

**Impact of Social Media Use in Adolescence on
Excessive Reassurance Seeking and
Social Comparison/Feedback-Seeking Behavior in Early Adulthood**

Chae-Young Lee

Carnegie Mellon University

Abstract

This study examined the relationship between the amount of social media usage in adolescence and excessive reassurance seeking behavior and social comparison/feedback seeking behavior in early adulthood by those classified as Generation Z (those born between 1996 to 2010).

Participants were classified according to when they first began using social media in order to make these comparisons. A total of 96 students, between the age of 19 to 25, completed self-report questionnaires on their social media usage during adolescence and their current social media usage. They also completed questionnaires regarding their excessive reassurance seeking and social comparison/feedback seeking behaviors. Consistent with the hypotheses, positive correlations were found between the amount of social media usage in adolescence and excessive reassurance seeking and social comparison/feedback seeking behavior in early adulthood. Those who started using social media before 6th grade or in middle school scored significantly higher on excessive reassurance seeking and social comparison/feedback seeking measures compared to those who started using social media in high school. Overall, the study provides the novel insight into the possible retrospective effects of social media use in adolescence

Keywords: adolescence, early adulthood, social media, excessive reassurance seeking, social comparison, feedback seeking

Impact of Social Media Use in Adolescence: Correlated with Excessive Reassurance Seeking and Social Comparison/Feedback-Seeking Behavior in Early Adulthood

Gen Z, Social Media, and Mental Health

Recent studies revealed that Generation Z, those born between 1996 and 2010, report markedly higher levels of anxiety, depression, and suicide attempts compared to the previous generation (Duffy et al., 2019). Some have argued that this trend just reflects the generation's openness to discuss their mental health symptoms, but the research that looked specifically into the hospital admissions points to a more negative effect. Data taken from hospital admissions due to self-harm and suicide attempts by patients in addition to actual suicide data serves as evidence that this trend indeed reflects the disturbing reality (Twenge et al., 2020).

Some researchers point to social media as a partial explanation for this mental health crisis (Haidt & Allen, 2020; Twenge et al., 2019; Hunt et al., 2018). Generation Z differs from previous generations in that they are digital natives, and that they are the first generation to have social media in middle school. In 2009, Facebook introduced the 'like' button and Twitter added a retweet button, which was quickly copied by Facebook. With these added features, social media platforms were able to obtain vast amounts of information about what people will "like" and what engages them. They also learned that "likes" and "share" in the virtual world can earn them money in the real world. Unsurprisingly, the following years were the race between social media companies to algorithmicise their news feeds to maximize user engagement, which was largely successful. Consequently, Generation Z not only started to use social media in their early adolescence, but many used it extensively. One study by Lenhart (2015) suggests that 92% of adolescents go online daily, 89% belong to at least one social networking site, and 88% have access to a cell phone.

Mental Health Impact of Social Media Use during Adolescence

Adolescence is the time period during which social relationships take on increased importance in shaping self-esteem, well-being, and identity. For example, adolescents tend to engage in greater levels of interpersonal feedback-seeking and social comparison as peer feedback and experiences serves a primary role in their identity development and self-esteem (Harter et al., 1996). Social media may facilitate social comparison as it allows users to selectively self-represent themselves on social media, providing details about their lives that best represents their ideal self views with the degree of contemplation or flexibility that cannot be achieved in real world interactions (Rosenberg & Egbert, 2011). Thus, social media provides abundant opportunities for upward social comparisons. A study by Chou and Edge (2012) added support to this claim as they found that frequent Facebook users believe other users are happier and more successful than themselves, especially if they do not know the people well in real life. The public nature of the selective self-representation on social media may also facilitate feedback-seeking, as feedback provides social verification, which will in turn reinforce more self-displays (Manago et al., 2008). Considering the pervasiveness of social media among adolescents and adolescence being a crucial period for identity development, social media usage during this period may have a significant and lasting impact on one's sense of self and well being. More specifically, social media usage during adolescence may lead to greater engagement in social comparison and excessive reassurance and feedback seeking behavior, which may persist into one's early adulthood.

