ABUSIVE SUPERVISION CLIMATE: A MULTIPLE-MEDIATION MODEL OF ITS IMPACT ON GROUP OUTCOMES

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In this paper, we introduce the construct of abusive supervision climate, the collective perceptions employees hold regarding abusive supervision in their work unit. We thereby extend research on abusive supervision to the team level, which allows us to explore its relationship with outcomes not addressed by individual-level theories of abuse. First, we explain the emergence of abusive supervision climate through the lens of social information processing theory. Then, drawing on team process and effectiveness models, we develop a multiple-mediation model that identifies two distinct mechanisms by which abusive supervision climate impacts group-level outcomes: social identity and collective efficacy. Results demonstrate that abusive supervision climate influences social- and task-related group outcomes through these two mediation processes.

Abusive supervision, defined as "subordinates' perceptions of the extent to which their supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact" (Tepper, 2000: 178), is among the most widely studied types of negative supervisor behavior. Research demonstrates abusive supervision has detrimental consequences for individuals in organizations, spanning attitudinal (Tepper, 2000; Tepper, Hoobler, Duffy, & Ensley, 2004), behavioral (Lian, Ferris, & Brown, 2012; Mitchell & Ambrose, 2007, 2012; Zellars, Tepper, & Duffy, 2002), and health-related outcomes (Bamberger & Bacharach, 2006; Tepper, 2000). What is notable about current research on abusive supervision is its focus on abuse as an individual-level phenomenon. However, both theoretical and empirical evidence from the work climate and deviance literatures (Duffy, Ganster, Shaw, Johnson, & Pagon, 2006; Roberson, 2006) sug-

gest that abusive behavior can also occur at the group level. In this paper, we investigate the construct of abusive supervision climate and its consequences.

Examining abusive supervision at the climate level is important for two reasons. First, if an abusive supervision climate exists, current theory and research likely understate the full impact of abusive supervision because it not only affects targeted individuals but can also become embedded in the climate of workgroups, thereby affecting the group at large. Second, conceptualizing abusive supervision as a characteristic of the workgroup's climate allows us to extend abusive supervision research to the team level, and opens the door to examining outcomes that existing individual-level theorizing has not addressed.

With this research, we contribute to the literature in at least three ways. First, we extend thinking on abusive supervision by conceptualizing it at the group level, and describing the theoretical foundation for the emergence of abusive supervision climate. Specifically, we argue that an abusive supervision climate emerges through processes of sensemaking and social information processing (Salancik & Pfeffer, 1978) as work-unit members share information and stories regarding abusive supervision experiences. Second, we craft a theoretical framework for understanding the mechanisms by which abusive super-

vision climate influences outcomes. We draw on theories of group processes and effectiveness (Cropanzano, Li, & Benson, 2011; Gladstein, 1984) to develop a multiple-mediation model that links abusive supervision climate to group-level outcomes through two distinct processes: social identity and group efficacy. Third, we examine the influence of abusive supervision climate in predicting group-level outcomes. This group-level theoretical framework provides insights about the breadth of influence of abusive supervision that is distinct from those derived from existing individual-level approaches.

In the following section, we begin with a discussion of abusive supervision climate. We then build on research related to sensemaking, work climate, and group processes to develop our theory of how abusive supervision climate emerges and how it impacts group-level outcomes. Our conceptual model—presented in Figure 1—illustrates the multiple-mediation paths by which abusive supervision climate impacts group-level outcomes. In particular, we propose that an abusive supervision climate influences interpersonally relevant outcomes (viz., group cooperation and group citizenship behavior) through its impact on group identity, and influences task-relevant outcomes (i.e., group performance) through its impact on collective efficacy.

ABUSIVE SUPERVISION CLIMATE

Existing research examines abusive supervision as an individual-level construct. That is, research has considered how a subordinate's perceptions of supervisor abusiveness influence that subordinate's behaviors and attitudes (Tepper, 2007). Abusive supervision, however, can manifest itself in broader ways as well. For example, supervisors can direct abuse toward the work unit as a whole (Duffy et al., 2006). Similarly, employees who witness the abuse of others (e.g., coworkers) may be affected by such actions, even though they are not personally abused themselves (Greenbaum, Mawritz, Mayer, & Priesemuth, 2013; Mitchell, Vogel, & Folger, 2012). As a result, in addition to any individual-level perceptions that may exist, collective perceptions of supervisory abuse are also likely to emerge within a work unit.
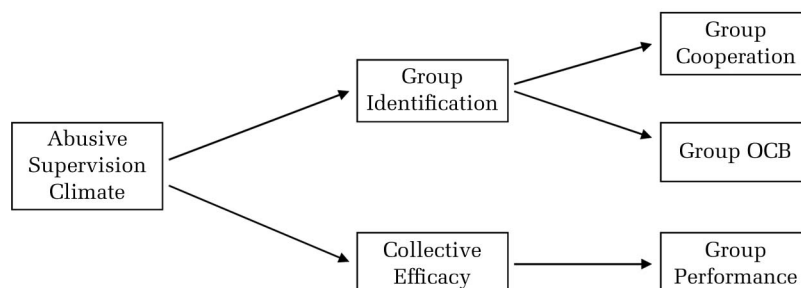
Research demonstrates that when confronted with negative behaviors in the workplace, employees engage in sensemaking processes that result in shared, collective perceptions of the actions (Robinson & O'Leary-Kelly, 1998). Abusive supervision represents a negative workplace behavior, and thus these shared perceptions provide the foundation for thinking about abusive supervision at the climate level.

Organizational Work Climates

Schneider and Reichers (1983) defined organizational work climate as a set of shared perceptions regarding the policies, practices, and procedures that are present in the workplace. Recent climate research focuses primarily on facet-specific climates, those related to a particular aspect of the organizational situation, such as justice climate, ethical climate, safety climate, service climate, or innovation climate. This research demonstrates that work climates exert consistently strong effects on behaviors and attitudes in the workplace (Kuenzi & Schminke, 2009). We suggest abusive supervision climate plays an important role in understanding employee responses to abuse as well.

Extending abusive supervision research to the collective level requires that we address two important issues regarding abusive supervision climate:

FIGURE 1
Conceptual Model

(1) the process by which individuals' perceptions come to be shared, thus providing the foundation for the emergence of a climate, and (2) the composition model that specifies the relationship between the individual-level and the group-level constructs.

The Climate-formation Process

Social information processing theory (Salancik & Pfeffer, 1978) observes that individuals do not operate in a vacuum in their organizational lives. Rather, they function in complex and often ambiguous social settings. Thus, individuals seek to understand their work environments by looking to social cues that exist in the events that surround them. Drawing on social information processing theory, the work climate literature points to this sensemaking process as central to the formation of climates.

Climate researchers suggest that, in the process of sensemaking, frequent interactions and communication with other group members about work events foster shared meaning, resulting in the creation of collective judgments about the work environment (Ehrhart, 2004; Naumann & Bennett, 2000; Roberson, 2006). As most social and work-related interactions occur at the level of the work unit (Ashforth, 1985), peers provide the primary source of sensemaking information (Roberson, 2006). Members of a work unit experience a similar set of cues, and through a series of collective experiences, interactions, and communications, these members then share interpretations of organizational events, resulting in shared norms and beliefs about the typical group member experience and the organizational system (Roberson, 2006). Members react to these shared perceptions and organizational cues in similar ways (Liao & Rupp, 2005; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Naumann & Bennett, 2000), and these repeated interactions and reactions on the part of work-unit members lead to a convergence of individual perceptions regarding the organization (Hardin & Higgins, 1995). This convergence of individual perceptions provides the foundation for work climates.

