Review Article

College Students' Instagram Usage and its Consequences: Upward Social Comparisons and Mindfulness

**Alyson Pearce and Jung-Hwan Kim***

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Introduction

About 98% of college students use social media [1] and spend an average of three to four hours each day on it [2]. Of the various social media networks, Instagram is the most commonly used channel of communication among young adults with more than 1.2 billion monthly active users, which make up over 28 percent of the world's internet users [3]. Instagram presents users with continuous content and interaction opportunities by posting and sharing photos and videos. Previous research underlined how individuals use social media in a wide range of effects on physical and psychological health [4,5].

According to the American Psychological Association, Instagram's image-heavy interface and bottomless content have a significant impact on users' mental health and the upward social comparison through the bottomless content negatively impacts users' body image concerns, self-esteem issues, social anxiety, depression, and other problems [6]. Engaging in an upwards social comparison can be considered as a threat to an individual's self-evaluation. Based on this insight, the current research investigated the college students' usage of Instagram and its impact on their physical/psychological wellbeing such as envy, unhappiness, dissatisfaction with life, and low self-esteem. In this study, appearance-related upward social-comparison is used as a mediator between frequent use of Instagram and physical/psychological wellbeing with mindfulness proposed as a moderator in the relationship between appearance-related upward social-comparison and physical/psychological wellbeing.

Previous research addressed mindfulness as a vital mitigating factor in reducing the negative effects of social media [5]. Users who are aware of their present reality in a nonjudgmental and accepting manner are less likely to be affected by Instagram's unrealistic and curated images and lifestyles. By thoroughly examining the linkage between the Instagram interface and its negative impacts in connection with potential mediating and moderating factors, this study is expected to provide useful insights in reducing the problematic risks of Instagram usage among college students.

Literature Review

Instagram usage and its photos

The number of users of social media is estimated to be 4.48 billion worldwide with an average of 6.6 different social media platforms [7]. About 98% of college students are active on social media sites with up to 27.2% spending more than six hours each day on the sites [1]. Instagram has 1 billion monthly active users [8] who are presented with continuous content by posting and sharing photos and videos (Instagram, 2018). According to Manikonda et al. [9], Instagram is the most popular photo sharing social media network site with users posting on average 80 million photos a day [10]. The critical concern regarding Instagram is that the

photos can be manipulated by using retouching techniques before posting [10]. Instagram provides 16 different filters to transform and manipulate photos (Manikonda et al., 2014). Often the pictures retouched using filters normalize an unrealistic body ideal that eventually can have a negative impact on the users' body image perceptions [10].

Along with the use of Instagram for purposes such as fashion, beauty, and viewing glamorized lifestyles, there is also exposure to unrealistic expectations as these categories are primarily appearance based. Instagram offers an endless feed of curated, presented, posed, and altered photographs of celebrities and friends (Mahmood & Malik, 2022). As Instagram usage increases, the comparison to others may also increase. With the activity of having exposure to a consistent feed of images, there is an opportunity for destructive social comparisons through that outlet.

Upwards social comparison

Social comparison is the act and process of comparing oneself in relation to others and is often engaged in when individuals are not fully aware of their own standing. Types of social comparisons include upward social comparison, which is a comparison of oneself to someone who is perceived as better off or superior, and downward social comparison, which is a comparison of oneself to someone who is perceived as worse off or inferior [11]. Engaging in upward social comparison can be considered as threatening to an individual's self-evaluation [12]. Instagram is a social media site in which there are frequent opportunities for social comparison to occur. Within these comparisons, a likely comparison for women is based on physical appearance (Bianchi, 2021). The evidence suggests that through appearance-related comparisons it is conceivable that they would lead to negative outcomes such as body dissatisfaction and desire to be thinner [13]. By experiencing social comparisons, those who internalize unrealistic standards are also compelled to achieve these ideals [14]. The tendency to make appearance-based comparisons may be linked with negative outcomes regardless of what direction they were originally intended [15].