Previous studies that looked into the relationship between social media use and mental health in adolescents have mixed findings; some studies found a negative correlation between social media use and mental health while some studies found no correlation (Coyne et al., 2019;

Orben & Przybylski, 2019, Barry et al., 2017). Research by Nesi and Prinstein (2015) showed that technology-based social comparison and feedback-seeking were associated with depressive symptoms among adolescents. However, most of the previous studies done on similar topics were cross sectional, and the retrospective study that looks into the relationship between social media usage in adolescence and social comparison and excessive reassurance and feedback seeking behavior in early adulthood is lacking.

Study Hypotheses

The present study aims to address this gap by investigating whether social media use in adolescence is correlated with excessive reassurance seeking and social comparison and feedback seeking behavior in early adulthood. First, it is hypothesized that greater social media usage in adolescence would be significantly correlated with greater excessive reassurance seeking behavior (ERS) and greater social comparison and feedback-seeking behavior (SCFS) in early adulthood. For the purpose of this study, adolescence is defined as 6th grade to 12th grade and early adulthood is defined as after 12th grade to age 25. Second, it is hypothesized that the earlier one started to use social media, the greater excessive reassurance seeking behavior (ERS) and social comparison/feedback-seeking behavior (SCFS) will be in early adulthood. Since Generation Z is the only generation that has used social media in their adolescence and these individuals are currently in their early adulthood, the study will be conducted only on Generation Z.

Methods

Participants

A total of 96 individuals who were born between 1996 and 2003 (also known as Gen Z) served as the participants in the study. Roughly half of the participants (49%) were recruited through on-line posting on various social media sites while the other half (51%) participated in fulfillment of a course requirement through the psychology department research site. Those participants recruited through social media were volunteers and were not compensated for their participation while others received course credit. The final sample consisted of 27 males and 66 females. The majority of the participants were in college (77%), some were in high school (12%), and few had graduated from college (7%). Among those who were in college, there was roughly an equal distribution between college years (freshmen = 18%, sophomore = 19%, junior = 11%, senior = 20%), although slightly fewer juniors participated. For the racial demographic, the majority of participants were Asian (68%) and Caucasian/White (19%); there were few African American (1%) and Hispanic/Latino (2%) and few who did not classify themselves as any of the listed categories or preferred not to answer (10%).

Materials

Social Media Use

Participants were asked a number of questions regarding their social media use in order to assess when they first began using social media, how often they use it and for what purpose they use social media. In order to group participants according to when they first began social media use, participants were asked to choose among the options of 1) before 6th grade, 2) in middle school, 3) in high school, 4) in college, and 5) never. For the purpose of the study, middle school was defined as 6th to 8th grade and high school was defined as 9th to 12th grade.

Social Media Use-Time: Social Media Use-Time (SMU-T) was developed to measure the amount of time spent on social media during adolescence. Based on the when they first began using social media, participants were asked to report the average amount of time they spent on different social media platforms on a typical day on a 5-pt Likert scale (1 for *I don't/didn't use this* and 5 for *5 hours or more*) for each time period. For example, those who started using social media before 6th grade were asked to report how much time they spent on social media before 6th grade, during the middle school year, and during the high school year, while those who started using social media during high school were only asked how much time they spent on social media during the high school year. In addition, all the participants were asked to report how much time they spend on different social media platforms currently. (see Appendix A for the full survey)

Social Media Use-Intensity: The Social Networking Activity Intensity Scale (SNAIS; Li et al., 2016) was used to measure the intensity of social media use during adolescence. The SNAIS is a 14-item scale, in which participants rate how often they engaged in each social networking activity (eg., “commented on friends’ status, logs, and photos”) during middle school and high school on a 5 point likert scale (1 for *Never* and 5 for *Very frequently*).

Social Comparison and Feedback Seeking Behavior (SCFS)

The modified version of Motivation for Electronic Interaction Scale (MEIS; Nesi and Prinstein, 2015) was used to assess participants’ engagement in social comparison and feedback-seeking behaviors. The SCFS (modified MEIS) is a 15-item scale, which measures

participants' personal relevance to the number of behaviors (eg., "I use social media to see what others think about how I look") on a 5-point likert scale (1 for *Not at all true* and 5 for *Extremely true*). The scale showed good internal consistency (Cronbach's alpha 0.92).

