

# Social Media Detox: Relapse Predictors

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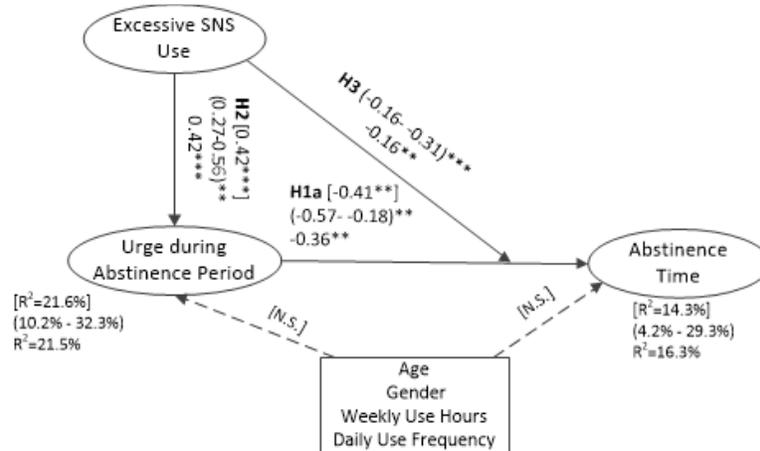
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There is a growing trend of “detoxing” (taking a short break) from social networking sites (SNS) use. Nevertheless, these abstinence attempts are not always successful, and this can have important clinical implications. The obvious ones relate to the treatment of excessive technology users, and the less obvious ones include possible treatment protocols for various psychopathologies that can benefit from short breaks from social media use. For example, envy is promoted by social media use and can exacerbate depressive symptoms. Hence, taking breaks from social media can eliminate a major envy source. Same goes for ADHD; eliminating a major source of distraction may benefit patients. Thus, it is important to understand abstinence/detox success factors.

To advance the understanding of this phenomenon, we studied 224 SNS users (age range 18-45,  $M_{Age}=19.98$ ,  $SD_{Age}=2.51$ , 43.8% women) who volunteered and were challenged to detox from their most commonly used social media site for up to one week (they could not access this site until the challenge is over or until they give up, whichever is earlier). The dependent variables were duration of abstinence (or time to relapse) and a binary variable reflecting whether participants completed or not the detox challenge. Even though there is not enough evidence to equate excessive social media use with addiction, there is accumulating evidence that shows some similarities, both at the behavioral (Turel et al., 2018a; Turel et al., 2018b) and neural levels (He et al., 2018; He et al., 2017). As such, this study borrowed ideas from the substance relapse literature, and tested a model that builds on the roles of urge and excessive/problematic use in explaining relapse. We hypothesized that subjectively felt urge to use SNS during the abstinence period ( $\alpha = 0.915$ ) will **(H1a)** be negatively associated with abstinence time, and **(H1b)** positively associated with the likelihood of relapse (i.e., failing to abstain for the full self-imposed detox period); that users' scores on the excessive SNS use scale ( $\alpha = 0.785$ ) **(H2)** will be positively associated with urges to use the SNS during the abstinence period, and **(H3)** will strengthen the negative association (i.e., make it more negative) between urge during abstinence and abstinence time.

The proposed model was estimated with structural equation modeling techniques with maximum likelihood (in the figure: no parentheses) and with bootstrapping with 1,000 resamples and 95% bias-corrected confidence intervals (in the figure: in parentheses). It presented good fit [ $\chi^2(138) = 206.3$ ,  $p < 0.00$ ; CFI=0.953, IFI=0.954 and RMSEA=0.047 with  $p$ -close<0.627] and explained 21.5% of the variation in urge and 16.3% of the variation in abstinence time. We also used a logistic regression model for predicting failure to abstain for one week with urge and controls as

the direct predictors. Gender ( $\beta=0.761$ ,  $\text{Exp}(\beta)=2.140$ ,  $p<0.008$ ) and Urge ( $\beta=0.582$ ,  $\text{Exp}(\beta)=1.789$ ,  $p<0.000$ ) were significant predictors of failure to abstain (Pseudo R-square = 13%). Findings indicated that women (coded as 1) had increased odds, more than double than men's, of failing to abstain from SNS use for one week, regardless of urge. It also means that, regardless of gender, a one standard deviation increase in urge increased the odds of failing to abstain by almost 80%. Given these findings, the possibility that gender and urge interact was tested, post-hoc. The interaction was not significant ( $p<0.65$ ).



**Figure 1: Research Model**

Overall, the findings provided initial support for our theory; they are consistent with neuroscience and behavioral views regarding inability to control urges. They suggest that (1) urge represents the strength of homeostasis perturbation people feel, which can hinder succeeding in activating self-control faculties and abstaining from a presumably habituated and rewarding SNS use behavior, (2) urge to use SNS is higher when people use SNS more excessively, and (3) urge is more difficult to resist under higher SNS excessive use conditions.

Together, these findings provide another layer of evidence regarding possible similarities between behaviors that are problematic when done in excess (e.g., smoking, drinking alcoholic beverages) and excessive use of technologies. Similar individual differences and subjective experiences can influence relapse in both contexts. Such comparisons between more formal disorders that involve deficits in decision making and excessive use of technology are important, as they can inform the development of screeners for disordered technology use. They also point to the need to study the underlying brain mechanism of SNS use relapse, as a next step, as much of our theory builds on neuroscientific insights that implicate excessive behavior and urges in relapse.

Moreover, the findings of the logistic regression model are in line with theories on gender differences in response to stressors (Turel et al., 2018c). These theories suggest that women, on average, tend to see stressors as threats, whereas men, on average, tend to see stressors as opportunities. Plausibly in line with such views, our findings imply that female SNS users are more likely than male users to fail self-imposed abstinence goals, which is presumably a stressful situation that can be associated with isolation, boredom and fear of missing out. While this idea requires validation, future SNS abstinence and relapse research should consider paying closer attention to possible gender differences in these phenomena.

The clinical implications of such findings for the treatment of psychopathologies (e.g., ADHD and mood disorders) among SNS users should also be considered in future research, because abstaining from SNS use may serve as one means to alter people's mood and concentration abilities. Thus, better understanding the factors associated with SNS detox success or failure can have clinical merit, beyond the treatment of excessive technology users.

Our findings, though, should be treated with caution, because they pertain to a specific sample and focus on a limited set of relapse predictors. They are also limited in that the motivation to abstain was partially external (i.e., users did not initiate the abstinence task fully due to internal desires) and that it was infeasible to fully impose abstinence (e.g., through taking over users' accounts). We call for future research to extend our findings to other populations, expand the proposed model, consider differences in sources of abstinence motivation, and find additional approaches for imposing and capturing technology use and abstinence.

## References

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