Abusive Supervision Climate and Emotional Exhaustion: A Cross-Level Analysis(*)

İstismarcı Yönetim İklimi ve Duygusal Tükenmişlik: Düzeyler Arası Bir Analiz

İlkhan Uğur(**)
Engin Bağış Öztürk(***)

Abstract

The aim of this study is to examine the role of abusive supervision climate in the relationship between abusive supervision and employees' emotional exhaustion. Drawing on the conservation of resources theory and fairness theories, the present study asserts that employees will be emotionally more exhausted when they perceive abusive supervision in a low abusive supervision climate compared to in a high abusive supervision climate. Employees who experience high abusive supervision in a low abusive supervision climate will feel singled out and perceived injustice will be stronger, which will emotionally exhaust the employee more. By using a cross-sectional field study, data was collected from 262 public and private sector employees from 60 departments. Hierarchical linear modelling results indicated that the relationship between abusive supervision and emotional exhaustion was positive, but abusive supervision climate did not moderate the relationship between them. Based on these findings, theoretical and practical implications, as well as the limitations of the study, were discussed.

Keywords: Abusive supervision, abusive supervision climate, emotional exhaustion, conservation of resources, fairness, hierarchical linear modelling

Özet

Bu çalışmanın amacı istismarcı yönetim ile duygusal tükenmişlik ilişkisinde istismarcı yönetim ikliminin rolünü irdelemektir. Kaynakların koruması ve adalet teorilerine dayanan bu çalışma, istismarcı yönetim ikliminin düşük olduğu bir

(*) Bu makale, İlkhan Uğur'un Engin Bağış Öztürk danışmanlığında, 2018 yılında tamamladığı yüksek lisans tezinden türetilmiştir.

(**) ilkhanugur@gmail.com, ORCID No: 0000-0002-6802-9390
(***) Sorumlu yazar/Corresponding author, Dokuz Eylül Üniversitesi, İşletme Bölümü, Tınaztepe Yerleşkesi, 35390, İzmir, engin.ozturk@deu.edu.tr, ORCID No: 0000-0002-5596-4099

Uğur, İ & Öztürk, E. B. (2021). Abusive supervision climate and emotional exhaustion: A cross-level analysis. *Yönetim ve Organizasyon Araştırmaları Dergisi, 6*(2), 49-76.

Makale Türü : Araştırma Makalesi
Başvuru Tarihi : 23.02.2021
Kabul Tarihi : 27.09.2021

Article Type : Research Article
Received : 23.02.2021
Accepted : 27.09.2021

ortamda istismarcı yönetime maruz kalan çalışanların istismarcı yönetim ikliminin yüksek olduğu bir ortama kıyasla daha fazla duygusal tükenmiş olduklarını iddia etmektedir. Düşük istismarcı yönetim ikliminde istismara uğrayan çalışanlar kendilerinin hedef alındığını düşünerek bu durumu daha adaletsiz bulacaktır ve sonrasında daha fazla duygusal tükenmişlik hissedeceklerdir. Kesitsel bir saha araştırması kullanarak araştırmanın verisi özel ve kamu sektöründe çalışan 262 kişiden (60 departmandan) toplanmıştır. Hiyerarşik doğrusal modelleme sonuçları istismarcı yönetim ile duygusal tükenmişlik arasında pozitif ilişkili olduğunu ancak bu ilişkide istismarcı yönetim ikliminin biçimlendirici etkisinin anlamlı olmadığını göstermiştir. Bu bulgulara bağlı olarak teorik ve pratik uygulamalar ve ayrıca çalışmanın kısıtları tartışılmıştır.

Anahtar kelimeler: İstismarcı yönetim, istismarcı yönetim iklimi, duygusal tükenmişlik, kaynakların korunması, adalet, hiyerarşik doğrusal modelleme

Introduction

Workplace aggression is one of the worst things that might happen to an employee. Unfortunately, many employees observe or experience aggressive behaviours in workplaces, and supervisors are often the source of that aggression (Sutton, 2007, 2010). In this case, abusive supervision can be a serious issue. Abusive supervision refers to "*subordinates' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviours, excluding physical contact"* (Tepper, 2000). It is generally so detrimental that it has a wide range of negative effects, such as decreased job satisfaction (Zellars, Tepper, & Duffy, 2002), increased intention to quit (Palanski, Avey, & Jiraporn, 2014), decreased organizational commitment (Tepper, Henle, Lambert, Giacalone, & Duffy, 2008), escalation of work-family conflicts (Carlson, Ferguson, Hunter, & Whitten, 2012), and increased psychological and physical health problems such as insomnia (Rafferty, Restubog, & Jimmieson, 2010), anxiety, and depression (Pyc, Meltzer, & Liu, 2017).

One of the important outcomes of abusive supervision is emotional exhaustion (Tepper, 2000; Wheeler, Halbesleben, & Whitman, 2013). Emotional exhaustion refers to feeling overwhelmed while trying to meet emotional demands at work, and is the critical component of job burnout (Wright & Cropanzano, 1998). Based on the conservation of resources theory (COR) (Hobfoll, 1989), when individuals perceive a threat to their resources or experience resource losses, they become emotionally exhausted (Halbesleben & Bowler, 2007). From this point of view, abusive supervision can also be considered a threat to employees' resources and may even lead to resource losses. Thus, abusive supervision can be considered an antecedent

to emotional exhaustion. Numerous studies have indicated that abusive supervision is positively linked to emotional exhaustion (Aryee, Sun, Chen, & Debrah, 2008; Tepper, 2000; Whitman, Halbesleben, & Holmes, 2014; Yagil, 2006).

Even though the relationship between abusive supervision and emotional exhaustion is established in the literature, the strength of the relationship might vary from one situation to another. Several studies have found that employee-level variables such as psychological entitlement (Wheeler et al., 2013), emotion regulation (Chi & Liang, 2013), and employees' perceptions of leader-member exchange (Xu, Loi, & Lam, 2015) can moderate this relationship. Nevertheless, few studies (e.g. Aryee et al., 2008) examine department-level constructs that can influence the relationship between abusive supervision and emotional exhaustion. We claim that an important situational variable can be what others think about abusive supervision across a department, a situation referred to as an "abusive supervision climate." Abusive supervision may be experienced or perceived by more than one employee; malignant acts can be directed towards other department members as well (Tepper, Simon, & Park, 2017). This issue might give rise to other types of threats for employees. An abusive supervision climate comprises the ideas employees have about abusive supervision in their department (Priesemuth, Schminke, Ambrose, & Folger, 2014). Studies have indicated that abusive supervisor climate contributes to negative outcomes, like negative associations with creative role identity (Shen, Yang, & Hu, 2020) at the individual-level and group performance and group citizenship behaviours at the department-level (Priesemuth et al., 2014).

In this study, we examine the moderating role of abusive supervision climate in the relationship between abusive supervision and emotional exhaustion. To put it another way, we examine the extent to which an abusive supervision climate is associated with emotional exhaustion and more importantly, what happens to employees as they experience or perceive abusive supervision in both high and low abusive supervision climates. We focus on the abusive supervision climate because recent studies (Men, Yue, Weiwei, Liu, & Li, 2021; Özkan, 2021; Shen et al., 2020) indicate that employees give meaning to their negative experiences by taking into account what happens to others. So, employees not only consider their experiences but also evaluate others' experiences (Duffy, Ganster, Shaw, Johnson, & Pagon, 2006). Abusive supervision climate provides contextual information for employees to make sense of abusive supervision experiences.

