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Perceived Abusive Supervision and Service Performance: An Attachment Theory Perspective

Ahmed Mohammed Sayed Mostafa[a,b*], Chia-Huei Wu[c,d*], Suhaer Yunus[e*], Hong Deng[f], and Monica Zaharie[g]

[a]University of Leeds; [b]Assiut University; [c]King's College London; [d]China Medical University Hospital, China Medical University; [e]University of Lincoln; [f]Nottingham University Business School China; [g]Babeş-Bolyai University

ABSTRACT

This study examines *why* and *when* perceived abusive supervision can impair employees' service performance. Drawing on attachment theory, we propose that perceptions of abusive supervision can induce employees' attachment insecurity at work (attachment avoidance and attachment anxiety) and thus undermine employees' service performance. We also propose that trust in coworkers helps mitigate the link between perceptions of abusive supervision and employees' attachment insecurity at work. The hypothesized relationships are examined in two studies. The first study consists of a sample of 176 health-care professionals recruited from Prolific for a three-wave survey. The second study consisted of a sample of 255 nurses and 35 supervisors from 33 Romanian hospitals for a multisource three-wave survey. Results consistently reveal that abusive supervision is positively related to attachment avoidance, which in turn is negatively related to service performance. Moreover, coworker trust moderates the association between abusive supervision and attachment avoidance and thus mitigates the mediation chain from abusive supervision, via attachment avoidance, to service performance. This research offers a new perspective to understanding the consequences of abusive supervision for service performance and underscores the importance of trusting relations among coworkers for coping with abusive supervision.

Abusive supervision is defined as subordinates' perceptions of the extent to which supervisors engage in a sustained display of hostile verbal and nonverbal behaviors, excluding physical contact (Tepper, 2000). Across various work contexts, perceptions of abusive supervision induce employees' ill-being and harm their task performance (Fischer et al., 2021; Mackey et al., 2017; Martinko et al., 2013; Tepper, 2000; Zhang et al., 2019). Specifically, in the service context, abusive supervision has been linked to poor service performance as it undermines employees' self-concepts at work, such as organization-based self-esteem (Jian et al., 2012) and organizational identification (Lyu et al., 2016), preventing employees from fully engaging in their work roles. Although previous studies have explored the detrimental effects of abusive supervision on employees' self-concept at work, it is likely that perceptions of abusive supervision also affect social interactions at work and how employees serve their customers. This research offers a new perspective based on attachment theory to understand the relationship between abusive supervision and service performance from a relational standpoint. Subjective evaluations of supervisors' undermining behaviors can have unintended consequences for the effective delivery of services to clients, necessitating a deeper understanding of the nature of this association.

CONTACT Ahmed Mohammed Sayed Mostafa ✉ A.Mostafa@leeds.ac.uk ✉ Leeds University Business School, University of Leeds, Moorland Rd, Leeds LS6 1AN, UK; Faculty of Commerce, Assiut University, Assiut, Egypt

*The first three authors contributed equally to the paper.

Attachment theory (Bowlby, 1969/1982, 1988) indicates that individuals can develop interpersonal attachments and affectional bonds in various contexts. Supervisors are employees' key attachment figures (Bennett et al., 2008; Game, 2008; Mayseless, 2010; Wu & Parker, 2017). Thus, employees' perceptions of abusive supervision as a form of social rejection behavior can undermine the bond between employees and their supervisors, leading to employees' attachment insecurity at work. Attachment insecurity is characterized by two dimensions: attachment avoidance (the extent to which an individual is uncomfortable with closeness and dependence on others) and attachment anxiety (the extent to which an individual fears abandonment) (Brennan et al., 1998; Richards & Schat, 2011; Wu & Parker, 2017). Abusive supervision is likely to promote both attachment avoidance and attachment anxiety at work, as employees can seek to avoid unfavorable interactions and feel anxious about their relationships, perceiving that they are unwelcome by their supervisors. This is because when individuals experience attachment insecurity, they tend to focus on their thwarted attachment needs and prioritize restoring their attachment security rather than understanding the needs of others and assisting them (Bowlby, 1969/1982, 1988). Therefore, it is expected that abusive supervision will induce attachment avoidance and attachment anxiety, which will undermine employees' service performance.