Social information processing theory provides a conceptual framework for understanding the emergence of a variety of climate types (Liao & Rupp, 2005; Mayer et al., 2009). Abusive supervision creates an especially compelling setting for employees to engage in these sensemaking activities for three reasons. First, abusive supervision represents a

negative event, and research indicates negative events prompt sensemaking searches more often than positive events (Folger & Cropanzano, 2001; Hastie, 1984; Wong & Weiner, 1981). Second, relative to top managers or the organization overall, supervisors play a frequent, powerful, and immediate role in the daily activities of employees (Brown, Treviño, & Harrison, 2005; Schein, 1985; Zohar & Luria, 2005). Therefore, the salience of supervisory activities to employees makes supervisor behavior a likely focus of sensemaking (Piccolo & Colquitt, 2006; Smircich & Morgan, 1982). Finally, research indicates that sensemaking processes become especially relevant under conditions of unfair treatment (Roberson, 2006). To the extent that employees view abuse as undeserved, it is thus particularly likely to trigger the sensemaking activities that accompany social information processing. Roberson (2006) suggests that, in such situations, group members turn to each other to discuss their experiences and share their interpretations of events. This leads to collective assessments of the typical group member experience.

Because of the potent and proximal impact of supervisory activities on employees, and the negative and unfair nature of abusive supervision events, employee sensemaking activities should therefore be especially heightened in the presence of supervisory abuse. Social information processing theory thus suggests that these sensemaking activities will result in shared perceptions of the supervisory abuse, which provide the foundation for an abusive supervision climate.

The Composition Model

An abusive supervision climate requires these shared perceptions to be aggregated to the work-unit level. Thus, we must identify the appropriate composition model (Chan, 1998) for doing so. The composition model for a collective construct allows researchers to specify the manner whereby lower-level participants' perceptions constitute the higher-level construct (Chan, 1998).

Our conceptualization of abusive supervision climate is what Chan (1998) terms an organizational collective climate, which reflects a referent-shift consensus model. Referent-shift consensus occurs when aggregation to the climate level begins with individual assessments of typical group experiences rather than their own personal experiences. Employing a referent-shift consensus model suggests that although abusive supervision climate is

derived from individual-level perceptions of abuse, it is a construct conceptually distinct from individuals' perceptions of their own abuse experiences (Chan, 1998). This conceptualization of abusive supervision climate as a shared perception of the typical group experience is consistent with other climate research (e.g., Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Naumann & Bennett, 2000; Seibert, Silver, & Randolph, 2004; Zohar & Luria, 2005) and with Kozlowski and Klein's (2000) recommendation of the referent-shift composition model for assessing unit-level constructs.

To this point we have defined abusive supervision climate, described the theoretical process by which it emerges, and established the composition model that relates it to individual perceptions of abusive supervision. We now turn to the relationship between abusive supervision climate and outcomes, and the processes by which those impacts occur.

THE EFFECT OF ABUSIVE SUPERVISION CLIMATE ON OUTCOMES: A GROUP PROCESS MODEL

Researchers interested in workgroups have long looked to group interaction processes as providing the link between team inputs and outputs. McGrath's (1964) input-process-output framework, for example, points to within-group interaction as key to understanding both attitudinal and performance group outcomes. Scholars have focused increasingly on opening the black box of this framework to determine what type of interaction processes occur within work teams and how they influence group outcomes (Hackman, 1987).

Task and Interpersonal Processes in Groups

Research on group processes points to two types of interaction processes as key to understanding group outcomes: those related to task performance (task processes) and those related to group maintenance (interpersonal processes), such as maintaining positive interpersonal relationships within the team. Traditional models of team effectiveness point to both as being important components of well-functioning groups. For example, Philp and Dunphy (1959) argued that workgroups have two basic duties. One involves solving the problem the group is committed to, whereas the other focuses on building, strengthening, and regulating group life. Thus, Philp and Dunphy suggested a dual-path

process that focuses on the importance of both task interactions and social interactions among members of a workgroup. Bales (1958) also suggested a dual-path approach to group effectiveness, arguing that both task-related and socio-emotional processes in teams must be managed effectively for a group to perform well. Similarly, Gladstein's (1984) model of task group effectiveness emphasized the importance of both task-related processes and social maintenance processes in linking group inputs to outcomes. More recent work on teams further strengthens the emphasis on these dual processes as shaping group outcomes. Hoegl and Gemuenden (2001), for example, developed a taxonomy of workgroup interactions that focuses on both social- and task-related group interactions as impacting outcomes.

This dual-path approach in the teams literature provides a framework for understanding the process by which work climates influence group outcomes. Work climates shape behavior by focusing employee attention on the particular behaviors an organization supports, rewards, and expects (Kuenzi & Schminke, 2009). Building on Hoegl and Gemuenden's (2001) work, Cropanzano et al. (2011) suggested that climate shapes group behaviors by focusing attention on what is expected with respect to the two team process factors: interpersonal teamwork processes and task teamwork processes. Further, the attention focused on these two processes influences different outcomes. Attention focused on interpersonal teamwork processes (such as team cohesion and improving bonding and mutual support between members) will be related to interpersonally relevant outcomes such as good citizenship behavior, and attention focused on task teamwork processes will be related to task-relevant outcomes such as group performance.

In this study, we focus on two outcomes associated with interpersonal teamwork processes—group cooperation and group citizenship behavior—and one outcome associated with task teamwork processes—group performance. Group cooperation and citizenship behavior have both been referred to as group-related or group-oriented behaviors that are predominantly of a discretionary or voluntary nature (Dukerich, Golden, & Shortell, 2002; Olkkonen & Lipponen, 2006; Tyler & Blader, 2003). These group-oriented actions are considered extra-role behaviors, behaviors that are not formally recognized by the reward system in organizations (Bommer, Dierdorff, & Rubin, 2007; Kidwell, Mossholder, & Bennett, 1997; Organ, 1988). Group

performance describes a task-oriented, in-role behavior in which group members engage. Specifically, group performance emphasizes the level of productivity and effectiveness with which workgroups perform their tasks (Tjosvold, Law, & Sun, 2003).

We build on and extend prior theorizing regarding climate, team processes, and work-unit outcomes. Previous research has focused on how the behavior of team members creates an environment that influences group interpersonal and task processes (Cropanzano et al., 2011). Furthermore, studies show how distinct leader behaviors influence team processes (Chen & Bliese, 2002; Zaccaro, Rittman, & Marks, 2002). We extend this research by examining the impact of an abusive supervision climate on group outcomes via its impact on interpersonal and task processes. We focus on social identity and collective efficacy as indicators of interpersonal teamwork processes and task teamwork processes, respectively. Specifically, we suggest abusive supervision climate will be negatively related to these processes. Additionally, the interpersonal teamwork process (group identity) will be related to the interpersonal outcomes of group cooperation and group citizenship behavior. The task teamwork process (collective efficacy) will be related to the task outcome of group performance.

We first discuss social identity as the link between abusive supervision climate and interpersonally related outcomes (cooperation and citizenship behavior), followed by collective efficacy as the link between abusive supervision climate and the task outcome of group performance.

The Mediating Effect of Social Identity

Social identity theory (Tajfel & Turner, 1986) explores when and why individuals are likely to identify with—and act as part of—certain groups. Social identity refers to individuals' internalized sense of membership in a particular group and their tendency to define who they are in terms of "we" rather than "I." Social identity theory suggests the self-concept is composed of two types of identity: personal identity and social identity. Personal identity is the set of idiosyncratic characteristics associated with an individual, while social identity is the set of attributes associated with salient groups (Ashforth & Mael, 1989). Tajfel and Turner (1979) assert that behavior can be located along an interpersonal/intergroup continuum anchored at one end by interpersonal behavior (behavior associated with acting as an individual) and at the other end by intergroup behavior (behavior resulting from group membership). Which behavior dominates depends on the level of social identification. Greater social identification is associated with behaviors that stem from group membership (Ashforth & Mael, 1989). Additionally, the greater the social identification, the greater the effort individuals put forth on behalf of the group (Tyler & Blader, 2000).