Based on the conservation of resources and fairness theories, we claim that the positive relationship between abusive supervision and emotional exhaustion is stronger when the abusive supervision climate is low. Specifically, when an employee experiences abusive supervision in a low abusive supervision climate, she/he will be emotionally more exhausted compared to an environment where the abusive supervision climate is high, because an employee who is abused in a low abusive supervision climate will perceive that she/he is the only one who is mistreated. The employee might begin to think that the supervisor could have acted differently given others were not abused in similar situations. The employee might further think that her/his life would have been better if abusive behaviours were not present. These counterfactual thoughts increase the severity of the perceived injustice done by the supervisor. Thus, employees who are abused in a low abusive supervision climate will go through higher level injustice and will be emotionally exhausted.

The study offers two contributions to the literature. One is to extend the findings of abusive supervision climate at work. Current abusive supervision literature mainly focuses on abusive supervision at the individual-level and does not consider abusive supervision department-wide (Tepper, 2007). As Tepper et al. (2017) argue, the abusive supervision climate is neither an objective phenomenon nor a replacement for perceived abusive supervision. Abusive supervision climate is different from abusive supervision because abusive supervision is the employee's perception regarding her/his supervisor's behaviors against her/him, but abusive supervision climate is the aggregated perspective of all employees regarding their supervisors' behaviours against others. Similar to other climate constructs, abusive supervision climate is composed of employees' observations and shared experience. Moreover, previous studies (Duffy et al., 2006; Farh & Chen, 2014) argue that perceptions of abusive supervision in a low abusive supervision climate will be different than perceptions in a high abusive supervision climate. Thus abusive supervision climate is an important construct that can be investigated in tandem with abusive supervision (Priesemuth et al., 2014; Shen et al., 2020). The interaction of abusive supervision and abusive supervision climate can provide us with a better understanding of why some employees are more affected by abuse (low abusive supervision climate) and why some employees are more resistant to abuse (high abusive supervision climate). Abusive supervision climate will help us to see the multi-level nature of the relationships and deepen our understanding of abusive supervision in a department. Therefore, the abusive supervision climate has an important place from which to move abusive supervision literature forward.

The second contribution to the literature is our examination of a cross-level interaction between abusive supervision and its climate on emotional exhaustion. This will allow us to better understand the effects of "singled out" experiences on emotional exhaustion. The singled out phenomenon is a special case in which an individual feels that they are the only one who experiences aggressive behaviours in a department. This phenomenon has attracted numerous studies which argue that the singled out experience can be related to job-related affective well-being (Paulin & Griffin, 2016), job satisfaction, intention to quit, depression (Duffy et al., 2006), organization-based self-esteem (Farh & Chen, 2014), self-blame (Schilpzand, Leavitt, & Lim, 2016), and creative role identity issues (Shen et al., 2020). With this study, we will examine another important outcome, emotional exhaustion, to extend findings related to the singled out phenomenon.

Theoretical Development

Abusive Supervision and Emotional Exhaustion

The negative outcomes of abusive supervision range from psychological distress to satisfaction, and from performance to turnover (Martinko, Harvey, Brees, & Mackey, 2013). Based on the COR theory, emotional exhaustion is one of the established outcomes of abusive supervision, refers to "*feelings of being emotionally overextended and exhausted by one's work*" (Wright & Cropanzano, 1998), and occurs both at the daily level (Hülsheger, Alberts, Feinholdt, & Lang, 2013) and the chronic level (individual-level) (Maslach & Leiter, 2008). In this study, we specifically refer to the chronic level of emotional exhaustion (Bakker, Demerouti, & Verbeke, 2004). Since abusive supervision emphasizes a *sustained* display of aggression toward employees, it matches well with the *chronic* aspect of emotional exhaustion.

According to the COR theory (Hobfoll, 1989), individuals are emotionally exhausted when they face threats to their resources, experience resource losses, or receive an inadequate return on their investments. Based on this perspective, negative leadership styles including abusive supervision can be a threat (Harms, Credé, Tynan, Leon, & Jeung, 2017) because leaders constitute the most important determinants in employees' work-lives. Leaders decide or influence what employees do (such as training, upward mobility, and performance criteria) and what they get in return (such as income, benefits, and support). Thus, if a leader engages in an abusive act or is perceived to be abusive, employees will evaluate this situation as

(at best) a threat or will notice the loss of resources (such as a missed promotion) or inadequate returns for their efforts.

Moreover, abusive supervision can impair employees' self-regulatory mechanisms and lead to emotional exhaustion. When employees perceive abusive supervision, it is detrimental to the extent of consuming employees' psychological resources. Being abused by a supervisor is so disruptive and costly in terms of cognitive resources that employees find it very hard to regulate their behaviours (Thau & Mitchell, 2010) and emotions. It might even damage employees' self-efficacy and self-esteem (Harvey, Stoner, Hochwarter, & Kacmar, 2007). Abusive supervision is not only a threat but also takes a toll on psychological resources, one that, in a vicious cycle, creates ambiguity about how to protect or gain resources. Without hope of recovery, when employees face new demands, they become emotionally fatigued.

Tepper's (2000) study has already supported the notion that abusive supervision is related to emotional exhaustion. In addition, several studies have replicated similar findings in terms of the positive relationship between them (Chi & Liang, 2013; Wheeler et al., 2013; Wu & Changya Hu, 2009; Xu et al., 2015; Yagil, 2006). Two meta-analysis studies also found abusive supervision to be linked with emotional exhaustion (Mackey, Frieder, Brees, & Martinko, 2017; Zhang & Liao, 2015). Finally, Whitman et al.'s (2014) study showed that abusive supervision is consistently related to lagged outcomes, specifically emotional exhaustion. Thus, we assert the following hypothesis:

> *H_1: There is a positive relationship between abusive supervision and emotional exhaustion.*

Abusive Supervision Climate and Fairness Theory

Organizational climate refers to individuals' assessments about their workplaces based on actions taken by organizations (Griffin & Mathieu, 1997). It is a contextual environment composed of shared understandings about practices, procedures, and policies in workplaces (Schneider & Reichers, 1983). These qualities enable climate constructs to influence various outcomes and shape numerous relationships at the individual-level (Kuenzi & Schminke, 2009). For example, in a procedural justice climate, individual helping behaviours tend to increase (Naumann & Bennett, 2000), a safety climate improves individual safety behaviours (Tholén, Pousette, & Törner, 2013), and an empowerment climate boosts employee performance (Seibert, Silver, & Randolph, 2004).

Like other climate constructs, abusive supervision at the department-level can be considered a climate construct. Within a department, a supervisor might behave abusive toward many employees, or at least abusive toward some, and this abuse can be observable (Priesemuth et al., 2014). Employees interpret their supervisors' abusive acts through cues and share them with other group members to form a collective and interpretive meaning (Jiang & Gu, 2016). This interpretation process forms the centre of climate conception and creates collective feelings of abusive supervision among employees (Priesemuth et al., 2014). An abusive supervision climate basically refers to the overall, accumulated abuse perceptions of the department members (Farh & Chen, 2014). Based on this definition, abusive supervision climate is similar to the department-level supervisor undermining (Duffy et al., 2006), and can be considered both part of an aggressive climate (Ambrose & Ganegoda, 2020) and a hostile one (Mawritz, Folger, & Latham, 2014). Moreover, this type of hostile climates affects individual-level outcomes. For example, Ambrose and Ganegoda's (2020) study showed that there was a negative link between aggressive climate-supervisor helping, and Shen et al.'s (2020) study indicated that there was a negative relationship between abusive supervision climate and creative role identity.

According to fairness theory, when an employee becomes the subject of aggressive behaviour, they could make cognitive comparisons which are known as counterfactuals, such as *what really happened* versus *what might have happened* (Duffy et al., 2006). This specific style of fairness evaluation tries to answer three questions: *Would, Could*, and *Should* type questions (Folger & Cropanzano, 2001). In the *Would* condition, an individual asks, "Would the target person have felt better if events had unfolded differently?" (Umphress, Simmons, Folger, Ren, & Bobocel, 2013). This question allows the individual to think about the harm done as a result of the incident. In the *Could* condition, the question is "Could the other person (offender) have acted differently?" This evaluation relates to the attribution of responsibility for an action. In the *Should* condition, the question is "Should the other person (offender) have acted differently?" This type of questioning helps individuals compare a given situation with the moral obligations to which all affected should adhere. If answers to these questions are affirmative, employees routinely evaluate the situation as unfair (Skarlicki & Kulik, 2004).