Psychological mental wellbeing

Mental well-being is an aspect that reflects an individual's psychological and emotional health, and it is commonly focused on as a large amount of time being spent on social media sites and how that can affect people's subjective mental well-being such as envy, self-esteem, life dissatisfaction, and unhappiness. Envy is defined as "a painful emotion ensuing from the envier's lack of the envied person's achievement, quality, or possession" [16]. That is, envy is a feeling of discontent or resentment caused by someone else's qualities that make the individual feel inferior. This is found to be present during the consumption of social media influencers' content [17]. Social media influencers, often featured on Instagram, also exhibit an idealized, glamorous lifestyle. As users look up to and admire these social media sites, they can experience a simulation of upwards social comparisons and feelings of envy from being dissatisfied with their own lives.

Self-esteem refers to one's subjective evaluation of the self [18]. High self-esteem is related to having a positive and optimistic attitude towards life, while low self-esteem is connected to having an overall self-deflating attitude [19]. Previous research found a close relationship between upward comparisons and lower self-esteem [13]. According to Kim [20], higher levels of fashion or beauty magazine exposure are associated with lower levels of self-esteem.

Life dissatisfaction is defined as a person's general judgment of his or her life as a whole [21]. According to Shen [22], life dissatisfaction judgments are based on people's comparisons between self-imposed criteria and their current position and status in life. Eventually it ties into unhappiness as there is a feeling of lacking something that would result in happiness. With people experiencing different amounts of comparison levels, their overall happiness and well-being can be affected drastically. According to body image research, appearance-related comparisons lead to body dissatisfaction in daily life [23].

In this paper, we propose that frequent use of Instagram and exposure to fashion, beauty, and glamorized lifestyle related photos lead to appearance related comparison and the comparisons in turn negatively impact psychological mental wellbeing such as envy, self-esteem, life dissatisfaction, and unhappiness. Based on the literature, accordingly, the following two hypotheses are developed.

A.   Hypothesis 1: Frequent use of Instagram and exposure to fashion, beauty, and glamorized lifestyle related photos lead to appearance related comparisons.

B.   Hypothesis 2: Appearance related comparisons negatively impact psychological mental wellbeing: (a)envy, (b)self-esteem, (c)life dissatisfaction, and (d)unhappiness.

Mindfulness

Mindfulness is defined as "keeping one's consciousness alive to the present reality" [24]. Basharpoor et al. [25] defined mindfulness as being aware of one's moment-to-moment experiences in a nonjudgmental and accepting manner. Namely, mindfulness is to give one's attention and awareness to the current experience and present reality [26]. According to Brown [26], the vital value of mindfulness is to assist people to disengage from automatic thoughts, habits, and unhealthy behavior patterns. Through mindfulness, people can calm one's mind, carefully evaluate one's beliefs without quick judgement, and reestablish one's control by understanding mental processes [27].

Although little research has given attention to mindfulness as a vital factor in decreasing mental health problems with social media usage [5], mindfulness has been employed in various mental health interventions due to its proven positive effects on stress driven physical and psychological human health and well-being [28]. Thus, it is plausible to assume that people with high levels of mindfulness are less likely to develop psychological mental wellbeing problems, such as envy, low self-esteem, life dissatisfaction, and unhappiness through appearance-related comparisons to people who have low levels of mindfulness. Thus, the following hypothesis is developed.