Excessive Reassurance Seeking (ERS)

The Revised Excessive Reassurance Seeking Scale (ERS; Nesi & Prinstein, 2015) was used to assess multiple domains of reassurance-seeking appropriate to adolescents, such as reassurance seeking about appearance, gossip, and general liking. The scale included 10 -item measures in which participants endorsed reassurance-seeking behaviors (eg., "I ask people if they like me") on a 5-point likert scale (1 for *Not at all true* and 5 for *Extremely true*). The Revised ERS scale showed good internal consistency as a unifactorial scale in this sample (Cronbach's alpha 0.90).

Pandemic related Questions

In order to determine the impact, if any of the pandemic on social media usage and mental health effects, participants were asked to report whether their social media usage increased or decreased since the pandemic began and how lonely they felt over the past 6 months (eg., "I have felt isolated from others") on a 5-point likert scale (1 for *Strongly Disagree*, 5 for *Strongly Agree*).

Procedure

The study description was posted on the CMU Psychology research participation webpage (for Version 1) and on the experimenter's personal social media accounts (for Version

2). Participants obtained through the psychology department pool signed up for the study based on its description. The study description included the external link to the Qualtrics survey, and those who wished to participate could click on the link to get started. The same descriptions and link was sent to those signing up through social media accounts. Participation was completely voluntary and there was no compensation except for Version 1 of the study, in which participants were granted one research credit for the introductory psychology course for which they were enrolled. For tracking purposes an assigned identity code was used for those receiving course credit but no other personal identifiers were obtained. For participants in Version 2, random subject numbers were assigned to each participant and no personal identifiers were obtained. Participants were first asked to confirm that they were born between 1996 and 2003, and those who did not meet this requirement were not allowed to proceed with the survey. Those who met this requirement were taken to the informed consent page and were told that the study was designed to explore the change in pattern and purpose of social media use over time. Those who consented were asked to answer survey questions regarding their past and present social media use, excessive reassurance-seeking behavior, social comparison and feedback-seeking behavior, and the impact of pandemic on social media usage and loneliness. The average survey completion time was 10 minutes ($M = 7.2$ min, $SD = 150.83$). Upon completion of the survey, participants were taken to the debrief page, thanked for their participation, and were dismissed.

Results

The participants overall social media usage during adolescence (Time x Intensity_Sum) was calculated by multiplying the Social Media Use: Time scores and Social Media Use: Intensity scores for middle school and high school and adding them together. The higher score on this measure indicates the greater social media use during adolescence. The higher score on

Social Media and Feedback Seeking Behavior (SCFS) and Excessive Reassurance Seeking Behavior (ERS) indicates participants' greater engagement in these behaviors.

Table 1(see Appendix B) provides descriptive statistics for the average amount of time spent on social media and intensity of social media use during middle school and high school. The majority of participants indicated that they started using social media in middle school (69%); some started using it before 6th grade (17%) and some in high school (14%); there were no participants who did not use social media during their adolescence. The average amount of time spent on social media was greater in high school ($M = 7.38, SD = 5.04$) than the average amount of time spent in middle school ($M = 3.13, SD = 2.47$) and currently ($M = 3.49, SD = 2.66$). The intensity of social media use during middle school ($M = 29.5, SD = 10.1$) was almost identical to the intensity of social media use during high school ($M = 29.4, SD = 9.71$). The independent t-test showed no significant gender differences on any of the study variables, although females scored slightly higher on SCFS and social media usage in general than males.