In the process of making sense of abusive acts (Klaussner, 2014), employees often compare their outcomes and inputs with others. Thus, employees engage in counterfactual thinking by looking at the abusive supervision climate. Doing so allows them to reach subjective conclusions regarding the severity of fairness in a

given situation (van den Bos, 2003). As a result, employees use social comparison information and react to abusive behaviours as they consider the experiences of those around them. Most of the time, social comparison information is not acquired by chance, but rather through employees deliberately sharing their stories with each other, passing on important events through conversations, or by directly observing the abusive acts of supervisors. This shared process allows employees to collectively form fairness perceptions regarding their supervisors. Thus, individual-level ideas are transformed into shared ideas about group experiences through this information processing (Salancik & Pfeffer, 1978).

The Moderator Role of Abusive Supervision Climate

Employees may come across a situation in which they are singly exposed to abusive supervision or are among many exposed to abuse by the same supervisor. Based on fairness theory, employees make comparisons and engage in counterfactual thinking when they are faced with undesirable circumstances (Duffy et al., 2006).

When the abusive supervision climate is low, employees face fewer abusive behaviours. Low abusive supervision climate now refers to less institutionalized abusive behaviours, one or two incidents might happen, but they can be attributed to performance pressures. This climate might lead employees to reconsider negative events and give supervisors the benefit of the doubt in certain situations. Supervisor-related negative incidents that are shared throughout the department might be perceived as isolated, and not systematic, acts. Therefore, in this low abusive supervision climate environment, when an employee perceives abusive supervision (sustained display of hostile behaviours from their supervisors), they try to make sense of the situation by looking at the counterfactual thoughts.

Departing from fairness theory (Folger & Cropanzano, 2001), when an employee perceives abusive supervision, she/he might suppose that they are the only ones experiencing abuse because the work group at large believes that abusive supervision climate is low. An employee who perceives themselves to be singled out will judge the situation as unfair, because employees who are abused know that the supervisors could have acted differently. Moreover, given that abusive acts are not ethical and fair, the employee will also think that the supervisor should have acted differently. And if the supervisor had acted differently, the employee's work life would have been better. So, when an employee perceives abusive supervision in a low abusive supervision climate, affirmative answers to "could have", "should

have", and "would have" increase the severity of the unfairness. And fairness is the "tipping point" at which employees are more likely to face emotional exhaustion (Maslach & Leiter, 2008).

When the abusive supervision climate is high, employees observe and/or hear about a wide range of abusive behaviours, and it will become apparent that unfair treatment is common across the department. This situation, however, does not mean that supervisors uniformly abuse all department members (Aryee et al., 2008; Tepper et al., 2017). Supervisors might endorse varying degrees and types of abusive acts on a scale of changing frequency. Indeed, in this kind of high abusive supervision climate, employees feel that they will be the next to suffer (Jiang, Gu, & Tang, 2019). When employees experience or perceive abusive behaviours, they verify supervisors' negative behaviours first-hand and conclude that the abusive climate is detrimental for them, as well.

However, in a high abusive supervision climate, employees do not feel singled out, because either there are other department members who share similar perceptions or there are others who acknowledge the situation and are trying to support targets of abusive supervision. In counterfactual thinking, employees believe that abusive supervisors *could not have acted differently*, thereby weakening their position in the workplace. It should be noted that employees still get affirmative answers to "would have" and "should have" questions. The reason is that abusive supervisors' acts are still unethical and employees' welfare would have been better without them. So, while "*should have*" and "*would have*" questions will yield positive responses, the employee will be unable to provide an affirmative answer to a "could have" question. Therefore, in a high abusive supervision climate, the negative relationship between abusive supervision and emotional exhaustion could be weak. For example, Duffy et al. (2006) investigated the interaction of individual-level and department-level supervisor undermining and discovered that the singled out experience is more detrimental in several outcomes, including job satisfaction, depression, counterproductive work behaviours, and the intention to quit.

Feelings of unfairness are emotionally taxing. When individuals experience or observe unfairness, they often feel a loss of control (Lind, Kanfer, & Earley, 1990), and when they try to take control of the situation but fail, unfairness can deprive employees even more (Tayfur, Bayhan Karapinar, & Metin Camgoz, 2013). Perceived unfairness also diminishes feelings of self-worth (Tyler, Lind, & Huo, 2000) and can lead to strong negative emotions like anger (Scott, Trost, Bernier, &

Sullivan, 2013). Accordingly, unfairness drains valuable emotional resources, the loss of which will result in emotional exhaustion (Hobfoll, Halbesleben, Neveu, & Westman, 2018). Several studies have demonstrated that injustice depletes emotional resources and leads to emotional exhaustion (Howard & Cordes, 2010; Manville, Akremi, Niezborala, & Mignonac, 2016). In light of these arguments and findings, we offer the following:

> *$H_{2:}$ Abusive supervision climate moderates the relationship between abusive supervision and emotional exhaustion. As such, the positive relationship between abusive supervision and emotional exhaustion is stronger when the abusive supervision climate is low rather than vice versa.*

Method

Participants and Procedures

Participants were recruited among private and public sector employees in the western regions of Turkey. For participants to be eligible, they had to have worked as team members in a department and had to have been full-time employees. Department-wise eligibility was also employed as it was important to represent climate variables at the department-level; in other words, participants had to have had at least three co-workers from the same department also involved in the study. Following this process, 267 employees from 60 departments were invited to participate.

Given the hardship of collecting data from departments, participants were recruited through personal contacts and snowball sampling, inviting new participants through the referral of other participants who had already enrolled in the study (Baltar & Brunet, 2012). To run this procedure smoothly, department managers were initially informed of our work, and when they gave permission, employees were invited to the study. Volunteer participation and anonymity of individual responses were emphasized upon invitation. If an employee gave consent, they completed a survey composed of five sections: consent form, abusive leadership scale, emotional exhaustion scale, abusive supervision climate scale, and demographics.

The survey forms were completed in paper and pencil format, and most were completed in less than 15 minutes. Completed surveys were collected by the researcher. After filtering for eligible criteria, an attention check question, individual response variability, and missing data, the final sample size was composed of 262

employees from 60 departments. Of this final sample, 56.9% of the participants were male, 40% were between the ages of 31 and 40, and on average had completed 10.67 (*SD* = 7.49) years of tenure.

Measures

The survey form included 39 items from three measures: abusive supervisor, emotional exhaustion, abusive supervision climate. If not stated, all measures were translated from English to Turkish using a back-translation method (Brislin, 1970).

Abusive supervision

Abusive supervision was measured with 15 items from Tepper's (2000) abusive supervision scale. Following a preface with "my supervisor…", items were posed to the participants. Sample items for abusive supervision included "Ridicules me", "Tells me my thoughts or feelings are stupid", and "Gives me the silent treatment". Participants were asked to rate items using a 1 (*I cannot remember him/her ever using this behaviour with me*) to 5 (*He/she uses this behaviour very often with me*) response scale. Cronbach's alpha for this scale was .93.

Emotional exhaustion

Emotional exhaustion was measured with Maslach and Jackson's (1981) emotional exhaustion scale. This scale consists of 9 items, and a sample item for emotional exhaustion was included: "I feel emotionally drained from my work." Participants were asked to rate items using a 1 (*never*) to 7 (*every day*). Cronbach's alpha for this scale was .83.

