

Supervisors' exceedingly difficult goals and abusive supervision: The mediating effects of hindrance stress, anger, and anxiety

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Summary

This study examined a contextual predictor of abusive supervision. Specifically, we hypothesized that job goals that are judged by supervisors to be exceedingly difficult to attain is a predictor of subordinate-rated abusive supervisory behavior. Drawing on the cognitive theory of stress, we hypothesized that exceedingly difficult job goals assigned to supervisors predict abusive behavior directed at their subordinates, as mediated by the supervisors' hindrance stress and emotions (e.g., anger and anxiety). We collected data from employees and their immediate supervisors to test this theoretical model ($N=215$ matched pairs). The results of this multisource field study provided support for the hypothesized relationships. In particular, assigned job goals that were appraised by supervisors as exceedingly difficult to attain predicted their hindrance stress. Also, hindrance stress was positively related to anger and anxiety, which in turn predicted abusive supervision. Theoretically, these findings contribute to research on goal setting, stress, and abusive supervision. In addition, these findings are practically important in that they provide suggestions on how to minimize abusive supervision in organizations. Copyright © 2013 John Wiley & Sons, Ltd.

Keywords: abusive supervision; goals; hindrance stress

Abusive supervision is defined as “subordinates’ perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact” (Tepper, 2000, p. 178). Although the consequences of abusive supervision have received considerable attention (see Tepper, 2007, for a review), only a few studies have explicitly examined predictors of this behavior. These studies have focused on contextual factors that contribute to a supervisor’s abusive behavior (e.g., Aryee, Chen, Sun, & Debrah, 2007; Hoobler & Brass, 2006; Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012; Restubog, Scott, & Zagenczyk, 2011; Tepper, Duffy, Henle, & Lambert, 2006). The purpose of the present study is to contribute to this limited research on situational factors that predict abusive supervision by examining another possible contextual antecedent of abuse.

Specifically, we examine job goals assigned to supervisors that are judged to be exceedingly difficult as predictors of abusive supervision. We test a theoretical model that proposes that perceived exceedingly difficult job goals predict abusive behavior directed at subordinates, as mediated by the supervisors’ hindrance stress and negative emotions, namely anger and anxiety. The cognitive theory of stress (Lazarus & Folkman, 1984) and subsequent stress research (e.g., Cavanaugh, Boswell, Roehling, & Boudreau, 2000; LePine, Podsakoff, & LePine, 2005; Webster, Beehr, & Christiansen, 2010; Webster, Beehr, & Love, 2011) have suggested a sequence in which a workplace stressor is appraised as a challenge or hindrance, which in turn leads to emotional and subsequent behavioral responses. Hence, extant stress research offers a theoretical rationale for the mediating effects of supervisor

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hindrance stress, anger, and anxiety in the relationship between assigned goals perceived to be exceedingly difficult goals by supervisors and their subsequent abuse of subordinates.

The present study contributes to the organizational behavior literature in the following ways. First, the findings add to the limited research on antecedents of abusive supervision by investigating supervisors' perceptions of exceedingly difficult goals as predictors of abuse as well as the mediating effects of supervisors' hindrance stress, anger, and anxiety. Second, the findings contribute to goal-setting theory by examining the potential negative effects of assigning goals that are perceived to be exceedingly difficult. Very little goal-setting research has examined the consequences of assigning job goals that are considered by recipients to be overwhelmingly difficult. We draw on research on stress to explain that abusive supervision may be a negative outcome of perceived exceedingly difficult goals. Finally, this study contributes to extant research on stress. Stress researchers (e.g., Cavanaugh et al., 2000) have begun to acknowledge that there are positive as well as negative stressors (i.e., challenge and hindrance stressors). Doing so has allowed researchers to begin to gain a greater understanding of relationships between workplace stressors and behavioral outcomes (Rodell & Judge, 2009). The present study adds to this understanding by examining supervisors' perceived exceedingly difficult job goals as hindrance stressors that predict their abusive behavior.

Abusive Supervision

Previous research on abusive supervision has focused largely on the negative effects of this type of supervisory behavior on employees. For example, extant research has demonstrated that abused subordinates experience lower self-esteem (Burton & Hoobler, 2006) and higher psychological distress (Tepper, Moss, Lockhart, & Carr, 2007), job tension, and emotional exhaustion (Harvey, Stoner, Hochwarter, & Kacmar, 2007). Moreover, research suggests that subordinates respond to abusive supervision by reducing their organizational commitment (Tepper, 2000) and job performance (Harris, Kacmar, & Zivnuska, 2007) and increasing their organizational deviance (Tepper, Henle, Lambert, Giacalone, & Duffy, 2008). Studies that have explicitly examined predictors of supervisor abuse have mainly focused on contextual factors, such as organizational injustice (e.g., Aryee et al., 2007; Tepper et al., 2006), psychological contract violation (e.g., Hoobler & Brass, 2006), abuse from higher-level managers (e.g., Mawritz et al., 2012), and aggressive organizational norms (e.g., Restubog et al., 2011). Thus, abusive supervision appears to be a function of negative aspects of the work environment.

