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Is cyberloafing more complex than we originally thought? Cyberloafing as a coping response to workplace aggression exposure[☆]Stephanie A. Andel^{a,*}, Stacey R. Kessler^{b,1}, Shani Pindek^c, Gary Kleinman^b, Paul E. Spector^d^a Indiana University-Purdue University Indianapolis, 402 N. Blackford Street, Indianapolis, IN, 46202, USA^b Montclair State University, 1 Normal Ave., Montclair, NJ, 07043, USA^c The University of Haifa, Abba Khoushy Ave 199, Haifa, 3498838, Israel^d The University of South Florida, 4202 E. Fowler Ave., Tampa, FL, 33620, USA

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ABSTRACT

Employees spend approximately 2 h per day engaging in cyberloafing (i.e., using the internet at work for nonwork purposes) behaviors, costing organizations almost \$85 billion dollars per year. As a result, cyberloafing is often considered a counterproductive type of withdrawal behavior. However, recent research suggests that cyberloafing may have some unexpected positive workplace outcomes. Therefore, we argue that the role of workplace cyberloafing is more complex than previously assumed and posit that cyberloafing may provide employees with a way to cope with workplace stress such as exposure to workplace aggression. To examine this proposition, we used a heterogeneous sample of 258 employees to test whether cyberloafing buffers the detrimental effects of workplace aggression exposure on two outcome variables: employees' turnover intentions and job satisfaction. Overall, results supported the notion that employees use cyberloafing as a workplace coping mechanism, which runs counter to the majority of research that conceptualizes cyberloafing as a counterproductive workplace behavior. These findings suggest that managers may consider allowing some degree of cyberloafing so that employees can better cope with work stress. Moreover, managers should directly target stressful workplace conditions (e.g., aggression) that serve as the impetus for cyberloafing behaviors.

1. Introduction

Cyberloafing, or spending work time using the internet for non-work activities, is a major concern for employers, as access to the internet has expanded through the use of smart phones, tablets, and other electronic devices (Lim, 2002). It is estimated that employees spend up to 2 h each day engaging in cyberloafing behaviors at work, costing organizations up to \$85 billion dollars per year (Zakrzewski, 2016). As a result, cyberloafing is typically considered a counterproductive form of withdrawal, and organizational leaders are constantly investing in ways to prevent employees from engaging in this behavior (Ugrin & Pearson, 2013).

However, researchers have begun to question this assumption. For example, recent meta-analytic evidence indicated that contrary to commonly held assumptions, cyberloafing did not negatively impact

employees' job performance (Mercado, Giordano, & Dilchert, 2017). Other researchers have gone even farther and found that cyberloafing might have positive impacts such as elevating employees' moods (Lim & Chen, 2012) and increasing employee work engagement (Syrek, Kühnel, Vahle-Hinz, & De Bloom, 2018). Germane to the current study, researchers have also found that employees engage in cyberloafing in response to stressful work conditions (Henle & Blanchard, 2008; Pindek, Krajcevskaja, & Spector, 2018), providing initial evidence that cyberloafing may serve as one way for employees to cope with work stress. Building upon this burgeoning literature and particularly findings by Henle and Blanchard (2008) as well as Pindek et al. (2018), we investigate how engaging in cyberloafing may buffer the harmful effects of one stressful work event, being the victim of workplace aggression.

Workplace aggression refers to verbal or physical behaviors directed towards another employee with the intention of causing harm (Schat &