Abusive supervision climate

This was measured using Tepper's (2000) abusive supervision scale, but object pronouns were changed from "me" to "department members" to reflect the compositional structures of the abusive supervision climate. Rather than the accumulation of individual perceptions (direct-consensus), the climate is formed as members of a department share their understandings of abusive supervision (Priesemuth et al., 2014). This is also known as a referent-shift model (Chan, 1998; Klein & Kozlowski, 2000) and, in line with our conceptual arguments employing group reference, was deemed to be more suitable for our study. This scale consists of 15 items, and sample items for abusive supervision were included: "Ridicules department members", "Tells department members their thoughts or feelings are stupid",

"Gives department members the silent treatment." Participants were asked to rate items using a 1 (*I cannot remember him/her ever using this behaviour with department members*) to 5 (*He/she uses this behaviour very often with department members*) response scale. Cronbach's alpha for this scale was .95.

Given that abusive supervision was also treated as a climate construct in this study, it was important to examine whether responses would be aggregated to department-level (level 2). To assess the aggregation procedure, within group agreement for multi-item measures $r_{wg(j)}$ (James, Demaree, & Wolf, 1984) and intra-class correlations (ICC1 and ICC2) were calculated (Bliese, 2000). These measures were designed to examine the inter-rater agreement of responses given to multi-item scales within groups ($r_{wg(j)}$), to measure the levels of variance attributable in single/multi-item scales to group membership (ICC1), and to assess the degree of reliability of group means (Biemann, Cole, & Voelpel, 2012). Although there are no clear cut-offs, median $r_{wg(j)}$ equal to or greater than .7, ICC1, equal to or greater than .05, and ICC2 equal to or greater than .70 are considered acceptable for aggregation (Bliese, 2000). When we obtained scores based on the observed data, the results indicated that the median $r_{wg(j)}$ was .98, the ICC1 was .45 and the ICC2 was .78; thus, these measures supported the notion that abusive supervision could be aggregated and could reflect a climate construct.

Control variables

Given that the study ran at two levels, control variables pertaining to two levels were included. We controlled for department size at the department-level, because communication intensity and patterns might change depending on the size of a department, and also because abusive supervision can be more intense in smaller departments due to narrower span of control (Duffy et al., 2006). At the individual-level, gender and tenure were controlled for. Given that females are more susceptible to emotions in the workplace (Fujita, Diener, & Sandvik, 1991), we presumed that they might have been affected by abusive supervision more than males. In terms of tenure, as employees gain more tenure in an organization, they may learn to protect themselves from abusive supervision (Duffy et al., 2006).

Analytical Strategy

Data analysis was conducted in two stages (Anderson & Gerbing, 1988). In the first stage, the measurement model was assessed by conducting confirmatory factor

analysis (CFA). The main purpose of this analysis was to examine the discriminant validity of our individual-level variables, abusive supervision, and emotional exhaustion. Therefore, the hypothesized measurement model's (two-factor model) fit indices were analysed and compared with the one-factor model's indices. Following CFA guidelines (Kline, 2010), four indices and their cut-off scores were chosen as comparison points; model chi-square (χ^2) *p-value* < .05, comparative fit index (CFI) ≥ .90, root mean square error of approximation (RMSEA) ≤ .08, and standardized root mean square residual (SRMR) ≤ .08. Once the two-factor model had acceptable fit indices, and fitted better than the one-factor model, then we proceeded with hierarchical linear modelling (multilevel modelling). We conducted CFA analyses using the *lavaan* package (Rosseel, 2012) in the R environment (R Core Team, 2016).

In the second stage of our analysis, hierarchical linear modelling (HLM) was conducted owing to the multi-level nature of the data (Raudenbush & Bryk, 2002). In our sample, individuals were nested within groups (departments). The size of the department ranged from 3 to 9, with a mean of 4.4. This kind of grouping might lead individuals to share values, attitudes, or experiences, thus creating dependency among observations. Hierarchical linear modelling helped us model this dependency by partitioning the variance between levels. We also ran a null model with emotional exhaustion as the dependent variable. The level of variance found between groups was 8% and significant, $F(59,202) = 1.41$, $p = .043$. Even though the nested data structure was a sufficient criteria for HLM (Bliese, Maltarich, & Hendricks, 2018), the test results further justified that HLM was appropriate.

The analysis allowed us to model both fixed and random effects at the individual-level and at the department-level. The first hypothesis was related to individual-level and the second to the cross-level interaction. Therefore, a random intercept and slope model was chosen. Random slopes were recommended to detect cross-level interactions (Heisig & Schaeffer, 2019). Consistent with the random slope model and conceptual arguments, the independent variable (abusive supervision) was centered within clusters, and the moderator variable was represented as a cluster mean. In other words, participants' responses were group mean-centered and climate was represented with group means. Given the possibility of multicollinearity in the interaction model and consistent with other studies (Aryee et al., 2008), abusive supervision climate was also grand-centered. Other continuous variables in the model, such as control variables, were grand-centered. All of the multi-level analyses were conducted using the *lme4* package (Bates, Mächler, Bolker, & Walker,

2015) in the R environment.

Confirmatory Factor Analysis (CFA)

CFA of a two-factor model (abusive supervision and emotional exhaustion) was performed, but the measurement model did not fit the data well, χ^2 (251, N=262) = 994.05, CFI = .81, RMSEA = .11, SRMR = .09, despite the fact that the two-factor model fit better than the one-factor model, χ^2 (1) = 919, p < .001. Therefore, we examined the EFA structure and removed items that had low loadings onto the modelled factors, items that had cross-loadings, and items that had high residuals. Through an iterative process, this resulted in removing 4 items from the emotional exhaustion scale and 5 items from the abusive supervision scale. Once we conducted two-factor CFA again, the fit scores became acceptable, χ^2 (89, N=262) = 254.51, CFI = .91, RMSEA = .08, SRMR = .06. Furthermore, the model fit the data better than the one-factor model, χ^2 (1) = 399, p < .001. Based on these results, emotional exhaustion was represented with 5 items and abusive supervision with 10 items in the study. To create commensurability and conceptual overlap between abusive supervision and its climate, the same 10 items were used to create abusive supervision climate. Dropping scale items was not ideal, but studies have indicated that different numbers of items can be used to measure abusive supervision (Mackey et al., 2017) and emotional exhaustion (e.g. Brienza & Bobocel, 2017; Wilk & Moynihan, 2005). More importantly, we re-ran all analyses with and without dropping items, and none of the significant findings (in Table 2) changed.

Results

Basic descriptive statistics (mean and standard deviation) and correlations are shown in Table 1. The size of the department was negatively correlated with abusive supervision and abusive supervision climate of the department. Gender and tenure did not have significant relationships with other study variables. Study variables correlated in the expected direction.

Table 1. Means, Standard Deviations, Scale Reliabilities, and Correlations

	Variables	*M*	*SD*	1	2	3	4	5	6
1	Gender	.41	.49	-					
2	Tenure	1.67	7.49	-.03	-				
3	Department Size	15.47	13.94	.05	.16*	-			
4	Abusive Supervision	1.58	.63	.01	.04	-.21**	(.90)		
5	Abusive Supervision Climate	1.71	.76	-.06	.07	-.15*	.81***	(.93)	
6	Emotional Exhaustion	3.41	1.38	.03	-.05	-.04	.32**	.37**	(.83)

Note. n =262. Cronbach's alphas are reported across the diagonal in parentheses. *M* = Mean, *SD* = Standard Deviation, Gender (0 = Female, 1=Male)

* $p < .05$, ** $p < .01$, *** $p < .001$

Confirmatory Factor Analysis (CFA)

Following the guidelines established by Aguinis et al. (2013), we constructed four models, with each model nested in the other. In the Model Null, there were no predictors, but the intercept was random for baseline comparisons; Model 1 included control, abusive supervision, and abusive supervision climate variables. Model 2 was a prerequisite step to check whether the model had enough random variance at the slope (slope of abusive supervision). The last model (Model 3) tested the cross-level interaction effect (abusive supervision X abusive supervision climate). We tested the first hypothesis based on Model 1 and the second hypothesis based on Model 3. Hierarchical linear regression analysis results are shown in Table 2.