Hypotheses Testing

In order to test the first hypothesis that social media usage in adolescence would be positively correlated with excessive reassurance seeking behavior and social comparison/feedback-seeking behavior in early adulthood, Pearson correlations were conducted on ERS score, SCFS score, social media usage in middle school, social media usage in high school, total social media usage in adolescence (sum of social media usage in middle school and high school), and current social media usage (see Appendix C: Table. 2). Total social media usage in adolescence and ERS score was significantly positively correlated, $r(94) = 0.54, p < .001$; total social media usage in adolescence and SCFS score was also significantly positively

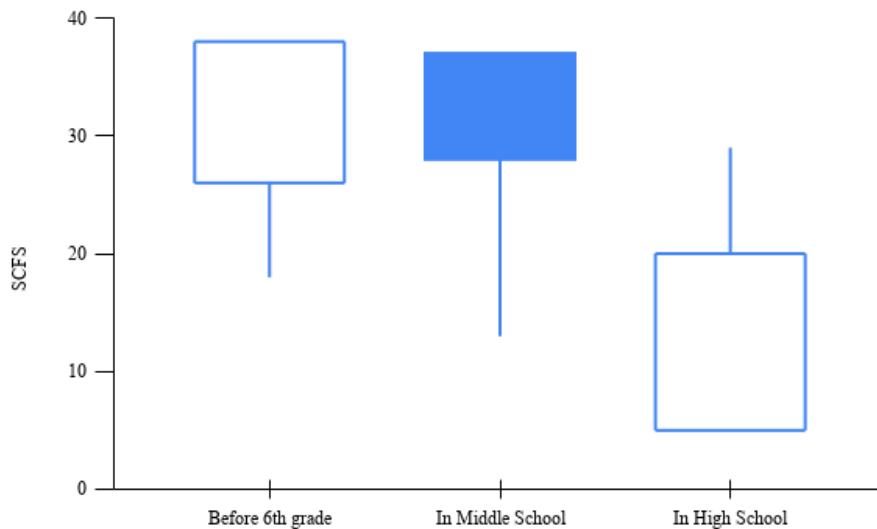
correlated, $r(94)=0.42, p <.001$. Social media usage in middle school was significantly positively correlated with ERS score, $r(94)= 0.472, p <.001$, and SCFS score, $r(94)= 0.048, p <.001$. Social media usage in high school was also significantly positively correlated with ERS score, $r(94)= 0.562, p <.001$, and SCFS score, $r(94)= 0.437, p <.001$. There was no significant correlation between current social media usage and any of the variables.

In order to test the second hypothesis that the earlier one starts to use social media, the greater excessive reassurance seeking behavior (ERS) and social comparison/feedback-seeking behavior (SCFS) would be in early adulthood, a one-way ANOVA was conducted for when the person started to use social media (before 6th grade, in middle school, in high school) and ERS and SCFS score (see Appendix D: Table 3).

An analysis of variance showed that the effect of when the person started to use social media was significant on SCFS, $F(2, 25.1) = 5.52, p = 0.01$, but not on ERS, $F(2, 26)=1.48, p= 0.247$. Turkey post hoc test revealed that the SCFS score was significantly higher for those who started using social media before 6th grade ($M = 23.5, SD=12.4$) and in middle school ($M=22.83, SD = 11.47$) than those who started using social media in high school ($M= 12.92, SD=9.71$) (See Figure 1 and Appendix E: Table 4). Those who began using social media earlier than high school were more likely to engage in social comparison types of behavior than those who began their social media use in high school.

Figure 1

Tukey Post-Hoc Test for SCFS



Discussion

The present study aims to address the gap in previous literatures by investigating the possible retrospective effects of social media use in adolescence on excessive reassurance seeking and social comparison and feedback seeking behavior in early adulthood. It was hypothesized that greater social media usage in adolescence as well as earlier starting age to use social media will lead to greater excessive reassurance seeking and social comparison and feedback seeking behavior in early adulthood.

In support of the first hypothesis, the study found that the social media usage in middle school and high school is positively correlated with excessive reassurance seeking and social comparison/feedback seeking behavior in early adulthood, while no correlation was found between these behaviors and current social media usage. In support of the second hypothesis, the starting age to use social media had a significant effect on social comparison/feedback seeking behavior (SCFS) in early adulthood. Those who started to use social media before 6th grade or in

middle school were more likely to engage in social comparison and feedback seeking behavior (SCFS) in early adulthood compared to those who started using social media in high school.