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Kelloway, 2005). Verbal aggression includes behaviors such as being verbally threatened or being yelled at while physical aggression includes behaviors such as being hit or slapped or attacked with a weapon (Neuman & Keashly, 2004). Despite substantial efforts to reduce its occurrence, exposure to workplace aggression remains a pervasive and deleterious problem for organizations (e.g., Hodgins, MacCurtain, & Mannix-McNamara, 2014; Runyan, Zakocs, & Zwerling, 2000; Wassell, 2009). In fact, workplace aggression is so common that 41% of U.S. employees report being victims of verbal aggression each year (Schat, Frone, & Kelloway, 2006) and almost 13% of a sample of U.S. employees report experiencing these instances within a single month (Maestas, Mullen, Powell, von Wachter, & Wenger, 2017). Although occurring less often than verbal aggression, physical aggression also remains a problem as approximately 2% of U.S. employees each year report being the victims of this type of abuse at work (Bureau of Labor Statistics, 2019; Maestas et al., 2017). Moreover, these figures likely underestimate the prevalence of aggression exposure due to issues of underreporting (Fagan & Hodgson, 2017). Finally, not only is workplace aggression pervasive, but costs of these instances are substantial, with a recent study estimating annual costs ranging between \$114.6 million and \$35.9 billion (Hassard, Teoh, Visockaite, Dewe, & Cox, 2018).

While workplace aggression harms an organization as a whole, victims of workplace aggression experience a range of adverse outcomes, including physical health symptoms (e.g., headache), psychological outcomes (e.g., depression, anxiety, burnout, job dissatisfaction), and behavioral outcomes (e.g., turnover, often indexed as turnover intentions; Bowling & Beehr, 2006; Hershcovis & Barling, 2010). In the current study, we focus on two of these outcomes, namely job satisfaction and turnover intentions. We chose to focus on these outcomes for three reasons. First, compared to other outcomes, job satisfaction and turnover intentions have some of the strongest associations with workplace aggression exposure (e.g., Bowling & Beehr, 2006; Nielsen & Einarsen, 2012). This suggests that job satisfaction and turnover intentions are two proximal outcomes of workplace aggression exposure, and therefore may be more feasibly impacted by cyberloafing behaviors than other more distal outcomes. Second, job satisfaction is the most studied psychological employee response in organizational research (Judge & Kammeyer-Mueller, 2012), likely because it is an antecedent to a plethora of other important outcomes, such as employee anxiety, burnout, and cardiovascular disease (Faragher, Cass, & Cooper, 2005). Finally, high turnover is costly for organizations, with recent estimates suggesting that the cost of turnover to U.S. employers exceeds \$600 billion annually (Tarallo, 2018). Therefore, it is of interest to organizations to understand factors that may mitigate job dissatisfaction and turnover intentions.

Grounded in the Transactional Model of Stress (Lazarus & Folkman, 1984), we posit that cyberloafing acts as a coping mechanism, or a strategy to manage the demands of stressful situations (Lazarus & Folkman, 1984), by providing victims of workplace aggression with a distraction or respite from the stressful experience. Cyberloafing in turn should buffer the negative impact of aggression episodes on both job satisfaction and turnover intentions.

Overall, this study contributes to the literature in three ways. First, it builds upon the small literature that considers the positive implications of employees' cyberloafing. By considering the "positive side" of cyberloafing, we provide additional insight into how technology impacts the employee experience at work. This has implications for managers who seek to completely eliminate cyberloafing behaviors, as it suggests that cyberloafing may actually provide some benefit to employees. Second, this study extends our understanding of cyberloafing as a coping mechanism by considering it as a response to stressful *social* factors, such as aggression exposure. This is important because existing research examining cyberloafing within the context of employee stress has generally only focused upon cyberloafing as a response to stressful *task*-based factors, such as conflicting or ambiguous

expectations (Henle & Blanchard, 2008), and underload (Pindek et al., 2018). Finally, this study will illuminate one motivation for engaging in cyberloafing behaviors at work. That is, while most research assumes that employees are motivated to engage in cyberloafing for counter-productive reasons, such as to retaliate against the organization (e.g., Lim, 2002), we propose that employees may be motivated to engage in cyberloafing because they are trying to cope with work stress and ultimately remain productive. This has important implications for managers who wish to limit cyberloafing behaviors, as it sheds light upon where they should direct their efforts (e.g., directly addressing stressful work factors such as aggression) in order to most effectively reduce workplace cyberloafing.