Abusive supervision is similar to, yet distinct from, supervisor undermining (Duffy, Ganster, & Pagon, 2002), destructive leadership (Einarsen, Aasland, & Skogstad, 2007), workplace bullying (Zapf & Einarsen, 2001), and workplace aggression (Schat, Desmarais, & Kelloway, 2006). Of these constructs, the one that most closely aligns with abusive supervision is supervisor undermining (Tepper, 2007), which represents supervisory behaviors that are intended to hinder a subordinate's ability to maintain positive interpersonal relationships, work-related success, and a favorable reputation (Duffy et al., 2002). However, supervisor undermining and abusive supervision differ in that the definition of undermining specifies intent on the part of the supervisor, implies an interference with work relationships, and assumes specific outcomes (Hershcovis, 2011). Similarly, destructive leadership, defined as leader behaviors that undermine or sabotage the organization's effectiveness and/or the well-being of subordinates (Einarsen et al., 2007), is also related to abusive supervision but distinct. Unlike abusive supervision, destructive leadership is a broad concept that captures negative leader physical and verbal behaviors directed at both subordinates and the organization. Furthermore, workplace bullying differs from abuse in that it includes verbal and/or physical attacks and can include hostile actions by all organizational members not just by supervisors (Tepper, 2007). Also, workplace aggression includes behaviors intended to harm others at work or the organization as a whole (Neuman & Baron, 1998) and refers to aggressive behavior by individuals at any hierarchical level within the organization (Tepper, 2007). In fact, most research on workplace aggression has focused on aggressive actions by lower-level employees (see Hershcovis et al., 2007, for a meta-analytic

review), although a few studies have examined aggressive behaviors by supervisors (e.g., Grandey, Kern, & Frone, 2007; Mitchell & Ambrose, 2012; Schat et al., 2006). Thus, although abusive supervision is related to these constructs, it is distinct in that it represents abusive, hostile supervisory behaviors, which is a phenomenon that is not specifically captured by other related constructs. As such, an examination of the predictors of abusive supervision is warranted.

Exceedingly Difficult Goals as Workplace Stressors and Abusive Supervision

Previous research on constructs related to abusive supervision has suggested that negative workplace stressors are related to aggressive behaviors. For example, a meta-analysis by Hershcovis et al. (2007) revealed that frustrating events and situational constraints were strong predictors of workplace aggression, while Chen and Spector (1992) reported that job stressors were positively related to interpersonal aggression at work. Additionally, research on frustration in the workplace has consistently revealed that frustration caused by events that interfere with the attainment of a desired goal act as predictors of aggressive behavior (e.g., Berkowitz, 1989; Dollard, Doob, Miller, Mowrer, & Sears, 1939; Fox & Spector, 1999).

Consequently, we test a theoretical model that proposes that job goals assigned to supervisors that are appraised by them to be exceedingly difficult function as workplace stressors that are related to abusive supervision. However, we do not suggest a direct link between perceived exceedingly difficult goals and abusive supervision. Instead, we draw on stress research to explain the mechanisms at play in the goal–abuse relationship and suggest that job goals that are appraised by supervisors as exceedingly difficult to attain predict abusive behavior directed at subordinates through the effect these goals have on the supervisors' hindrance stress and negative emotions (i.e., anger and anxiety).

Stress is defined as “an individual's psychological response to a situation in which there is something at stake and where the situation taxes or exceeds the individual's capacity or resources” (LePine, LePine, & Jackson, 2004, p. 883). This definition was derived from Lazarus and Folkman's (1984) cognitive theory of stress, which emphasizes a stressor–appraisal–emotion–outcome process. The theory states that individuals make cognitive appraisals of potential stressors. Initially, they engage in a primary appraisal process and decide if the stressor will influence their well-being (e.g., “Does the stressor cause me trouble or will I benefit from the stressor?”). They then engage in a secondary appraisal (e.g., “What can be done to manage the situation?”). If they determine that the stressor will affect well-being, the stressor is appraised as either challenging or threatening. Consistent with this research stream, subsequent research has identified challenge and hindrance stressors (e.g., Cavanaugh et al., 2000). A challenge stressor is perceived as having the potential to promote personal growth or gain, whereas a hindrance stressor is appraised as having the potential to harm personal growth or gain (LePine et al., 2005).