Attachment theory shows that multiple attachment figures can exist within a social network, allowing individuals to use different figures to maintain an overall sense of attachment security (Bowlby, 1969/1982, 1988). Workgroups can be important attachment figures in the workplace because "[g]roups in general, or specific known groups, might be viewed as warmly accepting or as likely to coerce or reject the self" (Smith et al., 1999, p. 96). When employees' attachment security is threatened by abusive supervision, their work group members can become an alternative source of attachment security. The trustworthiness of work group members plays a crucial role in buffering the negative impact of abusive supervision. As the foundation of a healthy workplace community, trusting relationships among coworkers facilitate employees' emotional connections and provide them with safety and closeness (Leiter et al., 2015), thus counteracting the negative impact of abusive supervision on attachment security. In other words, coworker trust can mitigate the impact of abusive supervision on employees' attachment insecurity. We expect that coworker trust will mitigate the positive association of abusive supervision with attachment avoidance and attachment anxiety. Based on attachment theory, we proposed a moderated mediation model (Figure 1) to depict why and when abusive supervision can undermine employees' service performance.

We conducted this study in a healthcare service context because the other-oriented nature of service performance in this work context provides a suitable platform to examine the relational
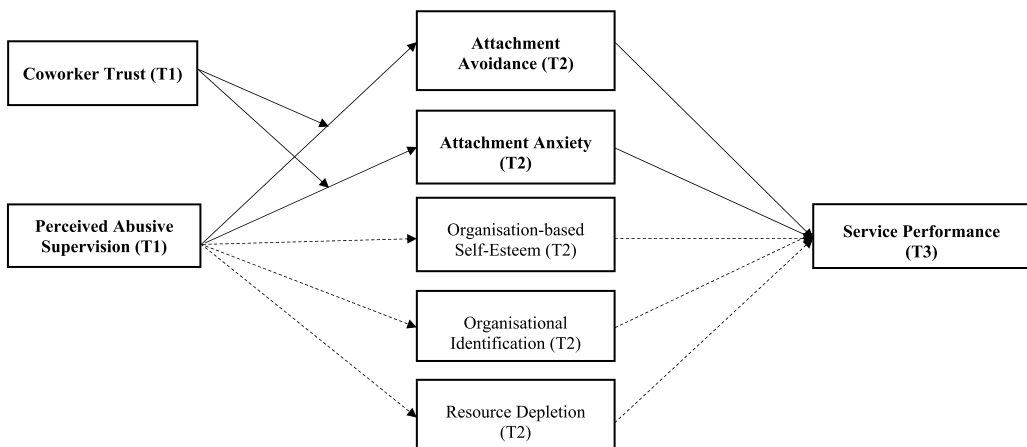
Figure 1. The proposed research model. Note: Variables in bold and solid lines represent key research variables and hypothesized relationships in the research. Other variables represent control variables for their potential mediating effects.

implications of abusive supervision. We collected data in Study 1 from healthcare workers responsible for serving clients in the UK through Prolific, an online platform for participant recruitment. We focused in Study 2 on frontline nurses in 33 hospitals of different sizes in Romania to explore a work context where serving clients with healthcare needs is the priority (Gambino, 2010; Moody & Pesut, 2006). Ironically, such a professional context is also relevant to abusive supervision research, and it is well-documented that this destructive leadership style is particularly prevalent in healthcare organizations and detrimental to nurses' work attitudes and performance (Chu, 2014; Estes, 2013; Lyu et al., 2019; Rodwell et al., 2014). Studying the effects of abusive supervision in contexts such as healthcare, where abuse is more likely to occur, and employees have relatively low bargaining power compared to supervisors, helps capture the full range of variance in abusive supervision to infer its consequences for employees' service performance (Fischer et al., 2021). Existing studies have also primarily relied on cross-sectional surveys using employee ratings of both abusive supervision and service performance, which makes the design of these studies susceptible to endogeneity (Fischer et al., 2021). This study benefits from a time-lagged multi-source sample, which is relatively more robust against endogeneity than single-source cross-sectional designs.

This study makes several theoretical contributions. First, using the theoretical lens of attachment theory, we offer a perspective that expands the understanding of the negative impact of abusive supervision on service performance. We move away from self-concept-focused explanations, such as organization-based self-esteem and organizational identification, and instead provide a relational perspective to understand why and when abusive supervision can affect employees' attachment insecurity and service performance. This study thus responds to the call (Zhang et al., 2019) to explore additional mechanisms to advance abusive supervision research. In so doing, it also addresses Fischer et al. (2021) call to examine the proposed mechanisms of the abusive supervision-service performance link more systematically by exploring conceptually dissimilar mediatory paths concurrently. The inclusion of two dimensions of attachment insecurity as potential mediators enhances the comparative rigor of this research over previous studies, which primarily focus on a single mediating mechanism of the abusive supervision to service performance link (e.g., Jian et al., 2012; Lyu et al., 2016).