1.1. Transactional model of stress

According to the Transactional Model of Stress (Lazarus & Folkman, 1984), individuals appraise adverse workplace events as negative stressors (i.e., aspects of the environment that demand an adaptive response; Jex, 1998) when they view the event as harmful or threatening. Exposure to these stressors leads to strain outcomes, or negative outcomes resulting from stress exposure (Jex, 1998). Strain outcomes can be physical (e.g., increased blood pressure), psychological (anger), or behavioral (leaving the situation) in nature.

In the context of the Transactional Model of Stress (Lazarus & Folkman, 1984), when employees are exposed to aggression at work, they likely appraise that situation as a threatening stressor. Depending on their ability to cope with the stressful situation, this exposure will negatively impact the employee in the form of a strain response. In the current study, we examine two strain responses: job satisfaction and turnover intentions. In alignment with the Transactional Model of Stress, previous research has found evidence for aggression exposure leading to subsequent job (dis)satisfaction and turnover intentions (e.g., Glomb, Munson, Hulin, Bergman, & Drasgow, 1999; Nielsen & Einarsen, 2012; Trépanier, Fernet, & Austin, 2015). Based on the foregoing theoretical rationale and previous research, we proffer two hypotheses:

H1. Verbal aggression exposure will be (a) negatively related to job satisfaction and (b) positively related to turnover intentions.

H2. Physical aggression exposure will be (a) negatively related to job satisfaction and (b) positively related to turnover intentions.

1.1.1. Cyberloafing as a coping mechanism

According to the Transactional Model of Stress, after an individual perceives a stressor, such as workplace aggression, he or she will employ coping mechanisms in an attempt to deal with the stressful situation. Researchers have classified coping strategies in a number of ways, with the most common classification distinguishing between problem-focused and emotion-focused coping strategies (Lazarus & Folkman, 1984).

Problem-focused coping strategies focus on directly changing the stressful situation either alone or with the help of others. An example would be having security personnel remove an aggressive customer from a store. Emotion-focused coping strategies focus on managing the emotions that arise as a response to the stressful situation. An example would be talking to a close friend about the situation. Problem-focused coping is generally most beneficial and applicable in situations that are controllable, whereas emotion-focused coping is generally most effective when stressful situations are *not* controllable, as is often the case with workplace aggression exposure (Aquino & Thau, 2009; Carver & Vargas, 2011; Niven, Sprigg, Armitage, & Satchwell, 2013).

Using Lazarus and Folkman's (1984) coping taxonomy, Henle and Blanchard (2008) proposed that cyberloafing represents another form of emotion-focused coping. They posited that focusing on non-work related tasks via cyberloafing allows employees to psychologically

detach from the negative effects of workplace stressors. Empirical evidence supported this postulation; employees experiencing job stressors, such as ambiguous or conflicting work expectations, engaged in cyberloafing as a form of escapist, emotion-focused coping (Henle & Blanchard, 2008). Similar results were also recently found in a study by Pindek et al. (2018), showing that employees engage in cyberloafing to cope with the stressful work experiences. This is also in alignment with the literature on “micro-breaks”, or short-term informal respite during the work day (Fritz, Lam, & Spreitzer, 2011). For instance, a diary study by Zacher, Brailsford, and Parker (2014) showed that brief voluntary breaks allow employees to regain energy that is lost throughout the workday, thus providing them with additional resources to emotionally deal with work demands and stress.

Building upon this existing research, we propose that cyberloafing functions as an emotion-focused coping mechanism that serves as a “micro-break”, allowing victims of workplace aggression to psychologically detach from a stressful event. For example, if a customer service employee was yelled at by a disgruntled customer, he/she may choose to take a mental break by watching a funny video on his/her phone or chatting with a friend online. We assert that this behavior (i.e., cyberloafing) would allow the employee to psychologically “step back” from the event, thereby allowing him/her to cope with the stress, ultimately limiting the short-term negative effects of aggression exposure on satisfaction levels and turnover intentions. Based on the foregoing, we proffer two hypotheses:

H3. Cyberloafing will moderate the relationship between verbal aggression exposure and (a) job satisfaction and (b) turnover intentions, such that the relationship will be weaker at higher levels of cyberloafing compared to lower levels of cyberloafing.

