

Social Media Use: Relation to Life Satisfaction, Narcissism, and Interpersonal Exploitativeness

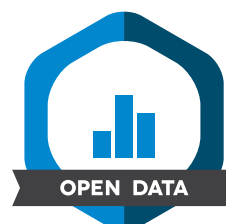
Abigail Hernandez and Holly M. Chalk*
Department of Psychology, McDaniel College

ABSTRACT. The present study sought to clarify contradictory literature about the relationship between social media use and life satisfaction by using data from the Emerging Adulthood Measured Across Multiple Institutions 2 (EAMMI2) collaboration. This study examined emerging adults' frequency of social media use for various reasons, and the relation to life satisfaction, narcissism, and interpersonal exploitativeness. As expected, life satisfaction was associated with social media use for maintaining connections but not for gaining information or creating new connections. Narcissism and exploitativeness were associated with greater social media use across all reasons. Life satisfaction correlated negatively with exploitativeness. Post hoc analyses revealed that life satisfaction was highest in participants whose primary reason for social media use was maintaining connections. This study added to existing literature by suggesting that reasons for social media, specifically using social media to maintain existing relationships, are relevant to predicting life satisfaction in relation to social media use.

Keywords: social media, emerging adults, narcissism, life satisfaction, exploitativeness

RESUMEN. Esta investigación busca aclarar la literatura contradictoria sobre la relación entre el uso de las redes sociales y la satisfacción con la vida a través del uso de los datos de la colaboración Emerging Adulthood Measured Across Multiple Institutions 2 (EAMMI2). Este estudio examina la frecuencia del uso de las redes sociales por parte de los adultos jóvenes por diversas razones y la relación con la satisfacción con la vida, el narcisismo y la explotación interpersonal. Como se anticipó, la satisfacción con la vida fue asociado con el uso de las redes sociales para mantener conexiones, pero no para obtener información o crear nuevas conexiones. El narcisismo y la explotación fueron asociados con un mayor uso de las redes sociales por todas las razones listadas. La satisfacción con la vida se correlacionó negativamente con la explotación. Los análisis post hoc revelaron que la satisfacción con la vida era más alta en los participantes cuya razón principal para el uso de las redes sociales era mantener las conexiones sociales. Este estudio se suma a la literatura existente al sugerir que las razones de las redes sociales, específicamente el uso de las redes sociales para mantener las relaciones existentes, son relevantes para predecir la satisfacción con la vida en relación con el uso de las redes sociales.

Palabras clave: redes sociales, adultos emergentes, narcisismo, satisfacción con la vida, explotación



Open Data and Open Materials badges earned for transparent research practices. Data and materials are available at <https://osf.io/te54b/>

SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Emerging adulthood refers to a period from age 18–29 in which young people have left adolescence but believe they have not completely entered adulthood (Arnett, 2000). Pew Research Center estimated that 90% of emerging adults have used social media with most users reporting engaging with social media daily (e.g., Facebook, Instagram, Twitter, Snapchat; Duggan et al., 2015; Perrin, 2015). In a survey of college students, nearly half demonstrated problematic social media use (Tanega & Downs, 2020). Problematic social media use is shown through mood changes, negative affect when social media is unavailable, and experiencing negative consequences in real-life because of extreme social media use (Bányai et al., 2017). Frequent social media use is also linked with loneliness, negative mood, anxiety, depression, lower well-being, and decreased life satisfaction (Horwood & Anglim, 2019; Lin et al., 2016; Wright et al., 2020). Additionally, associations were found between frequent social media use and cyber-bullying in college students (Potts & Weidler, 2015). Despite these noteworthy links between social media use and poor outcomes in emerging adults, some studies have shown a correlation with positive outcomes such as subjective happiness and life satisfaction (Asbury & Hall, 2013; Brailovskaia & Margraf, 2019). Orben and colleagues (2019) suggested that practically no significant direct relationship exists between social media and life satisfaction; however, they noted that examining nuances within the data may reveal additional effects.

Given the lack of consistent relationship between social media use and life satisfaction, it may be that certain aspects of social media use, beyond merely frequency, may predict favorable outcomes. Wright and colleagues (2020) suggested that using image-based social media (e.g., Snapchat) is linked with more negative outcomes compared to video-based (e.g., Youtube) or professional (e.g., LinkedIn) social media. Another study found no problematic outcomes from using social media to obtain information, but those who used social media to alleviate boredom experienced increased stress and anxiety (Stockdale & Coyne, 2020). Based on this research, it seems possible that the reasons for use, and not merely the platform, are predictive of psychosocial correlates of social media use.

The disparity between psychosocial outcomes of social media use may also correlate with attributes of the users themselves. Narcissism refers to a grandiose sense of self, feelings of entitlement, and

a dominant interpersonal style, and interpersonal exploitativeness refers to one's willingness to take unfair advantage of others (Brunell et al., 2013; Gentile et al., 2013). Emerging adults who were high in narcissism and interpersonal exploitativeness were more likely than peers to engage in cyber-bullying and self-destructive behavior in relation to social media use (Fan et al., 2019; Hawk et al., 2019). Furthermore, Singh and colleagues (2018) found that those who exhibited interpersonal exploitativeness reported higher selfie posting/sending frequency through self-interest motivation. Therefore, it may be that these personality attributes mediate the relationship between social media use and psychosocial outcomes.

Given conflicting findings about the psychosocial correlates of social media use, the primary objectives of this study were (a) to clarify conflicting evidence by examining how frequency of social media use relates to life satisfaction, (b) to extend the literature by examining how the relationship between social media use and life satisfaction differs across different reasons for use, and (c) to consider how narcissism and interpersonal exploitativeness relate to social media use and life satisfaction.

Social Media and Life Satisfaction

Life satisfaction refers to the personal evaluation of whether one's needs and desires are being met (Diener et al., 1985). Social media use may predict life satisfaction as some individuals report using social media to increase their sense of life satisfaction and self-esteem (Houghton et al., 2020). However, other findings have shown that frequent use of social media is associated with decreased self-esteem, life satisfaction, and well-being (Errasti et al., 2020; Hawi & Samaha, 2017). The association between social media use and poor well-being persists across several reasons for use. Those who reported using social media to compensate for boredom or to improve their image both endorsed low affective well-being associated with use (Hall et al., 2019; Sheldon & Bryant, 2016). Perhaps this was due to frequent use creating opportunities for social comparison, which is negatively associated with subjective well-being (Gerson et al., 2016).

Despite the consistent connection with negative well-being when users sought social media to improve self-image, one study found that heavy Facebook engagement is associated with higher life satisfaction in college students (Asbury & Hall, 2013). However, in this study heavy engagement included use for connection with others, rather

than merely consuming content. When emerging adults utilize social networking sites for maintaining interpersonal connections, there is a positive association with subjective happiness and life satisfaction (Brailovskaia & Margraf, 2019; Houghton et al., 2020). It is possible that the feelings of connection fostered by maintaining relationships through these platforms may lead to both high usage and positive well-being for those using social media in this way. Therefore, it seems that reasons for social media use may predict outcomes in relation to frequency of use. However, some studies have demonstrated that even social media for socialization is not related to psychological well-being or self-esteem (Lee et al., 2014). These inconsistencies in findings suggest the need for further investigation of the relationship between social media use and life satisfaction, particularly regarding use for forming and maintaining social connections.