Social identity theory suggests that when individuals strongly identify with a group, the group identity is integrated into their self-concept. For these individuals, the group's welfare is a central concern. Thus, their behavior is oriented toward benefiting the group, its needs, and the advancement of its goals (Ashforth & Mael, 1989; Blader & Tyler, 2009). Empirical research demonstrates that social identity influences group-oriented behavior. Higher levels of group identification lead to group-focused behavior such as in-group cooperation and helping. For example, Blader and Tyler (2009) found that social identity predicted supervisor-rated organizational citizenship behavior (OCB). Mael and Ashforth (1992) found that social identity was associated with higher levels of participation in group activities and the willingness to make financial contributions to the group.

Drawing from research on team processes (Hoegl & Gemuenden, 2001), we posit social identity as an indicator of interpersonal processes in work teams. Effective interpersonal processes among group members encompass practices such as frequent interactions, building social bonds and greater cohesion, and mutual support (Cropanzano et al., 2011). All of these processes are indicative of a strong identification with one's work unit (Haslam & Reicher, 2006; Tajfel & Turner, 1986). That is, workgroups that frequently interact, building stronger social bonds and fostering mutual support, also possess strong group identities.

Extending the work of Cropanzano et al. (2011), we suggest abusive supervision climate negatively influences social identity and interpersonal teamwork processes. Further, interpersonal teamwork processes influence interpersonally oriented group outcomes (i.e., group cooperation and group OCB). Thus, we propose interpersonal teamwork processes mediate the relationship between abusive supervision climate and interpersonally oriented group outcomes. Specifically, we examine social identity as a mediator of the relationship between

abusive supervision climate and both group cooperation and group OCB.

Abusive supervision climate influences social identity and interpersonal teamwork processes in several ways. First, climate can provide teams with information about their value. Abusive supervision climate indicates to subordinates that neither they nor their group is valued, thereby diminishing the pride associated with group membership (Tyler & Blader, 2000). Pride influences individuals' social identification with the group and their internalization of the group's goals and norms (Blader & Tyler, 2009; Tyler & Blader, 2000). These interpersonal teamwork processes influence team-oriented behavior such as group cooperation and group OCB (Blader & Tyler, 2009; De Cremer & van Knippenberg, 2005; De Cremer & van Vugt, 1998; Olkkonen & Lipponen, 2006).

Second, shared perceptions of abusive supervision may also damage the status of the group (Ashforth & Mael, 1989; Tajfel & Turner, 1986). According to social identity theory, social identity is guided by the pursuit of a positive self-concept (Tajfel & Turner, 1986). Individuals will seek to identify with groups that enhance their self-esteem. Consequently, individuals are less likely to identify with a low status group. Rather, individuals will distance themselves psychologically from low status groups, decreasing interactions and efforts aimed at maintaining social ties within the group, thereby lowering levels of group identification (Ashforth & Mael, 1989; Tyler & Blader, 2000). The result will be fewer behaviors focused on group maintenance being performed among team members (Ashforth & Mael, 1989), and member attitudes and prosocial behaviors will suffer (De Cremer & van Vugt, 1998).

Third, work climates influence the way in which members of the workgroup interact. Work climates provide information about what behaviors are expected and rewarded. In workgroups with strong abusive supervision climates, the climate indicates that appropriate interpersonal interaction is characterized by anger, rudeness, and hostility. When team members are treated with disrespect and hostility by others, negative attitudes toward the group emerge (Miner-Rubino & Reed, 2010), and members are less likely to develop and maintain stronger social bonds with one another (Cropanzano et al., 2011; Tyler & Blader, 2000). These negative interactions weaken interpersonal teamwork processes (Cropanzano et al., 2011) and members' group identity (Blader & Tyler, 2009).

In all, we suggest abusive supervision climate harms group identification, which in turn will be detrimental to the emergence and maintenance of group-oriented behavior. Extending existing theoretical and empirical research on climate, teamwork processes, and team outcomes, we suggest that interpersonal teamwork processes in the form of social identification with the group will mediate the relationship between abusive supervision climate and interpersonal work-unit outcomes.

Hypothesis 1. Group identification will mediate the relationship between abusive supervision climate, and group cooperation and OCB.

The Mediating Effect of Collective Efficacy

Task teamwork processes are the second mechanism by which work climate influences group outcomes (Cropanzano et al., 2011). Task teamwork processes are "task behaviors that enable the group to solve the objective problem to which the group is committed" (Philp & Dunphy, 1959: 162). Here, we look to collective efficacy processes as representative of task teamwork processes. Collective efficacy represents one of the most prominent task-related group processes in the organizational literature (Ilgen, Hollenbeck, Johnson, & Jundt, 2005), and has been shown to play an important mediating role between group inputs and group outcomes in a variety of settings (Bandura, 1993; Earley, 1993; Gibson, 2001; Prussia & Kinicki, 1996).

Collective efficacy is "a group's shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainments" (Bandura, 1997: 477). When strong collective efficacy exists, groups develop clear group goals as well as clear strategies for reaching those goals (Bandura, 1997, 2001). Groups with strong collective efficacy manage their resources through more efficient analytical thinking and a more effective problem-solving process within the team. In all, a strong sense of collective efficacy is reflected in many group processes that are essential to a work unit's performance.

Research has established that collective efficacy is a meaningful and measurable attribute of work units (Gibson, 1999; Kozlowski & Bell, 2003; Kozlowski & Ilgen, 2006) and is strongly related to group performance. Kozlowski and Bell note that "virtually all the studies that have examined the issue have found a positive relationship between collective efficacy and work team effectiveness" (page 35.) Two

meta-analyses also support the relationship between collective efficacy and group performance. Gully, Incalcaterra, Joshi, and Beaubien (2002) found a mean-corrected correlation between team-level efficacy and team performance of .41 and Stajkovic, Lee, and Nyberg (2009) found a corrected correlation of .37.

We argue abusive supervision climate negatively influences collective efficacy and task teamwork processes. Further, task teamwork processes influence task-oriented group outcomes (i.e., group performance). Thus, we expect task teamwork processes to mediate the relationship between abusive supervision climate and task-oriented group outcomes. Specifically, we examine collective efficacy as a mediator of the relationship between abusive supervision climate and group performance.

Abusive supervision climate influences collective efficacy and task teamwork processes in two ways. First, it influences psychological safety. Cropanzano et al. (2011) argue psychological safety plays an important role in task teamwork processes. Psychologically safe environments facilitate the development of collective efficacy because they represent a setting in which team members seek and provide feedback, and are willing to ask for and provide help or expertise. These environments facilitate team learning and the team's ability to take appropriate action to accomplish its work (Edmondson, 1999), which contributes to the development of collective efficacy.

An abusive supervision climate should be associated with low levels of psychological safety. In abusive supervision climates, members are likely to fear ridicule. They are likely to be wary of asking for help, which may be taken as a sign of incompetence, thereby subjecting themselves to punishment and abuse. Further, a consequence of abuse is increased cynicism and a generalized distrust of others (Keashly, 1998). Indeed, Tepper et al. (2004) found that individuals responded negatively to the positive behavior of coworkers when supervisors were abusive. These attributes of abusive supervision climate may harm task-related processes such as team learning, goal setting, and developing common strategies for task accomplishment, thereby decreasing collective efficacy and, in turn, negatively impacting performance behaviors.