H4. Cyberloafing will moderate the relationship between physical aggression exposure and (a) job satisfaction and (b) turnover intentions, such that the relationship will be weaker at higher levels of cyberloafing compared to lower levels of cyberloafing.

2. Method

2.1. Participants and procedure

The sample consisted of 258 university students working a minimum of 20 h per week. The average job tenure was 23.7 months. Most of the sample was female ($N = 212$), the average age of participants was 22.63 (age ranged from 18 to 54), and all participants had some college experience. In terms of ethnicity, 60.1% identified as Caucasian, 15.5% as Hispanic, 13.2% as Black, 5.4% as Asian, and 5.8% as another ethnicity. Participant job titles varied, including managers in retail stores, secretaries in hospitals and schools, patient transporters in hospitals, and servers and hosts in restaurants. All participants were recruited through the university's online participant management system, and in exchange for their participation they were compensated with credit toward their psychology course requirements.

2.2. Measures

Cyberloafing. Cyberloafing was measured with an 11-item scale by Lim (2002) in which participants were asked to indicate on a Likert scale the frequency with which they engage in various cyberloafing activities during work hours (1 = *Never*; 5 = *Constantly*). Sample items from this scale include “visit sports-related websites” and “check non-work related email”. These items continuously demonstrate high reliability, both in previous samples (e.g., $\alpha = 0.87$; Kim, del Carmen Triana, Chung, & Oh, 2016), as well as in the current sample ($\alpha = 0.93$).

Aggression exposure. Verbal and physical aggression exposure were measured using the Workplace Aggression Research Questionnaire

(Neuman & Keashly, 2004). Participants were asked to indicate on a Likert scale how often they had been exposed to aggressive behaviors over the previous 12-month period (1 = *Never*; 6 = *Daily*). Verbal aggression exposure was measured using three items such as “received a threatening phone call.” Physical aggression exposure was measured with 10 items and examples included the frequency of exposure to aggressive behaviors such as “been hit or slapped” and “been pushed, grabbed, or shoved.” These scales have demonstrated high reliability in past research (e.g., verbal $\alpha = 0.71$; physical $\alpha = .96$; Gazica & Spector, 2016), as well as in the current study (verbal $\alpha = 0.76$; physical $\alpha = .96$).

Job satisfaction. Job satisfaction was measured with a three-item subscale of the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979). Participants indicated the degree to which they agreed with each of the items on a Likert scale (1 = *Strongly Disagree*; 6 = *Strongly Agree*). One item was reverse coded so that a higher score indicated higher job satisfaction. A sample item from this scale is “All in all, I am satisfied with my job”. This is one of the most common measures of job satisfaction used in organizational research (Bowling & Hammond, 2008), and has shown high reliability in recent samples (e.g., 0.86–0.89; Andel, Pindek, & Spector, 2018). Reliability was also high in the current study ($\alpha = 0.91$).

Turnover intentions. Turnover intentions were measured using a single item (Spector, Dwyer, & Jex, 1988). Specifically, this item asked, “How often have you seriously considered quitting your current job?” Participants responded to this question on a Likert scale (1 = *Never*; 6 = *Extremely Often*). As this scale consisted of a single item, alpha reliability could not be calculated. However, this scale is often used in organizational research to assess turnover intentions (e.g., Chang & Lyons, 2012).

3. Results

A confirmatory factor analysis (CFA) was conducted to assess the factor structure of the cyberloafing, verbal aggression, physical aggression, and job satisfaction scales. Given the length of the cyberloafing and physical aggression scales, partial disaggregation (i.e., parceling or parcels) was used to specify these factors in order to obtain a more favorable ratio of indicators to sample size, and because a large number of items creates a downward bias in fit indices (Williams & O'Boyle, 2008). Parcels were formed using the random assignment approach, in which each item was assigned, randomly and without replacement, to one of the parcel groupings (Little, Cunningham, Shahar, & Widaman, 2002; Williams & O'Boyle, 2008). The resulting 4-factor model demonstrated excellent fit, $\chi^2(48) = 102.45$, $p < .05$, CFI = 0.96, TLI = 0.94, RMSEA = 0.07, SRMR = 0.05. See Table 1 for the factor loadings.