Social Media and Narcissism

Those high in narcissism report greater life satisfaction and self-esteem compared to peers (e.g., Rohmann et al., 2019; Żemojtel-Piotrowska et al., 2017). Similarly, Miller and colleagues (2019) found that individuals who present with narcissistic superiority, the belief that one possesses more competence and intelligence than others, are likely to report higher life satisfaction. Considering third factors, like that of social media use, could further explain this relationship.

Individuals high in narcissism report devoting a great amount of time and energy to social media engagement, including posting selfies and using comments/likes (Martin et al., 2019; Singh et al., 2018). Users high in narcissism report perceiving social media use as beneficial (Arpaci et al., 2018; Lee & Sung, 2016). These users report frequent social media use when self-esteem is low, suggesting they may utilize social networking sites in an attempt to invoke greater self-worth (March & McBean, 2018). Additionally, emerging adults with high levels of narcissism report using social media to feed their ego, prevent negative self-esteem, and portray themselves as “cool” (Andreassen et al., 2017; Sheldon & Bryant, 2016). Twitter users who are high narcissism report greater numbers of tweets regarding personal achievements to seek attention, though they report also being motivated by a desire for social connection (Marshall et al., 2018). There is evidence that emerging adults who are high in narcissism use social networking sites in an effort to boost their grandiosity and avoid negative self-perception.

Although those high in narcissism view their social media use positively, this use is associated with negative behavioral and emotional outcomes. Overall, emerging adults who are high in narcissism are likely to participate in cyberbullying perpetration and victimization (Fan et al., 2019). Additionally, those high in narcissism who report greater attention-seeking social media use to compensate for social rejection are also likely to report self-destructive behaviors (Hawk et al., 2019).

Despite the aforementioned evidence, some studies failed to find any relationship between social media postings and narcissism (e.g., Frederick & Tianxin, 2019). Frederick and colleagues (2019) utilized an adult sample with a mean age of 30, which may explain why the findings are inconsistent with emerging adult samples. Recent studies have found no association between narcissism and selfie-posting, hypothesizing that frequency of selfie posts may no longer be associated with narcissism due to the growing prevalence of this behavior in emerging adults (Barry et al., 2019). This suggests that behaviors which might have been considered attention-seeking in the past may now be normalized, indicating that the relationship between narcissism and social media may change over time. The present study sought to clarify the relationship between narcissism and social media use by examining narcissistic users' reasons for use, as well as the link with life satisfaction.

Narcissism, Interpersonal Exploitativeness, and Social Media

Narcissism can be conceptualized using three different subtypes: grandiose exhibitionism, leadership/authority, and entitlement/exploitativeness, which refer to self-absorption, self-perceived ability, and one's sense of deserving respect and willingness to manipulate others, respectively (Ackerman et al., 2011). Individuals with high narcissism are likely to engage in interpersonal exploitative behaviors, such as taking advantage of others (Brunell et al., 2013). Furthermore, emerging adults who are high in narcissism and exploitativeness are more likely to partake in risky behaviors, such as substance abuse, illegal behaviors, and gambling which have been linked with negative physical and mental health outcomes (Buelow & Brunell, 2014).

Social media use may create a space for narcissistic users to engage in exploitative behaviors. Research has suggested that individuals with high levels of narcissism and interpersonal exploitativeness use social media to seek attention, which can

SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

be problematic when their attention needs are not met. Emerging adults with high narcissistic exploitativeness are likely to want to be perceived as popular on social media platforms and to avenge those who are not responsive to their desired attention (Zell & Moeller, 2017). This is particularly problematic because emerging adults with high narcissism and exploitativeness are less likely to receive comments and likes from others on their status updates (Choi et al., 2015). These findings suggest that the lack of responsiveness may relate to greater exploitativeness from narcissistic users. Consistent with this hypothesis, those high in narcissism report greater willingness to benefit at others' expense when they do not receive the desired attention on self-promoting posts, demonstrating similar behavioral patterns to those with exploitativeness (Carpenter, 2012). Those with high exploitativeness are likely to engage in cyberbullying and aggression toward others as they report considering it acceptable (Ang et al., 2011).

Although narcissistic exploitativeness has been associated with negative social media behaviors, some studies have found no relationship between the two. Surprisingly, exploitativeness was unrelated to frequency of posting selfies; however, other narcissistic traits like leadership/authority and grandiose exhibitionism were related to frequent selfie posting (Weiser, 2015). Contrary to other research, some researchers found no association between entitlement/exploitativeness and self-promoting behaviors on social media platforms (Moon et al., 2016). It seems that narcissistic exploitativeness is associated with negative correlates of social media use, whereas exploitativeness alone is not. The present study sought to clarify these conflicting findings by examining exploitativeness separately from narcissism.

Present Study

This investigation adds to existing literature by clarifying conflicting evidence about the relationship between social media use and life satisfaction. This study also explored whether that relationship differs based on reasons for social media use or personality characteristics such as narcissism and exploitativeness. Consistent with Brailovskaia & Margarf (2019), we hypothesized that social media use for maintaining existing connections and creating new connections would be associated with higher life satisfaction. However, we expected no relationship between life satisfaction and social media use for seeking information. Because previous research has suggested that users high in narcissism

and interpersonal exploitativeness use social media to improve self-image, we expected that narcissism and exploitativeness would be associated with greater social media use for creating and maintaining connections, but not for gaining information (March & McBean, 2018). Consistent with Gentile and colleagues (2013), we expected that narcissism would be positively correlated with interpersonal exploitativeness; however, we chose to include these variables separately because we expected there might be differences in the magnitude of relationships for each variable. Lastly, we expected that narcissism and exploitativeness would mediate the relationship between social media use and life satisfaction.

Method

Participants and Procedure

Data was collected through the Emerging Adulthood Measured Across Multiple Institutions 2 (EAMMI2) collaboration, a multicampus project including 32 institutions (Grahe et al., 2018). Each recruitment site received approval from the appropriate institutional review board. Data collection methods included recruiting a convenience sample via various methods including university classes, university participant pools, honor society chapters, email, and social media.

For the present study, participants included emerging adults ages 18 to 29 ($N = 2,016$), who completed the online questionnaires via Qualtrics. Respondents whose ages were not in this range were excluded from analysis. The mean age was 20.26 years ($SD = 2.28$). Most of the sample (73.6%, $n = 1,483$) identified as women, with 25% identifying as men, and 1.4% indicating another gender identity. Most of the sample (94.1%, $n = 1,897$) had attended some college, and most (84.8%, $n = 1,710$) were currently in college. Most participants identified as White/European American (60.4% $n = 1,218$). Ethnic identification of the remaining participants included 10.5% Hispanic/Latino ($n = 212$), 10% multicultural ($n = 201$), 8.1% Black/African American ($n = 163$), 6.8% Asian/Pacific Islander ($n = 137$), and 0.4% Native American ($n = 8$). A full description of the sample, measures, and data gathering procedures is included in the Open Science Framework (OSF) project page (<https://osf.io/te54b/>).