Stress research further states that challenge stress is associated with positive emotions, including eagerness, exhilaration, and excitement, whereas hindrance stress is associated with negative emotions, such as fear, anxiety, and anger (Lazarus & Folkman, 1984). Thus, stress theory suggests that there is a sequence in which a stressor is first appraised as either a challenge or a threat and then that appraisal is followed by either positive or negative emotions. In the final step of the sequence, this stressor–appraisal–emotion process influences positive or negative attitudinal and behavioral outcomes, with positive emotions associated with positive outcomes and negative emotions associated with negative outcome (Podsakoff, LePine, & LePine, 2007).

Perceived exceedingly difficult goals and hindrance stress

There are more than 1000 studies on the relationship between goal setting and subsequent performance (Mitchell & Daniels, 2003). The vast majority of these studies support the finding central to Locke and Latham's (1990, 2002) goal-setting theory, namely that assigning organizational members specific, difficult

goals that do not exceed their ability levels and available resources leads to higher job performance than assigning vague (e.g., do your best) or easy goals. However, the theory is silent as to what is likely to occur when a goal is appraised by a recipient as exceedingly difficult, or impossible to attain.

The effects of exceedingly difficult goals have been examined in a few laboratory experiments. For example, Locke (1982) varied goal difficulty on a task that lasted one minute. A significant curvilinear relationship was found between goal level and performance level. Goals were linearly related to performance when the goals ranged from easy to difficult but were unrelated to performance after goals reached impossible levels. Also, in a subsequent laboratory experiment, Erez and Zidon (1984) found that performance dropped when goals were perceived as “very difficult.” Finally, Neale and Bazerman (1985) reported that very difficult goals had a negative effect on participants’ abilities to attain profitable outcomes in negotiations in a laboratory setting. Overall, these findings provide support for Latham and Locke’s (2006) concern that assigned job goals perceived as too difficult may be associated with decreases in job performance.

In addition to low job performance, we suggest assigned goals appraised by supervisors as exceedingly difficult may be related to an additional negative behavioral outcome, namely abuse of their subordinates, through the effects these goals have on hindrance stress and negative emotions. Goal-setting theory acknowledges that difficult goals may increase stress (Locke & Latham, 1990; Latham & Locke, 2006). For example, in a laboratory experiment, White, Mitchell, and Bell (1977) found that, compared with a control group, challenging goals led to stress from perceived pressure and fear of failure. Similarly, Nebeker (1987), in another laboratory experiment, found that those who were assigned difficult goals experienced higher stress than those who were assigned easy goals.

Although studies that have linked goals to stress have shed some light on this relationship, they have yet to analyze the goal–stress relationship in depth. To date, only one study on goal setting has taken into account the distinction between challenge and hindrance stress. Drach-Zahavy and Erez (2002) conducted a laboratory experiment in which goals (difficult performance goals, learning goals, and general goals), stress (high and low challenge and hindrance stress), and change in the rules of the tasks were systematically varied. The results of the experiment revealed that participants who appraised their difficult goals as challenging had higher performance and were better able to adapt to change than those who appraised their goals as threatening.

By extrapolating from Drach-Zahavy and Erez’s (2002) empirical findings and research on stress, it would appear that the effects of very difficult goals differ depending on whether they are perceived by the individual as challenging or threatening. If a job goal is appraised as a challenge stressor, it is likely to be associated with positive behavioral outcomes, whereas if a goal is appraised as a hindrance, it is likely to be associated with negative behavioral responses. Perhaps, then, the distinction between challenge and hindrance stress can be used to more fully understand why exceedingly difficult goals may be related to negative outcomes.

In adopting this perspective on challenge versus hindrance stress, we suggest that when assigned job goals are perceived as being exceedingly difficult, they may become associated with hindrance stress. Job goals perceived as exceedingly difficult by supervisors make it apparent that there are extremely challenging standards by which their success will be evaluated. Therefore, the potential for failure to attain those standards may be perceived as highly likely. In addition, goals appraised as exceedingly difficult may create perceptions of a severe imbalance of demands versus resources. Exceedingly difficult job goals are likely to create perceptions that one does not possess the resources necessary to accomplish the goals and that failure to attain those goals is highly likely. Hence, job goals perceived as exceedingly difficult to attain are likely to be viewed by recipients as creating obstacles to personal growth or gain and therefore are likely to be appraised as a source of hindrance stress. For these reasons, the following hypothesis was tested.

Hypothesis 1: Supervisors’ exceedingly difficult goals are positively related to supervisors’ hindrance stress.

Hindrance stress and emotional reactions

In addition to suggesting that workplace stressors are related to challenge or hindrance stress, the cognitive theory of stress identifies the role of emotions in the relationship between stressors and subsequent behaviors. Because hindrance stress results when stressors are perceived as thwarting an individual's personal gains, this type of stress has been found to be associated with negative emotions, such as anger and anxiety (Lazarus, 1991; Lazarus & Folkman, 1984). Anger is defined as an emotional state consisting of feelings of annoyance, irritation, fury, and rage (Van Der Ploeg, 1988), whereas anxiety is defined as an emotional response that includes feelings of tension and apprehension (Spielberger, 1972). Lazarus (1991) proposed that these negative emotions associated with hindrance stress result from perceived threats to valued outcomes.