Descriptive statistics, bivariate correlations, and internal consistency reliability coefficients are displayed in Table 2. Hypotheses 1 and 2, which proposed that both types of workplace aggression exposure would be related to job satisfaction and turnover intentions, were supported. Verbal aggression exposure was related to job satisfaction ($r = -0.27$, $p < .01$) and turnover intentions ($r = 0.24$, $p < .01$); physical aggression exposure was related to both job satisfaction ($r = -0.22$, $p < .01$) and turnover intentions ($r = 0.13$, $p < .01$). Furthermore, cyberloafing was significantly correlated with both verbal ($r = 0.23$, $p < .01$) and physical aggression ($r = 0.28$, $p < .01$).

Hypotheses 3 and 4 proposed that cyberloafing would moderate the relationship between workplace aggression exposure (i.e., verbal/physical aggression) and strains (i.e., job satisfaction, turnover intentions), such that when cyberloafing was higher, the relationship between workplace aggression and strain would be weaker. Moderated regression was used to test these hypotheses. Workplace aggression exposure and cyberloafing were centered and then entered at step 1, and the product of aggression and cyberloafing was entered at step 2. Results are displayed in Table 3.

Table 1
Factor loadings from confirmatory factor analysis.

Factor	Standardized Loading
Cyberloafing	
Parcel 1	0.93**
Parcel 2	0.96**
Parcel 3	0.90**
Job Satisfaction	
Item 1	0.80**
Item 2	0.89**
Item 3	0.96**
Verbal Aggression	
Item 1	0.76**
Item 2	0.90**
Item 3	0.51**
Physical Aggression	
Parcel 1	0.93**
Parcel 2	0.97**
Parcel 3	0.97**

Notes. $N = 258$; ** $p < .01$.

Table 2
Means, standard deviations, and zero-order correlations.

	1	2	3	4	5
1. Cyberloafing	(.93)				
2. Verbal Aggression Exposure	.23**	(.76)			
3. Physical Aggression Exposure	.28**	.74**	(.96)		
4. Job Satisfaction	-.08	-.27**	-.22**	(.91)	
5. Turnover Intentions	-.02	.24**	.13**	-.66**	–
<i>M</i>	1.69	1.36	1.16	4.35	2.70
<i>SD</i>	0.79	0.78	0.55	1.31	1.39

Notes. $N = 251$ –258. ** $p < .01$, * $p < .05$. Alpha reliability coefficients on diagonal.

Hypotheses 3a and 3b were supported, as cyberloafing moderated the relationships between verbal aggression exposure and both job satisfaction ($\Delta R^2 = 0.03$, $p < .01$) as well as turnover intentions ($\Delta R^2 = 0.03$, $p < .01$). The Johnson-Neyman technique was used to probe these interaction effects (Johnson & Fay, 1950). This technique builds upon the traditional “simple slopes” method (Aiken & West, 1991). Specifically, instead of testing for significance at arbitrary points (e.g., ± 1 standard deviation), the Johnson-Neyman technique calculates the conditional values at which the effect of the independent variable (e.g., aggression exposure) on the dependent variable (e.g., job satisfaction) is no longer significant (Carden, Holtzman, & Strube, 2017). The conditional value for the model involving job satisfaction was 0.98,² and the conditional value for the model involving turnover intentions was 1.06. These results show that when cyberloafing reached the aforementioned conditional value, the relationship between verbal aggression and strain was no longer significant.

Hypotheses 4a and 4b were also supported, as cyberloafing moderated the relationships between physical aggression exposure and both job satisfaction ($\Delta R^2 = 0.03$, $p < .01$) and turnover intentions ($\Delta R^2 = 0.03$, $p < .01$). The Johnson-Neyman technique was again applied to further probe these interaction effects. The conditional value for the model involving job satisfaction was 1.33, and the conditional value for the model involving turnover intentions was 0.93. These results show that when cyberloafing reached these conditional values, the relationship between physical aggression and strain was no longer significant.