A. Hypothesis 3: Mindfulness plays a moderating role in the relationship between appearance related comparisons and psychological mental wellbeing: (a)envy, (b)self-esteem, (c)life dissatisfaction, and (d)unhappiness. Figure 1 shows the conceptual model of the study.
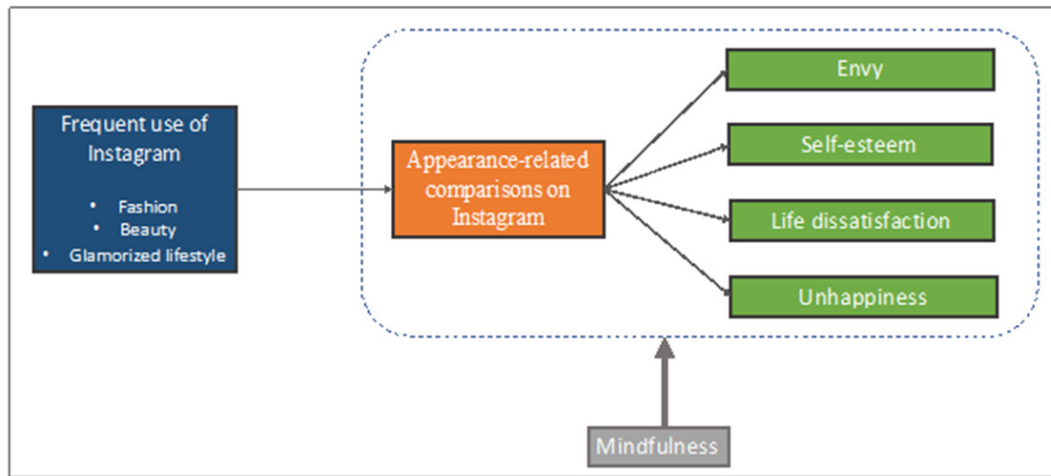

Figure 1: Proposed model.

Method

Participants

A convenience sample of undergraduate students was recruited at a larger university in the southeastern United Sates. An email invitation, which included the survey link, was sent to the college students. This study was reviewed by an IRB at the university.

Measures

Frequent Instagram usage was measured using two items developed by Fardouly et al. [29]. Appearance-related comparisons on Instagram were assessed using three items developed by Piccoli et al. [30]. Instagram envy was measured using five items developed by Meier [31]. Self-esteem was measured using four items developed by Rosenberg [32]. Life dissatisfaction was measured using 5 items developed by Diener et al. [33]. Unhappiness was measured using an 8-item happiness scale proposed by Brooks [34]. Mindfulness was assessed using 15 items developed by Brown [26]. The items were measured on a 5-point scale. Participants' general social media usage, fundamental purposes of using social media sites, Instagram usage and purpose of using Instagram, and demographic information such as age and gender were also assessed. Previous studies reported accepted reliability for all the measures.

Result

Participants

A total of 76 undergraduate students participated in this study. After eliminating the students who did not complete the survey questionnaire, the total number of respondents was 61 participants (M=18.8%, F=81.3%). Approximately 37.5% of the participants were seniors, 34.4% sophomores, 18.8% juniors, and 9.4% freshmen. As shown in Figure 2, the most popular social media sites among the participants were first Instagram followed by Snapchat and YouTube. The most common fundamental purposes of using social media sites are entertainment and socializing with people.
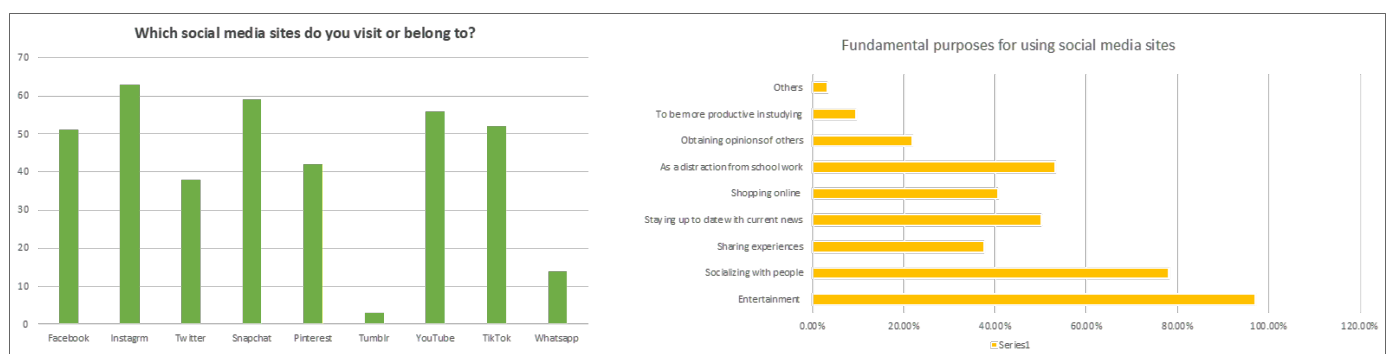

Figure 2: Social media usage.