These relationships between hindrance stress and negative emotions are also supported by recent work that has examined relationships between job goals perceived as detrimental to success and forms of negative affect. For example, Daniels, Hartley, and Travers (2006) found that the relationship between work performance goals and negative affect was stronger when participants believed their goals caused them to feel greater negative affect. In addition, the goal–negative affect relationship was stronger for participants who believed their goals were detrimental to their work performance. Furthermore, Harris and Daniels (2005) found that workplace events believed to impede personal goal attainment were related to unpleasant feelings, while Daniels, Wimalasiri, Beesley, and Cheyne (2012) found that job demands that were perceived to have an adverse impact on performance were positively related to anxious affect and negatively related to pleasant affect.

Because hindrance stressors are appraised as hindering personal growth and goal attainment, these stressors are perceived as obstacles to valued outcomes and therefore represent threats that may invoke both anger and anxiety (e.g., Rodell & Judge, 2009). Individuals who believe that they have been assigned exceedingly difficult goals are likely to have increased feelings of hindrance stress because they are likely to perceive that their job goals are obstacles to valued outcomes. In turn, these perceptions are likely to cause feelings of anger and anxiety in those who believe they have been assigned this type of goal. Thus, the following hypotheses were tested.

Hypothesis 2: Supervisors' hindrance stress is positively related to supervisors' anger (2a) and anxiety (2b).

Hypothesis 3: Supervisors' hindrance stress mediates the relationship between supervisors' exceedingly difficult goals and supervisors' anger (3a) and anxiety (3b).

Negative emotional reactions and abusive supervision

In the final step of the sequence described by the cognitive theory of stress, the stressor–appraisal–emotion process influences behavioral outcomes. In other words, the theory suggests that emotional reactions are the most proximal antecedents of subsequent behavior (Lazarus, 1991). In line with these contentions, an extensive body of research indicates that the way an individual feels can strongly influence the way he or she behaves (cf. Isen, 1987).

Research has demonstrated that anger and anxiety are associated with abusive behavior. Studies have found that individuals act aggressively when they experience these unpleasant feelings (Neuman & Baron, 1998). For example, research on deviant behavior in the workplace (e.g., aggressive behavior) has found that “expressive” motives, which originate from “a need to vent, release, or express one's feelings of outrage, anger, or frustration” (p. 18), predict, explain, and influence deviant behavior (Robinson & Bennett, 1997). Additionally, Spector and Fox (2002) presented a theoretically driven, emotion-centered model of counterproductive behavior, which includes aggression. The authors suggested that negative emotions, such as anger and anxiety, influence counterproductive behavior.

The link between negative emotions and abusive supervision can also be inferred from research on coping strategies (Lazarus & Folkman, 1984). The cognitive theory of stress defines coping as behavioral and cognitive efforts to handle stressful situations. Emotion-focused coping refers to responses to stressors that are designed to manage the emotional discomfort associated with the stressors (Lazarus, 1995; Lazarus & Folkman, 1984). The theory further states that the negative emotions triggered by hindrance stress motivate behaviors that allow an individual to emotionally cope with the stressors. These behaviors allow individuals to vent or express their negative emotions. Thus, we suggest that supervisors experiencing the negative emotions of anger and/or anxiety associated with hindrance stress are motivated to engage in abusive behavior toward their subordinates as a means of coping with their negative feelings. They may, for example, have angry outbursts directed at their subordinates, ridicule their subordinates, or act rudely toward their subordinates, as a means of venting or expressing the anger and anxiety they are experiencing.

In sum, both research on deviant behavior and coping strategies indicate that feelings of anger and anxiety can motivate abusive behavior. As such, when supervisors experience anger and anxiety associated with hindrance stress, they are motivated to engage in aggressive acts, such as abusive supervision. Hence, the following hypotheses were tested.

Hypothesis 4: Supervisors' anger (4a) and anxiety (4b) are positively related to abusive supervision.

Hypothesis 5: Supervisors' anger (5a) and anxiety (5b) mediate the relationship between supervisors' hindrance stress and abusive supervision.

Method

Sample and procedure

Data were collected through surveys administered on the Internet from 215 supervisor–subordinate pairs from organizations in the Northeastern and Midwestern United States. Respondents worked in industries that included finance, insurance, banking, food service, retail, education, and health care. Nine hundred students were asked to serve as organizational contacts in exchange for extra credit in undergraduate management classes. Students recruited a working adult (defined as working 20 or more hours per week) who was willing to serve as a focal employee. The focal employee then asked his or her supervisor to fill out the supervisor survey.