The results of the moderation effects are depicted in Fig. 1 (job

² It should be noted that cyberloafing was centered, and therefore these conditional values should be interpreted as differences from the cyberloafing mean. For example, a conditional value of 0.98 represents 0.98 points above the cyberloafing mean.

Table 3
Moderated regression results for verbal aggression and physical aggression with turnover intentions and job satisfaction.

	Job Satisfaction	Turnover Intentions
Verbal Aggression		
<i>Step 1</i>		
Verbal Aggression	–0.25***	0.29***
Cyberloafing	–0.02	–0.08
R^2	0.07	0.08
<i>Step 2</i>		
Verbal Aggression	–0.35***	0.38***
Cyberloafing	–0.03	–0.08
Verbal Aggression x Cyberloafing	0.20**	–0.20**
R^2	0.10	0.11
R^2 Change	0.03**	0.03**
Physical Aggression		
<i>Step 1</i>		
Physical Aggression	–0.20**	0.16*
Cyberloafing	–0.02	–0.06
R^2	0.04	0.02
<i>Step 2</i>		
Physical Aggression	–0.49***	0.49***
Cyberloafing	0.01	–0.09
Physical Aggression x Cyberloafing	0.32**	–0.37**
R^2	0.07	0.06
R^2 Change	0.03**	0.03**

Note. $N = 251$. *** $p < .001$, ** $p < .01$, * $p < .05$. Standardized coefficients (β) are displayed.

satisfaction) and 2 (turnover intentions). These figures depict the relationship between aggression exposure and strain at high and low levels of cyberloafing. Since the pattern of effects for hypotheses 3a and 4a were the same, only the graph for hypothesis 3a is displayed. Similarly, since the pattern of effects for hypotheses 3b and 4b were the same, only the graph for hypothesis 3b is displayed.

4. Discussion

Although much of the literature conceptualizes cyberloafing solely as a counterproductive workplace behavior, results of the current study suggest that cyberloafing may also act as an emotion-focused coping mechanism, ameliorating the effects of workplace aggression exposure on strains. These results suggest that cyberloafing has more complex implications for the workplace than previously considered. This is because, on one hand, cyberloafing may harm the organization through lost productivity when the employee withdraws from important work tasks. On the other hand, cyberloafing may act as a micro-break, serving as a brief and voluntary respite that allows the employee to cope with workplace stressors, thereby offering positive implications for employees such as increased satisfaction and decreased turnover intentions (Zacher et al., 2014).

Further, these results shed light upon why employees engage in workplace cyberloafing behaviors in the workplace. Contrary to previous assumptions that employees cyberloaf in an attempt to retaliate against an organization (e.g., Lim, 2002), or because of a lack of self-regulatory resources (e.g., Wagner, Barnes, Lim, & Ferris, 2012), this study suggests that one motivation for engaging in cyberloafing is to cope with workplace stress. That is, cyberloafing gives employees a mental break, which allows them to distance themselves from stressful work situations. These findings have implications for how managers might consider targeting cyberloafing behaviors. Specifically, much of the previous research has focused on deterring cyberloafing through internet monitoring (Glassman, Prosch, & Shao, 2015), the implementation of sanctions (Ugrin & Pearson, 2013), and through the development of internet usage policies (Wang, Tian, & Shen, 2013).