With regards to Instagram, the three most popular purposes of using the social media site were entrainment, sharing experiences, and socializing with people. Approximately 31.3% participants indicated that they spend 30 minutes to one hour on Instagram a day, 21.9% spend 1-2 hours, and 15.6% spend 2-5 hours. About 43.8% of the participants indicated that they visit Instagram more than 4 times per day (Figure 3).
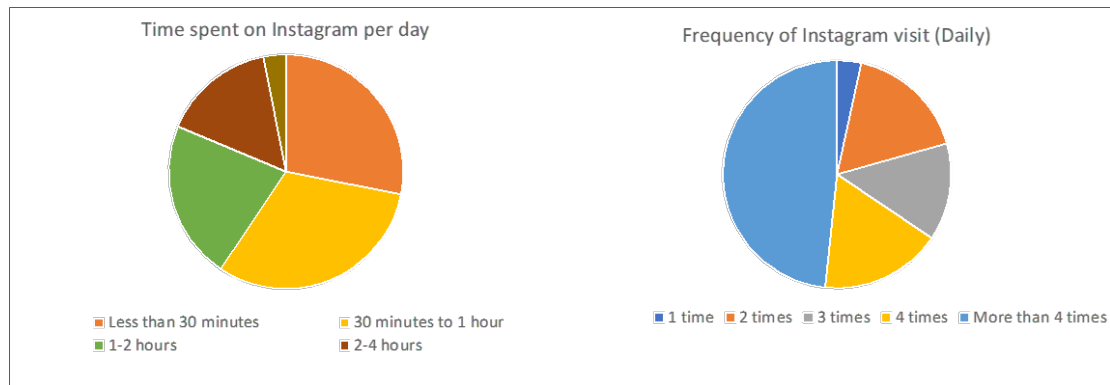
Figure 3: Instagram usage.

Testing hypotheses

To test hypothesis 1, a one-way analysis of variance (ANOVA) with a media split was employed. The results of one-way ANOVA revealed that there was a significant difference between high frequency users of Instagram and low frequency users of Instagram in their appearance-related comparisons. That is, high frequency users of Instagram had higher appearance-related comparisons than low frequency users of Instagram. Thus, hypothesis 1 was supported. To test hypothesis 2, a series of multiple regression analyses were employed to examine the relationships between appearance-related comparisons on Instagram and psychological mental wellbeing: (a)envy, (b)self-esteem, (c)life dissatisfaction, and (d)unhappiness. Results of the analyses revealed that appearance-related comparisons on Instagram were significantly related to self-esteem, life dissatisfaction, and unhappiness, and its relationship on envy was marginally significant (Figure 4). Therefore, H2 was supported.
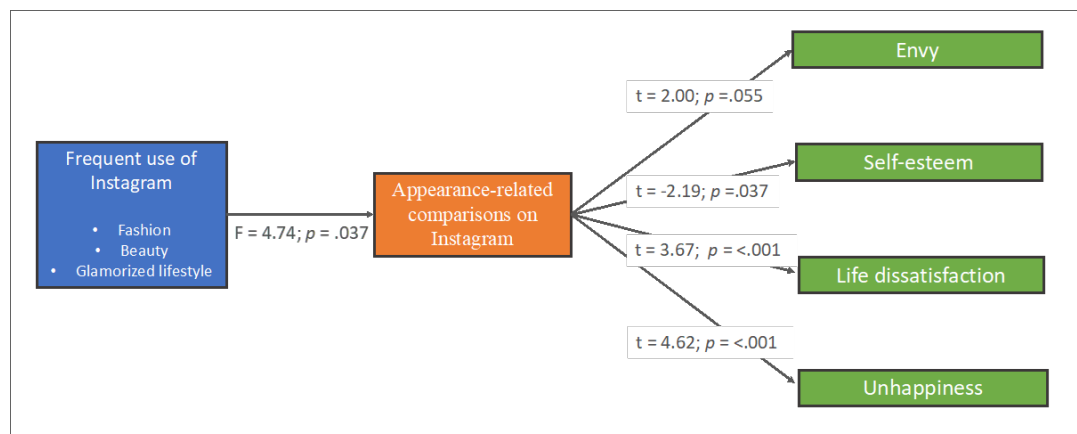

Figure 4: Results of multiple regression analyses.

