithmic recommendations, and healthy default options that encourage downtime. As platforms increasingly influence users' attention and emotional states, preventing PSMU requires addressing psychological vulnerabilities and immersive design features.

Limitations

Several limitations constrain validity of the present findings. First, all measurements were self-reported, which may introduce bias due to retrospective recall, social desirability, or limited introspective accuracy. TID was measured using a retrospective pre–post version of the RSDI, which may have lacked sensitivity to detect subtle dissociative shifts. The PIUQ, though adapted for TikTok, is a general measure of internet-related dysregulation and may not fully capture platform-specific mechanisms. Future studies may benefit from using platform-tailored instruments and incorporating real-time or multimodal assessments of dissociation and digital engagement.

Second, while ecologically valid, the binge-scrolling task lacked objective control over both platform content and participant behavior. No manipulation checks (e.g., screen recordings, interaction logs, or eye-tracking) were implemented to verify task compliance. As a result, it remains unknown whether participants engaged with TikTok continuously, passively, or at all for the entire 60 minutes. This introduces substantial variability in

exposure, attention, and emotional engagement. Critically, this lack of behavioral verification may have obscured subtle but real associations between CMS, TID, and PSMU severity, reducing the mediation model's statistical sensitivity. Future studies should consider integrating behavioral trace data to more accurately quantify passive use and state shifts during digital engagement.

Third, all participants reported at least mild CMS, meaning there were no zero-exposure cases. This restricted range may have reduced variability in the predictor and limited the model's sensitivity, even though attrition was low and listwise deletion was used. Furthermore, the predominantly female, undergraduate sample may limit generalizability, as gender differences in emotional regulation and social media use have been documented.

Fourth, although the sample was presumably high-functioning and academically engaged, participants nonetheless reported elevated scores on multiple psychological vulnerability indices, including trait dissociation, emotional reactivity, and emotional avoidance. While these elevations do not indicate clinical impairment, variability in internal risk factors might have been constrained and contributed to the non-significant mediation results. A more clinically heterogeneous or stratified sample might reveal different or stronger effects.

Finally, CMS was assessed using the CTQ-SF, which captures frequency but not subjective impact. However, perceived severity and emotional salience may better predict psychological outcomes than frequency alone (Pollak, 2015). Future research should consider incorporating instruments that assess the personal significance or centrality of maltreatment experiences.

Conclusion

This study examined whether TID mediates the relationship between CMS and PSMU severity in the context of a TikTok binge-scrolling task. While CMS significantly predicted

PSMU severity at follow-up, TID did not mediate this relationship, suggesting momentary dissociative reactivity may not bridge CMS and PSMU in non-clinical populations. Instead, immersion emerged as a shared correlate of TID and PSMU, pointing to the potential role of platform design in shaping user experience.

These findings support a conceptual broadening of PSMU frameworks. Rather than attributing PSMU to person-level risk factors such as CMS or emotional dysregulation, the results suggest that immersive design features, such as infinite scroll, algorithmic unpredictability, and rapid audiovisual pacing may independently evoke dissociation that reinforce PSMU. Algorithmic dissociation offers an exploratory explanation for how design mechanics may mimic TID even in the absence of traumatic exposure.

Such perspective invites refinement of the I-PACE model, particularly by extending the Execution phase to include platform-level affordances that can elicit transient shifts in consciousness. Future research should employ real-time, ecologically valid methods to assess how these features shape attention, awareness, and affective regulation. Such research may be essential to clarify if and how CMS and platform design interact in sustaining PSMU and to advance both, theoretical models and intervention strategies.

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Appendix A

Laboratory Protocol: Binge-Scrolling and Emotional States

Lab Setup

The lab room is situated in the basement of the Heymans building of the University of Groningen and has no windows. The lab has 4 individual cubicles with desktop computers. The cubicles are set up in a way so that participants are not able to see each other's screens or able to look at each other during the scrolling task.

Study Procedure

Upon arrival in the lab, the participants are greeted by the attending researcher. They then receive an oral briefing about the nature of the study, the procedure, and their possibility to opt out at any point during the study. They are then asked to start the first questionnaire battery. When finished, they are asked to signal the attending researcher, and if all 4 participants are finished with the first questionnaire battery, they will be asked to start with the scrolling task. The attending researcher will use a timer to keep track of the elapsed time. After 60 minutes, the researcher will inform the participants that they can start with the second questionnaire battery. When the participants are finished, a final screen will remind them about the follow-up questionnaire. Afterwards, they are free to leave the study or stay if they have questions.