Second, an abusive supervision climate may influence the workgroup's collective efficacy beliefs. Many pieces of information shape efficacy beliefs, including prior performance (Earley & Kanfer, 1985), verbal persuasion (Earley & Kanfer, 1985),

psychological and affective arousal (Bandura, 1997), team perceptions of ability, amount and type of external aid received (Bandura, Adams, Hardy, & Howells, 1980), and emotional states (Kavanagh & Bower, 1985). Abusive supervision actions are directly relevant to all of these pieces of information that may be processed by a workgroup. For example, survey items for abusive supervision (Tepper, 2000) assess the extent to which a supervisor reminds employees of previous mistakes and failures, withholds credit for positive performance, expresses beliefs about the incompetence of employees, publicly assigns blame for failure to employees, and so forth. Such actions will shape team assessments of their own ability to succeed—hence their collective efficacy—and, in turn, team performance (Bandura, 1997, 2001).

In sum, we suggest that task teamwork processes in the form of collective efficacy will mediate the relationship between abusive supervision climate and task-related work-unit outcomes.

Hypothesis 2. Collective efficacy will mediate the relationship between abusive supervision climate and group performance.

METHOD

Sample and Procedure

We recruited participants via the snowball sampling method (Tepper, 1995). We approached 453 students in an upper-level undergraduate business course in a large university in the southeastern United States, to act as contact persons for regional organizations in exchange for extra course credit. These contacts identified and recruited participants for the study in the form of workgroups within those organizations. If the student contact worked 20 hours or more, they were able to act as the focal employee participant and were further instructed to distribute survey links randomly to three additional coworkers and the immediate supervisor. If the student did not work at least 20 hours, they provided survey links to a focal employee in an organization, who, in turn, distributed survey links to the other participants (three coworkers and one supervisor). Participation was voluntary and respondents were assured full confidentiality. Contact persons were informed that all participants had to be employees of the participating organization, working together in the same work unit with frequent interactions among employees. At the end of the study, 222 student con-

tacts received credit for completing the process successfully, which consisted of the research team receiving usable surveys from a focal employee, three coworkers, and the unit supervisor.

Since workgroups vary considerably in size, we looked to previous research for guidance on the appropriate number of employees to sample from each workgroup. Research in the climate and groups literatures suggests that three to five employees from a work unit provide sufficient responses for assessing a workgroup (Colquitt, Noe, & Jackson, 2002; Newman & Sin, 2009; Richardson & Vandenberg, 2005; Schminke, Ambrose, & Neubaum, 2005; Schneider, Hanges, Smith, & Salvaggio, 2003; Schneider, Salvaggio, & Subirats, 2002; Schneider, White, & Paul, 1998; Tracey & Tews, 2005).

In order to ensure that the surveys were completed by the correct sources, we followed a fixed protocol. First, when introducing the study to contact persons and focal employees, we strongly emphasized the integrity of the scientific process and the importance of proper distribution of survey links to ensure that process. Second, we utilized Qualtrics as our survey tool, which allowed us to check IP addresses and time stamps to ensure that the surveys were submitted at different times and from different computers. The Qualtrics software recorded this information, and we detected no problematic responses.

We received a total of 882 employee responses from the 222 work units, for an average of 3.97 employee respondents per work unit. These respondents were 46.6% male and averaged 27.8 years of age, with 3.3 years of experience in the organization and 2.7 years in the department. The supervisor respondents were 63% male. They averaged 38.9 years of age, with 8.4 years of experience in the organization and 5.4 years in the department. The employee surveys contained measures of abusive supervision climate, group identity, and collective efficacy. In addition, employees provided information regarding control variables (employee tenure and group size). The supervisor survey contained scales measuring the outcome variables (group cooperation, group OCB, and group performance).

Measures

Abusive supervision climate. To assess abusive supervision climate, we employed a five-item measure of abusive supervision (Mitchell & Ambrose, 2007), which was adapted from Tepper's (2000) 15-item abusive supervision scale. These five items reflect a supervisor's active-aggressive abuse toward subordinates. We modified these items to reflect a referent shift so as to capture perceptions of abuse targeted toward group members overall, rather than abuse targeted toward the self. Employees were asked to rate the extent to which they agreed with statements such as: "My supervisor ridicules members of my work group" and "My supervisor tells members of my work group they are incompetent," using a five-point response format (1 = strongly disagree, 5 = strongly agree) (α = .94).

Following previous climate research (e.g., Chen et al., 2007; Colquitt et al., 2002; Liao & Rupp, 2005), we aggregated the individual-level perceptions by calculating the mean value of responses across group members to create the abusive supervision climate score. That is, we averaged the individual values for abusive supervision climate across all members in a work unit to arrive at a final group-level abusive supervision climate score.

Before aggregating the responses, we confirmed that the degree of agreement regarding abusive supervision climate was sufficient to justify this approach. We calculated r_{wg} scores (James, Demaree, & Wolf, 1984) as well as intraclass correlation coefficients, ICC(1) and ICC(2) (Bartko, 1976; James et al., 1984; Shrout & Fleiss, 1979). For each of these indices, scholars have proposed cut-off values that, which when met, confirm appropriateness of aggregation for a construct. These cut-off values are .70 (or above) for the r_{wg} score (James et al., 1984), .10 (indicating moderate agreement) to .25 (indicating strong agreement) for ICC(1) scores (LeBreton & Senter, 2008), and above .50 (moderate agreement) to .60 (strong agreement) for ICC(2) scores (Glick, 1985; LeBreton & Senter, 2008). The r_{wg} score for abusive supervision climate was .87, the ICC(1) score was .52, and the ICC(2) score was .81. All indicate adequate agreement to justify aggregation.

Construct validity of abusive supervision climate. The central theme of this research is that conceptualizing abusive supervision at the group level (abusive supervision climate) allows us to explore its relationship with group-level outcomes not addressed by individual-level perspectives on abuse. Before testing for those relationships, however, we clarify the construct space of the abusive supervision climate construct.

Previous climate research emphasizes the importance of establishing whether the relationship between a work climate and individual-level outcomes is robust—that is, whether relationships

between group-level phenomena and outcomes hold, above and beyond individual-level perceptions of the climate variable (Cropanzano et al., 2011; Liao & Rupp, 2005; Morgeson & Hofmann, 1999). Both conceptual and empirical foundations exist for anticipating a relationship between abusive supervision climate and individual-level outcomes.

Conceptually, the effect of abusive supervision climate on individual members may stem from the personal investment people have with their teams. More specifically, although abusive supervision climate damages important team-level processes, individual members may also be affected by negative behavior aimed at the group. This may happen in two ways.

First, negative supervisory behavior aimed at group members may influence adversely those members' perception of their own social standing within the group and the value associated with being a member of the work unit (Tyler, 1989; Tyler, Degoey, & Smith, 1996). This negative treatment may manifest itself at the individual level in the form of less cooperative and extra-role behavior, lower levels of commitment to the group, decreased pride in group membership, and lower self-esteem (Tyler et al., 1996).

Second, negative treatment aimed at a group can also have a broader set of effects on individual-level outcomes because it indicates a general deficiency of respect for the group itself, thus further harming members' ability to take pride in their group membership (Deutsch & Steil, 1988; Lind & Earley, 1992). For example, when an authority figure mistreats or abuses a member of a group, this action communicates to the group's members its low social standing (Tyler, 1989). This loss in group status may thereby create individual-level consequences such as reductions in individuals' self-worth and self-esteem (Tyler, 1989; Tyler et al., 1996; Tyler & Blader, 2000). These negative influences may in turn affect individual responses to abuse. For example, Priesemuth, Arnaud, and Schminke (2013) found that a reduced focus on team processes, created by an unfair work environment, encouraged self-serving political behaviors in members of work units. This suggests that, in addition to negative behaviors workgroups display as a function of an abusive climate, individual members may simultaneously experience unfavorable attitudes and emotional states, and express corresponding negative behaviors.

