

CAN SOCIAL MEDIA ADS FACILITATE RETAIL THERAPY? AN INVESTIGATION OF PSYCHOLOGICAL OUTCOMES OF AD ENGAGEMENT IN COLLEGE FEMALES

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In modern professional marketing, digital communications, especially social media network marketing, are increasingly prevalent. Young adults are the primary users of social media networks, especially women, and are at greater risk for affective challenges associated with social media use, including fear of missing out (FOMO), anxiety and depressive symptoms. Through engagement with social media ads, young adults are delivered significant amounts of digital marketing messages, but to date the effect of engaging with such marketing messages on psychological well-being has not been adequately investigated. The present study examines relationships between engagement with social media ads, anxiety, depression, self-regulation and (FOMO) in college females. Overall, results reveal an interaction whereby engagement with social media ads is associated with better psychological outcomes for those with higher self-regulatory function, but poorer outcomes for those with reduced self-regulation. Such results point to the growing need for a nuanced, and likely digitally enhanced, approach to engaging in ethical advertising practices.

INTRODUCTION

Research suggests shopping, while often colloquially described as “retail therapy,” is in fact associated with positive well-being outcomes. In broad demographic studies of retail activity, shopping and buying have been associated with reduced anxiety and depression (Atalay & Meloy, 2011). One mechanism of this benefit may be in the enhancement of personal control; choices inherent in shopping may restore personal control over one’s environment and can reduce residual sadness (Rick, Pereira, & Burson, 2014). Importantly, shopping can be considered many factors beyond strictly purchasing, including browsing, choosing, paying, and acquiring (Rick, Pereira, & Burson, 2014). Whether or not a purchase has been made, the act of choosing whether or not to buy, as well as what to buy, and from where, can all be strategic efforts on the part of the individual to repair mood. If consumption of self-treats is strategically motivated, then it associated with improved mood (Atalay & Meloy, 2011).

Modern microeconomic theory of monopolistically competitive markets further suggests

that by providing more complete information, marketing activities offer buyers an avenue for needs to be satisfied through proper price, quantity and quality decision-making (Hajli, et al., 2014; Hayek, 1944).

Although such work has improved understanding of the potential benefits of marketing, shopping and buying, much of the prior work has been done on traditional, non-digital, shopping. Online digital shopping and purchasing is increasingly common in the U.S., with 80% of individuals reporting making purchases online in 2016, compared to just 22% in 2000 (Pew Research Center, 2016). With broadening internet use, social media use has grown dramatically, as the percentage of adults using at least one social media platform has risen from 5% to 69% from 2005 to 2018 (Pew Research Center, 2018). Consistent with these trends in behavior, advertising through social media has also grown. Fifteen percent (15%) of adults in the U.S. report following links from social media ads to make purchases (Pew Research, 2016). Research is needed to understand outcomes associated with this shift towards engaging with online marketing, shopping and buying. This is particularly true with social media.

Social media marketing research is especially needed to understand the social, personal and

commercial implications of online shopping through social media advertisement for young adults, as they mature into their peak earning years. Research suggests current young adults, particularly those in the transition to college, are having difficulty adjusting emotionally, citing feeling more overwhelmed and anxious than in prior years (e.g., Eagan, et al., 2016). Moreover, people within this age group are the heaviest users of social media, with 88% of individuals aged 18 to 29 using at least one social media platform (Pew Research Center, 2018). Higher usage of social media itself in emerging adulthood has been associated with a variety of difficulties, including heightened levels of anxiety and depression (Lin, et al., 2016).

Such problems with social media may be driven by the pervasive fear of missing out (FOMO). FOMO is defined as “a pervasive apprehension that others may be having rewarding experiences from which one is absent” (Przybylski, Murayam, DeHaan, & Gladwell, 2013, p. 1841). Research conducted by Przybylski and colleagues (2013) has shown that FOMO is higher in younger adults and has been linked with negative well-being outcomes, including greater levels of negative mood and reduced life satisfaction. Importantly, results of this work also indicate that young adults with greater levels of FOMO are more likely to use social media during class or while driving, and may use social media to alleviate boredom or loneliness.

Considering these risks, it is important to investigate whether the same advantages found in traditional “retail therapy” can also be experienced via online shopping done on social media, where the physical and practical effort involved in shopping has been reduced to finger clicks (Chiang, 2006). The present study adds to the growing research in the area of social media and health by assessing the influence of social media shopping and ad engagement on well-being in young adults. Moreover, we also assess whether there are factors mitigating this relationship; in short, we investigate whether certain risk factors may make social media advertising engagement positive for some individuals, but detrimental for others.