Materials

The following measures from the EAMMI2 survey were used in the data analysis for this project. Participants completed the Social Media Use Scale, an 11-item self-report questionnaire assessing the

frequency of social media use for various reasons (Yang & Brown, 2013). The three subscales include Making New Connections, Maintaining Existing Connections, and Gaining/Sharing Information. Respondents used a 4-point Likert-type scale from 1 (*almost never*) to 4 (*very often*) to rate their frequency of social media use for different purposes. The three subscales include Making New Connections (5 items; $\alpha = .82$), Maintaining Existing Connections (4 items; $\alpha = .80$), and Gaining/Sharing Information (2 items; $\alpha = .75$). The three subscales demonstrated acceptable internal consistency reliability. Total social media use frequency was calculated by summing all items, and this yielded acceptable reliability as well (11 items; $\alpha = .87$).

Life Satisfaction Measure

Participants completed the Satisfaction with Life Scale to assess life satisfaction (Diener, 1985). Participants used a 7-point Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*) to indicate their agreement with five statements about life satisfaction (e.g., "I am satisfied with my life"). The scale demonstrated acceptable interitem reliability (5 items; $\alpha = .87$).

Narcissistic Personality Measure

Participants completed the Narcissistic Personality Inventory-13 to assess narcissism (Gentile et al., 2013). Participants responded to 13 forced-choice items, such as, "I find it easy to manipulate people." The full scale ($\alpha = .66$) yielded marginal internal consistency reliability.

Interpersonal Exploitativeness Measure

Lastly, participants completed the 3-item Interpersonal Exploitativeness Scale, which assesses one's willingness to take unfair advantage of others (Brunell et al., 2013). Participants used a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*) to rate items such as, "Using other people doesn't bother me very much." The scale demonstrated acceptable interitem reliability (3 items; $\alpha = .81$).

Results

Pearson's correlations between life satisfaction, total social media use, reasons for use, narcissism, and interpersonal exploitativeness are presented in Table 1. Given the large sample size, correlations were considered significant at the $p < .001$ level. Total frequency of social media use was related to greater life satisfaction. As expected, life satisfaction

was associated with frequent social media use for maintaining existing connections, and it was not significantly associated with using social media to seek or share information. Contrary to expectations, life satisfaction was not positively associated with using social media to create new connections.

Consistent with hypotheses, narcissism and interpersonal exploitativeness were associated with using social media to maintain existing connections and to create new connections (see Table 1). Unexpectedly, those high in narcissism and interpersonal exploitativeness also used social media frequently to obtain or share information. As expected, interpersonal exploitativeness was positively correlated with narcissism. Life satisfaction was not significantly correlated with narcissism and was negatively correlated with exploitativeness.

TABLE 1

Descriptive Statistics and Bivariate Correlations

Measure	M	SD	2	3	4	5	6	7
1. Life Satisfaction	4.45	1.37	.09*	.12*	.05	.03	.06	-.12*
2. Total Social Media Use	34.49	8.56	–	–	–	–	.15*	.11*
3. Social Media for Existing Connections	3.09	0.86		–	.58*	.43*	.11*	.08*
4. Social Media for New Connections	3.08	0.97			–	.50*	.15*	.12*
5. Social Media for Information	3.37	1.04				–	.13*	.08*
6. Narcissism	3.81	2.56					–	.29*
7. Exploitativeness	2.38	1.36						–

Note. Frequency of social media use for maintaining existing connections, making new connections, and gaining/sharing information were assessed by the Social Media Use scale (Yang & Brown, 2013). Total social media use represents the total score for this scale. Correlations between the subscales and total score were not included, because they represent overlapping data.

* $p < .001$.

TABLE 2

ANOVA Based on Primary Reason for Social Media Use

	F	η^2	Primary Reason for Social Media Use					
			Maintain Connection (n = 449)		New Connection (n = 410)		Information (n = 818)	
			M	SD	M	SD	M	SD
Life Satisfaction	3.78*	.01	4.56	1.26	4.53	1.35	4.36	1.41
Narcissism	4.67*	.01	3.46	2.41	3.92	2.59	3.87	2.56
Exploitativeness	3.41*	.01	2.23	1.28	2.45	1.34	2.39	1.35

Note. Reasons for social media use for maintaining existing connections, making new connections, and gaining/sharing information were assessed by the Social Media Use Scale (Yang & Brown, 2013). Life satisfaction was measured with the Satisfaction With Life Scale (Diener, 1985). Narcissism was assessed with the Narcissistic Personal Inventory-13 (Gentile et al., 2013). Exploitativeness was measured by the Interpersonal Exploitativeness Scale (Brunell et al., 2013).

* $p < .05$.

SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

We conducted parallel mediation analysis to assess whether the relationship between social media use and life satisfaction is mediated by narcissism and exploitativeness. We confirmed that assumptions of linearity, homoscedasticity, normality of estimation error, and independence of observations were not violated (Hayes, 2017). Across all three reasons for social media use, the indirect effects of social media use on life satisfaction through both narcissism and exploitativeness were not significantly different than zero (-0.012 to 0.007 for maintaining connections, -0.015 to 0.008 for new connections, and -0.008 to 0.011 for information). This indicates that narcissism and exploitativeness do not mediate the relationship between social media use and life satisfaction.

Additionally, we conducted post hoc analyses to examine whether participants' primary reason for social media use was related to life satisfaction, narcissism, or exploitativeness. Participants' primary reason for social media use was coded based on the highest item-average of the three social media subscales: Maintaining Connections, Creating New Connections, or Gaining/Sharing Information. Most participants (40.6%) indicated gaining/sharing information as the primary reason for use, with 22.3% participants using social media most often to maintain existing connections and 20.3% using it most often to create new connections (see Table 2). If a participant did not score higher in any single subscale (e.g., the two or three highest subscale scores were equal), no data was entered as their primary reason for social media use ($n = 339$, 16.8%). A one-way analysis of variance was conducted to examine differences based on primary reason for social media use. Consistent with expectations, life satisfaction was higher in those who used social media to maintain connections compared to those who used social media for information (see Table 2). Narcissism was higher in those who used social media for making new connections compared to those who used it to maintain existing connections or gain/share information. Lastly, exploitativeness was greater in those who used social media primarily for making new connections compared to those who used social media for maintaining existing connection.

Discussion

Overall, frequency of social media use was related to greater life satisfaction in this study, conflicting with recent work suggesting a positive association between the two variables (e.g., Errasti et al., 2020).