Scrolling Task

Participants will be asked to scroll on TikTok continuously for 60 minutes during the scrolling task. They will be using their own devices for the scrolling task so that they are scrolling on an account that is already algorithmically optimized to their own personality. Participants are asked to bring their own headphones to wear during the scrolling task and they are not allowed to communicate with each other during the scrolling task. Furthermore,

they are asked not to communicate with other users on the app while scrolling, to limit their use to the most passive form of short-form video consumption.

We will have spare pairs of in-ear and over-ear headphones, as well as charging cables for USB-C and iPhone at the laboratory, in case participants forget to charge their phone or bring their own headphones.

Possible situations to encounter:

- Participants forgetting to charge their phone or bringing headphones → offer them spare charger or headphones stored in the lab.
- Participant visibly disturbed after the scrolling task → talk through handling dissociative episodes with Judith and the other team members

Introductory Briefing

"Hello, and welcome to the 'Binge-Scrolling and Emotional States' study. My name is [Your Name]. Thank you for participating today. To maintain consistency across all participants, I will be reading from a script. Today's part of the study involves two sets of questionnaires and a 60-minute scrolling session. Here's what to expect: You will begin by completing the first set of questionnaires. Once you're done, please notify us, and we'll wait until all participants have finished. In the questionnaires, you will be asked about your past social media use, how you experience your emotions, and about potentially traumatic events in your life, which might be experienced as distressing.

After the first questionnaire, you will engage in a 60-minute scrolling task on TikTok. You'll use your device, so the content will be tailored to your personal preferences. Please prepare your headphones now. Furthermore, remember to remain passive during the scrolling task—we ask you not to interact with other users on the app. That includes sending videos to your friends or commenting. You are allowed to like videos and/or save them for later using the dedicated button.

After the scrolling task, you'll proceed to the second set of questionnaires. Once finished, you'll see a final screen that will explain to you the details about the follow-up part of this study. Afterwards, you're free to leave. If you have any questions, feel free to stay and ask us. You are free to withdraw from the study at any time. We use forced responses in the questionnaires to ensure the usability of the data, but your participation is entirely voluntary. Your data will be handled confidentially. We will delete your SONA numbers, as well as other identifiers, once we link today's part of the study with your answers in the follow-up questionnaire. We kindly ask you not to talk with any potential participants outside of this setting about the content of the study, as this might bias their results. You can talk about the study with your fellow participants afterwards. Please turn your phone on "do not disturb" now, so that you do not get any notifications and avoid communication with other participants from now on.

Now, please begin with the first set of questionnaires. You'll find a note with your session number in front of your computer, which you will be asked to fill in at the beginning of each block. Remember, the outcome of this research will be published, so we appreciate your thoughtful and honest responses."

Questions & Special Situations

Participant asks, "What is this study about?" "We are exploring if certain emotional states influence your experiences during prolonged social media use, specifically focusing on how scrolling might act as an avoidance mechanism for negative emotions. Please refrain from discussing the details of this study with others until all sessions are completed to preserve the integrity of the research."

Disclosure of Childhood Maltreatment or Abuse

Participant shares personal experiences of trauma or abuse: "Thank you for trusting me with this information. I'm truly sorry that you've had to endure such experiences. It's important to

know that many students, especially in psychology, have gone through similar situations. However, I'm not the best person to help you with this, but I can offer you some resources if you'd like to talk to someone who can provide the support you need."

Participant Exhibits Dissociation After the Scrolling Task

Participant appears dissociated: In this situation, it's crucial to speak clearly and firmly without showing excessive empathy. Avoid physical contact, but maintain eye contact. "Hey, can you hear me? It's time to stand up from the chair. Can you move your hands for me? Good, now can you wiggle your feet? Excellent, let's try standing up now."

Participant is Visibly Upset

Participant appears emotionally distressed: Only engage if the participant initiates the conversation. Avoid probing for details; instead, validate their feelings and encourage them to use their coping mechanisms. "I can see that this has upset you. What do you usually do when you feel like this at home?" "Maybe it would help to call a friend afterward, or take a walk outside?" "Is there anything I can do to help you right now? Perhaps a quick walk, maybe stomping your feet to ground yourself? We can try that if you'd like."

Participant Shares Experiences of Dissociation Outside the Study

Participant mentions experiencing dissociation in other contexts and asks if it is normal: Avoid delving into specifics or pathologizing their experience. Provide validation and suggest professional resources if they feel it's necessary. "To some extent, dissociation is a normal experience—most people have encountered it at some point in their lives, though the impact can vary. If this is something you're concerned about or want to explore further, I can suggest a few resources for additional support."