One such proposed factor is self-regulation, or one’s ability to exert control over themselves by changing the way they think, feel or behave (Muraven & Baumeister, 2000). Self-regulatory strategies, including emotion regulation, constructive thinking and mastery, have been associated with reduced depression, anxiety and stress in the first year of college (Park, Edmondson, & Lee, 2012). Although self-regulation skills have been demonstrated as important predictors of adjustment during the transition to college, on average, recent students have demonstrated a lack of personal growth in self-regulation during the transition (Park, Edmondson & Lee, 2012). Additionally, while self-regulation has been linked with global levels of well-being, research is lacking in understanding whether self-regulatory function can improve not only overall well-being outcomes, but also predict daily behaviors, including social media behavior. Specifically, the inability to self-regulate one’s own shopping and spending may influence the way engagement with social media advertisements is associated with emotional outcomes.

According to self-regulation theory, individuals possess a limited capacity for self-regulation; when an individual expends the energy needed to exert self-control, it depletes the amount available for future self-regulation (Baumister, 2002; Vohs & Faber 2003). Online, retail websites and advertisements create an environment that encourage individuals to purchase and weaken self-regulation resources by, for example, providing round-the-clock and unlimited accessibility of retail options, and by using attention-grabbing designs and interactive content, or offering “one-click” purchases (La Rose & Eastin, 2002).

Such an environment may overpower an individual’s ability to exert the self-regulation needed to resist impulsive shopping and buying. Individuals with deficient self-regulation may then be especially vulnerable in online environment, where their already limited self-control resources are more continuously depleted. In support of this, there is evidence that impaired self-regulation in college students is associated with unregulated buying behaviors online (LaRose & Eastin, 2002).

As discussed, strategic shopping for unplanned self-treats has been linked with improved mood (Atalay & Meloy, 2011). Young adults who are able to self-regulate may enjoy the benefits of traditional retail therapy while online, using the advertisements they are exposed to through social media activity to shop in a way that moves them toward mood repair, enhancing feelings of well-being and control. On the other hand, when individuals shop in conditions of reduced personal control, they report enhanced sadness and depression (Rick, Pereira, & Burson, 2014). Individuals whose self-regulatory resources are already taxed may then be at risk of deepening negative emotional effects when engaging with advertisements online, whether or not a purchase is made. When interacting with advertisements via social media, turning down the opportunity to purchase impulsively may further deplete already low levels of self-control, which may contribute to poorer well-being outcomes. Alternatively, if such an individual, due to poorer self-regulation, instead does not successfully exert self-control, the impulse purchases themselves may backfire and decrease their feelings of well-being via cognitive dissonance or simple buyer's remorse.

Present Study and Predictions

In the present study, we surveyed a sample of college-aged women on their use of social media, their engagement with social media advertisements, their anxiety, depression, FOMO and self-regulation of spending. We used clicking on ads as evidence of shopping engagement; clicking is a frequently used quantitative metric used to gauge engagement with social media ads (Voorveld, van Noort, Muntinga, & Bronner, 2018). Physical interaction with ads predicts greater cognitive absorption of the content, which is in turn associated with greater behavioral outcomes such as bookmarking the retailer website for purchase and forwarding the retail website to acquaintances (Oh, Bellur, & Sundar, 2018). Consistent with this literature, we chose clicking behavior as indication of engagement that demonstrates active attention to the advertisement; such attention may be associated with positive outcomes, if it leads to enhanced feelings of personal control (Atalay & Meloy,

2011), but at the same time poses potential threat to self-regulatory resources due to the unique and characteristic features of social media ads (La Rose & Eastin, 2002).

The primary focus of the present study, then, is to examine the relationship between engagement with social media advertisements (referred to here as ad engagement, and abbreviated as AE subsequently) and the various aspects of well-being. Prior work has demonstrated that shopping and buying are associated with reduced anxiety and depression (Atalay & Meloy, 2011), increased feelings of control and reduced sadness (Rick, Pereira, & Burson, 2014). Given this body of findings, we tentatively expect that AE would be associated with reduced anxiety and depression; in other words, that the benefits of traditional retail therapy would extend to social media shopping. Expectations are tentative, though, in light of the research showing higher usage of social media more broadly in young adulthood is linked with a variety of difficulties, including heightened levels of anxiety and depression (Lin, et al., 2016). It is possible, then, that shopping in this environment may not provide the same benefits as traditional shopping does.