However, it is important to note that the correlation was modest, suggesting that there is not a robust direct relationship between these variables. Given the contradictions in the literature, we hypothesized that life satisfaction may be correlated with some types of social media use but not others. As hypothesized, frequent use of social media to maintain existing connections was associated with higher life satisfaction, whereas use to gain/share information was not. Surprisingly, frequent social media use to form new connections was also not linked with life satisfaction. These disparate correlations suggest that the psychosocial correlates of social media use may differ depending on the young adults' reasons for use, with use to maintain existing connections having the only significant correlation with life satisfaction in this study. This theory is consistent with other recent studies proposing that social media use for maintaining social connections is associated with positive psychosocial outcomes (Brailovskaia & Margraf, 2019; Houghton et al., 2020).

Narcissism and interpersonal exploitativeness were associated with greater social media use across all reasons for use. It was expected that narcissism and exploitativeness would be associated with higher use to maintain existing connections and make new connections, because previous research has indicated greater involvement in social media sites for these groups. We did not anticipate differences in gaining/sharing information, as we expected that information seeking would be a universal online behavior. However, it may be that those high in narcissism and exploitativeness share content online frequently, due to their sense of grandiosity and desire to impact others. In the future, researchers should examine information sharing specifically in narcissistic and exploitative users. Analysis indicated that narcissism and exploitativeness do not significantly mediate the relationship between life satisfaction and the frequency of social media use for making new connections, maintaining connections, or gaining/sharing information. Although narcissism and exploitativeness do not impact the relationship between life satisfaction and frequency of social media use, it may be that these personality variables relate to the nature of social media interactions. Previous research has suggested that those high in narcissism and exploitativeness are more likely to engage in cyberbullying and aggression online, which have been linked to decreased life satisfaction (Ang et al., 2011; Fan et al., 2019; Leung et al., 2018). Future research should utilize social media

measures that assess the nature of social media use among narcissistic and exploitative young adults.

Independent from the social media component, narcissism and interpersonal exploitativeness were positively related. As implied by previous literature, individuals high in narcissism are likely to engage in manipulation and benefit at the cost of others (Ackerman et al., 2011). Consistent with existing literature, life satisfaction was positively associated with higher narcissism. As Miller and colleagues (2019) suggested, experiencing a sense of grandiosity, especially by emerging adults with high narcissism, could be linked to the perception of satisfaction with life. Life satisfaction was also linked with lower exploitativeness. In turn, engaging in exploitative behavior, particularly online, may be related to experiencing negative relationship consequences that could adversely impact their life satisfaction.

Our post hoc analysis of users' primary reason for use yielded interesting results, although the effect sizes were very low. The highest levels of life satisfaction were found in emerging adults who use social media primarily to maintain connections, which is consistent with our correlational results. This further supports the notion that one's reasons for use, and not overall frequency, may be relevant in predicting psychosocial outcomes of social media use. This could be related to the conflicting findings about the correlates of frequent social media use across various studies, as many did not assess reasons for use. Future studies examining social media should collect more nuanced data about the type and reasons for use, as these components seem relevant in predicting outcomes.

Due to the large sample size from many universities, our findings may offer generalizable implications for the population of interest. Clinicians working with young adults may consider assessing reasons for social media use when screening for problematic social media behavior. It may be that encouraging clients to use social media to strengthen relationships might help buffer against the potentially negative impacts of use. In turn, this could potentially benefit emerging adults who are college-educated with establishing healthy social relationships with their peers as it is pertinent to this specific age group. This research has implications for emerging adults who are high in interpersonal exploitativeness as they may be at risk for lower life satisfaction. When treating these individuals, it is important to explore different approaches for fulfilling attention and approval needs rather

than depending on social media. For example, clinicians could explore interventions such as The Supporting Our Valued Adolescents (SOVA) web-based intervention that targets approval and esteem in adolescents and young adults with depression or anxiety (Windler et al., 2019). Future research could focus on creating such interventions for this population as they may help teach healthy social media behaviors while also meeting attention and approval needs.

Limitations and Future Research

Several limitations of the present study should be noted. Consistent with criticisms of other emerging adulthood studies, the current sample included primarily college-educated participants. It is therefore important to interpret these findings as applicable to college-educated emerging adults, as social media exposure during college could relate to use patterns in this group. It is important to note that the NPI-13 only yielded marginal internal consistency reliability in this study, which may be due to the few items on the scale or the discrepancies between the three subscales measured (grandiose exhibitionism, leadership/authority, and entitlement/exploitativeness). Due to the collaborative nature of the EAMMI2, assessments were chosen to maximize efficiency; however, considering that there are multiple subscales within this measure, subsequent studies may yield greater reliability using an extensive measure of narcissism.

Although some interesting patterns emerged in our examination of users' primary reasons for use, the effect sizes indicate that the finding is not practically significant. However, the present study assessed only three types of use. Several previously reported reasons for social media use were not assessed in this study, including self-esteem maintenance, combatting boredom, and entertainment (Hall et al., 2019; Horwood & Anglim, 2019; Houghton et al., 2020; Stockdale & Coyne, 2020). The correlational findings suggest that continuing to explore reasons for social media use may help clarify contradictions about outcomes in the literature. Furthermore, the findings regarding social media use and life satisfaction are correlational, therefore no causal conclusions can be drawn. Longitudinal research may help predict the long-term effects of different types of social media use. Based on the current results, it seems likely that using social media for different reasons may be associated with different outcomes. Investigating which reasons for social media use predict negative outcomes could be beneficial in

SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

preventing harmful use, as clinicians could screen for types of use linked to problematic outcomes.

Researchers should continue to clarify the relationship between narcissism and life satisfaction, as some previous findings contradict results of this study (e.g., Brailovskaia & Margraf, 2019). Investigations might include a qualitative analysis of reasons for life satisfaction as this study was limited to quantitative measures. Additionally, it may be that life satisfaction is negatively related to certain types of narcissism versus others. For instance, researchers have found a positive relationship between life satisfaction and grandiose narcissism, but a negative relationship with vulnerable narcissism, which is characterized by anxiety, defensiveness, hyper-sensitivity, and dependence on others (Rohmann et al., 2019). Future research could examine various types of narcissism to clarify the relationship with social media.

Researchers should also consider that life satisfaction is defined differently from those of diverse cultural backgrounds. Most of our sample consisted of White and college-educated participants, which is limiting as reasons for life satisfaction may be based on meeting certain cultural expectations. Because reasons for high life satisfaction may differ across culture, conducting qualitative interviews about life satisfaction may provide further insight on the positive correlation found between life satisfaction and social media usage. Longitudinal studies may also help clarify whether mediating factors explain the relationship between narcissism and life satisfaction.

Conclusion

This study adds to the literature by suggesting that frequent social media use for maintaining connections predicts greater life satisfaction in emerging adults, whereas use for creating connections or gaining/sharing information does not. Past research has suggested that problematic behaviors are likely to emerge from frequent usage, but the present study suggests that it may depend on reasons for usage. Practitioners working with emerging adults should continue to assess reasons for social media use, as they correlate with expected outcomes for use. Given the prevalence of social media use in emerging adults, researchers should continue to investigate ways in which social media use can be associated with positive outcomes.