A number of researchers have used similar, if not identical, approaches for collecting data (e.g., Grant & Mayer, 2009; Greenbaum, Mawritz, & Eissa, 2012; Mawritz et al., 2012; Mayer, Thau, Workman, Van Dijke, & DeCremer, 2012; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Mitchell & Ambrose, 2012; Piccolo, Greenbaum, Den Hartog, & Folger, 2010). Consistent with studies that have used a similar data collection method, several steps were taken to ensure that the surveys were completed by the correct sources. First, when introducing the study, we emphasized the importance of integrity in the scientific process. Participants were told that it was essential for the focal and supervisor respondents to complete the correct surveys. Second, when participants submitted their online surveys, time stamps and IP addresses were recorded and examined to ensure that the surveys were submitted at different times and with different IP addresses.

Responses were received from 293 focal employees and 248 supervisors. These responses created usable data from 215 supervisor–subordinate dyads, for a response rate of 23.9 percent. The employee sample was 50.9 percent male with an average age of 23.9 years and an average of 2.4 years of tenure with their organization. In terms of ethnicity, 64.9 percent were Caucasian, 12.2 percent were Asian, 5.9 percent were

African-American, 4.1 percent were Native American, 2.3 percent were Hispanic/Latino, 1.8 percent were biracial, and 9 percent were marked other. Of the supervisor respondents, 58.1 percent were male with an average age of 37.6 years and an average of 8.1 years of tenure with their organization. In terms of ethnicity, 73 percent were Caucasian, 6.3 percent were Asian, 5 percent were African-American, 5 percent were Hispanic/Latino, 3.2 percent were biracial, 2.7 percent were Native American, and 5 percent were marked other.

Measures

Exceedingly difficult goals

Supervisors assessed the difficulty of their assigned job goals with a three-item scale ($\alpha = .88$). The first two items were taken from the Goal Setting Questionnaire developed by Locke and Latham (1990). A study of the psychometric properties of the scale involving a principal components analysis revealed distinct factors (Lee, Bobko, Earley, & Locke, 1991). The two items used were identified by Lee and colleagues as measuring goal difficulty. The items were "My goals are too difficult" and "I often fail to obtain my goals." The third item was created for the present study. This item was "My job goals are impossible to accomplish." Responses to these items ranged from 1 = *strongly disagree* to 7 = *strongly agree*.

Hindrance stress

Supervisors assessed their hindrance stress with three items created by LePine et al. (2005) ($\alpha = .84$). The items were "Working to fulfill my job goals thwarts my personal growth and well-being," "In general, I feel that my job goals hinder my personal accomplishment," and "I feel that my job goals constrain my achievement of personal goals and development." Responses to these items ranged from 1 = *strongly disagree* to 7 = *strongly agree*.

Anger and anxiety

Supervisors rated their anger and anxiety over the prior six months. Anger was assessed with three adjectives from the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), namely upset, hostile, and irritable ($\alpha = .73$). Anxiety was assessed with three adjectives from the PANAS, namely distressed, nervous, and jittery ($\alpha = .70$). Responses to these items ranged from 1 = *very little or not at all* to 7 = *a lot*.

Abusive supervision

Subordinates assessed abusive supervision using the five-item version of Tepper's (2000) scale (Mitchell & Ambrose, 2007) ($\alpha = .88$). Sample items include "My boss ridicules me" and "My boss tells me my thoughts and feelings are stupid." Responses to these items ranged from 1 = *never* to 7 = *often*.

Results

Descriptive statistics and correlations

The means, standard deviations, reliabilities, and intercorrelations among the variables are presented in Table 1.

Measurement model results

We conducted confirmatory factor analyses (CFA) with maximum likelihood estimation in LISREL 8.8 (Jöreskog & Sörbom, 2006) to examine the distinctiveness of the study variables. The measurement model

Table 1. Scale means and correlations among the variables.

	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Supervisors' exceedingly difficult goals	2.37	1.42	(.88)				
2. Supervisors' hindrance stress	3.12	1.71	.38*	(.84)			
3. Supervisors' anger	2.50	.94	.36*	.17*	(.73)		
4. Supervisors' anxiety	2.73	.96	.37*	.16*	.64*	(.70)	
5. Abusive supervision	1.60	.79	.29*	.06	.26*	.22*	(.88)

Notes. $N=215$. Reliabilities are in parentheses on the diagonal.