Second, the study clarifies when the newly proposed mechanisms (attachment avoidance and attachment anxiety) for abusive supervision are likely to occur by examining the moderating effect of coworker trust. When addressing the critical question of what capacities employees can utilize to cope with abusive supervision (Tepper et al., 2017), previous research has tended to focus on internal factors possessed by employees who perceive abuse, including their core self-evaluations (Zhang et al., 2014) and ingratiation skills (Harvey et al., 2007). This study expands the understanding of coworkers' roles in the consequences of abusive supervision by exploring the role of coworker trust in mitigating the impact of abusive supervision on attachment insecurity and service performance.

Finally, our study extends attachment research in organizational behavior. Although attachment theory has been applied to organizational behavior, previous studies have primarily examined the role of dispositional attachment in shaping work behavior and performance (Yip et al., 2018). This study treats employees' attachment at work as a domain-specific state, which helps broaden our understanding of how individuals' attachment at work can be developed and shaped by supervisors and colleagues and how this relates to one's behaviors and outcomes at work by investigating the role of abusive supervision in shaping employees' attachment at work and their work behavior.

Perceived abusive supervision and service performance

Leader behaviors that can be perceived as abusive by employees can include improperly assigning blame to subordinates, treating them unfairly, giving them silent treatment, or ridiculing them publicly (Chi et al., 2018). Consistent with Tepper's (2000) definition, this study will focus on employees' (healthcare professionals and nurses in our case) subjective evaluations of abusive supervision (perceived abusive supervision) rather than leaders' abusive behaviors in an objective sense.

Employee evaluations or perceptions of abusive supervision are essential because some employees are more susceptible to perceiving hostility in leader behavior depending on their personality traits (Brees et al., 2014; Fischer et al., 2021). Previous research has shown that personality-driven differences can cause identical or similar supervisory behaviors to be perceived as abusive by one subordinate and nonabusive by another (Harvey et al., 2016; Wang et al., 2019). Variance in employee personality characteristics is also related to employees' propensity to exhibit service performance (Bettencourt et al., 2001), which is the focal outcome of this study. Therefore, focusing on employees' subjective evaluations of abusive supervision rather than leaders' actual behaviors is appropriate for this study to illuminate the processes linking abusive supervision to service performance.

In recent years, the association between abusive supervision and service performance, defined as "employees' behavioral demonstration of service delivery in a conscientious, responsive, attentive, and courteous manner" (Bettencourt & Brown, 2003, p. 395), has garnered considerable research attention (Fischer et al., 2021; Mackey et al., 2017; Zhang & Liu, 2018). Numerous studies have demonstrated that employees' subjective assessments of abusive supervision are negatively associated with their service performance (Al-Hawari et al., 2020; Lyu et al., 2016; Shum, 2020). Given the critical nature of effective service delivery in healthcare organizations (Mostafa, 2022), this documented negative relationship is troubling. Healthcare is a service-intensive sector involving significant interaction between healthcare professionals, patients, and their families. From an organizational standpoint, maintaining high service performance is crucial in the healthcare sector to achieve high patient satisfaction (Chu, 2014). Understanding the repercussions of abusive supervision on service performance is equally significant for healthcare staff who view treating patients and their families with compassion and respect as a core objective of their professional duties (Estes, 2013). Therefore, understanding the relationship between abusive supervision and service performance is timely, carries implications for healthcare organizations and their staff, and merits further investigation.

When examining the relationship between abusive supervision and service or job performance in general, scholars have frequently relied on three mechanisms, drawing mainly on social exchange theory, organizational justice theory, and conservation of resources theory (Al-Hawari et al., 2020; Kim et al., 2015; Zhang et al., 2019). Although these frameworks explain why abusive supervision can undermine employees' service performance, they overlook the role of interpersonal relationships at work. Research has shown that employee perceptions of abusive supervision can erode trust in leaders and provoke relational conflict (Fischer et al., 2021). However, no theoretical framework has been proposed to explain how these perceptions affect employees' feelings about workplace interpersonal relationships and what strategies can mitigate this negative impact. Attachment theory (Bowlby, 1969/1982, 1988) addresses this gap by providing a theoretical framework to understand how employees' experiences with supervisor interactions influence their (in)security in interpersonal relationships at work (Game, 2008), which in turn affects their broader social interactions at work, including their interactions with customers or patients. This theory also provides guidance to identify factors that help employees maintain security in workplace interpersonal relationships. In the following sections, we outline how applying an attachment theory perspective (Bowlby, 1969/1982, 1988) can further illuminate the abusive supervision-service performance relationship and propose that employees' attachment insecurity and coworker trust can be the mediating and moderating links in the relationship between abusive supervision and service performance, respectively.