References

- Ackerman, A. R., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. (2011). What does the narcissistic personality inventory really

- measure? *Assessment*, 18(1), 67–87. <http://doi.org/10.1177/107319110382845>
- Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addictive Behaviors*, 64, 287–293. <https://doi.org/10.1016/j.addbeh.2016.03.006>
- Ang, R. P., Tan, K. A., & Talib Mansor, A. (2011). Normative beliefs about aggression as a mediator of narcissistic exploitativeness and cyberbullying. *Journal of Interpersonal Violence*, 26(13), 2619–2634. <https://doi.org/10.1177/0886260510388286>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>
- Arpaci, I., Yalçın, S. B., Baloglu, M., & Kesici, (2018). The moderating effect of gender in the relationship between narcissism and selfie-posting behavior. *Personality & Individual Differences*, 134, 71–74. <https://doi.org/10.1016/j.paid.2018.06.006>
- Asbury, T., & Hall, S. (2013). Facebook as a mechanism for social support and mental health wellness. *Psi Chi Journal of Psychological Research*, 18(3), 124–129. <https://doi.org/10.24839/2164-8204.JN18.3.124>
- Bányai, F., Zsila, Á., Király, O., Maraz, A., Elekes, Z., Griffiths, M. D., Andreassen, C. S., & Demetrovics, Z. (2017). Problematic social media use: Results from a large-scale nationally representative adolescent sample. *PloS one*, 12(1), 1–13. <https://doi.org/10.1371/journal.pone.0169839>
- Barry, C. T., Reiter, S. R., Anderson, A. C., Schoessler, M. L., & Sidoti, C. L. (2019). 'Let me take another selfie': Further examination of the relation between narcissism, self-perception, and Instagram posts. *Psychology of Popular Media Culture*, 8(1), 22–33. <https://doi.org/10.1037/ppm0000155>
- Brailovskaia, J., & Margraf, J. (2019). I present myself and have a lot of Facebook-friends—Am I a happy narcissist? *Personality and Individual Differences*, 148, 11–16. <https://doi.org/10.1016/j.paid.2019.05.022>
- Brunell, A. B., Davis, M. S., Schely, D. R., Eng, A. L., van Dulmen, M. H. M., Wester, K. L., & Flannery, D. J. (2013). A new measure of interpersonal exploitativeness. *Frontiers in Psychology*, 4. <https://doi.org/10.3389/fpsyg.2013.00299>
- Buelow, M. T., & Brunell, A. B. (2014). Facets of grandiose narcissism predict involvement in health-risk behaviors. *Personality and Individual Differences*, 69, 193–198. <https://doi.org/10.1016/j.paid.2014.05.031>
- Carpenter, C. J. (2012). Narcissism on Facebook: Self-promotional and anti-social behavior. *Personality & Individual Differences*, 52(4), 482–486. <https://doi.org/10.1016/j.paid.2011.11.011>
- Choi, M., Panek, E. T., Nardis, Y., & Toma, C. L. (2015). When social media isn't social: Friends' responsiveness to narcissists on Facebook. *Personality and Individual Differences*, 77, 209–214. <https://doi.org/10.1016/j.paid.2014.12.056>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13
- Duggan, M., Ellison, N. B., Lampe, C., Lenhart, A., & Madden, M. (2015). *Social media update 2014*. Pew Research Center. <https://www.pewresearch.org/internet/2015/01/09/social-media-update-2014/>
- Errasti, J., Amigo, I., & Villadangos, M. (2017). Emotional uses of Facebook and Twitter: Its relation with empathy, narcissism, and self-esteem in adolescence. *Psychological Reports*, 120(6), 997–1018. <https://doi.org/10.1177/0033294117713496>
- Fan, C., Chu, X., Zhang, M., & Zhou, Z. (2019). Are narcissists more likely to be involved in cyberbullying? Examining the mediating role of self-esteem. *Journal of Interpersonal Violence*, 34(15), 3127–3150. <https://doi.org/10.1177/0886260516666531>
- Frederick, C., & Tianxin Z. (2019). Narcissism and social media usage: Is there no longer a relationship? *Journal of Articles in Support of the Null Hypothesis*, 16(1), 23–32. www.jasnh.com/pdf/Vol16-No1-article3.pdf
- Gentile, B., Miller, J. D., Hoffman, B. J., Reidy, D. E., Zeichner, A., & Campbell, W. K. (2013). A test of two brief measures of grandiose narcissism: The Narcissistic Personality Inventory-13 and the Narcissistic Personality Inventory-16. *Psychological Assessment*, 25(4), 1120–1136. <https://doi.org/10.1037/a0033192>
- Gerson, J., Plagnol, A. C., & Corr, P. J. (2016). Subjective well-being and social media use: Do personality traits moderate the impact of social comparison on Facebook? *Computers in Human Behavior*, 63, 813–822. <https://doi.org/10.1016/j.chb.2016.06.023>
- Grahe, J. E., Chalk, H. M., Cramblet Alvarez, L. D., Faas, C. S., Hermann, A. D., & McFall, J. P. (2018). Emerging Adulthood Measured at Multiple Institutions 2: The Data. *Journal of Open Psychology Data*, 6(1), 4. <https://doi.org/10.5334/jopd.38>

SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

- Hall, J. A., Johnson, R. M., & Ross, E. M. (2019). Where does the time go? An experimental test of what social media displaces and displaced activities' associations with affective well-being and quality of day. *New Media & Society*, 21(3), 674–692. <https://doi.org/10.1177/1461444818804775>
- Hawi, N. S., & Samaha, M. (2017). The relations among social media addiction, self-esteem, and life satisfaction in university students. *Social Science Computer Review*, 35(5), 576–586. <https://doi.org/10.1177%2F0894439316660340>
- Hawk, S. T., van den Eijnden, R. J. J. M., van Lissa, C. J., & ter Bogt, T. F. M. (2019). Narcissistic adolescents' attention-seeking following social rejection: Links with social media disclosure, problematic social media use, and smartphone stress. *Computers in Human Behavior*, 92, 65–75. <https://doi.org/10.1016/j.chb.2018.10.032>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications
- Horwood, S., & Anglim, J. (2019). Problematic smartphone usage and subjective and psychological well-being. *Computers in Human Behavior*, 97, 44–50. <https://doi.org/10.1016/j.chb.2019.02.028>
- Houghton, D., Pressey, A., & Istanbuloglu, D. (2020). Who needs social networking? An empirical enquiry into the capability of Facebook to meet human needs and satisfaction with life. *Computers in Human Behavior*, 104, 106153. <https://doi.org/10.1016/j.chb.2019.09.029>
- Lee, H. R., Lee, H. E., Choi, J., Kim, J. H., & Han, H. L. (2014). Social media use, body image, and psychological well-being: A cross-cultural comparison of Korea and the United States. *Journal of Health Communication*, 19(12), 1343–1358. <https://doi.org/10.1080/10810730.2014.904022>
- Lee, J. A., & Sung, Y. (2016). Hide-and-seek: Narcissism and 'selfie'-related behavior. *CyberPsychology, Behavior, & Social Networking*, 19(5), 347–351. <https://doi.org/10.1089/cyber.2015.0486>
- Leung, A. N. M., Wong, N., & Farver, J. M. (2018). Cyberbullying in Hong Kong Chinese students: Life satisfaction, and the moderating role of friendship qualities on cyberbullying victimization and perpetration. *Personality and Individual Differences*, 133, 7–12. <https://doi.org/10.1016/j.paid.2017.07.016>
- Lin, L. yi, Sidani, J. E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., Hoffman, B. L., Giles, L. M., & Primack, B. A. (2016). Association between social media use and depression among U.S. young adults. *Depression and Anxiety*, 33(4), 323–331. <https://doi.org/10.1002/da.22466>
- March, E., & McBean, T. (2018). New evidence shows self-esteem moderates the relationship between narcissism and selfies. *Personality and Individual Differences*, 130, 107–111. <https://doi.org/10.1016/j.paid.2018.03.053>
- Marshall, T. C., Ferenczi, N., Lefringhausen, K., Hill, S., & Deng, J. (2018). Intellectual, narcissistic, or Machiavellian? How Twitter users differ from Facebook-only users, why they use Twitter, and what they tweet about. *Psychology of Popular Media*, 9(1), 14–30. <https://doi.org/10.1037/ppm0000209>
- Martin, B. A. S., Jin, H. S., O'Connor, P. J., & Hughes, C. (2019). The relationship between narcissism and consumption behaviors: A comparison of measures. *Personality and Individual Differences*, 141, 196–199. <https://doi.org/10.1016/j.paid.2019.01.014>
- Miller, B. K., Zivnuska, S., & Kacmar, K. M. (2019). Self-perception and life satisfaction. *Personality and Individual Differences*, 139, 321–325. <https://doi.org/10.1016/j.paid.2018.12.003>
- Moon, J. H., Lee, E., Lee, J.-A., Choi, T. R., & Sung, Y. (2016). The role of narcissism in self-promotion on Instagram. *Personality & Individual Differences*, 101, 22–25. <https://doi.org/10.1016/j.paid.2016.05.042>
- Orben, A., Dienlin, T., & Przybylski, A. K. (2019). Social media's enduring effect on adolescent life satisfaction. *Proceedings of the National Academy of Sciences of the United States of America*, 116(21), 10226–10228. <https://doi.org/10.1073/pnas.1902058116>
- Perrin, A. (2015). *Social networking usage: 2005–2015*. Pew Research Center. <http://www.pewinternet.org/2015/10/08/2015/Social-Networking-Usage-2005-2015/>
- Potts, S. K., & Weidler, D. J. (2015). The virtual destruction of self-compassion: Cyberbullying's damage to young adults. *Psi Chi Journal of Psychological Research*, 20(4), 217–227. <https://doi.org/10.24839/2164-8204.JN20.4.217>
- Rohmann, E., Hanke, S., & Bierhoff, H. W. (2019). Grandiose and vulnerable narcissism in relation to life satisfaction, self-esteem, and self-construal. *Journal of Individual Differences*, 40(4), 194–203. <https://doi.org/10.1027/1614-0001/a000292>
- Sheldon, P., & Bryant, K. (2016). Instagram: Motives for its use and relationship to narcissism and contextual age. *Computers in Human Behavior*, 58, 89–97. <https://doi.org/10.1016/j.chb.2015.12.059>
- Singh, S., Farley, S. D., & Donahue, J. J. (2018). Grandiosity on display: Social media behaviors and dimensions of narcissism. *Personality and Individual Differences*, 134, 308–313. <https://doi.org/10.1016/j.paid.2018.06.039>
- Stockdale, L. A., & Coyne, S. M. (2020). Bored and online: Reasons for using social media, problematic social networking site use, and behavioral outcomes across the transition from adolescence to emerging adulthood. *Journal of Adolescence*, 79, 173–183. <https://doi.org/10.1016/j.adolescence.2020.01.010>
- Tanega, C., & Downs, A. (2020). Addictive technology: Prevalence and potential implications of problematic social media use. *Psi Chi Journal of Psychological Research*, 25(2), 151–161. <https://doi.org/10.24839/2325-7342.jn25.2.151>
- Weiser, E. B. (2015). #Me: Narcissism and its facets as predictors of selfie-posting frequency. *Personality and Individual Differences*, 86, 477–481. <https://doi.org/10.1016/j.paid.2015.07.007>
- Windler, C., Clair, M., Long, C., Boyle, L., & Radovic, A. (2019). Role of moderators on engagement of adolescents with depression or anxiety in a social media intervention: Content analysis of web-based interactions. *Journal of Medical Internet Research*, 6(9), e13467. <https://doi.org/10.2196/13467>
- Wright, R. R., Schaeffer, C., Mullins, R., Evans, A., & Cast, L. (2020). Comparison of student health and well-being profiles and social media use. *Psi Chi Journal of Psychological Research*, 25(1), 14–21. <https://doi.org/10.24839/2325-7342.JN25.1.14>
- Yang, C., & Brown, B. B. (2013). Motives for using Facebook, patterns of Facebook activities, and late adolescents' social adjustment to college. *Journal of Youth and Adolescence*, 42(3), 403–416. <https://doi.org/10.1007/s10964-012-9836-x>
- Zell, A. L., & Moeller, L. (2017). Narcissism and 'likes': Entitlement/exploitativeness predicts both desire for and dissatisfaction with responses on Facebook. *Personality and Individual Differences*, 110, 70–73. <https://doi.org/10.1016/j.paid.2017.01.029>
- Żemojtel-Piotrowska, M. A., Piotrowski, J. P., & Maltby, J. (2017). Agentic and communal narcissism and satisfaction with life: The mediating role of psychological entitlement and self-esteem. *International Journal of Psychology*, 52(5), 420–424. <https://doi.org/10.1002/ijop.12245>

Author Note. Abigail Hernandez  <https://orcid.org/0000-0002-9494-3864>

Holly M. Chalk  <https://orcid.org/0000-0001-5653-4544>

Materials and data for this study can be accessed at <https://osf.io/te54b/>. We have no conflicts of interests to disclose. Presentation of these findings was supported by a McDaniel College Students Research & Creativity grant.

Correspondence concerning this article should be addressed to Holly M. Chalk, Department of Psychology, McDaniel College, 2 College Hill, Westminster, MD 21157. Email: hchalk@mcdaniel.edu

SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH



BALL STATE UNIVERSITY

Teachers College
Department of Educational
Psychology

Find your **career.**

Eight graduate degree programs and four certificates in **Educational Psychology**

PhD in Educational Psychology

Engage in the science of learning. Prepare for a career where you can use your knowledge of human learning and development to help shape the school environment and public policy. Core program areas include learning, motivation, and research design.

MS or MA in Educational Psychology*

Broaden your ability to apply psychological principles to a variety of professional contexts or prepare for your future doctorate in social science.

