DO TRAIT ANXIETY AND DEPRESSION MODERATE THE EFFECT OF SOCIAL MEDIA USE ON STATE MENTAL HEALTH FACTORS?

Mira S. Spode, Madeline R. Wick, M.S., Sean P. Dougherty, M.S., & Pamela K. Keel, Ph.D.

Florida State University, Tallahassee, FL

BACKGROUND

o Social media use is linked to increased mental health problems and negative self-image (Jiotsa et al., 2021; Shensa et al., 2018).
o Research suggests that certain patterns of social media use, such as engagement in photo-based social media activities, are associated with especially increased anxiety and depression levels (Fitzsimmons-Craft et al., 2019).
o Posting edited photos of oneself on social media specifically has been shown to affect momentary (i.e., state) levels of anxiety and sadness (Wick & Keel, 2020).
  o It is currently unknown whether preexisting (i.e., trait) levels of anxiety and depressive symptoms impact state levels of anxiety and sadness after posting edited photos on social media.
o The current study involved secondary analysis of data collected by Wick and Keel (2020) to determine whether trait levels of anxiety or depression moderate the effect of posting edited photos on state anxiety or sadness.

METHOD

PARTICIPANTS

o 80 college students who indicated they regularly edit their social media photos
  o 93% female
  o Mean (*SD*) age = 18.71 (0.97) years
  o Mean (*SD*) BMI = 22.64 (3.23) kg/m²
  o 91% White, 8% Black, 6% Asian, 1% other
  o 24% of Hispanic or Latino/a origin

PROCEDURES/DATA ANALYSIS

o All participants had their photos taken in the lab, and they were either asked (1) to edit and post their photo to Instagram, (2) to edit but not post their photo, (3) to not edit but to post their photo, or (4) to neither edit nor post their photo (see Figure 1).
o Visual analog scales were used to assess participants' state levels of anxiety and sadness at baseline and post-intervention.
o Trait levels of depression were assessed using the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977; α = .75) and trait levels of anxiety were assessed using the State Trait Anxiety Inventory—Trait Subscale (STAI; Spielberger et al., 1983; α = .92).
o A series of hierarchical linear regressions were run to determine if trait depression or anxiety moderated the effect of editing or posting on state levels of anxiety or sadness post-intervention, with baseline levels of state anxiety and sadness entered into the first block.
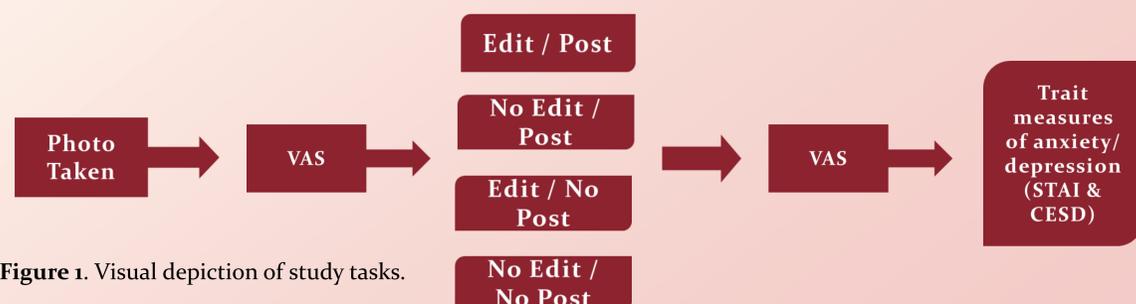

Figure 1. Visual depiction of study tasks.

RESULTS

o There was a significant interaction observed between trait depression levels and condition on state levels of sadness, such that, for those with elevated trait depression levels, both editing their photo (R^2 = 0.74, $F_{(9,78)}$ = 22.10, p = .048; see Figure 2) and posting their photo to Instagram (R^2 = 0.74, $F_{(9,78)}$ = 22.10, p = .003; see Figure 3) resulted in increased state sadness levels.
o There was a marginally significant interaction between trait depression levels and condition on state level of anxiety, such that those with elevated trait depression levels experienced especially increased state sadness after posting an unedited photo of themselves to Instagram (R^2 = 0.41, $F_{(8,77)}$ = 5.91, p = .077).
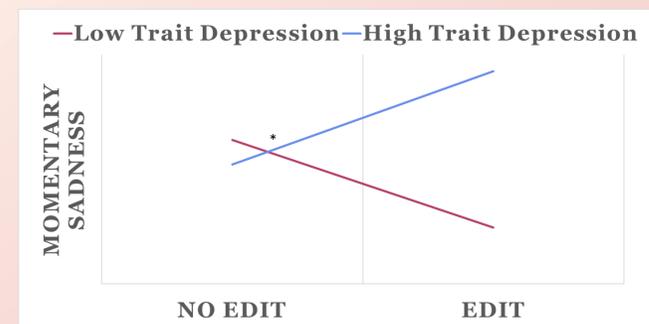o All other results were nonsignificant.

Figure 2. Moderating effect of trait depression on the relationship between editing and momentary sadness.
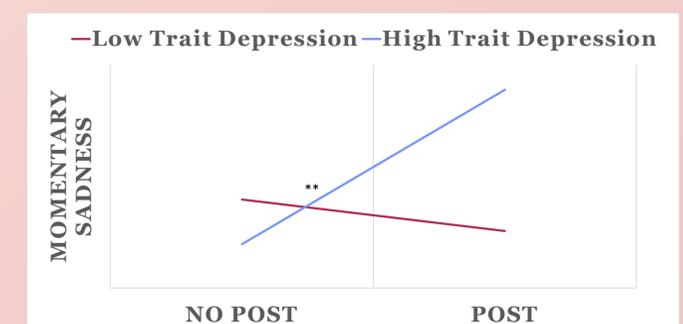

Figure 3. Moderating effect of trait depression on the relationship between posting and momentary sadness.

DISCUSSION

o The effects of editing and posting photos on state levels of sadness are pronounced for those experiencing elevated trait depression levels.
o There is some preliminary evidence that those experiencing elevated trait depression levels may also experience heightened state anxiety after posting unedited photos of themselves on Instagram.
o One limitation of the present study is lack of diversity of participants in terms of gender, racial/ethnic background, and age; future research should aim to recruit more diverse individuals.
o Future research should aim to determine the effects of editing and posting photos on state sadness and anxiety over longer periods of time (e.g., several weeks), as well as examine other facets of social media use including followings, likes, and specific platform use, and their interactions with trait depression and anxiety.

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