The analysis in Table 2 indicated that Model 1 was a better fit than the Model Null, χ^2 (5) = 32.04, $p < .001$. Therefore, we tested hypothesis 1 and hypothesis 2 based on Model 1. Hypothesis 1 was related to the positive relationship between abusive supervision and emotional exhaustion. According to the results of the Model 1 in Table 2, abusive supervision was positively and significantly related to emotional exhaustion ($\gamma = .93$, $t(199) = 4.28$, $p < .004$). These tests indicated that abusive supervision is positively associated with emotional exhaustion. This finding supported hypothesis 1.

The analysis indicated that Model 2 was a better fit than Model 1, which meant allowing the random slope to vary improved model fit, χ^2 (2) = 10.46, $p = .005$. This finding satisfied one of the prerequisite conditions for detecting a cross-level interaction. However, once we added the interaction term, Model 3's fit did not significantly improve compared to Model 2's, χ^2 (1) = 1.67, $p = .197$. In addition, in Model 3 in Table 2, the interaction term was not significant ($\gamma = .74$, $t(57) = 1.29$, $p = .203$). Therefore, hypothesis 2, which claimed that the relationship between abusive supervision and emotional exhaustion would be moderated by the abusive supervision climate, was not supported. Since the interaction term was not significant, we did not conduct additional simple slope analysis or graph the interaction effect.

Table 2. Hierarchical Linear Regression Analyses on Emotional Exhaustion

	Dependent Variable: Emotional Exhaustion							
	Model Null		Model 1		Model 2		Model 3	
Fixed Effects	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*	Estimate	*SE*
Intercept	3.42***	0.10	3.38***	0.11	3.38***	0.11	3.38***	0.11
Gender [Male]			0.09	0.17	0.09	0.16	0.10	0.16
Tenure			-0.02	0.01	-0.01	0.01	-0.01	0.01
Department Size			0.00	0.01	0.00	0.01	0.00	0.01
Abusive Supervision			0.92***	0.22	0.93**	0.30	0.89**	0.31
Abusive Supervision Climate			0.59***	0.16	0.58***	0.16	0.59***	0.16
Abusive Supervision * Abusive Supervision Climate							0.74	0.58
Random Effects								
L1 Within department variance (σ^2)	1.76		1.62		1.34		1.34	
L2 Intercept variance (τ_{00})	0.16		0.09		0.16		0.16	
L2 Slope variance (τ_{11})					1.75		1.77	
L2 Intercept-Slope variance (ρ_{01})					0.20		0.27	
Additional Information								
ICC	0.08		0.05		0.23		0.23	
log-Likelihood (REML)	-456.074		-450.337		-444.805		-443.638	
Deviance	909.318		877.349		866.887		865.228	
Marginal R^2 / Conditional R^2	0.000 / 0.081		0.118 / 0.163		0.114 / 0.315		0.123 / 0.323	

Note. n = 262 (individuals), n = 60 (departments). REML = restricted maximum likelihood estimation; L1 = Level 1 (individual-level); L2 = Level 2 (department-level). Model Null = Null Model, Model 1 = Random Intercept + Fixed Slope Model, Model 2 = Random Intercept + Random Slope Model, Model 3 = Cross-Level Interaction Model

* $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion

Our study examines the role of abusive supervision climate in the relationship between abusive supervision and emotional exhaustion. While much is known in terms of the abusive supervision-emotional exhaustion link (Hypothesis 1), to what extent the abusive supervision climate can alter the abusive supervision-emotional exhaustion link, is not known. Following these ideas, we provide a cross-level analysis.

The results demonstrate that abusive supervision is negatively related to emotional exhaustion when controlled for the abusive supervision climate effect. At the individual-level, abusive supervision relates to emotional exhaustion because perceived abusive supervision is a threat to employee resources, thus increasing emotional exhaustion. The finding at the individual-level is consistent with other studies (Wheeler et al., 2013; Wu & Changya Hu, 2009; Yagil, 2006; Zhang & Liao, 2015) and also parallel with the claims of conservation of resources theory (Hobfoll et al., 2018).

Contrary to our expectations, the second hypothesis was not supported. The result indicated that the abusive supervision climate did not moderate the relationship between abusive supervision and emotional exhaustion. Based on studies that focused on this specific type of interaction (abusive supervision X abusive supervision climate), researchers found that the interaction term is significantly related to organization-based self-esteem (Farh & Chen, 2014). In a similar context, the interaction term of individual-level supervisor undermining and department-level supervisor undermining is also significantly related to depression (Duffy et al., 2006). Thus, non-significant cross-level interaction in the present study is not consistent with the literature. One reason could be the aggregation of aggressive behaviour to higher levels. In Duffy et al.'s (2006) study, they measured supervisor aggression with a direct-consensus model, while we measured it with a referent-shift model. This is not only a measurement issue, but it also has conceptual implications. With the referent shift model, we focused on how individuals perceive aggressive behaviours targeting others rather than themselves, which might be a factor in our findings. Another reason could be our sampling methodology. Even though the employees participated in the study based on consent and were reminded about their anonymity, there might be still a chance that some employees who were abused by their supervisors might not have joined the study. Since the authors did not have an option to invite members randomly, this might further affect our results. Therefore,

non-significant findings might be due to the cons of the sampling methodology that we used. Future studies might consider this issue in detail.

In terms of practical implications, companies should create and develop mechanisms to prevent abusive supervision. If abusive climate is high in a department, employees' stress levels increase, and employees might even respond with deviance (Ogunfowora, 2013). In this situation, a company cannot obtain expected productivity from its employees. Companies should establish systems to detect any sign of abusive supervision because abusive supervision is a low-base-rate phenomenon (Tepper, Duffy, Hoobler, & Ensley, 2004), which is to say that overall mean levels are generally low (Mackey et al., 2017). As such, companies should act at any sign of abusive supervision rather than waiting for certain limits to be surpassed. Companies should avoid supervisory aggressive behaviours (in all forms) because they have cascading effects. Once it is detected, HR departments should help supervisors change their approach to employees. For example, these systems could be employee mistreatment and/or consultation programs. When a supervisor misbehaves, then there should be a reporting platform so that the employee can inform HR. Informed by these reports, HR can devise a development program for their supervisors or can even start a dispute resolution process.

Limitations and Suggestions for Future Research

This study is a cross-sectional study. We consulted employee views only once. This type of design can be acceptable in the examination of independent-dependent relationships, but it might not be a rigorous choice if we were to include additional variables. There are two potential remedies to this design choice: one is abusive supervision climate composed of several employee responses (multi-source construct), which would increase the quality of climate measurement. The other remedy is for abusive supervision climate to be designed to moderate relationships between abusive supervision and emotional exhaustion. In such a case, however, interactive effects would be harder to detect, even in cross-sectional studies (Siemsen, Roth, & Oliveira, 2010).

According to the referent-shift model (Chan, 1998), one could also claim that abusive acts targeting one member of a department can be detected by most department members. If the department members acknowledge this issue, then the department might develop a shared understanding indicating that the supervisor is abusive. Thus, the department employees might form a high abusive supervision

climate perception without directly experiencing abuse from their supervisors (Mitchell, Vogel, & Folger, 2014), and sometimes an intense and visible single case could be enough. However, researchers should pay attention to measurement problems so that they can detect high abusive supervision climate originating from an intense single case vs. numerous cases. To test this claim, future studies should ask each member questions regarding their co-workers. Similar to network analysis, scholars might track each dyadic evaluation so that these evaluations come together to represent an abusive supervision climate.