We additionally explore whether AE is associated with FOMO. Although exploratory, we tentatively expect that AE would be associated with reduced FOMO. Theory suggests providing more complete information, that includes marketing activities offer buyers an avenue for needs to be satisfied through proper price, quantity and quality decision-making (Hajli, et al., 2014; Hayek, 1944). This informative aspect of marketing could reduce one's sense of fear of missing out on things others know about, possess, or do.

Additionally, we examine the influence of self-regulatory behaviors on social media use and well-being. Specifically, we assess whether financial self-regulatory failure is associated with anxiety, depression, and FOMO, and whether there is a significant interaction between AE and self-regulatory failures on anxiety, depression and FOMO. In accordance with prior research showing self-regulation is associated with reduced depression, anxiety and stress in the first year of college (Park, Edmondson, & Lee, 2012), we predict

individuals with more financial self-regulatory challenges would have increased anxiety, depression, and FOMO. Importantly, we investigate whether the relationships between AE and the well-being outcomes would differ between those with higher versus lower self-regulation challenges. Because social media ads' features create an environment that encourages individuals to purchase and poses risks to self-regulation, we predict that AE would be associated with elevated anxiety and depression for those lower in self-regulation, for whom ad engagement may only further deplete their self-control and/or provide an all-too-easy opportunity for further self-regulatory failure. On the other hand, we predict that AE would be associated with reduced anxiety and depression for those with stronger self-regulation, for whom ads offer opportunity to exert strategic mood repair.

Results may contribute to the understanding of ethical considerations for advertising in the digital age, as well as identify factors and behaviors associated with depression and anxiety in this emerging adult age group. This could inform future regulators of digital advertising how to intentionally design messaging that will moderate negative effects among those with greater self-regulatory challenges.

METHOD

The survey was conducted at a small all-women's liberal arts college in the US Midwest. Respondents were approached in its only dining hall by two senior independent study students from the Psychology and Business departments during September and October of 2017. As can be seen in Table 1, the

respondent population was largely parallel with the available population on campus despite the random nature of respondent selection. The survey was taken by 122 respondents; after excluding participants who provided incomplete responses, 104 participants were included in the final analyses. Respondents ranged in age from 18 to 22, with the mean age of 19 years and 7 months. Consenting participants individually completed surveys anonymously online via SurveyMonkey on a provided laptop.

Measures

Social Media and Advertisement Engagement (AE). Participants were asked a series of questions about their social media use and AE. AE was defined as clicking on ads, because clicking indicates voluntary engagement with and demonstrates attention to the advertisement. Participants were first asked whether (yes vs. no) they are active on social media. They were additionally asked on which social media networks (Facebook, Snapchat, Twitter, Pinterest, Instagram, LinkedIn, Google+ or Other) they are currently active; participants could select as many as applied to them. To assess AE, participants were asked to estimate the number of times in a typical week they respond to each social media platform's ads by clicking or buying. This wording is consistent with contemporary industry definition on engagement which involves "active participants rather than viewers;" customers interact with material presented rather than simply reading or noticing (Evans, 2010). For the main analyses, based on participants' response patterns, responses were coded as "any engagement" or "no engagement."

**TABLE 1:
Respondent and Population Ethnic Distribution**

Ethnicity	Respondents	Population
White	76.9%	77.5%
Hispanic/Latina	14.7%	11.1%
Asian/ Pacific Islander	4.8%	2.8%
African American/Black	1.5%	2.4%
Native American	0.7%	0.2%
Other/Prefer Not to Respond	1.4%	6.0%

Spending-Related Self-Regulation.

The Self-Regulatory Behaviors scale assesses nutrition, time management, spending, and emotion regulation failures in the past week (Job, Walton, Bernecker, & Dweck, 2015). To assess challenges in self-regulation of spending, the spending subscale of this measure was used; participants were presented with six items asking about their spending regulation. Each item asks participants to rate how frequently they engaged in the presented behaviors in the last week, with answers ranging from 0 (never) to 5 (7 or more times). Sample items include, “During the last week, how often did you buy something knowing that it’s actually too expensive for you?” and “During the last week, how often did you spend money without really thinking about it?” Overall scores were summed. Internal reliability was high; Cronbach’s alpha for the scale in the present study was 0.89. For the present analyses, after individual responses to items were summed, we performed a median split of responses, with participants scoring above the median (respondents scoring higher than 3) placed into a “higher regulatory problems” group and those scoring below the median (3 or less) were placed into a “lower regulatory problems” group.

