

The Effect of Cyberbullying on Stress and Productivity of Remote Employees During COVID-19

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As a result of the COVID-19 pandemic, many organizations are requiring their employees to work remotely. Aside from the health risks posed by the pandemic, COVID-19 may result in a myriad of work-related stressors for remote employees, such as a lack of structured workdays, inadequate space and equipment, and work-family conflict (Rudolph et al., 2020). Considering the substantial and sudden increase in the use of technology to conduct remote work tasks during COVID-19, cyberbullying, or technology-mediated communication that is counter to norms for mutual respect and at times has the intent to harm (Farley et al., 2016), is a pertinent stressor that deserves further attention. Using the conservation of resources theory (COR; Hobfoll, 1989), the goal of this study is to examine the role of stress in explaining the association between cyberbullying and productivity among individuals who are working remotely as a result of COVID-19. Additionally, this study investigates the moderating role of information exchange and supervisor support on the relationship between cyberbullying and stress.

COR postulates that individuals strive to acquire and maintain resources they value (Hobfoll, 1989), such as those that allow them to acquire additional resources such as money, job security, self-esteem, social support, and mastery. Further, individuals can experience stress, which is a “psychological response to a situation in which there is something at stake for the individual and where the situation taxes or exceeds the individual’s capacity or resources” (LePine et al., 2004, p. 883) as a result of (a) loss of resources, (b) threat to current resources, and (c) inadequate return on investment made to increase resources. Experiences of cyberbullying signal potential loss of relationships at work and a threat to self-esteem, which can be deemed valuable resources (Andersson & Pearson, 1999), thereby resulting in stress. Consistent with prior research which has shown that incivility, a type of mistreatment is positively related to burnout (Liu et al., 2019), we expect that cyberbullying will be positively related to stress. Additionally, because individuals have a finite amount of resources, they are likely to dedicate these resources towards coping with existing demands if they experience stress rather than making strides towards work (Lazarus & Folkman, 1984). Therefore, we contend that productivity of those experiencing cyberbullying is likely to decline via stress as many of the individuals’ available resources may be spent in coping with cyberbullying, thus detracting from productivity.

Lastly, we argue that information exchange and supervisor support may serve as boundary conditions on the relationship between cyberbullying and stress. Both considered resources, information exchange refers to the quality and frequency with which information is shared among members of the organization whereas supervisor support is an individual’s perception of the extent to which their supervisors value their contributions and are invested in their well-being (Eisenberger et al., 2002). At a time of such uncertainty, the opportunity to share and availability of information may facilitate the development of additional resources (e.g., knowledge). Similarly, supervisor support may result in enhanced mood and self-esteem. Therefore, we expect that information exchange and supervisor support will buffer the positive

association between cyberbullying and stress relationship, as well as the mediating effect of stress on the cyberbullying and productivity relationship.

Method

Participants in this three-wave, time-lagged study comprised 284 adults in the United States who were working remotely as a result of COVID-19. On average, participants were 39.34 ($SD = 10.86$) years of age and were employed for 40.46 hours ($SD = 6.05$) per week. Approximately 54% of the participants were male. A total of 391 participants completed the Time 1 survey, 340 usable responses were received from participants at Time 2 two weeks later, and 284 participants completed the Time 3 survey two weeks following the Time 2 survey. We chose a time lag of two weeks due to the constantly changing nature of the pandemic which would allow us to capture the effects of cyberbullying, information exchange, and supervisor support on stress and productivity in a short time period.

Participants were asked to indicate the extent to which they had experienced/engaged in the following since working remotely due to COVID-19. Cyberbullying was measured at Time 1 using 17 items (Farley et al., 2016). A sample item was “Received messages that have a disrespectful tone” ($\alpha = .95$). Information exchange was measured at Time 1 using 8 items developed for this study. A sample item was “My colleagues share information with me in a timely manner” ($\alpha = .88$). Supervisor support was assessed at Time 1 using a 4-item scale (Caplan et al., 1980). A sample item was “It is easy to talk with your immediate supervisor” ($\alpha = .93$). We measured stress at Time 2 using 10 items (Cohen et al., 1983). A sample item was “felt nervous or “stressed”” ($\alpha = .90$). Lastly, productivity was measured at Time 3 using 3 items that were developed for this study (e.g., “Working remotely allows me to be more productive”). Alpha for this measure was .83.

Results and Discussion

Bivariate correlations indicated that cyberbullying was positively ($r = .31, p < .01$) and information exchange ($r = -.24, p < .01$) and supervisor support were negatively ($r = -.35, p < .01$) related to stress at Time 2. Stress at Time 2 was also negatively associated with productivity at Time 3 ($r = -.27, p < .01$). In order to test our overarching moderated mediation models, we used the PROCESS macro. Here, we tested two models with each moderator separately: Model 1 tested the moderating effect of information exchange while Model 2 tested the moderating effect of supervisor support. Results of Model 1 suggested that Time 1 cyberbullying positively ($B = .60, SE = .11, p < .01$) and information exchange negatively ($B = -.20, SE = .06, p < .01$) predicted stress at Time 2. Additionally, the interaction between cyberbullying and information exchange predicted stress, such that the association between cyberbullying and stress was stronger when information exchange was higher ($t = 4.34, p < .01$) rather than lower ($t = 3.14, p < .01$). However, the association was stronger under high levels of information exchange. Lastly, the moderated mediation effect of information exchange was also significant ($B = -.12, SE = .06, p < .05$), suggesting that the indirect effect of cyberbullying on productivity via stress was stronger for those with higher information exchange.

The findings of Model 2 suggested that cyberbullying ($B = .41, SE = .11, p < .01$) and supervisor support ($B = -.21, SE = .04, p < .01$), but not their interaction, predicted stress. While cyberbullying exhibited an indirect effect on productivity via stress, the moderated mediation effect of supervisor support was not significant.

With the rising number of COVID-19 cases, working remotely may become a new indefinite reality for many. Thus, an examination of the effects of cyberbullying on stress and productivity is pertinent for those working remotely. Findings indicate that cyberbullying can

elicit a stress response, which can thus hamper employee productivity. Inconsistent with our hypotheses, it appears that too much information exchange may be detrimental to individuals. It may be that during the time of a pandemic, too much information exchange may be both time consuming and anxiety-provoking, thus compounding the stressful effects of cyberbullying. Future research may consider the effects of different types of information exchange (i.e., work-related exchanges, exchanges related to COVID-19, etc.) to better delineate whether all forms of information exchanges exhibit detrimental effects.

Contrary to our expectations, supervisor support did not moderate the cyberbullying - stress relationship. A potential explanation for this finding is that other forms of support may be more desired and meaningful to those working remotely when compared to supervisor support. For instance, a recent study indicated that coworker support was especially important for those working remotely to be productive during the COVID-19 pandemic (Keller et al., 2020). Future research may consider exploring the interactive effects of cyberbullying with other forms of support in predicting stress and productivity of remote employees.

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