Follow-Up Options

The student service center (050-3638066)

Social worker at their GP

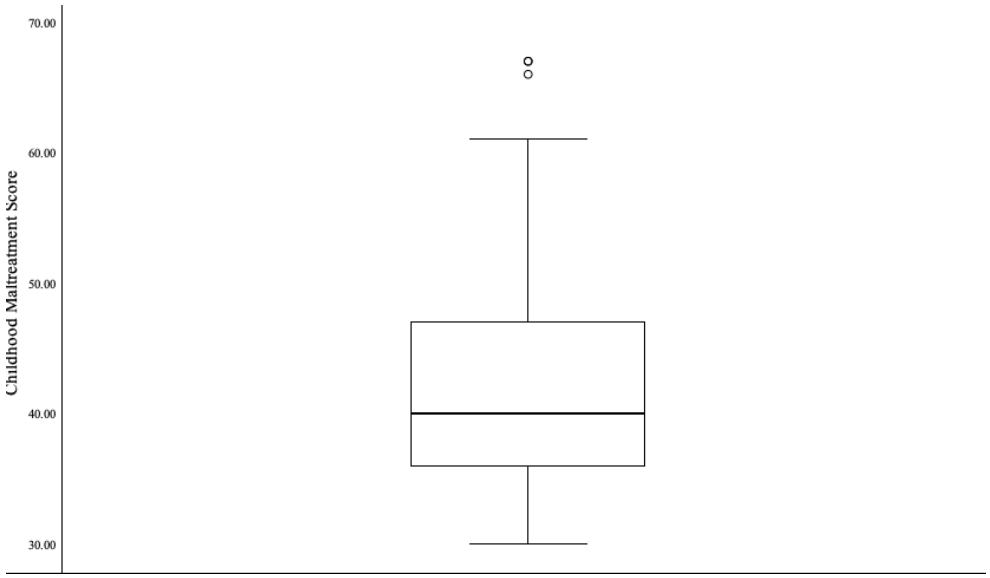
Luisterlijn support hotline (0880767000)

Judith Daniels: Only in emergency and case of dissociation, but be aware that she is a professor at RUG, and they might have an oral exam with her in two years, which might be uncomfortable for the participant

Appendix B

Figure 2

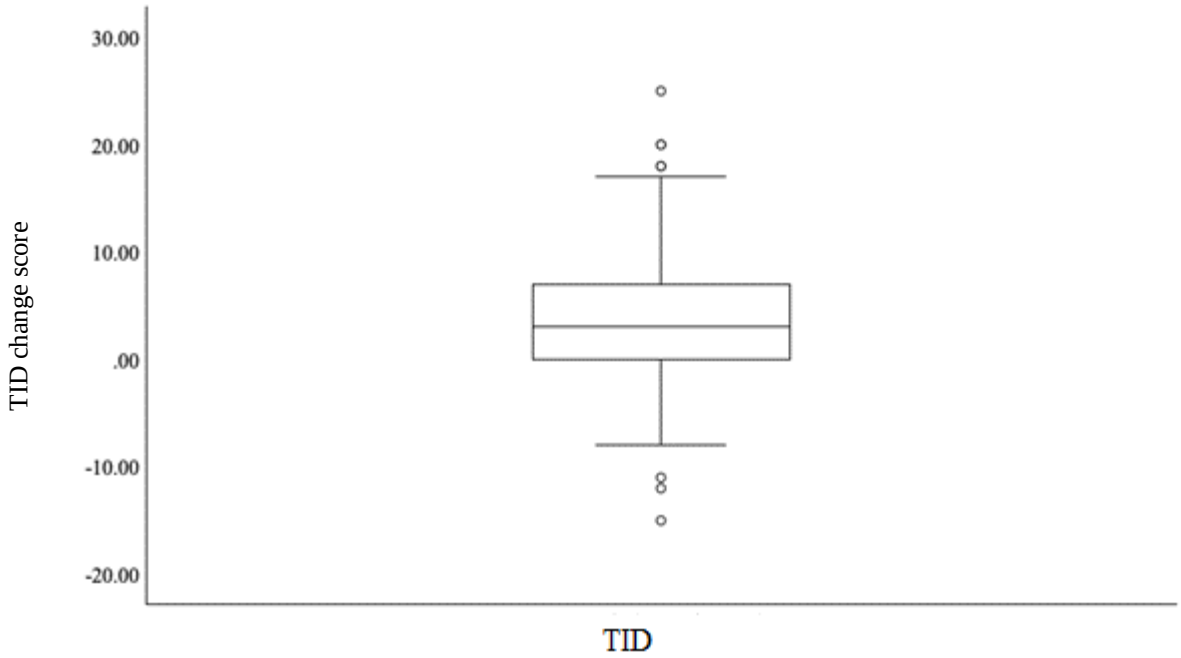
Boxplot used to identify and assess outliers in the independent, predictor variable (childhood maltreatment severit).