Divergent validity of the variables is another limitation of this study. We used a full list of items, but the initial two-factor solution was not a good fit. Even though abusive supervision and emotional exhaustion differ profoundly in concept, some of the measurement items contained very high modification values within and between constructs. After adding a common latent factor to the two-factor solution to model unmeasured bias, we detected that most of the items still loaded significantly onto their respective factors. But even in this case, the fit of the model with the common latent factor was hardly acceptable, χ^2 (227, *N*=262) = 643.88, CFI = .89, RMSEA = .08, SRMR = .05. Thus, to create divergent scales for measurement, we excluded some items. Though not ideal, there are studies that remove items to attain better divergent validity (Bono, Glomb, Shen, Kim, & Koch, 2013; De Cuyper, Schreurs, Elst, Baillien, & De Witte, 2014; Priesemuth et al., 2014). It should be noted that with and without a full list of items, the significance of the variables remained the same in both versions.

In line with good reporting practices (John, Loewenstein, & Prelec, 2012), it should be noted that negative affectivity was also measured using Watson et al.'s (1988) scale, which was designed to be a control variable owing to its relationships with abusive supervision and emotional exhaustion (Aryee et al., 2008; Wu & Changya Hu, 2009). However, the items between emotional exhaustion and negative affectivity did not diverge when we performed CFA, χ^2 (151, *N*=262) = 853.68, CFI = .75, RMSEA = .13, SRMR = .12. Since our research strategy was not designed to handle negative affectivity as a variable other than a control variable, we omitted it from further analysis. However, it should be noted that if negative affectivity had been included as a control variable, the relationships between abusive supervision and emotional exhaustion (γ = .24, t(215) = 1.24, p = .217) and abusive supervision climate and emotional exhaustion (γ = .16, t(64) = 1.30, p = .199) would not have been significant. This finding can be considered a limitation. Therefore, future studies should include negative affectivity and take necessary measures to minimize item overlap.

Conclusion

The study has focused on a developing aspect of abusive supervision literature referred to as abusive supervision climate. Its role has been examined in relation to individual-level abusive supervision and emotional exhaustion. Based on fairness and the conservation of resources theories, we tested and found that abusive supervision climate is associated with emotional exhaustion. This research contributes to the literature on abusive work climates and extends its outcomes to emotional exhaustion.

References / Kaynakça

Aguinis, H., Gottfredson, R. K., & Culpepper, S. A. 2013. Best-practice recommendations for estimating cross-level interaction effects using multilevel modeling. ***Journal of Management***, *39*(6): 1490-1528. doi:10.1177/0149206313478188

Ambrose, M. L., & Ganegoda, D. B. 2020. Abusive according to whom? manager and subordinate perceptions of abusive supervision and supervisors' performance. ***Journal of Organizational Behavior***, *41*(8): 737-756. doi:10.1002/job.2472

Anderson, J. C., & Gerbing, D. W. 1988. Structural equation modeling in practice: A review and recommended two-step approach. ***Psychological Bulletin***, *103*(3): 411-423. doi:10.1037/0033-2909.103.3.411

Aryee, S., Sun, L. Y., Chen, Z. X. G., & Debrah, Y. A. 2008. Abusive supervision and contextual performance: The mediating role of emotional exhaustion and the moderating role of work unit structure. ***Management and Organization Review***, *4*(3): 393-411. doi:10.1111/j.1740-8784.2008.00118.x

Bakker, A. B., Demerouti, E., & Verbeke, W. 2004. Using the job demands-resources model to predict burnout and performance. ***Human Resource Management***, *43*(1): 83-104. doi:10.1002/hrm.20004

Baltar, F., & Brunet, I. 2012. Social research 2.0: Virtual snowball sampling method using facebook. ***Internet Research***, *22*(1): 57-74. doi:10.1108/10662241211199960

Bates, D., Mächler, M., Bolker, B., & Walker, S. 2015. Fitting linear mixed-effects models using lme4. ***Journal of Statistical Software***, *67*(1): 51. doi:10.18637/jss.v067.i01

Biemann, T., Cole, M. S., & Voelpel, S. 2012. Within-group agreement: On the use (and misuse) of r wg and r wg(j) in leadership research and some best practice guidelines. ***Leadership Quarterly***, *23*(1): 66-80. doi:10.1016/j.leaqua.2011.11.006

Bliese, P. D. 2000. Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In ***Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions***: 349-381. San Francisco, CA, US : Jossey-Bass.

Bliese, P. D., Maltarich, M. A., & Hendricks, J. L. 2018. Back to basics with mixed-effects models: Nine take-away points. ***Journal of Business and Psychology***, *33*(1): 1-23. doi:10.1007/s10869-017-9491-z

Bono, J. E., Glomb, T. M., Shen, W., Kim, E., & Koch, A. J. 2013. Building positive resources: Effects of positive events and positive reflection on work-stress and health. ***Academy of Management Journal***, *56*(6): 1601-1627. doi:10.5465/amj.2011.0272

Brienza, J. P., & Bobocel, D. R. 2017. Employee age alters the effects of justice on emotional exhaustion and organizational deviance. ***Frontiers in Psychology***, *8*(MAR). doi:10.3389/fpsyg.2017.00479

Brislin, R. W. 1970. Back-translation for cross-cultural research. ***Journal of Cross-Cultural Psychology***, *1*(3): 185-216. doi:10.1177/135910457000100301

Carlson, D., Ferguson, M., Hunter, E., & Whitten, D. 2012. Abusive supervision and work-family conflict: The path through emotional labor and burnout. ***Leadership Quarterly***, *23*(5): 849-859. doi:10.1016/j.leaqua.2012.05.003

Chan, D. 1998. Functional relations among constructs in the same content domain at different levels of analysis : A typology of composition models. ***Journal of Applied Psychology***, *83*(2): 234-246. doi:10.1037/0021-9010.83.2.234

Chi, S. C. S., & Liang, S. G. 2013. When do subordinates' emotion-regulation strategies matter? Abusive supervision, subordinates' emotional exhaustion, and work withdrawal. ***Leadership Quarterly***, *24*(1): 125-137. doi:10.1016/j.leaqua.2012.08.006

De Cuyper, N., Schreurs, B., Elst, T. Vander, Baillien, E., & De Witte, H. 2014. Exemplification and perceived job insecurity: Associations with self-rated performance and emotional exhaustion. ***Journal of Personnel Psychology***, *13*(1A): 1-10. doi:10.1027/1866-5888/a000099

Duffy, M. K., Ganster, D. C., Shaw, J. D., Johnson, J. L., & Pagon, M. 2006. The social context of undermining behavior at work. ***Organizational Behavior and Human Decision Processes***, *101*(1): 105-126. doi:10.1016/j.obhdp.2006.04.005

Farh, C. I. C., & Chen, Z. 2014. Beyond the individual victim: Multilevel consequences of abusive supervision in teams. ***Journal of Applied Psychology***, *99*(6): 1074-1095. doi:10.1037/a0037636

Folger, R., & Cropanzano, R. 2001. Fairness theory: Justice as accountability. In J. Greenberg & R. Cropanzano (Eds.), ***Advances in Organizational Justice***: 1-30. California : Stanford University Press.