MS in Quantitative Psychology*

Do you like numbers, statistics, and social science? Prepare for a career in research, assessment, and data analysis. Develop proficiency in advanced statistical techniques, measurement theory, and data analytics.

PhD in School Psychology (five-year program)

Prepare for a career as a licensed psychologist. Gain competencies in health service psychology to work in schools, private practice, or hospital settings. Accredited by the American Psychological Association (APA)** and approved by the National Association of School Psychologists (NASP). Scientist-practitioner model with advocacy elements. Specializations available.

MA/EdS in School Psychology (three-year program)

Be immersed in community engaged, real-world field experiences and intervention opportunities in our scientist-practitioner-advocate program. Leads to licensure as a school psychologist. Approved by NASP and the National Council for Accreditation of Teacher Education (NCATE).

MA in School Counseling (two-year program)

Be a leader and advocate for educational equity for all students in PK-12 schools. Leads to licensure as a school counselor. The program adheres to the



Council for Accreditation of Counseling and Related Educational Programs (CACREP) standards and is nationally recognized by The Education Trust as a Transforming School Counseling program.

Certificates

High Ability/Gifted Studies,* Human Development and Learning,* Identity and Leadership Development for Counselors,* Neuropsychology*

Graduate assistantships and tuition waivers are available.

bsu.edu/edpsy

*Online programs are available.

**Questions related to the PhD in school psychology's accreditation status should be directed to the Office of Program Consultation and Accreditation, American Psychological Association, 750 First St. NE, Washington, D.C. 20002; (202) 336-5979; apaaccred@apa.org; or apa.org/ed/accreditation.

Ball State University practices equal opportunity in education and employment and is strongly and actively committed to diversity within its community. Ball State wants its programs and services to be accessible to all people. For information about access and accommodations, please call the Office of Disability Services at 765-285-5293; go through Relay Indiana for deaf or hard-of-hearing individuals (relayindiana.com or 877-446-8772); or visit bsu.edu/disabilityservices. 582418-18 mc

SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

PARTNER IN Research

Our M.A. and Ph.D. students collaborate with expert faculty to discover new knowledge in cognitive, engineering and social psychology. Experience the value of high-quality labs and low tuition.



All About Discovery!™
Department of Psychology
psychology.nmsu.edu

ADVERTISEMENT

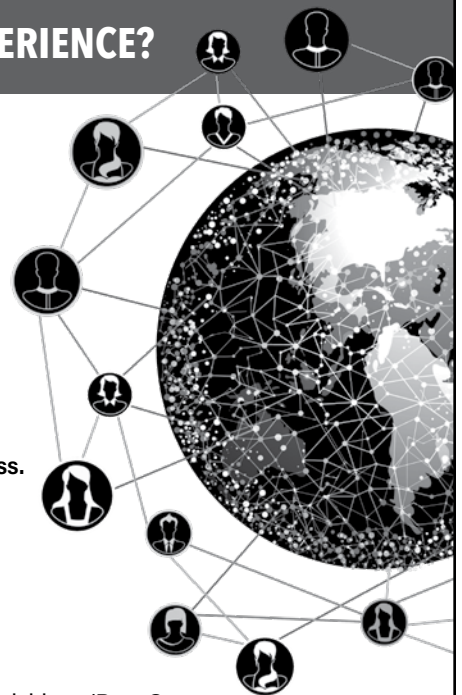
LOOKING FOR COLLABORATIVE RESEARCH EXPERIENCE?

Join the Psi Chi CROWD!

Students and faculty within the United States and beyond are invited to participate in the CROWD, which is Psi Chi's annual, guided cross-cultural research project. Specific benefits of joining the CROWD include

- a reduced burden of having to solicit large numbers of participants,
- increased diversity of student samples,
- accessible materials and protocols for participating researchers, and
- a convenient platform to engage students in the scientific research process.

Contributing to the CROWD provides unique data collection and publication experiences that can be used to strengthen any student's CV.

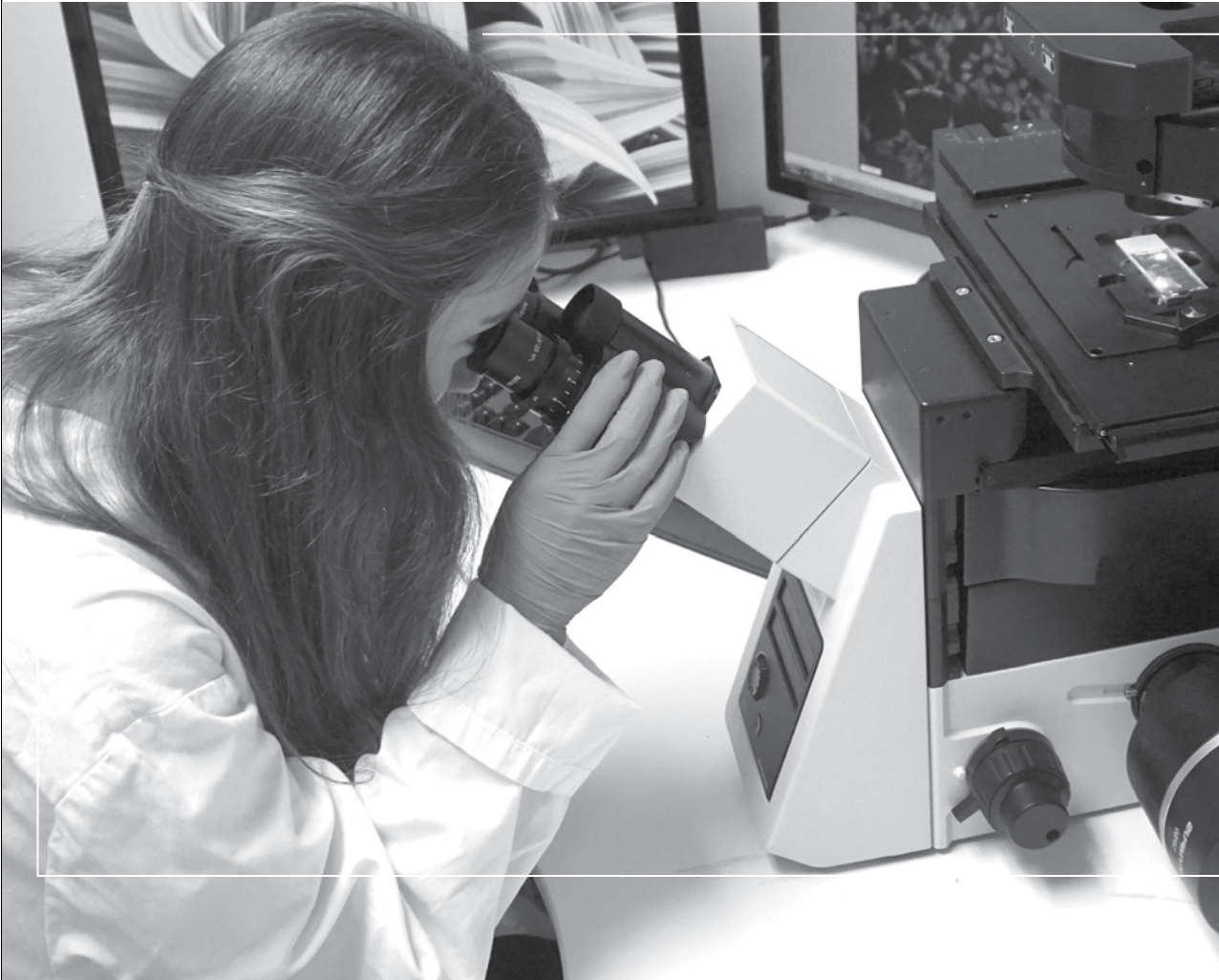


SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH



For more information, visit https://www.psichi.org/Res_Opps
or contact the NICE Chair at nicechair@psichi.org