Anxiety and Depression. To assess depression and anxiety symptoms, we used the short forms of the depression and anxiety scales from the Patient-Reported Outcomes Measurement Information System (PROMIS; Pilkonis, Choi, Reise, et al., 2011). The PROMIS is an initiative of the National Institutes of Health intended to design reliable, precise questionnaires with reduced respondent burden. PROMIS depression and anxiety scales ask participants how frequently in the past 7 days they experienced depressive or anxiety symptoms on a 1-5 scale, ranging from “Never” to “Always.” The depression scale includes eight items; example items include, “I felt worthless,” and “I felt sad.” The anxiety scale includes seven items, including, “I felt nervous,” and “I felt uneasy.” Each scale was scored by averaging the items within each scale. In the present study, Cronbach’s alpha for the depression scale was 0.95, and for the anxiety scale was 0.93.

FOMO. The Fear of Missing Out scale (FOMO; Przybylski et al., 2013) is a ten-item measure designed to assess the extent to which individuals experience fear of missing out. Participants rate the extent to which each item is true of them ranging from 1 (not at all true) to 5 (extremely true). Sample items include, “I get worried when I find out my friends are having fun without me,” and “It bothers me when I miss an opportunity to meet up with friends.” Scores are averaged across items. Of note in the present study, due to survey error, two of the items from the original scale were inadvertently not included. These items are: “When I miss out on a planned get-together, it bothers me,” and “When I go on vacation, I continue to keep tabs on what my friends are doing.” Nevertheless, even with those excluded two items, Cronbach’s alpha for the remaining items in the present study remained high ($\alpha = 0.82$), justifying the scale’s inclusion in the present analyses.

Analyses

For the focal analyses, three factorial ANOVAs were conducted to predict 1.) depression, 2.) anxiety, and 3.) FOMO as the three dependent variables. AE (no engagement vs. engagement), financial self-regulatory behavior problems (low vs. high), and the interaction between the two were included as independent variables. Simple effects tests were also assessed when relevant.

RESULTS

Descriptive statistics and correlations for depression, anxiety, FOMO, number of ads engaged, and self-regulatory challenges are displayed in Table 2. It should be noted that 42 of the 104 respondents (40.4%) indicated zero engagement with social media ads. The remaining responses ranged in frequency from 1 to 205 times per week, with the next 40% of respondents indicating they engaged with ads fewer than ten times per week, and the remaining 20% ranging from 10 and 205. Because of the high rate of responses being zero and to allow for sufficient groups to investigate trends in engagement, for the main analyses, we grouped individuals into “any engagement” vs. “no engagement.” Similarly,

for the self-regulation variable, we split the sample into two groups; participants scoring above the median (respondents scoring higher than 3) were placed into a “higher regulatory problems” group and those scoring below the median (3 or less) were placed into a “lower regulatory problems” group.

As seen in Table 2, significant moderate positive correlations were found between FOMO and anxiety ($r = .32, p < .01$), between FOMO and depression ($r = .22, p < .05$) and between FOMO and self-regulatory problems ($r = .23, p < .05$), and a strong positive correlation was found between anxiety and depression ($r = .72, p < .001$).

Respondents were asked to identify social media networks on which they hold accounts and are active. One hundred percent of the sample indicated that they are active on at least one account. The percentage of the sample who indicated activity on each of the following sites were: Facebook 87.7%; Snapchat 83.6%; Instagram 77.0%; Pinterest 41.8%; Twitter 36.9%. The mean number of social media networks on which respondents were active was 3.96. This is over the minimum threshold of three social media networks for commonly experienced higher levels of anxiety and depression symptoms (Primack, et al., 2017).