Other research indicates that group-level conditions can exert considerable influence on individual-level outcomes. For example, Gladstein (1984) showed that specific configurations of team-level maintenance and task behaviors influenced individual job satisfaction. Hoegl and Gemuenden (2001) likewise found teamwork process quality to be related to individual member satisfaction and learning. Similarly, Hochwarter, Kiewitz, Castro, Perrewé, and Ferris (2003) demonstrated the relationship of collective efficacy to individual job satisfaction, and Jex and Bliese (1999) confirmed its relationship to individual-level job satisfaction, organizational commitment, and psychological strain.

In short, both theory and empirical evidence point to group-level influences on individual-level outcomes. Therefore, before examining the influence of abusive supervision climate on group processes and consequences, we address two questions: (1) Does abusive supervision climate also predict individual-level outcomes? (2) If so, does abusive supervision climate provide explanatory power for those individual-level outcomes, above and beyond individual-level abuse experiences? We do so by exploring the impact of abusive supervision climate on various individual-level outcomes that previous research has found to be associated with individual-level abusive supervision experiences—job-related attitudes (turnover intentions, job satisfaction, and commitment), job-related behaviors (job performance, OCB, and antisocial behavior), work-family conflict, and health-related concerns (emotional exhaustion and overall well-being). In each case, we assess whether abusive supervision climate accounts for variance in individual-level outcomes while controlling for individual abuse experiences.

We explored these issues in a separate sample using the same sampling method as described above. We approached 843 organizational contacts and received data from 237 work units, resulting in an average of 4.87 respondents per work unit. Of these, 237 employees were focal respondents and 919 were coworkers. We used established measures for all variables, and the resulting reliability coefficients all exceeded the acceptable norm of .70[1] (Nunnally,

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[1] The measures and reliabilities for all scales in the construct validity study were as follows: abusive supervision climate ($\alpha = .94$), individual abusive supervision ($\alpha = .94$), job satisfaction ($\alpha = .92$), Cammann, Fichman, Jenkins, and Klesh (1983); turnover intentions ($\alpha = .95$),

1978). Furthermore, aggregation indices of abusive supervision climate exceeded conventional standards of agreement (r_{wg} = .75; ICC(1) = .29; ICC(2) = .67), thus supporting aggregation of the abusive supervision climate measure to a group-level construct.

Confirmatory factor analyses (CFAs) using LISREL 8.8 (Jöreskog & Sörbom, 2006) lent further support for discriminant validity and showed that all scale items loaded onto their corresponding constructs. That is, we tested an 11-factor model, which included abusive supervision climate, abusive supervision at the individual level, the three attitudinal outcomes, work-family conflict, two health-related outcome variables, and the three behavioral consequences, all as separate factors. Results indicated the 11-factor model fit the data well (χ^2 = 2939.66, df = 1655, p < .001, RMSEA = .06, CFI = .97; NFI = .92, NNFI = .97). We compared these fit results with those of alternative 10-factor, five-factor, and one-factor models. The 10-factor model combined the abusive supervision climate and individual perceptions of abuse as one latent factor. The five-factor model included the abusive supervision climate and individual perceptions of abuse as one factor; the other four factors were the attitudinal outcomes, the health-related concerns (well-being and emotional exhaustion), work-family conflict, and the behavioral outcomes. A one-factor model loaded all items onto a single factor. The 11-factor model had a superior fit over each alternative model.[2] In all, these results supported the distinctiveness of the abusive supervision cli-

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Tepper, Carr, Breaux, Geider, Hu, and Hua (2009); organizational commitment (α = .85), Meyer and Allen's (1997); work-family conflict (α = .92), Netemeyer, Boles, and McMurrian (1996); emotional exhaustion (α = .93), Maslach and Jackson (1981); overall well-being (α = .82), Robins (1986); performance (α = .76), Williams and Anderson (1991); organizational citizenship behavior (OCB) (α = .84), Podsakoff *et al.* (1990); antisocial behavior (α = .80), Robinson and O'Leary-Kelly (1998).

[2] The confirmatory factor analyses and chi-square difference tests in the construct validity study revealed the following information: Ten-factor model: χ^2 = 3080.77, df = 1665, p < .001, RMSEA = .06, CFI = .97, NFI = .92, NNFI = .96, $\chi^2_{difference}$ = 141.11, df = 10, p < .001; five-factor model: χ^2 = 4146.18, df = 1700, p < .001, RMSEA = .08, CFI = .92, NFI = .88, NNFI = .91, $\chi^2_{difference}$ = 1206.53, df = 45, p < .001; one-factor model: χ^2 = 8193.03, df = 1710, p < .001, RMSEA = .13, CFI = .60, NFI = .57, NNFI = .59, $\chi^2_{difference}$ = 5253.37, df = 55, p < .001.

mate measure and our measurement model as a whole.

Controlling for employee age, gender (Bamberger & Bacharach, 2006; Thau, Bennett, Mitchell, & Marrs, 2009; Zellars et al., 2002), and individual perceptions of abusive supervision (α = .94), regression analyses demonstrated that abusive supervision climate was significantly related to each of the individual-level employee attitude outcomes. That is, abusive supervision climate related positively to subordinate turnover intentions (β = 0.56 p < .01), and negatively to job satisfaction (β = −0.42, p < .01) and organizational commitment (β = −0.34, p < .01), above and beyond individual perceptions of abuse. Abusive supervision climate was also significantly related to each of the conflict and health-related outcomes. It was positively related to work-family conflict (β = 0.27, p < .05) and to employee emotional exhaustion (β = 0.55, p < .01), and negatively related to overall well-being (β = −0.27, p < .01)—in each case, above and beyond individual perceptions of abusive supervision. The results did not, however, reveal a significant relationship between abusive supervision climate and any of the individual-level behavioral outcomes we explored (performance, OCB, and antisocial behavior). Our findings suggest these employee behaviors were primarily impacted by individual perceptions of abuse.

Overall, our findings show abusive supervision climate represents a construct that is distinct from individual perceptions of abuse. Further, abusive supervision climate is related to many individual-level outcomes, and for attitudinal, conflict, and health-related outcomes, its effect holds above and beyond the influence exerted by individual abuse perceptions.

Group identification. Group identification was assessed with Doosje, Ellemers, and Spears' (1995) four-item group identification scale. Employees were asked to reflect upon the team they currently worked with and respond to items such as "I define myself as a member of the group," and "I identify with other members of my group," using a five-point response format (1 = strongly disagree, 5 = strongly agree) (α = .87). The mean r_{wg} score across the sample was .87. The ICC(1) score for group identification was .21, and the ICC(2) score was .51, both indicating sufficient agreement for aggregation (LeBreton & Senter, 2008).

Collective efficacy. We assessed collective efficacy with Jex and Bliese's (1999) four-item measure of collective efficacy, adapted to reflect members of

a workgroup as the referent. Using a five-point response format (1 = strongly disagree, 5 = strongly agree), employees rated the extent to which they agreed with statements such as "I have real confidence in my team's ability to be successful" and "I think my team does a better job at tasks than most teams" (α = .87). The mean r_{wg} score for collective efficacy was .82. The ICC(1) score was .20, and the ICC(2) score was .50, indicating aggregation was appropriate.

Group cooperation. Cooperation in the group was assessed with Chatman and Flynn's (2001) five-item scale for cooperative team norms. Supervisors rated the extent to which they agreed with statements such as "There is a high level of cooperation between members of the work group I supervise," on a five-point response format (1 = strongly disagree, 5 = strongly agree). Item analyses revealed that a reverse-coded item in the scale, "There is little cooperation among members on tasks," negatively influenced the reliability of the measure. Research has pointed out concerns and problems of measures containing reverse-coded items. Participants can misinterpret or misread reverse-coded items, as it is easy to overlook words that negate a certain statement (Swain, Weathers, & Niedrich, 2008; Weijters & Baumgartner, 2012). Moreover, research has found that reverse-coded items yield inconsistent factor structures (Netemeyer, Bearden, & Sharma, 2003). We therefore removed this item from our analysis, which resulted in four items assessing cooperation between work-unit members (α = .70).

