How Much is too Much?: The Moderating Role of Social Media Use in the Relation between Psychological Risk Factors and Cyberbullying Victimization and Perpetration

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Introduction

Cyberbullying: any behavior performed through electronic or digital media to threaten or cause harm to others (Savage & Tokunaga, 2017)

Several psychological correlates of cyberbullying victimization (CBV) and perpetration (CBP) have been identified, including:

- High levels of general anxiety and depression, low levels of self-esteem, and high use of alcohol and drugs have been associated with CBP, while increased social anxiety, general anxiety, depression, conduct and emotional problems, and drug and alcohol use have been associated with CBV (Chen, Ho, & Lwin, 2017; Kowalski, Giumetti, Schroeder, & Lattanner, 2014)
- Long-term psychological problems are one of the strongest predictors of CBV, while performing problem behaviors is one of the strongest predictors of CBP (Guo, 2016)

Social Media Use and Psychological Health

- Increased internet use has been associated with increased depression (Banjanin, Banjanin, Dimitrijevic, & Pantic, 2015)
- However, no relation was found between social media activities (e.g., number friends on SNS or "selfies") and depression
- Others have observed depression and anxiety as antecedents of social media use (Woods & Scott, 2016)
- Number of social media accounts has been associated with increased anxiety and depression (Barry et al., 2017)

CBV, CBP, and Social Media Use

- Increased cyber activities (e.g., internet use, hours spent online) have been found to predict both CBV and CBP (Lee & Shin, 2017; Guo, 2016)

Current Study

The current study sought to examine whether social media use factors (daily social media use, number of friends on social media, and frequency of status updates) **influence the relationship between psychological risk factors** (depression, anxiety, history of substance use, disciplinary/legal problems) **and CBV and CBP.**

Methods

- **Participants:** 530 adults recruited from Amazon's Mechanical Turk
- **Measures:**
  - **Demographics:**
    - **Age** (M_{age} = 36.67, SD = 12.70); **Race/Ethnicity**: White (69.8%), Black/African American (11.5%), Latino/a (7.7%), Asian (7.2%), multiracial/mixed ethnicity (3.2%), other (0.6%); **Sexual Orientation**; **Education Level**; **Annual Household Income**
  - **Cyberbullying Victimization:** 7-item scale used to assess how often certain incidents happened to them in the last 2 months (Brown et al., 2014)
  - **Cyberbullying Perpetration:** 6-item scale used to assess the degree to which participants engaged in cyberbullying behavior in the last 2 months
  - **Social Media Use** was measured in three ways:
    - Average hours per day spent using social media (i.e., Daily SM Use) (M = 3.00, SD = 2.91)
    - Frequency of status updates on the social media platform used most often by the participant (M = 3.11, SD = 1.42)
    - Number of friends on the social media platform used most often by the participant (M = 4.66, SD = 2.48)
  - **Psychological Variables:** participants indicated (on a 5-point response scale) the extent to which they had experienced:
    - Depression (M = 2.74, SD = 1.28); Anxiety (M = 2.98, SD = 1.34); Substance Use (M = 1.93, SD =1.24); Legal/Disciplinary problems (M = 1.72, SD = 1.07)
- **Overview of Analyses**
  - We conducted a series of moderation analyses with each psychological history variable as a predictor of CBV and CBP and each social media use variable as a moderator in this relationship, with demographic variables included as covariates.

Discussion

Cyberbullying Victimization
- For **depression** and **anxiety**, daily SM use was a significant moderator, such that for those with high daily SM use (at or above 4.06 and 4.79 hours per day, respectively), increased anxiety and depression were associated with increased CBV.
- Daily SM use, frequency of status updates, and number of friends on social media each significantly moderated the relation between **substance use** and CBV and between **disciplinary problems** and CBV, such that the relation between these psychological predictors and CBV became stronger at higher levels of social media use.
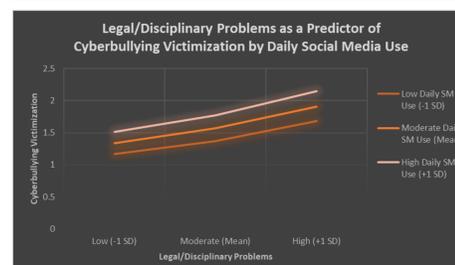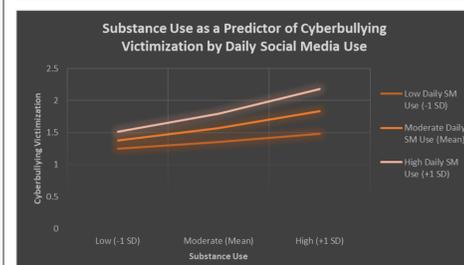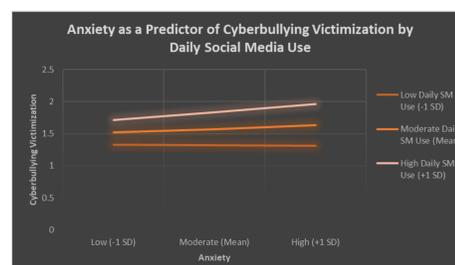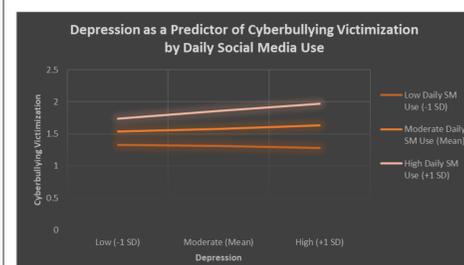
Cyberbullying Perpetration
- For **depression** and **anxiety**, daily SM usage was a significant moderator, such that for those high in daily SM use (at or above 4.43 and 11.62 hours per day, respectively), increased anxiety and depression were associated with increased CBP.
- Daily SM use and frequency of status updates significantly moderated the relation between **substance use** and CBP and between **disciplinary problems** and CBP, such that the relation between these psychological predictors and CBP became stronger at higher levels of social media use.

Limitations and Future Directions

- An unexpectedly high correlation between CBV and CBP (r = .88) warrants future investigation.
- Although cyberbullying among adults has received less attention than CBV and CBP among children and teens, future research should examine how psychological predictors of CB phenomena may vary by social media use in younger populations.

Results

Cyberbullying Victimization

Depression as a Predictor of Cyberbullying Victimization by Daily Social Media Use

Anxiety as a Predictor of Cyberbullying Victimization by Daily Social Media Use

Substance Use as a Predictor of Cyberbullying Victimization by Daily Social Media Use

Legal/Disciplinary Problems as a Predictor of Cyberbullying Victimization by Daily Social Media Use

Cyberbullying Perpetration

Depression as a Predictor of Cyberbullying Victimization by Daily Social Media Use

Anxiety as a Predictor of Cyberbullying Victimization by Daily Social Media Use

Substance Use as a Predictor of Cyberbullying Victimization by Daily Social Media Use

Legal/Disciplinary Problems as a Predictor of Cyberbullying Victimization by Daily Social Media Use