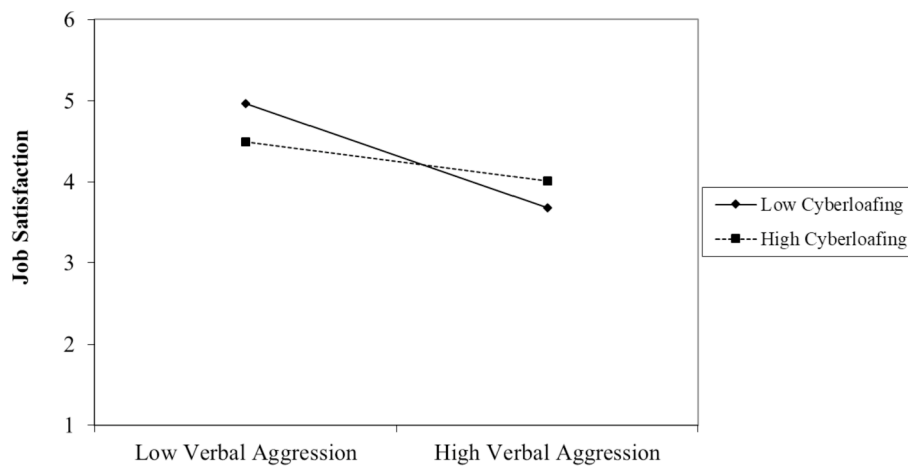


Fig. 1. Graphic representation of the interaction between verbal aggression exposure and cyberloafing in predicting job satisfaction.

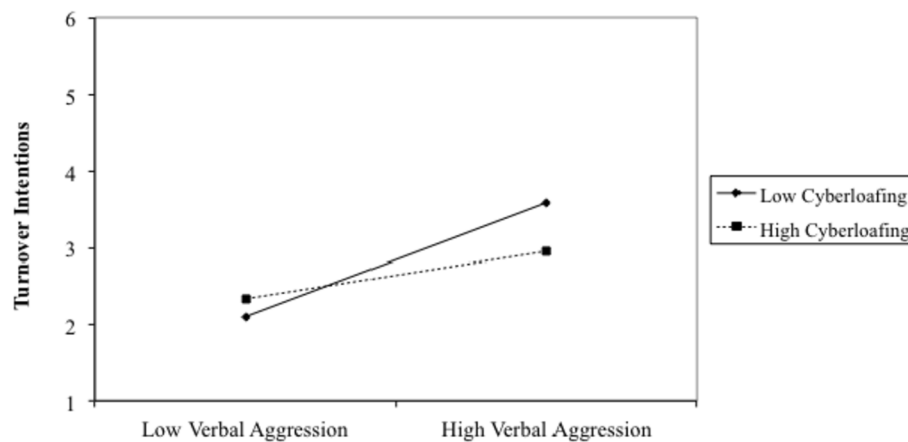


Fig. 2. Graphic representation of the moderating effect of cyberloafing on the relationship between verbal aggression exposure and turnover intentions.

However, our results suggest that these approaches address the symptom rather than the underlying reasons (i.e., workplace stress) that employees engage in cyberloafing in the first place. Instead, a better approach may be for managers to target the workplace stressors (e.g., aggression exposure) that serve as the impetus for employee cyberloafing behaviors. This is especially important, given the critical nature of workplace aggression, and its relation to an array of detrimental outcomes that go beyond job dissatisfaction and turnover intentions to include depression (e.g., Hauge, Skogstad, & Einarsen, 2010), burnout (e.g., Deery, Walsh, & Guest, 2011), and post-traumatic stress symptoms (e.g., Balducci, Alfano, & Fraccaroli, 2009).

Managers can directly address workplace aggression exposure in a number of ways, such as by focusing on training employees in conflict resolution skills and by implementing a civility and/or a violence prevention climate (Kessler, Spector, Chang, & Parr, 2008; Ottinot, 2008). Ultimately, by directly addressing workplace stressors such as aggression exposure, managers will not only improve employee outcomes, including their health, well-being, and productivity, but may also address one motivation for engaging in cyberloafing during work hours.

Additionally, these results have implications for managers regarding internet monitoring. Specifically, results of this study provide initial evidence that it may be prudent for managers and other organizational leaders to consider allowing some degree of employee cyberloafing, as monitoring and deterring *all* cyberloafing may have unintended detrimental effects on employees. Ultimately, by allowing a degree of cyberloafing to occur, rather than eliminating this behavior entirely, we posit that employees can benefit from the buffering effects of

cyberloafing on workplace stressors, while also remaining productive on the job.