Organizational citizenship behavior. Employee OCB was assessed on a five-point response format (1 = strongly disagree, 5 = strongly agree) using Podsakoff, MacKenzie, Moorman, and Fetter's (1990) five-item helping scale. Supervisors rated

the extent to which they agreed with statements such as "Members of the work group are always ready to lend a helping hand to those around" and "Employees in the work group I supervise help others who have been absent and are returning to work" (α = .85).

Group performance. Workgroup performance was assessed with a six-item measure from Tjosvold et al. (2003), adapted to have the members of the work unit as the referent for each item. Hence, supervisors rated the extent to which they agreed with statements such as "Members of the work group I supervise work effectively" and "Members of the work group I manage meet or exceed their productivity requirements" on a five-point response format (1 = strongly disagree, 5 = strongly agree) (α = .88).

Control variables. Following previous research, we also controlled for average group size and group experience (average tenure of department members) when predicting group-level outcomes (cooperation, OCB, and performance) (Mayer et al., 2009; Stewart, 2006).

RESULTS

Descriptive Statistics and Correlations

Table 1 shows the means, standard deviations, intercorrelations, and scale reliabilities. The correlations were moderate between abusive supervision climate and the three outcome variables, as well as between abusive supervision climate and the two indicators of our proposed mediating mechanisms: group identification and collective efficacy. The results also reveal moderate correlations between the mediating mechanisms and the work-unit outcomes.

TABLE 1
Means, Standard Deviations, and Correlations Among Study Variables

Variables	M	SD	1	2	3	4	5	6	7	8
1. Average Tenure	2.67	2.11	—							
2. Average Group Size	13.91	14.15	.19**	—						
3. Abusive Supervision Climate	1.56	.69	−.04	.00	(.94)					
4. Group Identification	4.14	.46	−.04	.01	−.44**	(.87)				
5. Collective Efficacy	4.06	.43	.02	.06	−.46**	.72**	(.87)			
6. Group Cooperation	4.03	.55	.04	.06	−.25**	.27**	.39**	(.70)		
7. Group OCB	4.07	.61	−.00	.04	−.18**	.27**	.31**	.64**	(.85)	
8. Group Performance	4.14	.55	.09	.02	−.28**	.27**	.38**	.68**	.63**	(.88)

Note: n = 222 work units.

** $p < .01$; coefficient α reliabilities are reported in parentheses on the diagonal.

Analyses

We first conducted a CFA of the variables in our model, utilizing a maximum-likelihood estimation in LISREL 8.8 (Jöreskog & Sörbom, 2006). We tested a model that consisted of six factors: abusive supervision climate, group identification, collective efficacy, group cooperation, group OCB, and group performance. Results showed the six-factor model fit the data well ($\chi^2 = 750.88$, $df = 335$, $p < .001$, RMSEA = .07, CFI = .96, NFI = .94, NNFI = .96). We further compared the six-factor model to an alternative four-factor model, which included abusive supervision climate as a single factor, the two mediator variables (group identity and collective efficacy) as a single factor, the two group-oriented behaviors as a separate factor, and group performance as another factor ($\chi^2 = 957.78$, $df = 344$, $p < .001$, RMSEA = .09, CFI = .94, NFI = .91, NNFI = .93). Finally, we compared the six-factor model to a one-factor model, in which all items loaded onto a single factor ($\chi^2 = 3161.55$, $df = 350$, $p < .001$, RMSEA = .19, CFI = .52, NFI = .51, NNFI = .48). A chi-square difference test showed the six-factor model exhibited a significantly better fit than the four-factor model ($\chi^2_{\text{difference}} = 206.90$, $df = 9$, $p < .001$) and the one-factor model ($\chi^2_{\text{difference}} = 2410.67$, $df = 15$, $p < .001$).
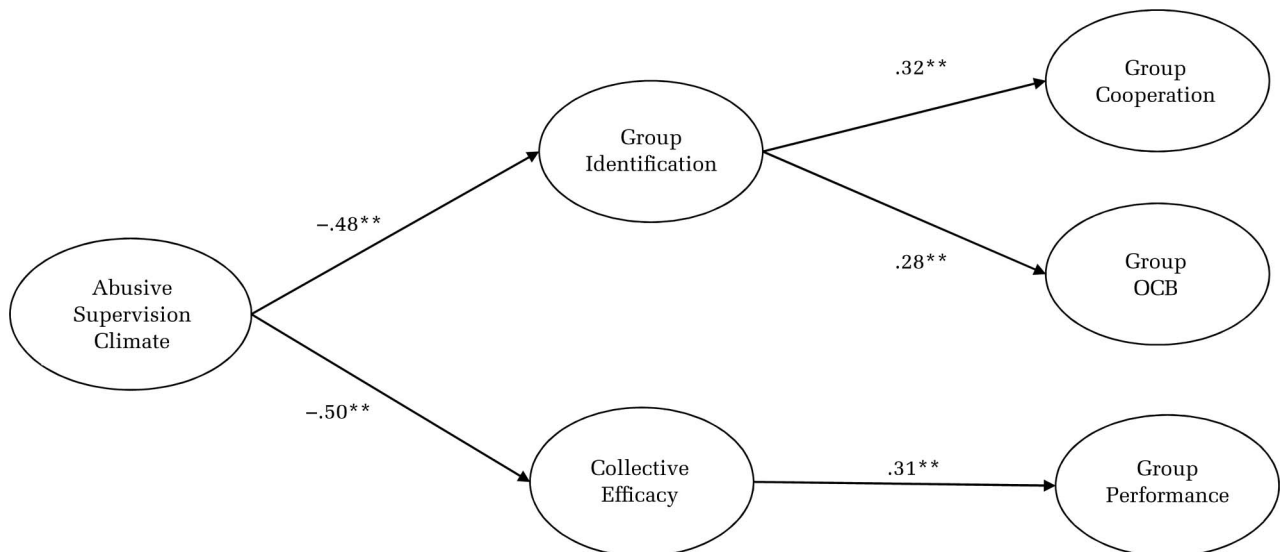
The purpose of this study was to explore the mediating mechanisms by which abusive supervision climate influenced group-oriented outcomes such as cooperation and group OCB, and task-oriented outcomes such as group performance. In order to test our multiple-mediation model, we followed a structural equation modeling (SEM) approach using LISREL 8.8 (Jöreskog & Sörbom, 2006). As the two mediating variables represent conceptually related group processes, we allowed the error terms of the factors to covary. Similarly, the error terms of three outcome variables were allowed to covary. Figure 2 displays the structural equation model.

Results show that the model had a good fit to the data ($\chi^2 = 847.38$, $df = 389$, $p < .001$, RMSEA = .07, CFI = .96, NFI = .93, NNFI = .95; Bentler & Bonett, 1980; Browne & Cudeck, 1992; MacCallum, Browne, & Sugawara, 1996), supporting the hypothesized relationships of abusive supervision climate with group identity ($\beta = -.48$, $p < .01$) and collective efficacy ($\beta = -.50$, $p < .01$); group identification with group cooperation ($\beta = .32$, $p < .01$) and group OCB ($\beta = .28$, $p < .01$); and collective efficacy with group performance ($\beta = .31$, $p < .01$).

To further examine whether group identification and collective efficacy fully or partially mediated the relationship between abusive supervision climate and the work-unit outcomes, we tested an alternative model that included direct paths from the independent variable to the outcome variables. This partial mediation model also provided a good fit to the data ($\chi^2 = 837.98$, $df = 386$, $p < .001$,

FIGURE 2
Structural Equation Model (Full Mediation)

Note: * $p < .05$; ** $p < .01$.

