

No response? Simulating Fear of Missing Out Experiences to Investigate Relationships with Emotion Regulation, Negative Affect, and Counterfactual-Seeking through Social Media

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INTRODUCTION

Fear of missing out (FoMO) is the pervasive apprehension that occurs when others are having rewarding experiences from which one is absent.¹ It is characterized by a continual need to stay connected. The purpose of the present study is to investigate the construct of FoMO through simulated experiences in order to clarify the context in which FoMO is most prevalent and to examine its relationship with difficulties in emotion regulation, counterfactual-seeking, and internalized versus externalized negative affect.

Fear of Missing Out

FoMO is discussed as a function of the self-determination theory where FoMO inhibits intrinsic motivation and causes unhealthy social connection.² FoMO has been associated with many adverse outcomes.

Figure 1. Summary of adverse correlates to FoMO

Problematic Smart-Phone Use	<ul style="list-style-type: none">Increased screen time³Phubbing⁴Looking at phone during lectures and driving¹
Emotional Well-Being	<ul style="list-style-type: none">Depressive and anxiety symptoms⁵Less mindful attention⁵Increased negative affect and decreased positive affect⁶
Physical Well-Being	<ul style="list-style-type: none">Fatigue⁷Psychosomatic symptoms^{5,7}
Other Correlates	<ul style="list-style-type: none">Need to belong^{6,8}Sensitivity to stress and rejection⁹Boredom proneness¹⁰

More recent studies have investigated FoMO utilizing experiential sampling methodology and simulated experiences. It was found that FoMO predicted an increase in depression and anxiety throughout a week¹¹ and an increase in negative affect, fatigue, stress, regret, physical symptoms, and decreased sleep throughout a semester.⁷ It was also found that FoMO is most often experienced later in the day, later in the week, and during a nonsocial task versus a social task and has no variance during an obligatory versus non-obligatory task.⁷

Difficulties in Emotion Regulation

Emotion regulation is a core mechanism in healthy functioning, and is characterized by the capability to identify, understand, and accept emotional experiences, control impulsive behaviors when distressed, and manage and adapt emotional responses to fit unique situations.¹²

Counterfactual-Seeking, Regret, and Disappointment

Counterfactual-seeking is the act of think through what might have been.¹³ Regret is an internalized negative affect associated with personal responsibility and disappointment is an externalized negative affect associated with wishing events could have gone differently.¹⁴ All of these variables function to maximize reward in future decisional experiences.

HYPOTHESES

	A higher tendency of feeling FoMO in past personal experiences and more difficulties in emotion regulation will result in a higher tendency of feeling FoMO in the simulated experience.
	FoMO will be positively related to counterfactual-seeking and levels of regret, as opposed to disappointment.
	Difficulties in emotion regulation will be positively associated with counterfactual-seeking and levels of disappointment, as opposed to regret.
	There will be similar levels of FoMO in reaction to both obligatory and enjoyable tasks and significantly different levels of FoMO in reaction to both social and non-social tasks.

METHOD

PARTICIPANTS

A total of 120 participants (35 men, 85 women) were included in the final sample. All the participants were college students and ranged from 18 years to 24 years ($M = 19.78$).

MATERIALS

Fear of Missing Out Scale (FoMOs)

The Fear of Missing Out Scale¹ includes 10 items that measure one's feelings of FoMO. The FoMOs includes items such as "I get anxious when I don't know what my friends are up to." It is rated on a 5-point Likert-type scale (1 = Not at all true of me to 5 = extremely true of me). Higher scores on this scale indicate a higher tendency of feeling FoMO in everyday experiences.

The Difficulties in Emotion Regulation Scale Short Form (DERS-SF)

The Difficulties in Emotion Regulation Scale Short Form¹⁶ is a short-form version of the well validated and widely used Difficulties in Emotion Regulation Scale. The DERS-SF includes six subscales with three items each, and 18 items total. It is rated on a 5-point Likert-type scale (1 = almost never to 5 = almost always). Higher scores indicate more difficulty with regulating emotion.