Results of the ANOVA predicting depression indicated a significant interaction between self-regulation problems and AE on depression ($F(1, 75) = 5.51, p = .02$) and on anxiety ($F(1, 95) = 4.57, p = .04$). As can be seen in Figure 1 and Figure 2, for those high in self-regulatory problems, higher engagement is associated with more depression and anxiety, respectively. For

those lower in self-regulatory problems, higher engagement is associated with reduced depression and anxiety. When a significant interaction is found between IVs, main effects are not directly interpreted (Maxwell & Delaney, 2003). Simple effects analyses assessed the effect of AE within each level of self-regulatory failures. When assessing multiple simple effects, alpha level should be adjusted to reflect the number of tests being conducted (Maxwell & Delaney, 2003). In the present analyses, two simple effect tests were conducted per outcome, and thus an alpha of 0.025 (0.05/2) was used. Results of simple effects tests showed that among those lower in self-regulatory failures, the effect of AE approached but did not meet statistical significance for depression ($t(1, 84) = 3.59, p = 0.06$) and anxiety ($t(1,49) = 1.98, p = 0.05$). Among those higher in self-regulatory problems, there was no significant effect of AE on depression ($t(1, 43.7) = -1.37, p = 0.18$) or anxiety ($t(1, 46) = -1.03, p = 0.33$).

The interaction between AE and self-regulatory problems on FOMO was not significant ($F(1, 84) = 0.123, p = 0.727$). The main effect of AE on FOMO was not significant ($F(1, 84) = 3.36, p = 0.071$). However, there was a statistically significant main effect of self-regulatory problems on FOMO ($F(1, 84) = 4.42, p = 0.038$), with those high in self-regulatory failures experiencing higher levels of FOMO.

DISCUSSION

In the present study, we surveyed a sample of college women on their use of social media, their social media AE, their anxiety, their depression, their FOMO, and their self-

TABLE 2:
Means, Standard Deviations, and Correlations for Variables

		Mean	SD	1	2	3	4
1	FOMO	2.47	0.80	--	--	--	--
2	Anxiety	2.45	1.02	0.32**	--	--	--
3	Depression	2.07	1.00	0.22*	0.72**	--	--
4	Number of Ads Engaged	10.31	26.80	0.13	-0.12	-0.14	--
5	Self-regulation Failures	4.58	4.78	0.23*	0.08	-0.01	0.11

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

FIGURE 1

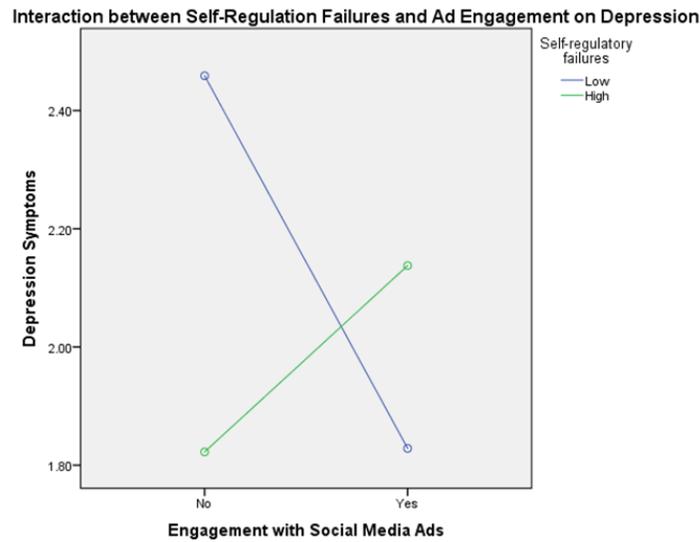
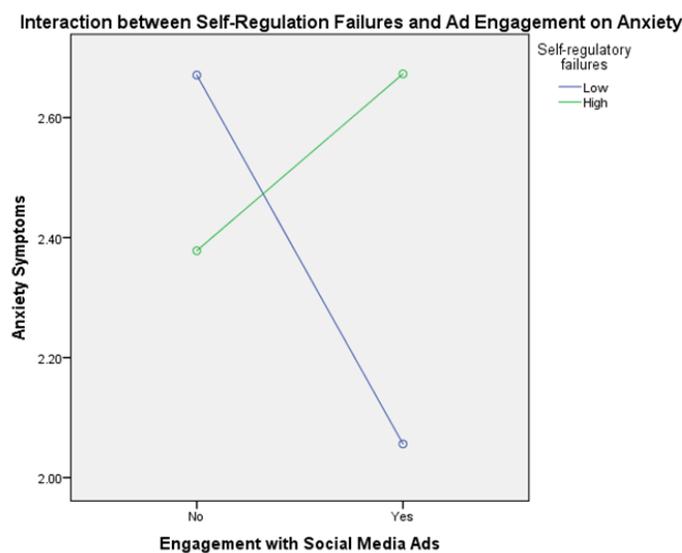


FIGURE 2



regulation of spending. The primary focus was to examine the relationship between AE and various aspects of well-being and self-regulation.