RMSEA = .07, CFI = .96, NFI = .93, NNFI = .96). A chi-square difference test showed that the partial mediation model offered a slightly better fit ($\chi^2_{\text{difference}}$ = 9.4, df = 3, $p < .05$) than the full mediation model, indicating that abusive supervision climate exerts some direct effects on outcomes, as well as indirect effects through our hypothesized mediators. Results show significant direct paths from abusive supervision climate to group cooperation ($\beta = -.18$, $p < .05$) and group performance ($\beta = -.22$, $p < .01$), but not between abusive supervision climate and group OCB. This indicates that group identity and collective efficacy partially mediated the relationships between abusive supervision climate and group cooperation and group performance, respectively, whereas group identity fully mediated the link between abusive supervision climate and group OCB (see Figure 3).

Finally, we examined the indirect effects of abusive supervision climate on the three outcome variables. Indirect effects reflect the extent to which the independent variable influences the outcomes through the mediating mechanisms. The SEM results revealed that all three indirect effects were signific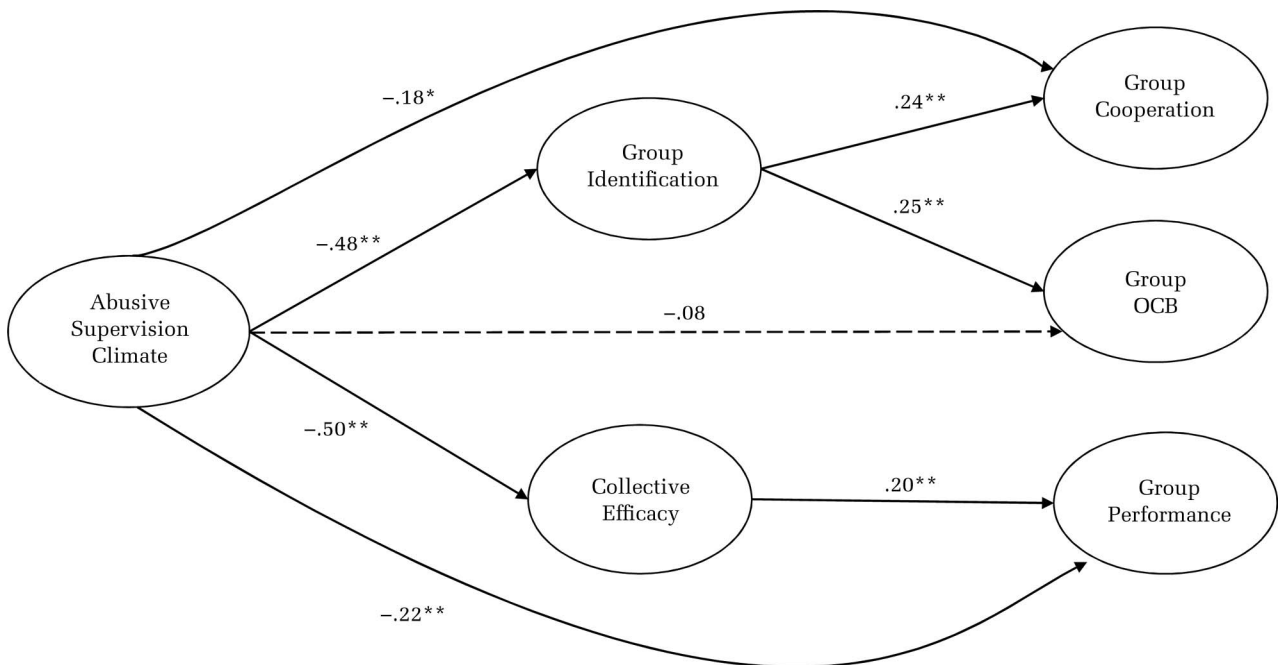ant (cooperation $\beta = -.12$, $p < .01$, OCB $\beta = -.12$, $p < .01$, performance $\beta = -.10$, $p < .01$). In all, Hypotheses 1 and 2 were supported.

Supplemental Analyses

Our sample came from a variety of organizations, ranging from large international corporations with thousands of employees to small start-up firms with few employees. This yielded an average number of 13.91 employees per work unit. As we surveyed four subordinates per work group, this may raise questions about the representativeness in our work-unit sample and a potential resulting bias in the data. To address this issue, we conducted supplementary analyses.

First, we took a closer look at the sample. Analyses revealed that, although work units averaged 14 members, the data indicated a smaller median of 8.75 employees per unit, and an even smaller mode of six employees per unit. These numbers indicate that the majority of our work units sampled were relatively small, so in most cases a substantial proportion of work-unit members participated in the data collection process. Further analyses show that we were able to gather data from, on average,

FIGURE 3
Structural Equation Model (Partial Mediation)

Note: * $p < .05$; ** $p < .01$.

slightly more than half of the total members (51%) of the participating work units.

Moreover, we explored whether the percentage of participating group members exerted a moderating effect on the relationships in our model. No such relationships were found between abusive supervision climate and either the mediating mechanisms or the three outcome variables; thus, the number of respondents employed in our sample does not appear to bias results related to group processes and group outcomes.

DISCUSSION

In the last decade, much has been learned about abusive supervision. However, by conceptualizing abusive supervision at the individual level and emphasizing the negative impact of abuse on individual members in the organization, prior research likely understates abusive supervision's full impact. By focusing only on targeted individuals, it overlooks the possibility that abuse becomes embedded in the climate of workgroups, thereby affecting the group at large. A primary contribution of our research therefore lies in recognizing the existence of an abusive supervision climate. That is, our research expands the traditional individual-level focus by considering abusive supervision as a group-level variable impacting group teamwork processes and thus affecting whole work units and departments.

We provide a test of the mediating mechanisms by which abusive supervision climate impacts workgroup behavior. The results demonstrate that each of the hypothesized mediation mechanisms plays a significant role in explaining the impact of abusive supervision climate on outcomes. Group identity mediated the relationship between abusive supervision climate and the group-oriented outcomes of OCB and cooperation. Collective efficacy mediated the relationship between abusive supervision climate and group performance.

More specifically, we argued an abusive supervision climate may influence outcomes via interpersonal teamwork processes reflected in group identity because abuse signals that the group and its members are not valued (Tyler & Blader, 2000), and because it signals that rude and disrespectful treatment is appropriate for interpersonal interactions. Consequently, an abusive climate frustrates team interactions, commitment, and the social bonding of group members. Demoralized members withdraw psychologically from the work team, reducing

identification with the team. This is associated with less cooperative behaviors among members.

Abusive supervision climate also influences outcomes via the task teamwork processes reflected in collective efficacy. An abusive supervisory climate fractures the psychological safety that allows team members to seek and provide the feedback, help, and expertise that underlie its ability to learn and engage in appropriate actions to accomplish its work. The absence of such an environment will negatively impact a team's belief in its own task efficacy, thereby negatively affecting the unit's performance. In all, the results indicate the potential power of abusive supervision climate and that its influence on different outcomes is exerted through different paths. Previous research on teams has emphasized the impact of two distinct group processes—interpersonal teamwork and task teamwork—on group outcomes (Cropanzano et al., 2011; Gladstein, 1984; Hoegl & Gemuenden, 2001). Our findings are consistent with previous findings in which work climates are related to outcomes through these interpersonal and task processes.

Our results further highlight important points for work on abusive supervision. The conceptual shift to a focus on group processes, as well as the specific results of our study, have important implications for abusive supervision researchers. First, our work demonstrates abusive supervision is more than an individual-level phenomenon. Employees also form collective impressions of abusive supervision, and these shared perceptions influence group outcomes. Thus, a supervisor need not be abusive to a particular individual to have negative effects on that individual and how that individual relates to, and interacts with, group members. Abusive supervision can become embedded in the fabric of the workgroup, thereby having greater influence than suggested by individual-level perspectives on abusive supervision. This idea is underscored by considering the relationship between abusive supervision climate and individual-level outcomes, including work attitudes, health-related outcomes, and work-family conflict. We show an abusive climate impacts these individual responses beyond the effect of individual-level measures of abusive supervision. Thus, consistent with Johns' (2006) discussion of the importance of context in organizational research, these results suggest abusive supervision climate is an important contextual variable for abusive supervision researchers.