To test hypothesis 3, Hayes' Process for Model 1 was employed. The results showed that the moderating role of mindfulness was significant for the relationship between appearance related comparisons on Instagram and envy and self-esteem (Figure 5). Thus, hypothesis 3 was partially supported.
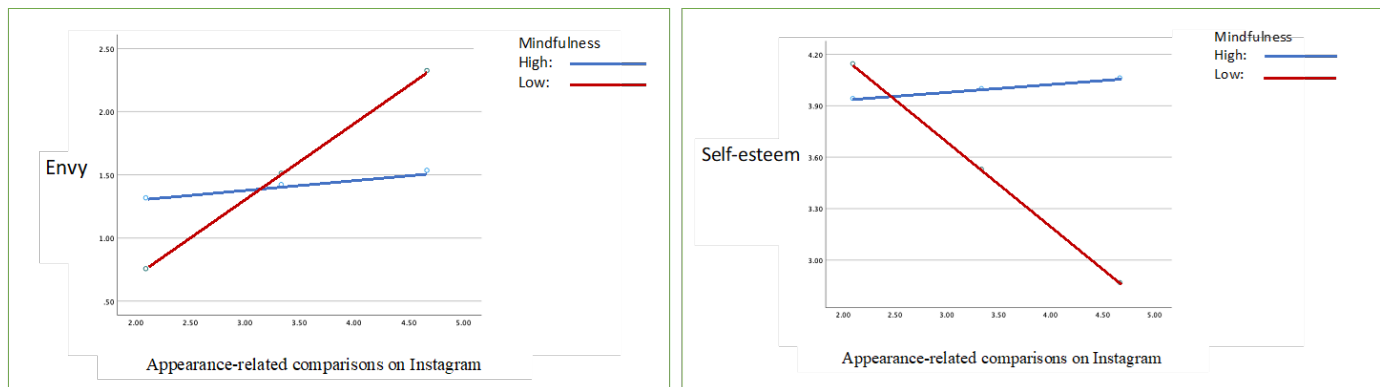

Figure 5: Moderating effect of mindfulness.

Conclusion

This study examined the impact of college students' frequent usage of Instagram on appearance-related upward social-comparisons and its influence on physical/psychological wellbeing such as envy, self-esteem, life dissatisfaction, and unhappiness. The moderating role of mindfulness in the relationship between appearance-related upward social-comparisons and physical/ psychological wellbeing was further examined.

The findings of the study showed that frequent use of Instagram had a significant positive effect on appearance-related comparisons. The appearance-related comparisons on Instagram had consequently significant impacts on envy, self-esteem, life dissatisfaction, and unhappiness. That is, highly frequent users of Instagram compare their appearances with the images on Instagram and the comparisons lead to high levels of envy, low self-esteem, life dissatisfaction, and unhappiness.

Another notable finding of the study is the role of mindfulness in the relationship between appearance-related comparisons on Instagram and envy and self-esteem. The positive relationship between appearance-related comparisons on Instagram and envy and the negative relationship between appearance-related comparisons on Instagram and self-esteem were greatly significant for the low mindfulness group compared to the high mindfulness group. Namely, for people who have a low level of mindfulness, comparing one's appearance on the images on Instagram leads to a higher feeling of envy and jealousy and to having low confidence and negatively evaluating one's life. On the other hand, when an individual has a higher level of mindfulness, the less likely they are to experience an increase in envy and low self-esteem.

According to mindfulness research, mindfulness can be cultivated by meditation practice [5,35]. Through an in-depth review of empirical studies, Keng et al. [36] addressed that there are positive relationships between mindfulness practice and psychological healthy and higher levels of life satisfaction. The study also indicated that mindfulness leads to different brand activity by reducing bilateral amygdala activation [36]. Thus, people with high mindfulness are better able to regulate emotional responses and reduce negative thoughts about the self [37,38]. Overall, educating college students on mindfulness practice seems to be necessary to enhance quality of life and improve physical and psychological mental health and well-being.

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