Regret and Disappointment Scale (RDS)

The Regret and Disappointment Scale¹⁷ measures general negative affect and distinguishes if negative affect is internalized regret or externalized disappointment on 3 subscales. The regret subscale includes the average of items 2 and 4 and includes questions such as "I feel responsible for what happened to me." The disappointment subscale includes the average of items 3 and 5 and includes questions such as "I wish the events that were beyond my control had happened differently." A final item further distinguishes the type of emotion by giving a choice between two scenarios including "Things would have gone better if... I had chosen differently (or) the course of events had been different." Higher scores on either the regret or disappointment subscales indicate the internalized or externalized state of the emotion.

PROCEDURE

Participants entered the study by clicking on a link to a Qualtrics survey which asked for informed consent. Demographic information was gathered before participants completed the Fear of Missing Out Scale¹ and the Difficulties in Emotion Regulation Scale Short Form.¹⁶ After this, Qualtrics randomly assigned participants to four separate conditions that introduced an imaginary scenario to simulate experiences of FoMO ending in a decision not to wait for a response from their friends and participate in 1) finishing an obligatory assignment, 2) finishing an obligatory assignment with a friend, 3) watching their favorite TV show, and 4) watching their favorite TV show with a friend.

After the scenario, participants completed a one item measure of FoMO asking "How strongly would you feel that you were missing out on the original option" on a five-point Likert type scale (1 = Not at all to 5 = Extremely).⁸ A higher score on FoMOMyl indicates a higher feeling of FoMO. After this, participant's desire to counterfactually-seek was measured using a single item asking "What is the likelihood that you will use social media to check in on your friends Max, Lena, Thomas, and Julia" on a five-point Likert type scale (1 = Not at all to 5 = Extremely). The decision to counterfactually-seek is operationalized in this study as a desire to think about what could have been, or fact checking, through social media and higher final scores indicate a higher desire to counterfactually-seek.

At the end of the survey, participants responded to the Regret and Disappointment Scale¹⁷ and were debriefed.

RESULTS

To test the hypothesis that a higher tendency of feeling FoMO and difficulties in emotion regulation will result in a higher tendency of feeling FoMO in a simulated experience, two Pearson product-moment correlations were performed. Supporting the hypothesis, both FoMOPryz, $r(119) = .58, p < .001$, and difficulties in emotion regulation, $r(118) = .40, p < .001$, were significantly and positively related to FoMOMyl.

To test the hypothesis that FoMO in a simulated experience will be positively related to counterfactual-seeking and levels of regret, as opposed to disappointment, three Pearson product-moment correlations were performed. Supporting the hypothesis, both counterfactual-seeking, $r(119) = .51, p < .001$, and regret, $r(119) = .32, p < .001$, were positively related to FoMOMyl. Contrary to the hypothesis, disappointment was also positively related with FoMOMyl, $r(119) = .60, p < .001$.

To test the hypothesis that difficulties in emotion regulation will be positively associated with counterfactual-seeking and levels of disappointment, as opposed to regret, three Pearson product-moment correlations were performed. Supporting the hypothesis, both counterfactual-seeking, $r(118) = .41, p < .001$, and disappointment, $r(118) = .36, p < .001$ were positively related to difficulties in emotion regulation. Contrary to the hypothesis, regret was also positively related to difficulties in emotion regulation, $r(118) = .41, p < .001$.