However, no significant difference between the starting age was found for excessive reassurance seeking (ERS), although the mean ERS score was higher for those who started using social media before 6th grade and in middle school compared to those who started using social media in high school.

Findings regarding the positive correlation between adolescence social media usage and excessive reassurance seeking and social comparison/feedback-seeking behavior in early adulthood can be understood in the context of selective self-presentation in social media. Social media fosters idealized self-presentations and provides abundant opportunities for upward comparison. Considering that adolescents spend more time browsing through others' social media feeds rather than updating their own feeds, they are highly likely to engage in upward social comparisons, which could lead to distorted perceptions of their peers and self (Vogel et al., 2014). Heavy social media users might also experience a discrepancy between their social media persona and what they are in real life, and this discrepancy might be intensified for adolescents as they are in a period of active identity construction. Thus, social media may cause disruption in adolescents' identity construction that may lead to excessive reassurance seeking and feedback seeking. These tendencies may continue into early adulthood and possibly further, until one has an established sense of self.

Although some interesting findings were obtained with the current work, there are a few limitations that must be addressed. First, there is an imbalance in demographic composition as the majority of participants were Asians and Caucasian/White as well as being overwhelmingly female. Although there were no gender differences obtained, it is possible that results may not

generalize to other groups. Participants were also primarily college students who may be from higher socio-economic backgrounds and therefore may have been introduced to social media at an earlier age than the border population.. Thus, the research result may lack generalizability to other groups. Secondly, the mean age of the participants was 20.4, which means that for many of the participants, the line between adolescence and early adulthood might not have been as distinct as the study wanted it to be. Future studies could look at a larger and more diverse sample of participants in terms of ethnicity, gender, and also age. Also, future studies should look at the directionality of this relationship using a longitudinal framework, by measuring the ERS, SCFS, and social media usage of the participants over the course of their adolescence years as well as in their early adulthood. Although this study lacked participants who did not use social media during their adolescence, future studies could recruit participants who did not use social media during their adolescence and compare them with those who used social media during adolescence.

In summary, the current study provides a critical exploration of the association between social media usage in adolescence and excessive reassurance and social comparison/reassurance seeking behavior in early adulthood. The amount of social media usage in adolescence was positively correlated with excessive reassurance seeking and social comparison/feedback seeking behavior in early adulthood, and those who started to use social media in their early adolescence (before 6th grade and in middle school) were more likely to engage in social comparison/feedback seeking behavior in early adulthood than those who started to use social media in their late adolescence (in high school). Considering the increasing dependence on social media for social interaction among adolescents and social comparison and interpersonal feedback seeking being a depressogenic interpersonal behavior (Borelli & Prinstein, 2006), the

current study adds valuable insight into how social media use in adolescence might partially explain the mental health crisis among Generation Z.

References

- Barry, C. T., Sidoti, C. L., Briggs, S. M., Reiter, S. R., & Lindsey, R. A. (2017). Adolescent social media use and mental health from adolescent and parent perspectives. *Journal of Adolescence*, 61, 1–11. <https://doi.org/10.1016/j.adolescence.2017.08.005>
- Borelli JL, Prinstein MJ. (2006) Reciprocal, longitudinal associations among adolescents' negative feedback-seeking, depressive symptoms, and peer relations. *Journal of Abnormal Child Psychology*. 2006;34:154–164.
- Chou, H.-T. G., & Edge, N. (2012). “They are happier and having better lives than I am”: The impact of using Facebook on perceptions of others' lives. *Cyberpsychology, Behavior, and Social Networking*, 15, 117–121. doi:10.1089/cyber.2011.0324
- Coyne, S. M., Rogers, A. A., Zurcher, J. D., Stockdale, L., & Booth, M. C. (2020). Does time spent using social media impact mental health?: An eight year longitudinal study. *Computers in Human Behavior*, 104, 106160. <https://doi.org/10.1016/j.chb.2019.106160>
- Duffy, M. E., Twenge, J. M., & Joiner, T. E. (2019). Trends in Mood and Anxiety Symptoms and Suicide-Related Outcomes Among U.S. Undergraduates, 2007–2018: Evidence From Two National Surveys. *Journal of Adolescent Health*, 65(5), 590–598. <https://doi.org/10.1016/j.jadohealth.2019.04.033>
- Haidt, J., & Allen, N. (2020). Scrutinizing the effects of digital technology on mental health. *Nature*, 578(7794), 226–227. <https://doi.org/10.1038/d41586-020-00296-x>
- Harter, S., Stocker, C., & Robinson, N. S. (1996). The perceived directionality of the link between approval and self-worth: The liabilities of a looking gladd self-orientation among young adolescents. *Journal of Research on Adolescence*, 6(3), 285–308.