4.1. Limitations and additional avenues for future research

While this study provides important insights into the relationships between cyberloafing and workplace aggression, there are several limitations to note. First, data were self-reported and therefore common-method bias is a concern. However, it is important to note that common-method variance does not tend to produce significant moderation effects (Siemens, Roth, & Oliveira, 2010). Further, relationships between several study variables (i.e., between cyberloafing and both strain variables) were negligible (e.g., -0.02 between cyberloafing and turnover intentions). If common method bias had inflated relationships among study variables, we would have expected to see significant correlations between all pairs of focal variables. The existence of negligible correlation coefficients among some of our variables lends support to the minimal influence of common method bias.

Second, this study is cross-sectional, therefore limiting the ability to draw inferences about temporal precedence. Although we hypothesized that workplace aggression exposure precedes job satisfaction and turnover intentions, it is not possible to rule out the alternative direction in which job satisfaction and turnover intentions precede aggression exposure. Similarly, while we found evidence that cyberloafing serves as a response to workplace stressors (i.e., aggression), our ability to draw conclusions about this relationship remains limited due to the cross-sectional design of the present study.

Third, the study sample consisted of university students working a minimum of 20 h per week, which could impact the generalizability of the results. For instance, study participants might have been more extrinsically motivated (e.g., to earn money) than intrinsically motivated (e.g., to pursue a career). This could have influenced the likelihood of them engaging in non-work behaviors such as cyberloafing. Further, the work tasks and responsibilities of part-time versus full-time workers likely differ, which may also have influenced the degree to which participants engaged in cyberloafing behaviors.

To address the aforementioned limitations, future research should employ a multisource, longitudinal design (e.g., both coworkers and focal participants rating aggression exposure) with a sample of full-time employees. This would reinforce our contention that common method bias did not play a role in the current study, and would also provide support for the direction and generalizability of our findings.

Future research should also investigate whether certain forms of cyberloafing (e.g., watching humorous videos, interacting with friends through social media) are more effective than other forms of cyberloafing at buffering stressor-strain relationships, so that organizational leaders can make more informed choices regarding internet monitoring. For example, it might be that humorous or supportive media that elicits positive reactions may be more effective at buffering the negative impacts of stressors in comparison to other forms of cyberloafing that may elicit negative reactions, such as reading the news. Relatedly, since cyberloafing is just one way that employees may wish to take a break following a stressful event, future research should compare the buffering effects of cyberloafing breaks with other types of break activities, such as stepping away from one's desk to take a walk for a few minutes, or taking a few minutes to chat with a co-worker.

It would also be beneficial for future research to consider the optimal duration and frequency of cyberloafing episodes. That is, what is the appropriate amount of cyberloafing that leads to a balance of recovery and productivity? Answering this question would allow researchers to make concrete recommendations regarding acceptable levels of employee cyberloafing behavior. Further, we suggest that future researchers investigate the buffering effects of cyberloafing when exposed to other workplace stressors (e.g., ambiguous or conflicting expectations) beyond workplace aggression, as it is possible that cyberloafing has differential relationships with various stressors. For instance, perhaps cyberloafing buffers the impact of social stressors (e.g., verbal aggression, customer incivility), but actually strengthens the negative impact of task stressors (e.g., high workload) by serving as a distraction that makes it more difficult to complete work tasks. Finally, we urge researchers to consider the buffering effects of cyberloafing on additional outcomes beyond job satisfaction and turnover intentions in order to understand if cyberloafing might buffer the negative effects of aggression exposure on health outcomes. For instance, it would be beneficial to examine cyberloafing as a buffer between aggression and anxiety, depression, and burnout (Bowling & Beehr, 2006).

5. Conclusion

Overall, results of the current study suggest that cyberloafing is more complex than originally thought. Although often considered a counterproductive form of withdrawal, our results suggest that cyberloafing may provide victims of workplace aggression with a much needed respite, thereby allowing them to better cope with the stressful situation. Moreover, we found that cyberloafing actually buffered the harmful effects of workplace aggression exposure on two important outcome variables: employees' job satisfaction and turnover intentions.

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