Table 1. Correlations of FoMOMyl, Difficulties in Emotion Regulation (DERS), and Other Variables

	FoMOPryz	DERS	CFS	Regret	Disappointment
FoMOMyl	.51**	.40**	.51**	.32**	.60**
DERS			.41**	.41**	.36**

Note: ** $p < .001$

To further analyze the hypothesis that higher levels of FoMO and difficulties in emotion regulation will result in regret, as opposed to disappointment, frequencies were analyzed for the results of RDS item-7. Contrary to the hypothesis, results indicated that only 20 participants reported regret, as opposed to the 97 participants who reported disappointment. A t-test was performed to compare the means of regret ($M = 2.92, SD = 1.39$) and disappointment ($M = 4.54, SD = 1.47$). Contrary to the hypothesis, results indicated that disappointment, as opposed to regret, was significantly more reported as the affective reaction to a simulated experience of FoMO, $t(119) = -10.34, p < .001$.

To test the hypothesis that there will be similar levels of FoMO in reaction to obligatory and enjoyable tasks and significantly different levels of FoMO in reaction to social and non-social tasks, a 4 x 1 ANOVA was performed with the four conditions as the independent variables and FoMOMyl as the dependent variable. The means of the four conditions were significantly different, $F(3, 115) = 4.00, MSE = 1.15, p = .009, \eta^2_p = .307$. Fischer's LSD post hoc tests were performed and indicated a significant difference between obligatory ($M = 3.11, SD = 1.35$) and enjoyable ($M = 3.82, SD = 1.01$) tasks, obligatory/social ($M = 3.09, SD = .843$) and enjoyable tasks, and obligatory/social and enjoyable/social ($M = 3.77, SD = .908$) tasks. Contrary to the hypothesis, there was no significant difference between the means of social and non-social tasks; however, post-hoc tests did indicate a significant difference between obligatory and enjoyable tasks despite being in a social context.

To test the effect the simulated experience had on FoMO, a repeated measures t-test was performed to compare the means of FoMOPryz ($M = 2.59, SD = .753$) and FoMOMyl ($M = 3.43, SD = 1.11$). The results were significant, $t(119) = -9.26, p < .001$, Cohen's $d = .82$, indicating that there was a significant effect of feeling FoMO in the simulated experience.

Exploratory analyses indicated there was a significant difference between men ($M = 2.43, SD = 1.09$) and women ($M = 3.11, SD = 1.20$) on the likelihood to counterfactually-seek using social media, $t(119) = -2.88, p = .022$, Cohen's $d = .60$.

DISCUSSION

As expected, a higher tendency of feeling FoMO in past experiences and difficulties in emotion regulation resulted in stronger feelings of FoMO in reaction to the simulated experience. Also as expected, both FoMO and difficulties in emotion regulation were positively related to counterfactual-seeking. Exploratory analyses indicated that this relationship could also be influenced by gender, where women are more likely to counterfactually-seek information through social media.

Both regret and disappointment were positively related to FoMO, contradicting the second hypothesis. When both regret and disappointment were compared to each other, disappointment was significantly more reported than regret. This could be due to the wording of the scenario, which infers the situation is out of their control; however, this could also suggest that FoMO is experienced as an external negative affect when distinguished with internal negative affect.

FoMO was felt more significantly during enjoyable rather than obligatory tasks even when the enjoyable task included a friend. In the present study, it may be that the enjoyable task was interpreted as something with lower value than the obligatory task. Inaction has shown to result in higher frequencies and intensity of regret,¹⁸ and regret has shown to be positively related to feelings of FoMO in this study and in others.¹³

Limitations include a limited sample, limited alternative contexts to characterize where FoMO is most prevalent, and low interrater reliability on the RDS regret subscale. Although the simulated experience proved to have a significant effect on simulating FoMO, other methodology such as experiential sampling would prove more useful for characterizing FoMO.

As a common and aversive experience, it is important to continue characterizing the experience of FoMO to effectively intervene and prevent adverse outcomes. The present study provides novel evidence for positive relationships between FoMO and difficulties in emotion regulation, distinguished negative affect, and counterfactual-seeking. It also provides evidence for the efficacy of using imaginary scenarios to simulate experiences to characterize FoMO if resources are limited.

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