Results suggest that consistent with prior work (Pew Research Center, 2018), emerging adults in the present sample were high users of social media; 100% of the sample reported being active on at least one social media site, with the mean number of networks being 3.96. This

reaffirms the normative use of social media in this age group and supports the need for research into the consequences associated with social media engagement in this age group.

Prior work has demonstrated shopping and buying are associated with reduced anxiety and depression (Atalay & Meloy, 2011). In the present study, this was supported, but only conditionally. The significant interaction between AE and self-regulatory challenges

indicates that for those individuals who have fewer financial self-regulation failures, AE is associated with reduced depression and anxiety, consistent with the prior work and with the research expectations. However, for those with higher financial self-regulatory failures, AE was associated with elevated anxiety and depression.

As the present study shows, marketing on social media networks does not appear to inherently increase anxiety and depression for users. In fact, AE can be positive for many, particularly if they are also able to regulate their own spending. This important qualification expands upon the literature on social media and on the impacts associated with shopping and buying. For the industry, while not conclusive, the present research indicates social media marketing is not in and of itself harm-causing, and can be helpful to the social media consuming population. The significant interaction between self-regulation and AE, however, suggests interpreting overall effects of social media marketing oversimplifies the complex ways in which young adults may engage with the ads, demonstrating understanding the mental health outcomes associated with these practices requires more nuanced investigations accounting for other moderating individual difference characteristics.

Present results additionally build upon prior findings by demonstrating that self-regulation is not only predictive of emotions, anxiety and depression, broadly, but also with relevant behavioral choices, in this case engagement with social media. Given the knowledge that young adults are deeply imbedded into social media (Pew Research Center, 2018) and social media use is associated with risks to well-being in this age group (Lin et al., 2016), the need to investigate factors promoting health in the face of these risks has grown. The present study contributes to this effort by identifying self-regulation as a potential buffer, helping individuals utilize the ads they encounter on social media to successively engage in the retail therapy found in other shopping environments.

Prior work has shown that FOMO is linked with a variety of negative well-being outcomes, including greater levels of negative mood and reduced life satisfaction (Przybylski, et al., 2013). The present study supports the prior work, demonstrating significant positive correlations between FOMO and anxiety, as well as between FOMO and depression. Importantly, AE was not associated with FOMO. Once again, these results suggest social media advertising is not inherently associated with problems. Indeed, this finding differentiates AE from other social media behaviors, such as using social media during class or while driving (Przybylski, et al., 2013), which have been linked with higher FOMO.

On the other hand, self-regulation challenges were directly associated with FOMO; those with more financial self-regulatory failures exhibited higher levels of FOMO. Future studies can investigate whether interventions targeted at improving self-regulatory function might also diminish FOMO, or alternatively, whether reductions in FOMO can improve self-regulatory function. Additionally, of important note is in the present study, the FOMO scale lacked two of the original scale items. Although reliability of the remaining items was still acceptable, future work without this survey limitation is needed to replicate current results.

Future research can expand upon the present work in other important ways. Research suggests present-day college students are having difficulty adjusting emotionally, citing feeling more overwhelmed and anxious than in prior years (e.g., Eagan, et al., 2016). Moreover, individuals in this age group are the heaviest users of social media (Pew Research Center, 2018), and are most susceptible to the risks associated with high social media usage, including heightened levels of anxiety and depression (Lin, et al., 2016). Furthermore, prior research has demonstrated that although the early college years are stressful for both men and women, college women are experiencing especially elevated levels of anxiety and distress (e.g., Eagan et al., 2016). Identifying the experience with social media ads in this higher-risk group was thus the focus of the present study. Nevertheless, future studies should seek replication and generalizability of present findings by

expanding investigation to individuals of various age, gender, socio-economic status and geographic origin.

Additionally, in the present study, to assess AE, participants were asked to estimate the number of times in a typical week they respond to each social media platform by clicking on ads or buying. Future studies could separate each of these by assessing the difference between clicking and buying for well-being outcomes. The recent industry-added category of digital advertising “hoverers” was not considered engagement in the study, but should be assessed in future work. Additionally, rather than ask participants to recall, which may not reflect actual lived behavior, future work should observe usage closer to real time. Of note is that in the present study, due to the nature of participant responses, AE was categorized as binary, either as some or no engagement. A more nuanced approach in future studies to assess AE in a way that captures more types and levels of engagement in real-time may clarify the extent to which engagement, in all of its forms, is associated with well-being outcomes.