* $p < .05$.

consisted of the five latent factors: exceedingly difficult goals, hindrance stress, anger, anxiety, and abusive supervision. The five-factor model fit the data well (Table 2). The five-factor model was compared with four-factor, three-factor, two-factor, and single-factor models. In the four-factor model, the items used to measure exceedingly difficult goals and hindrance stress were set to load on the same latent variable. In the three-factor model, the items used to measure exceedingly difficult goals and hindrance stress were set to load on the same latent variable, and the items used to measure anger and anxiety were set to load on a second latent variable. In the two-factor model, the items assessed by the supervisors (i.e., those for exceedingly difficult goals, hindrance stress, anger, and anxiety) were set to load on the same latent variable. A change in the χ^2 test indicated that the five-factor model produced a significant improvement in chi-squares over the four-factor model ($\Delta\chi^2(4)=232.02$, $p < .001$), three-factor model ($\Delta\chi^2(7)=239.10$, $p < .001$), two-factor model ($\Delta\chi^2(9)=649.62$, $p < .001$), and single-factor model ($\Delta\chi^2(10)=1326.43$, $p < .001$).

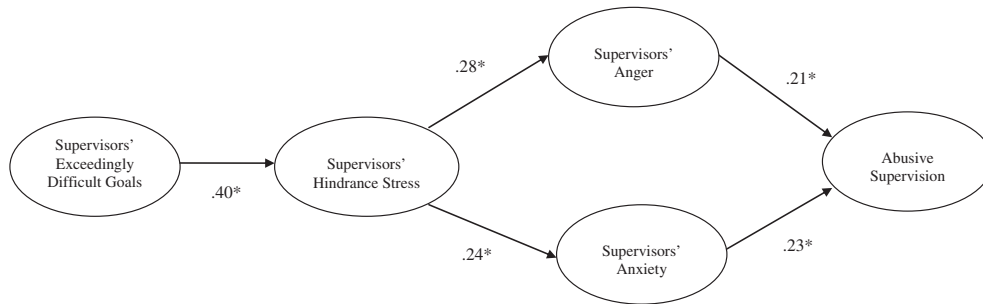
Results of hypothesis tests

Structural equation modeling (SEM) in LISREL 8.8 (Jöreskog & Sörbom, 2006) was used to test the hypotheses. SEM standardized path coefficients were examined to estimate support for the hypotheses (Figure 1). The fit of the structural model was satisfactory ($\chi^2(114)=333.85$, $p < .001$; CFI=0.91; RMSEA=0.10). In support of Hypothesis 1, job goals perceived by supervisors as exceedingly difficult were positively related to supervisor hindrance stress ($\beta = .40$, $p < .05$). The analyses also revealed that supervisor hindrance stress was positively related to supervisor anger ($\beta = .28$, $p < .05$) and anxiety ($\beta = .24$, $p < .05$), thus supporting Hypotheses 2a and 2b.

In addition, consistent with Hypotheses 3a and 3b, results indicated that supervisor hindrance stress mediated the relationships between supervisor perceptions of exceedingly difficult goals and anger and anxiety. We used LISREL to calculate the indirect effects for the mediating hypotheses. The indirect effect of supervisor exceedingly difficult goals on supervisor anger through hindrance stress was significant

Table 2. Results of confirmatory factor analyses.

Model	Fit indices			
	χ^2	<i>p</i>	CFI	RMSEA
Five-factor model	$\chi^2(109)=228.87$	<.001	0.96	0.07
Four-factor model	$\chi^2(113)=460.89$	<.001	0.86	0.12
Three-factor model	$\chi^2(116)=467.97$	<.001	0.86	0.12
Two-factor model	$\chi^2(116)=878.49$	<.001	0.77	0.17
Single-factor model	$\chi^2(119)=1555.30$	<.001	0.62	0.24



Notes. $N = 215$. * $p < .05$.

Figure 1. Hypothesized model and structural equation model results

($t = 2.85$, $p < .05$), as was the indirect effect of supervisor exceedingly difficult goals on supervisor anxiety through hindrance stress ($t = 2.47$, $p < .05$). Thus, these results provide support for mediation and Hypotheses 3a and 3b.

Also, consistent with Hypotheses 4a and 4b, results demonstrated that supervisor anger was positively related to abusive supervision ($\beta = .21$, $p < .05$), and supervisor anxiety was positively related to abusive supervision ($\beta = .23$, $p < .05$). Furthermore, Hypothesis 5a stated that supervisor anger mediates the relationship between supervisor hindrance stress and abusive supervision, and Hypothesis 5b stated that supervisor anxiety mediates the relationship between supervisor hindrance stress and abusive supervision. The indirect effect of supervisor hindrance stress on abusive supervision through anger and anxiety was significant ($t = 2.94$, $p < .05$), providing support for mediation and Hypotheses 5a and 5b.

It should be noted that we used SEM to compare the fully mediated model with three alternative models that reflected partial mediation. The first alternative model included a path from supervisor exceedingly difficult goals to abusive supervision; the second alternative model included paths from supervisor exceedingly difficult goals to anger, anxiety, and abusive supervision; and the third alternative model included paths from supervisor exceedingly difficult goals to abusive supervision and supervisor hindrance stress to abusive supervision. Results revealed that none of these alternative models provided a significantly better fit to the data than the hypothesized model.