- Herring, S. C., & Kapidzic, S. (2015). Teens, Gender, and Self-Presentation in Social Media. *International Encyclopedia of the Social & Behavioral Sciences*, 146–152.
<https://doi.org/10.1016/b978-0-08-097086-8.64108-9>
- Hunt, M. G., Marx, R., Lipson, C., & Young, J. (2018). No More FOMO: Limiting Social Media Decreases Loneliness and Depression. *Journal of Social and Clinical Psychology*, 37(10), 751–768. <https://doi.org/10.1521/jscp.2018.37.10.751>
- Li, J., Lau, J. T. F., Mo, P. K. H., Su, X., Wu, A. M. S., Tang, J., & Qin, Z. (2016). *Social Networking Activity Intensity Scale (SNAIS)* [Database record]. APA PsycTests.
<https://doi.org/10.1037/t67530-000>
- Manago AM, Graham MB, Greenfield PM, Salimkhan G. Self-presentation and gender on MySpace. *Journal of Applied Developmental Psychology*. 2008;29:446–458.
- Nesi, J., Choukas-Bradley, S., & Prinstein, M. J. (2018). Transformation of Adolescent Peer Relations in the Social Media Context: Part 1—A Theoretical Framework and Application to Dyadic Peer Relationships. *Clinical Child and Family Psychology Review*, 21(3), 267–294. <https://doi.org/10.1007/s10567-018-0261-x>
- Orben, A., Przybylski, A.K. (2019). The association between adolescent well-being and digital technology use. *Nat Hum Behav* 3, 173–182.
<https://doi.org/10.1038/s41562-018-0506-1>
- Rosenberg, J., & Egbert, N. (2011). Online impression management: Personality traits and concerns for secondary goals as predictors of self-presentation tactics on Facebook. *Journal of Computer-Mediated Communication*, 17, 1–18.
[doi:10.1111/j.1083-6101.2011.01560.x](https://doi.org/10.1111/j.1083-6101.2011.01560.x)

- Twenge, J. M., Blake, A. B., Haidt, J., & Campbell, W. K. (2020). Commentary: Screens, Teens, and Psychological Well-Being: Evidence From Three Time-Use-Diary Studies. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.00181>
- Twenge, J. M., Martin, G. N., & Spitzberg, B. H. (2019). Trends in U.S. Adolescents' media use, 1976–2016: The rise of digital media, the decline of TV, and the (near) demise of print. *Psychology of Popular Media Culture*, 8(4), 329–345. <https://doi.org/10.1037/ppm0000203>
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture*, 3(4), 206–222. <https://doi.org/10.1037/ppm0000047>

Appendix A

Social Media Use - Time Questionnaire

- For the purpose of this study, Middle school is defined as a 6th-8th grade, and High School is defined as 9th-12th grade.
1. How old were you when you got your first smartphone and your first laptop? Please indicate it below.
 - a. First smartphone:
 - b. First computer:
 2. When did you start using social media (Facebook, Instagram, Snapchat, Twitter, TikTok, or any other non-work/school-related social networking sites)?
 - a. Before 6th grade
 - b. In Middle School
 - c. In High School
 - d. In College
 - e. I have never used social media
 3. On a typical day, how much time did you spend on social media per day **before 6th grade** on...(this includes time spent just browsing through the feed)
 - a. I didn't use social media at this time.
 - b. Facebook
 - i. 0 (I didn't use this)
 - ii. 1 (1 hour or less)
 - iii. 2 (1-2 hours)
 - iv. 3 (2-3 hours)
 - v. 4 (4-5 hours)
 - vi. 5 (5 or more hours)
 - c. If you used any other social media, please indicate it below and how much time on average you spent on it per day.
 4. On a typical day, how much time did you spend on social media **during middle school** on...
 - a. I didn't use social media at this time.
 - b. Facebook
 - i. 0 (I didn't use this)
 - ii. 1 (1 hour or less)
 - iii. 2 (1-2 hours)
 - iv. 3 (2-3 hours)
 - v. 4 (4-5 hours)
 - vi. 5 (5 or more hours)