Fujita, F., Diener, E., & Sandvik, E. 1991. Gender differences in negative affect and well-being: The case for emotional intensity. ***Journal of Personality and Social Psychology***, *61*(3): 427-434. doi:10.1037/0022-3514.61.3.427

Griffin, M. A., & Mathieu, J. E. 1997. Modeling organizational processes across hierarchical levels: Climate, leadership, and group process in work groups. ***Journal of Organizational Behavior***, *18*(6): 731-744. doi:10.1002/(SICI)1099-1379(199711)18:6<731::AID-JOB814>3.0.CO;2-G

Halbesleben, J. R. B., & Bowler, W. M. 2007. Emotional exhaustion and job performance: The mediating role of motivation. ***Journal of Applied Psychology***, *92*(1): 93-106. doi:10.1037/0021-9010.92.1.93

Harms, P. D., Credé, M., Tynan, M., Leon, M., & Jeung, W. 2017. Leadership and stress: A meta-analytic review. ***The Leadership Quarterly***, *28*(1): 178-194. doi:10.1016/j.leaqua.2016.10.006

Harvey, P., Stoner, J., Hochwarter, W., & Kacmar, C. 2007. Coping with abusive supervision: The neutralizing effects of ingratiation and positive affect on negative employee outcomes. ***The Leadership Quarterly***, *18*(3): 264-280. doi:10.1016/j.leaqua.2007.03.008

Heisig, J. P., & Schaeffer, M. 2019. Why you should always include a random slope for the lower-level variable involved in a cross-level interaction. ***European Sociological Review***, *35*(2): 258-279. doi:10.1093/esr/jcy053

Hobfoll, S. E. 1989. Conservation of resources: A new attempt at conceptualizing stress. ***American Psychologist***, *44*(3): 513-524. doi:10.1037/0003-066X.44.3.513

Hobfoll, S. E., Halbesleben, J. R. B., Neveu, J.-P., & Westman, M. 2018. Conservation of resources in the organizational context: The reality of resources and their consequences. ***Annual Review of Organizational Psychology and Organizational Behavior***, *5*(1): 103-128. doi:10.1146/annurev-orgpsych-032117-104640

Howard, L. W., & Cordes, C. L. 2010. Flight from unfairness: Effects of perceived injustice on emotional exhaustion and employee withdrawal. ***Journal of Business and Psychology***, *25*(3): 409-428. doi:10.1007/s10869-010-9158-5

Hülsheger, U. R., Alberts, H. J. E. M., Feinholdt, A., & Lang, J. W. B. 2013. Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. ***Journal of Applied Psychology***, *98*(2): 310-325. doi:10.1037/a0031313

James, L. R., Demaree, R. G., & Wolf, G. 1984. Estimating within-group interrater reliability with and without response bias. ***Journal of Applied Psychology***, *69*(1): 85-98. doi:10.1037/0021-9010.69.1.85

Jiang, W., & Gu, Q. 2016. How abusive supervision and abusive supervisory climate influence salesperson creativity and sales team effectiveness in china. ***Management Decision***, *54*(2): 455-475. doi:10.1108/MD-07-2015-0302

Jiang, W., Gu, Q., & Tang, T. L.-P. 2019. Do victims of supervisor bullying suffer from poor creativity? Social cognitive and social comparison perspectives. ***Journal of Business Ethics***, *157*(3): 865-884. doi:10.1007/s10551-017-3660-x

John, L. K., Loewenstein, G., & Prelec, D. 2012. Measuring the prevalence of questionable research practices with incentives for truth telling. ***Psychological Science***, *23*(5): 524-532. doi:10.1177/0956797611430953

Klaussner, S. 2014. Engulfed in the abyss: The emergence of abusive supervision as an escalating process of supervisor–subordinate interaction. ***Human Relations***, *67*(3): 311-332. doi:10.1177/0018726713493027

Klein, K. J., & Kozlowski, S. W. J. 2000. From micro to meso: Critical steps in conceptualizing and conducting multilevel research. ***Organizational Research Methods***, *3*(3): 211-236. doi:10.1177/109442810033001

Kline, R. B. 2010. ***Principles and practice of structural equation modeling, Third Edition***. Guilford Press.

Kuenzi, M., & Schminke, M. 2009. Assembling fragments into a lens: A review, critique, and proposed research agenda for the organizational work climate literature. ***Journal of Management***, *35*(3): 634-717. doi:10.1177/0149206308330559

Lind, E. A., Kanfer, R., & Earley, P. C. 1990. Voice, control, and procedural justice: Instrumental and noninstrumental concerns in fairness judgments. ***Journal of Personality and Social Psychology***, *59*(5): 952-959. doi:10.1037/0022-3514.59.5.952

Mackey, J. D., Frieder, R. E., Brees, J. R., & Martinko, M. J. 2017. Abusive supervision: A meta-analysis and empirical review. ***Journal of Management***, *43*(6): 1940-1965. doi:10.1177/0149206315573997

Manville, C., Akremi, A. El, Niezborala, M., & Mignonac, K. 2016. Injustice hurts, literally: The role of sleep and emotional exhaustion in the relationship between organizational justice and musculoskeletal disorders. ***Human Relations***, *69*(6): 1315-1339. doi:10.1177/0018726715615927

Martinko, M. J., Harvey, P., Brees, J. R., & Mackey, J. 2013. A review of abusive supervision research. ***Journal of Organizational Behavior***, *34*(S1): S120-S137. doi:10.1002/job.1888

Maslach, C., & Jackson, S. E. 1981. The measurement of experienced burnout. ***Journal of Occupational Behavior***, *2*: 99-113. doi:10.1002/job.4030025

Maslach, C., & Leiter, M. P. 2008. Early predictors of job burnout and engagement. ***Journal of Applied Psychology***, *93*(3): 498-512. doi:10.1037/0021-9010.93.3.498

Mawritz, M. B., Folger, R., & Latham, G. P. 2014. Supervisors' exceedingly difficult goals and abusive supervision: The mediating effects of hindrance stress, anger, and anxiety. ***Journal of Organizational Behavior***, *35*(3): 358-372. doi:10.1002/job.1879

Men, C., Yue, L., Weiwei, H., Liu, B., & Li, G. 2021. How abusive supervision climate affects team creativity: The contingent role of task interdependence. ***European Journal of Innovation Management***, (ahead-of-print). doi:10.1108/EJIM-08-2020-0310

Mitchell, M. S., Vogel, R. M., & Folger, R. 2014. Beyond the consequences to the victim. In R. A. Giacalone & M. D. Promislo (Eds.), ***Handbook of unethical work behavior: Implications for individual well-being***: 23-39. London: Routledge.

Naumann, S. E., & Bennett, N. 2000. A case for procedural justice climate: Development and test of a multilevel model. ***Academy of Management Journal***, *43*(5): 881-889. doi:10.5465/1556416

Ogunfowora, B. 2013. When the abuse is unevenly distributed: The effects of abusive supervision variability on work attitudes and behaviors. ***Journal of Organizational Behavior***, *34*(8): 1105-1123. doi:10.1002/job.1841

Özkan, A. H. 2021. Abusive supervision climate and turnover intention: Is it my coworkers or my supervisor ostracizing me? ***Journal of Nursing Management***. doi:10.1111/jonm.13398

Palanski, M., Avey, J. B., & Jiraporn, N. 2014. The effects of ethical leadership and abusive supervision on job search behaviors in the turnover process. ***Journal of Business Ethics***, *121*(1): 135-146. doi:10.1007/s10551-013-1690-6

Paulin, D., & Griffin, B. 2016. The relationships between incivility, team climate for incivility and job-related employee well-being: A multilevel analysis. ***Work and Stress***, *30*(2): 132-151. doi:10.1080/02678373.2016.1173124

Priesemuth, M., Schminke, M., Ambrose, M. L., & Folger, R. 2014. Abusive supervision climate: A multiple-mediation model of its impact on group outcomes. ***Academy of Management Journal***, *57*(5): 1513-1534. doi:10.5465/amj.2011.0237

Pyc, L. S., Meltzer, D. P., & Liu, C. 2017. Ineffective leadership and employees' negative outcomes: The mediating effect of anxiety and depression. ***International Journal of Stress Management***, *24*(2): 196-215. doi:10.1037/str0000030

R Core Team. 2016. R development core team. ***R: A language and environment for statistical computing***. doi:http://www.R-project.org

Rafferty, A. E., Restubog, S. L. D., & Jimmieson, N. L. 2010. Losing sleep: Examining the cascading effects of supervisors' experience of injustice on subordinates' psychological health. ***Work and Stress***, *24*(1): 36-55. doi:10.1080/02678371003715135

Raudenbush, S. W., & Bryk, A. S. 2002. ***Hierarchical linear models: Applications and data analysis methods***. *Thousand Oaks, CA: Sage.* (Vol. 1, 2nd ed.).