Discussion

In the present research, we found an association between supervisors' assigned job goals that they perceived as exceedingly difficult and abusive supervisory behavior. Moreover, the results were consistent with the mediation mechanisms we hypothesized, namely that the relationship between goals and abuse was mediated by the supervisors' perceived hindrance stress, anger, and anxiety. These results add to the small body of research that has linked negative situational factors, such as organizational injustice and psychological contract violation (e.g., Aryee et al., 2007; Hoobler & Brass, 2006; Tepper et al., 2006), to abusive supervision by suggesting that goals perceived as exceedingly difficult might also contribute to abusive supervisory behaviors.

Moreover, the findings of the present study have theoretical implications that extend beyond the abusive supervision literature. With regard to goal-setting theory, the present study speaks to the relationship between perceived exceedingly difficult goals assigned to supervisors and their subsequent abusive behavior. Virtually all research on goal difficulty has obtained support for a linear relationship with an individual's subsequent performance (Latham & Locke, 2007; Mitchell & Daniels, 2003), suggesting that difficult goals lead to higher

performance than vague or easy goals. To our knowledge, no field study has examined the relationship between an assigned goal that is perceived as exceedingly difficult and an outcome other than job performance. Our results represent an initial step toward filling this gap. Consistent with admonitions by Latham and Locke (2006) against setting impossible goals that exceed an individual's ability and resources, as well as laboratory experiments showing the detrimental effects of impossible goals on performance (e.g., Erez & Zidon, 1984; Locke, 1982), goals that are appraised as too difficult not only can have a curvilinear relationship with performance but also can be related to abusive supervision in work settings. Thus, our findings highlight an important implication regarding the way in which goal-setting theory identifies ability and resources as moderators (Locke & Latham, 1990, 2002).

The present study also explains why goals that are appraised by a supervisor as exceedingly difficult might become related to abusive supervision. Stress research (e.g., Cavanaugh et al., 2000; Lazarus & Folkman, 1984) suggests, and the present field study indicates, that goals appraised as too difficult are related to abusive supervision through the effects they have on hindrance stress and subsequent negative emotions. Consistent with the stressor–appraisal–emotion–outcome sequence (Lazarus & Folkman, 1984), our results indicate that goals appraised as exceedingly high were appraised as hindrance stressors, which heightened anger and anxiety. These emotional responses, in turn, predicted abusive supervision.

Our findings also have important implications for organizations. In terms of the difficulty level of assigned job goals, organizational decision makers need to be cognizant of the potential pitfalls of giving supervisors goals that are likely to be appraised as exceedingly difficult or virtually impossible to attain. Given that both research and practice have demonstrated that higher goals are associated with higher performance, organizations should be cautious about setting exceedingly difficult goals for supervisors in the hope of pushing them to perform at a higher level. The present findings suggest that doing so might contribute to the abuse of employees. Goals should be difficult, yet seen as attainable by those to whom they are assigned (Latham & Kinne, 1974)—because if unattainable or seen as exceedingly difficult, they might become part of an environment conducive to increases in the likelihood of abusive supervision.

In addition, given that abusive supervision is extremely costly in terms of the detrimental effects it has on employees and the organization as a whole (Tepper et al., 2006), an understanding of the factors that contribute to this abusive behavior is necessary. Although abusive supervision is likely the result of multiple factors (e.g., supervisor traits and subordinate behaviors), identifying the contextual factors that may prompt abusive behaviors by supervisors is one path to curtailing these behaviors. Our results indicate that job goals perceived as exceedingly difficult may serve as workplace conditions that facilitate abuse through the effects they have on hindrance stress and negative emotions. Hence, organizational decision makers should monitor assigned job goals and supervisors' reactions to their goals as a means of limiting occurrences of abusive supervision. Furthermore, organizations should monitor occurrences of abusive supervision for underlying systemic and individual causes.

Limitations and future research

As with most studies, ours is not without limitations. First, some of the data may suffer from common-method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Data were collected from both supervisors and subordinates, but four of the five variables were assessed from the supervisors' perspective. Thus, some of the data may suffer from same source bias. However, all of the variables assessed by the supervisors were perceptual, and extant research has suggested that perceptual variables are best measured with self-report surveys (Spector, 2006). We should also note that in our data collection, we followed the recommendations of Podsakoff et al. for minimizing common-method variance. In particular, we ensured participant confidentiality and used items that were clear, simple, and specific.