Second, by integrating research on work climates and group process models (e.g., Cropanzano et al.,

2011; Hoegl & Gemuenden, 2001), we identify new mechanisms by which abusive supervision impacts employee behaviors in work units. Previous research has explored a variety of theoretical explanations for the impact of abuse on employees, including theories of fairness (Aryee, Chen, Sun, & Debrah, 2007; Tepper, 2000), aggression (Mitchell & Ambrose, 2007), social learning and social information processing (Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012; Restubog, Scott, & Zagenczyk, 2011), and personality (Bamberger & Bacharach, 2006; Tepper, Duffy, & Shaw, 2001). However, researchers have not considered the role of social identity or collective efficacy in understanding the impact of abusive supervision. Our study suggests both of these constructs represent powerful underlying mechanisms by which abuse affects outcomes at the group level.

Furthermore, this paper demonstrates the importance of considering multiple processes simultaneously to understand fully how abusive supervision climate impacts group outcomes. Examining multiple mediators simultaneously helps to clarify the influence abusive supervision climate exerts on group processes, which affect a broad range of outcomes. Based on our examination of multiple mediating mechanisms, it is clear that the negative influence of abusive supervision climate is multifaceted.

Finally, our study shows an abusive supervision climate influences group-level outcomes not previously considered in abusive supervision research. Thus, we expand the understanding of abusive supervision by exploring the nomological net of abusive supervision climate and the processes by which it influences outcomes. In so doing, we demonstrate the broad influence abusive supervisors have on their subordinates and the workgroups in their organizations.

Implications for Future Research and Practice

Our multiple-mediator model also suggests avenues for future research. Variables undoubtedly exist that enhance or weaken the relationship between abusive supervision climate and interpersonal and task processes in teams. For example, climate strength (the strength of agreement in the group about climate) is likely to play an important role. Research on other forms of workgroup climate (e.g., justice, innovation, service) demonstrates that climate strength moderates the relationship between climate and outcomes (Colquitt et al., 2002; González-Romá, Peiró, & Tordera, 2002; Schneider

et al., 2002). Further, the group identity and collective efficacy literatures have a rich history of theoretical and empirical research that could further inform research on abusive supervision. For example, research on collective efficacy suggests task interdependence influences the development of collective efficacy (Paskevich, Brawley, Dorsch, & Widmeyer, 1999). Gibson and Earley (2007) suggested task interdependence may moderate the relationship between antecedents and collective efficacy. Thus, task interdependence may play a role in the influence of abusive supervision climate, collective efficacy, and group performance.

The pattern of full and partial mediation results also points to future research opportunities. The impact of abusive supervision climate on OCB was fully mediated by group identity. However, the impact of abusive supervision climate on group cooperation and performance was only partially mediated by group identity and collective efficacy, respectively. Thus, these direct influences of abusive supervision climate on outcomes may be worthy of further examination. Moreover, these results suggest the effects of abusive supervision climate on outcomes may operate through additional mediational paths, such as other aspects of interpersonal and team processes not fully captured in our model. In general, the consideration of interpersonal and task processes in teams opens new avenues for abusive supervision research.

The influence of group identity and collective efficacy in predicting group-level outcomes also raises the possibility that, at the individual level, abusive supervision may influence individual-level identification with the group and individual efficacy as well. Research demonstrates a clear relationship between social identity and individual-level outcomes such as cooperation and helping (Blader & Tyler, 2009). Similarly, research on efficacy demonstrates a strong relationship between individual efficacy beliefs and individual performance (Bandura, 2001). Further, although research has not considered the influence of abusive supervision on these individual-level constructs, research on related constructs such as leadership suggests abusive supervision is likely to influence individuals' social identification and efficacy beliefs (van Knippenberg, van Knippenberg, De Cremer, & Hogg, 2004; Walumbwa, Avolio, & Zhu, 2008).

Considering abusive supervision at the climate level has implications for practitioners as well. Of course, a low tolerance for abuse, and training for abusive supervisors, may be the most direct routes

for an organization to address abusive supervision issues. Nonetheless, the results suggest other approaches may be fruitful as well. Understanding that abusive supervision climate influences outcomes in multiple ways provide guidance for organizational interventions. For example, pockets of abuse (perhaps well hidden) may persist even in organizations dedicated to minimizing its presence. Our results suggest organizations might consider initiatives aimed at mitigating the negative impact of such residual abuse. For example, training and activities aimed at enhancing collective efficacy or social identity have the potential to buffer work teams from the negative influences of residual abuse (Kozlowski & Ilgen, 2006: 91).

Limitations

The study has some limitations that should be noted. First, the data are cross-sectional. This limits our ability to infer causality. Second, it is likely the complexity of the relationships among these variables is greater than that captured in our model. Although we were able to test multiple mediation processes simultaneously, we neither modeled nor tested potential moderators of these mediation effects. As noted above, research in related areas points to potential moderators, and future research is needed to explore the boundary conditions of the relationships that emerged in our study.

Third, the student or organizational contact person in our study received limited instructions on what type of work units were subject to the recruitment and survey process. For example, no specific instructions were given regarding the optimal size of the workgroups we hoped to study. Furthermore, although the contact persons were instructed to distribute surveys randomly to organizational members and coworkers, we were unable to track this part of the procedure. These two shortcomings in our data collection effort may raise at least two concerns. First, our data may suffer from a selection bias, as the focal employee may have distributed surveys to similar others (e.g., coworker friends) instead of randomly choosing coworkers. This, in turn, may affect the level of agreement within groups (Schneider, 1987), potentially impacting the results.

Another matter related to the sample might be the issue of representativeness, namely whether surveying a small number of employees from a larger unit provides an adequate representation of an entire workgroup. This is a valid concern, although our supplementary analyses showed that representativeness does not seem problematic in our sample, where work units in which a smaller percentage of employees were surveyed did not yield different results than groups in which a larger percentage of group members contributed. These analyses are further strengthened by statistics showing that, on average, our sample reflected responses from more than half of the employees represented in the work units surveyed. Still, the challenge of obtaining a representative sample of team members remains a meaningful concern.

Our study has some notable strengths as well. For example, we collected multi-source data from both supervisors and subordinates. Our data are therefore unlikely to suffer from common method variance or same source bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Moreover, examining multiple mediators simultaneously provides a more complete perspective on the relationship between abusive supervision climate and outcomes than if each mediation path were explored in isolation. Research has adopted a similar multiple-mediator approach in other areas—such as career success, (Seibert, Kraimer, & Liden, 2001), ethical leadership (Walumbwa, Mayer, Wang, Wang, Workman, & Christensen, 2011), discrimination (Goldman, Slaughter, Schmit, Wiley, & Brooks, 2008), and trust in teams (De Jong & Elfring, 2010)—to better understand the phenomenon of interest. We believe a multiple-mediator approach will similarly advance research in abusive supervision.

CONCLUSION

Interest in abusive supervision has increased in the last decade. The focus of this research, however, has remained on abusive supervision as an individual-level phenomenon. Our goal in this paper has been to take the abusive supervision literature in new directions by providing scholars with different perspectives regarding the phenomenon of abusive supervision, the processes by which it influences outcomes, and its future role in our models and theories. Drawing on theoretical perspectives not previously utilized in the abusive supervision literature, this paper sheds light on the influence abusive supervision climate can have on workgroups and the employees that comprise them. Our results suggest that group identification and collective efficacy may function as critical elements in this process. This research, therefore,

provides a foundation for better understanding abusive supervision in the workplace.

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