Rosseel, Y. 2012. Lavaan : An R package for structural equation modeling. ***Journal of Statistical Software***, *48*(2): 1-36. doi:10.18637/jss.v048.i02

Salancik, G. R., & Pfeffer, J. 1978. A social information processing approach to job attitudes and task design. ***Administrative Science Quarterly***, *23*(2): 224-53. Récupéré de http://www.ncbi.nlm.nih.gov/pubmed/10307892

Schilpzand, P., Leavitt, K., & Lim, S. 2016. Incivility hates company: Shared incivility attenuates rumination, stress, and psychological withdrawal by reducing self-blame. ***Organizational Behavior and Human Decision Processes***, *133*: 33-44. doi:10.1016/j.obhdp.2016.02.001

Schneider, B., & Reichers, A. E. 1983. On the etiology of climates. ***Personnel Psychology***, *36*(1): 19-39.

Scott, W., Trost, Z., Bernier, E., & Sullivan, M. J. L. 2013. Anger differentially mediates the relationship between perceived injustice and chronic pain outcomes. ***Pain***, *154*(9): 1691-1698. doi:10.1016/j.pain.2013.05.015

Seibert, S. E., Silver, S. R., & Randolph, W. A. 2004. Taking empowerment to the next level: A multiple-level model of empowerment, performance, and satisfaction. ***Academy of Management Journal***, *47*(3): 332-349. doi:10.2307/20159585

Shen, C., Yang, J., & Hu, S. 2020. Combined effect of abusive supervision and abusive supervision climate on employee creativity: A moderated mediation model. ***Frontiers in Psychology***, *11*(July): 1-10. doi:10.3389/fpsyg.2020.01175

Siemsen, E., Roth, A., & Oliveira, P. 2010. Common method bias in regression models with linear, quadratic, and interaction effects. ***Organizational Research Methods***, *13*(3): 456-476. doi:10.1177/1094428109351241

Skarlicki, D. P., & Kulik, C. T. 2004. Thrid-party reactions to employee (mis)treatment: A justice perspective. ***Research in Organizational Behavior***, *26*: 183-229. doi:10.1016/S0191-3085(04)26005-1

Sutton, R. I. 2007. ***The no asshole rule: Building a civilized workplace and surviving one that isn't***. New York, NY: Business Plus.

Sutton, R. I. 2010. ***Good boss, bad boss: How to be the best... and learn from the worst***. New York, NY: Business Plus.

Tayfur, O., Bayhan Karapinar, P., & Metin Camgoz, S. 2013. The mediating effects of emotional exhaustion cynicism and learned helplessness on organizational justice-turnover intentions linkage. ***International Journal of Stress Management***, *20*(3): 193-221. doi:10.1037/a0033938

Tepper, B. J. 2000. Consequences of abusive supervision. ***Academy of Management Journal***, *43*(2): 178-190. doi:10.5465/1556375

Tepper, B. J. 2007. Abusive supervision in work organizations: Review, synthesis, and research agenda. ***Journal of Management***, *33*(3): 261-289. doi:10.1177/0149206307300812

Tepper, B. J., Duffy, M. K., Hoobler, J., & Ensley, M. D. 2004. Moderators of the relationships between coworkers' organizational citizenship behavior and fellow employees' attitudes. ***Journal of Applied Psychology***, *89*(3): 455-465. doi:10.1037/0021-9010.89.3.455

Tepper, B. J., Henle, C. A., Lambert, L. S., Giacalone, R. A., & Duffy, M. K. 2008. Abusive supervision and subordinates' organization deviance. ***Journal of Applied Psychology***, *93*(4): 721-732. doi:10.1037/0021-9010.93.4.721

Tepper, B. J., Simon, L., & Park, H. M. 2017. Abusive supervision. ***Annual Review of Organizational Psychology and Organizational Behavior***, *4*: 123-152. doi:10.1146/annurev-orgpsych-041015-062539

Thau, S., & Mitchell, M. S. 2010. Self-gain or self-regulation impairment? Tests of competing explanations of the supervisor abuse and employee deviance relationship through perceptions of distributive justice. ***Journal of Applied Psychology***, *95*(6): 1009-1031. doi:10.1037/a0020540

Tholén, S. L., Pousette, A., & Törner, M. 2013. Causal relations between psychosocial conditions, safety climate and safety behaviour - A multi-level investigation. ***Safety Science***, *55*: 62-69. doi:10.1016/j.ssci.2012.12.013

Tyler, T. R., Lind, E. A., & Huo, Y. J. 2000. Cultural values and authority relations: The psychology of conflict resolution across cultures. ***Psychology, Public Policy, and Law***, *6*(4): 1138-1163. doi:10.1037/1076-8971.6.4.1138

Umphress, E. E., Simmons, A. L., Folger, R., Ren, R., & Bobocel, R. 2013. Observer reactions to interpersonal injustice: The roles of perpetrator intent and victim perception. ***Journal of Organizational Behavior***, *34*(3): 327-349. doi:10.1002/job.1801

van den Bos, K. 2003. On the subjective quality of social justice: the role of affect as information in the psychology of justice judgments. ***Journal of Personality and Social Psychology***, *85*(3): 482-498. doi:10.1037/0022-3514.85.3.482

Watson, D., Clark, L. A., & Tellegen, A. 1988. Development and validation of brief measures of positive and negative affect: The panas scales. ***Journal of Personality and Social Psychology***, *54*(6): 1063-1070. doi:10.1037/0022-3514.54.6.1063

Wheeler, A. R., Halbesleben, J. R. B., & Whitman, M. V. 2013. The interactive effects of abusive supervision and entitlement on emotional exhaustion and co-worker abuse. ***Journal of Occupational and Organizational Psychology***, *86*(4): 477-496. doi:10.1111/joop.12034

Whitman, M. V., Halbesleben, J. R. B., & Holmes, O. 2014. Abusive supervision and feedback avoidance: The mediating role of emotional exhaustion. ***Journal of Organizational Behavior***, *35*(1): 38-53. doi:10.1002/job.1852

Wilk, S. L., & Moynihan, L. M. 2005. Display rule "regulators": The relationship between supervisors and worker emotional exhaustion. ***Journal of Applied Psychology***, *90*(5): 917-927. doi:10.1037/0021-9010.90.5.917

Wright, T. A., & Cropanzano, R. 1998. Emotional exhaustion as a predictor of job performance and voluntary turnover. ***Journal of Applied Psychology***, *83*(3): 486-493. doi:10.1037/0021-9010.83.3.486

Wu, T. Y., & Changya Hu. 2009. Abusive supervision and employee emotional exhaustion: Dispositional antecedents and boundaries. ***Group and Organization Management***, *34*(2): 143-169. doi:10.1177/1059601108331217

Xu, A. J., Loi, R., & Lam, L. W. 2015. The bad boss takes it all: How abusive supervision and leader-member exchange interact to influence employee silence. ***Leadership Quarterly***, *26*(5): 763-774. doi:10.1016/j.leaqua.2015.03.002

Yagil, D. 2006. The relationship of abusive and supportive workplace supervision to employee burnout and upward influence tactics. ***Journal of Emotional Abuse***, *6*(1): 67-85. doi:10.1300/J135v06n01

Zellars, K. L., Tepper, B. J., & Duffy, M. K. 2002. Abusive supervision and subordinates' organizational citizenship behavior. ***Journal of Applied Psychology***, *87*(6): 1068-1076. doi:10.1037/0021-9010.87.6.1068

Zhang, Y., & Liao, Z. 2015. Consequences of abusive supervision: A meta-analytic review. ***Asia Pacific Journal of Management***, *32*(4): 959-987. doi:10.1007/s10490-015-9425-0