- c. Instagram (Same 0-5 scale as above)
 - d. Snapchat (Same 0-5 scale as above)
 - e. If you used any other social media, please indicate it below and on average how much time you spent on it per day.

5. On a typical day, how much time did you spend on social media during **high school on** ...
 - a. I didn't use social media at this time.
 - b. Facebook
 - i. 0 (I didn't/don't use this)
 - ii. 1 (1 hour or less)
 - iii. 2 (1-2 hours)
 - iv. 3 (2-3 hours)
 - v. 4 (4-5 hours)
 - vi. 5 (5 or more hours)
 - c. Instagram (Same 0-5 scale as above)
 - d. Snapchat (Same 0-5 scale as above)
 - e. If you use/used any other social media, please indicate it below and on average how much time you spend/spent on it per day.

6. On a typical day, how much time do you currently spend on social media?
 - a. I don't use social media currently.
 - b. Facebook
 - i. 0 (I don't use this)
 - ii. 1 (1 hour or less)
 - iii. 2 (1-2 hours)
 - iv. 3 (2-3 hours)
 - v. 4 (4-5 hours)
 - vi. 5 (5 or more hours)
 - c. Instagram (Same 0-5 scale as above)
 - d. Snapchat (Same 0-5 scale as above)
 - e. Tiktok (Same 0-5 scale as above)
 - f. If you use any other social media, please indicate it below and how much time you spend on it per day.

Appendix B**Table 1***Descriptive Statistics for Time and Intensity of Social Media Use during Adolescence*

	Time_Mid	Time_High	Time_Current	Intensity_Mid	Intensity_High
<i>N</i>	82	95	95	82	95
<i>Mean</i>	3.13	7.38	3.49	29.5	29.4
<i>Median</i>	3.00	6	3	29.0	29
<i>SD</i>	2.47	5.04	2.66	10.1	9.71

Appendix C

Table 2

Correlations for Social Media Usage (SMU) in Adolescence, ERS, and SCFS scores

Measure	1	2	3	4	5	6
1. SMU in Adolescence	—					
2. SMU in Middle School	0.959 ***	—				
3. SMU in High School	0.991 ***	0.913 ***	—			
4. SMU: Current	0.153	0.131	0.158	—		
5. ERS	0.543 ***	0.472 ***	0.562 ***	0.084	—	
6. SCFS	0.416 ***	0.348 ***	0.437 ***	0.087	0.568 ***	—

Note. H_a is positive correlation

Note. * p < .05, ** p < .01, *** p < .001, one-tailed

Appendix D

Table 3

Means, Standard deviations, and One-Way Analyses of Variance for SCFS and ERS according to the Starting Age to Use Social Media

Measure	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i> (2, 26)	<i>p</i>
SCFS					
Before 6th grade	16	23.50	12.45		
In Middle School	66	22.83	11.47	5.52	0.010**
In High School	13	12.92	9.71		
ERS					
Before 6th grade	16	9.69	9.58		
In Middle School	66	8.32	8.15	1.48	0.247
In High School	13	5.38	5.95		

Note. * $p < .05$, ** $p < .01$

Appendix E

Table 4
Tukey Post-Hoc Test for SCFS

		1	2	3
1. Before 6th grade	Mean difference	—	0.667	10.6 *
	df	—	92.0	92.0
	p-value	—	0.976	0.039
2. In Middle School	Mean difference		—	-9.910 *
	df		—	92.0
	p-value		—	0.014
3. In High School	Mean difference			—
	df			—
	p-value			—

Note. * $p < .05$, ** $p < .01$