Prior work suggests different platforms are more heavily used by individuals of different age groups (Pew Research Center, 2018). In the current investigation, analysis of each individual social media platform was not possible due to the small sample sizes of respondents reporting ad engagement in several of the platforms. In future work, however, each social media network platform could be separated to examine if marketing on each platform has different impacts on depression and anxiety, if the number of respondents is increased and respondent group demographics is substantially broadened.

MANAGERIAL IMPLICATIONS OF THE RESEARCH

Comprehending the effects social media has on stakeholders, working environments, the responsible construction of messaging, and gauging the effectiveness of social media marketing efforts is vital in the contemporary business space.

Employee Assistance Programs

The ubiquity of social media and its high reach and frequency of use demands that employers understand the self-regulatory concerns facing team members, particularly when team members include young adults. Management processes must not only acknowledge, but also engage, the distractions caused by ever-wider social media use in the workplace. This is acutely the case when considering how to mitigate the deleterious impacts of poor self-regulators on team performance. With this in mind, the study points to possible managerial approaches to address employee wellness. Potentially, though not specifically, firms may wish to consider offering Employee Assistance Programs to help those negatively affected by social media marketing ads and the instant gratification of engagement many find difficult to resist. More research is needed to determine the appropriate support to provide.

Ethical and Legal Considerations

In the realm of marketing management, the temptation to continually offer messaging via social media without regard to the ability of recipients to self-regulate is a legal and ethical challenge. Generally, it is illegal to not provide disclaiming language when marketing messaging in any environment could affect health, safety or the financial well-being of potential customers in receiving messages. This includes addictive behaviors like gambling. The data of this study indicates the mental health and financial responsibility of ad recipients may in fact be imperiled *or* aided by the ready access to buying encouraged by social media marketing. The socially responsible action marketing managers should, based on study data, contemplate disclaiming advertising in a manner consistent with addictive products and services.

Prioritizing Social Media Platforms for Marketing

AE via social media is a particularly desired goal of marketing messaging across all platforms. Selecting the highest priority social media networks based on demographic AE is often among the most difficult tasks with which

marketing managers have to contend. This is especially true as each network platform has differing levels of account ownership, usage and purpose of usage. The study offers data on the varying levels of AE on six (6) of the most popular social media network platforms: Twitter, Facebook, Instagram, Snapchat, Pinterest, and YouTube. The core learning outcome for marketing managers based on the pilot data is Facebook, SnapChat, and Instagram are the most owned social media networks. The low number of respondents does not offer a clear picture regarding network platform usage and AE.

Social Media Marketing Messaging Effectiveness

Conversion in traditional marketing settings entails the act of buying the product or service advertised. On social media network platforms, metrics of engagement measured via clicks, follows, shares, hovers, time viewing, and video completion rates, are better indicators of marketing effectiveness. Managers must adjust to metrics and examine which social media network platforms offer not just the greatest exposure, but the highest effective engagement metrics, which is considered conversion in the contemporary marketing environment. This study survey instrument offers a managerial window into AE by social media network. As the next phase of this study broadens the number and overall demographic base, it will offer significant insight into social media AE and, by it, conversion.

CONCLUSION

Overall, results of the present study suggest, consistent with prior work, that social media ads provide an opportunity for online retail therapy, but importantly, only for young adults with higher self-regulatory function. For those challenged by poorer self-regulation, ads may pose a risk to emotional health. Such results point to the growing need for investigations of self-regulation enhancement in young adults during this important developmental time and suggest a nuanced, and likely digitally enhanced, approach to engaging in ethical advertising practices.

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¹42 of the 104 respondents (40.4%) indicated zero weekly engagements with social media ads. The remaining responses ranged in frequency from 1 to 205 times per week, with the next 40% of respondents indicating that they engaged with ads fewer than ten times per week, and the remaining 20% indicated between 10 and 205 engagements. Because of the high rate of responses being zero and to allow for sufficient groups to investigate trends in engagement, we grouped individuals into “any engagement” vs. “no engagement.”

²Due to unequal n and some evidence for potential heterogeneity of variance for depression, we used the separate variance approach, or the *F* test generalization of the Welch test and Satterthwaite separate variance t tests for all depression analyses (Maxwell, Delaney, & Kelley, 2018).