Second, the data are cross-sectional, which mitigates confidence in causal inferences. As Podsakoff et al. (2003) noted, measures taken at the same time in the same place can share systematic covariation; therefore, temporal separation, in which a time lag between measures is introduced, becomes relevant. Similarly, Spector (2006) noted that the use of cross-sectional surveys can raise concerns regarding common-method variance. Although the present findings are consistent with research that has found stressors to be associated with subsequent emotional and behavioral reactions, other causal explanations for these relationships may exist. For example, it is possible that hindrance stress predicts supervisors' appraisals that goals are too difficult. As such, longitudinal studies that test our theoretical model might be of value. Additionally, avenues for future research might include examining these relationships in a laboratory experiment or in an intervention study.

Third, the data collection method yielded a low response rate. The response rate rated for this study is consistent with past research that has employed similar data collection methods (e.g., Greenbaum et al., 2012). Nevertheless, the low response rate may indicate a potential sampling bias. Future research should consider exploring the study hypotheses using different data collection methods, if need be, to ensure a higher response rate.

Fourth, the measures of difficult goals, hindrance stress, and abusive supervision did not specify a time frame, whereas the anger and anxiety measures from the PANAS (Watson et al., 1988) focused on the prior six months. Obtaining affect-measure responses to the anger and anxiety items of the PANAS calls for specifying the time frame in some fashion (Watson et al., 1988), whereas such instructions are not necessary for the other measures. To measure state affect with the PANAS, participants are asked to describe how often they experience each adjective (e.g., upset, hostile, and irritable) during a specific time frame. A time interval for the anger and anxiety items designed to obtain a reasonably broad sample of the supervisor's affective experiences was chosen. However, for the other study variables, it was unnecessary to specify the time frame being considered. Nonetheless, future research might examine whether such findings can be affected by specifying the same time frame for responses across perceptions of hindrance stress and goal difficulty as well as for subordinate perceptions of abusive supervision.

Fifth, the use of dyads may be a limitation of our research. Some leadership research has begun to examine leadership at the group level (e.g., Avolio, Zhu, Koh, & Bhatia, 2004; Bono & Judge, 2003; Jung & Sosik, 2002). Researchers have suggested that leaders often engage in behaviors that are not directed toward specific employees but instead are directed toward a work group as a whole (e.g., Bono & Judge, 2003; Shamir, Zakay, Breinin, & Popper, 1998). Therefore, employees working in the same work group are likely to be influenced by similar leadership behaviors, suggesting that leadership behaviors operate at the group level. Given this focus on leadership at the group level, perhaps, it may have been beneficial to study abusive supervision as a group-level phenomenon. Future research should consider using this approach.

Finally, although stress research indicates that stress can result from an interaction between the environment and individual characteristics (Lazarus & Folkman, 1984), the purpose of the current paper was to focus on goals perceived to be exceedingly difficult, in particular, as situational factors that can be associated with abusive supervision. The role of individual difference variables was not taken into account. Nevertheless, individual factors are important to examine in terms of understanding personal characteristics that influence an individual's appraisal of stressors as either challenging or hindering, as well as appraisals of exceedingly difficult goals, in particular. Future research should consider individual difference variables as moderators of the mediating effects of hindrance stress. Individual attributes such as self-efficacy and cognitive ability, for example, should be examined as factors that can influence appraisals of exceedingly difficult goals as challenge versus hindrance stressors and the subsequent emotional and behavioral reactions associated with these stressors. In addition, personal attributes commonly associated with aggressive behavior, such as hostile attribution bias (Hoobler & Brass, 2006) and negative reciprocity beliefs (Mitchell & Ambrose, 2007), should be examined as possible moderators. Furthermore, extant research on goal setting suggests that goal importance (Locke & Latham, 2002) may influence individuals' reactions to those goals. Goals perceived to be exceedingly difficult are more likely to have detrimental consequences when they are appraised as being important by those who have to attain them; seemingly unimportant goals are less likely to have such effects. As such, future research should examine goal importance as a moderator.

Additionally, in terms of future research, it may be worth considering whether supervisors who set exceedingly difficult goals for their subordinates are doing so in response to their own abuse. Perhaps, it is that supervisors who are abused set exceedingly difficult goals for their subordinates as a means of displacing their aggression toward their superiors onto their subordinates. Future research should examine this possibility.

Conclusion

There is a need to predict, understand, and control factors that are related to a supervisor's abusive behavior. The current study found that goals perceived by supervisors as exceedingly difficult predicted abuse as reported by their subordinates through the effect these goals had on the supervisors' hindrance stress and negative emotions of anger and anxiety. Organizations facing dire financial circumstances might be tempted to set exceedingly difficult goals for supervisors in order to push them to perform at a higher level as a way of increasing profits. However, they may do so at their peril. Our research suggests that the result of setting exceedingly difficult goals includes hindrance stress and negative emotions for those to whom they are assigned. Unfortunately, these are the very conditions that might lead supervisors to become abusive toward their subordinates.

Author biographies

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