Note. Outliers are shown as individual points.

Figure 3

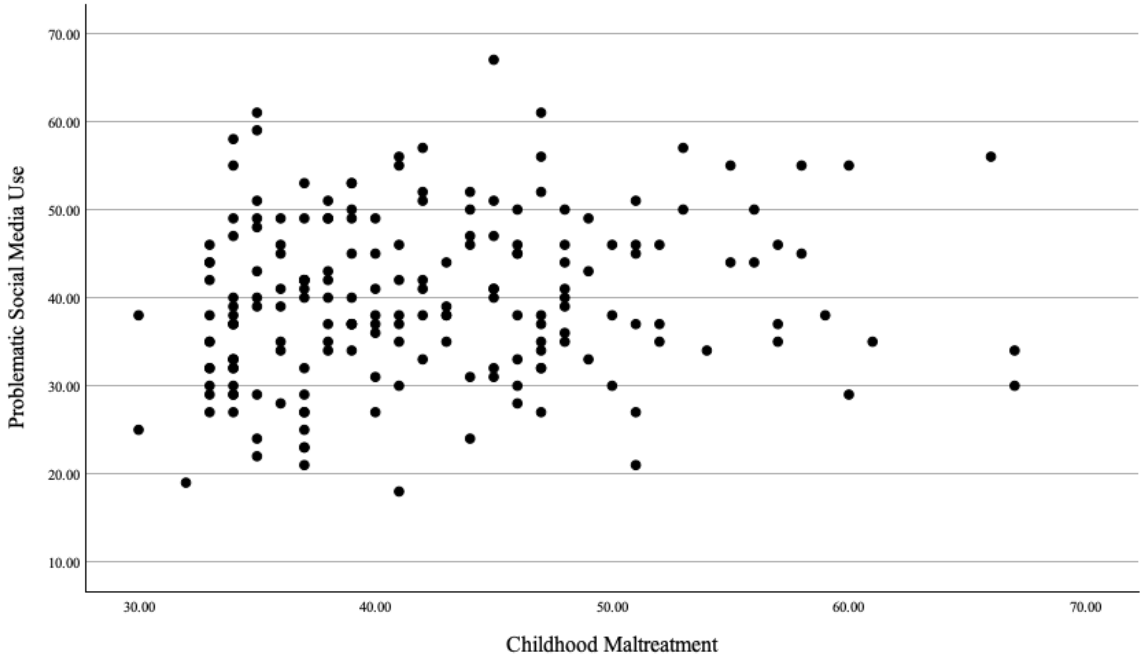
Task induced increase in dissociation score boxplot created to identify outliers in the mediator variable.



Note. Outliers are shown as individual points

Figure 4

Scatterplot of CMS and PSMU severity at follow-up used to assess linearity.



Scatterplot of CMS and PSMU severity, used to visually assess linearity prior to regression analysis.

Figure 5

Scatterplot of standardized residuals versus standardized predicted values, used to assess homoscedasticity.