Earn Your Master of Science in Experimental Psychology

where comprehensive skills in scientific inquiry and research
methodology will give you that NSU edge.

nova.edu/dra

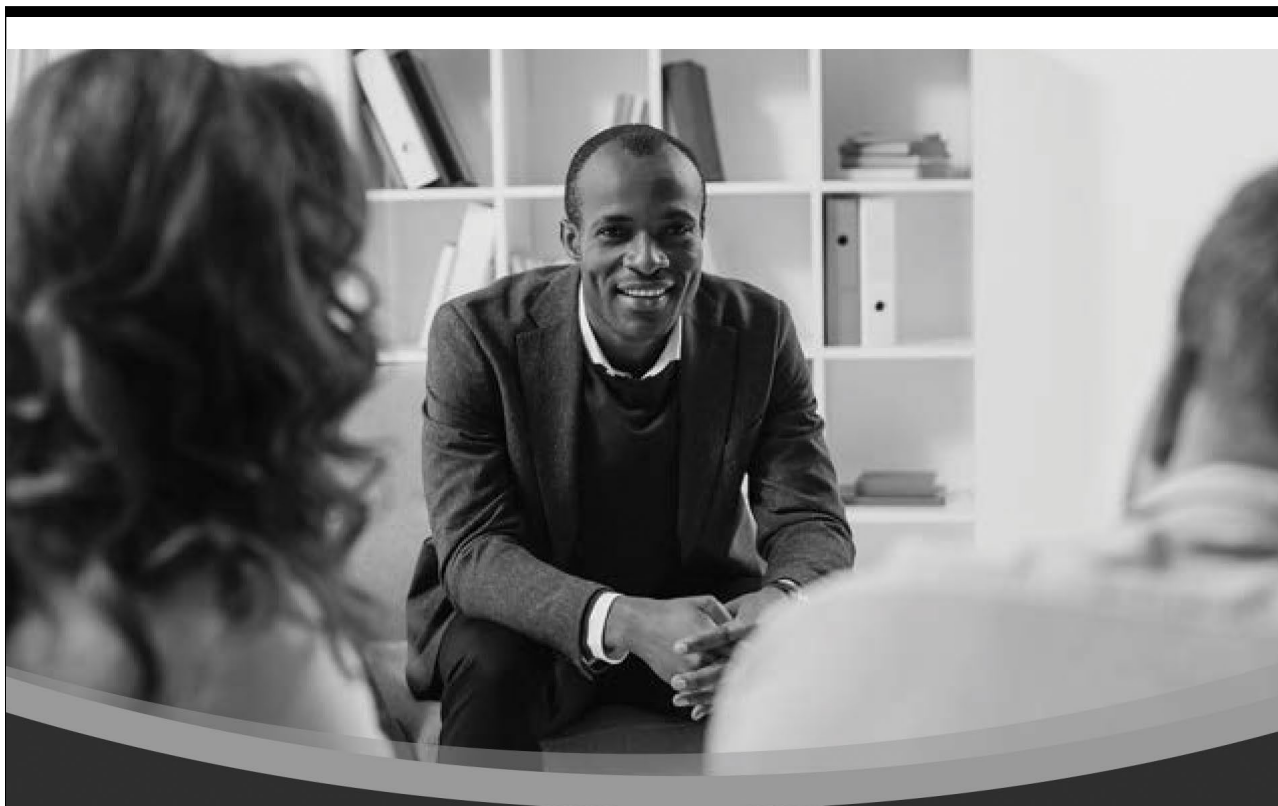
College of Psychology
NOVA SOUTHEASTERN UNIVERSITY

NSU
Florida

Nova Southeastern University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate's, baccalaureate, master's, educational specialist, doctorate, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Nova Southeastern University. ■ Nova Southeastern University admits students of any race, color, sexual orientation, gender, gender identity, military service, veteran status, and national or ethnic origin. 05-041-20RNK

SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH



Alliant International University
California School
of Professional Psychology

Your Career in Psychology Starts Here

Choose your path:

- Clinical Psychologists • Marriage and Family Therapists • Clinical Counselors
- Organizational Psychologists • Organizational Behavior Psychologists • Organizational Development Psychologists • Psychopharmacologists

SUMMER 2021

PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

psichi.alliant.edu



Find Your Next Job in Psychology

Thousands of psychology-related jobs are waiting for you on Psi Chi's unique Career Center.

WHAT NEW OPPORTUNITIES WILL YOU UNCOVER?

Create an account so that you can manage your resumé, receive email alerts when relevant positions are submitted, and ask our experts your career questions. As a special membership benefit, all career center features are totally free to our job seekers. View and apply to as many jobs as you desire.

GET STARTED AT

<http://jobs.psichi.org>



SUMMER 2021
PSI CHI
JOURNAL OF
PSYCHOLOGICAL
RESEARCH

Publish Your Research in *Psi Chi Journal*

Undergraduate, graduate, and faculty submissions are welcome year round. Only one author (either first author or coauthor) is required to be a Psi Chi member. All submissions are free. Reasons to submit include

- a unique, doctoral-level, peer-review process
- indexing in PsycINFO, EBSCO, and Crossref databases
- free access of all articles at psichi.org
- our efficient online submissions portal

View Submission Guidelines and submit your research at www.psichi.org/?page=JN_Submissions

Become a Journal Reviewer

Doctoral-level faculty in psychology and related fields who are passionate about educating others on conducting and reporting quality empirical research are invited become reviewers for *Psi Chi Journal*. Our editorial team is uniquely dedicated to mentorship and promoting professional development of our authors—Please join us!

To become a reviewer, visit www.psichi.org/page/JN_BecomeAReviewer

Resources for Student Research

Looking for solid examples of student manuscripts and educational editorials about conducting psychological research? Download as many free articles to share in your classrooms as you would like.

Search past issues, or articles by subject area or author at www.psichi.org/journal_past

Add Our Journal to Your Library

Ask your librarian to store *Psi Chi Journal* issues in a database at your local institution. Librarians may also email to request notifications when new issues are released.

Contact PsiChiJournal@psichi.org for more information.



Register an account:
<http://pcj.msubmit.net/cgi-bin/main.plex>