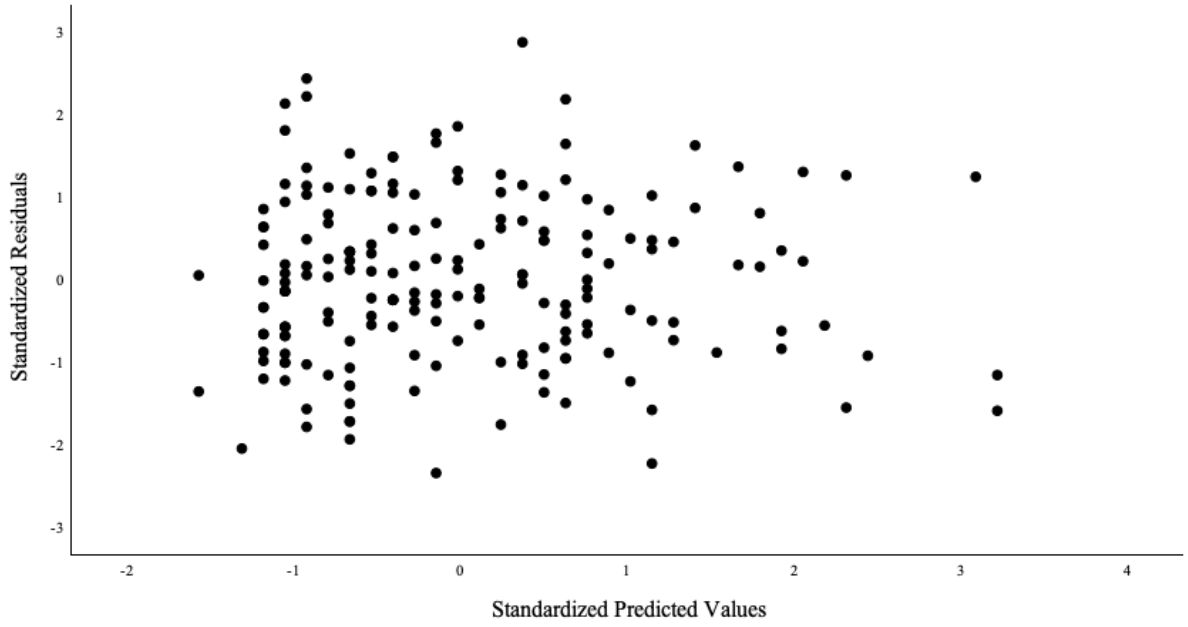


Figure 6

Normal Q-Q plot of observed CMS values compared to expected values under normality used to assess normality of the predictor variable.

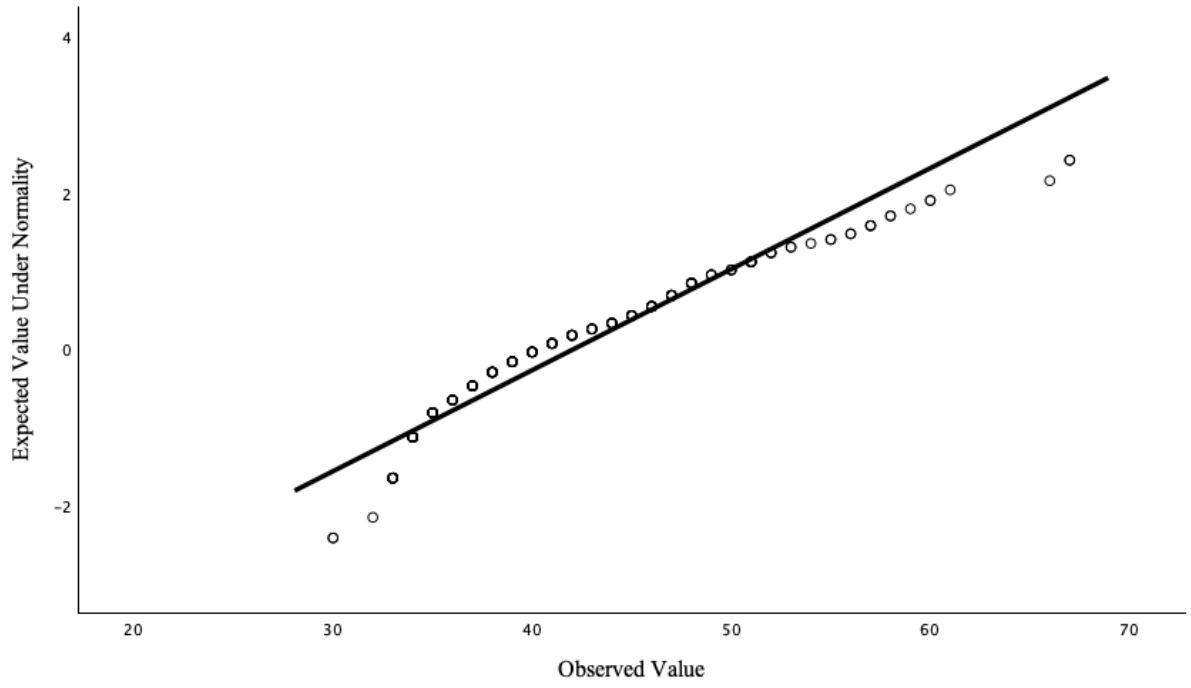


Figure 7

Normal Q-Q plot of observed TID score values compared to expected values under normality used to assess normality of the mediator variable.