Theory and hypotheses development

Attachment theory

Attachment theory suggests that an individual's attachment security is shaped by interactions with primary caregivers in childhood and various attachment relationships formed in adulthood. For example, studies have explored attachment to family, friends, and partners (Overall et al., 2003; Sibley & Overall, 2008), attachment to supervisors (Game, 2008), attachment at work (Neustadt

et al., 2006), attachment toward social groups (Smith et al., 1999), and attachment to God (Granqvist & Kirkpatrick, 2008). Context-specific attachment experiences have proven particularly influential in shaping attitudes and behaviors within their respective contexts (Bennett et al., 2008; Cozzarelli et al., 2000; Smith et al., 1999). In the workplace, employees can develop an attachment relationship with supervisors, who are key authority figures responsible for managing rewards and sanctions, as well as providing work-related social support in times of need (Game, 2008). Although leaders who are available to offer support and encouragement can foster a sense of attachment security in their followers (Mayseless, 2010; Popper et al., 2000; Wu & Parker, 2017), those who exhibit behaviors signaling interpersonal rejection and undermining can threaten employees' sense of attachment security. This dynamic operates similarly to the parent-child relationship, parents who reject closeness impair the security and emotional bond with their children (Bowlby, 1969/1982; Egeland & Farber, 1984). Attachment theory thus provides a framework to understand how employees' perceived abusive supervision relates to their (in)security in interpersonal relationships at work.

Attachment theory (Bowlby, 1969/1982) also demonstrates that an individual will seek alternative figures for attachment security when they cannot establish a securely attached relationship with their primary caregivers, known as the *compensation hypothesis* (Granqvist & Kirkpatrick, 2008). Employees can also form attachment relationships with their workgroup or colleagues in the workplace. Coworkers are "members of an organization who hold relatively equal power or level of authority and with whom an employee interacts during the workday" (Tan & Lim, 2009, p. 46). Bowlby (1969/1982, p. 207) indicated that "A school or college, a work group, a religious group or a political group can come to constitute for many people a subordinate attachment-'figure,' and for some people a principal attachment-'figure.'" In this context, employees are likely to develop a sense of attachment security when they trust their coworkers, especially those within the same team. Applying this concept to the workplace, it is probable that colleagues can become a crucial source of attachment security for employees if their supervisors are perceived as abusive. Coworker trust is a fundamental aspect of a "high care" team environment (Von Krogh, 1998; Zárraga & Bonache, 2005) that enables employees to feel safe being vulnerable and rely on coworkers when needed, fostering a sense of attachment security (Bowlby, 1969/1982). Based on this, we propose that coworker trust can mitigate the negative effects of abusive supervision on attachment security at work.

Attachment (in)security is characterized by two dimensions: attachment avoidance and attachment anxiety (Brennan et al., 1998; Richards & Schat, 2011; Wu & Parker, 2017). Higher attachment avoidance reflects a tendency to deactivate one's attachment needs by maintaining distance from others and avoiding intimacy (Bowlby, 1969/1982, 1988; Mikulincer & Shaver, 2007b), which arises from hurtful, unsupportive interactions with primary caregivers. Higher levels of attachment anxiety involve hyperactivating one's attachment needs by becoming overly dependent on others and highly sensitive to social and emotional cues, resulting from inconsistent and uncertain care received from primary caregivers. Richards and Schat (2011) noted that the two attachment dimensions exhibit distinct associations with organizational employee behaviors due to their inherent nature. For instance, attachment avoidance is linked to lower levels of instrumental and emotional support-seeking behavior, displaying a deactivating tendency, whereas attachment anxiety is linked to higher levels of support-seeking behavior dimensions, indicating a hyperactivating tendency (Richards & Schat, 2011). Wu et al. (2014) found that higher attachment anxiety, but not attachment avoidance, motivates employees to seek and utilize feedback from peers in flexible teamwork environments, reflecting a need to ensure alignment with others' perspectives. Research has also shown that secure-base support from leaders offers different motivational benefits to those high in attachment avoidance versus those high in attachment anxiety (Wu & Parker, 2017). For those high in attachment avoidance, leader support fosters autonomous motivation in mastering the work environment, countering the natural tendency to avoid interactions with the environment. For those high in attachment anxiety, leader support enhances role breadth self-efficacy, helping overcome employees' perceptions of incapacity and overdependence on others. These findings clarify the distinct implications and foundational nature of attachment avoidance and attachment anxiety.

The two attachment dimensions are relatively independent (Brennan et al., 1998; Richards & Schat, 2011; Wu & Parker, 2017). Individuals can vary in their attachment avoidance and anxiety levels and exhibit different attachment styles based on the combination of these dimensions of attachment (in) security (Brennan et al., 1998; Wu & Parker, 2017). Since attachment avoidance and anxiety are the two foundational dimensions of attachment (in)security, we focus on these rather than differentiating individuals based on their respective attachment styles. In addition, we concentrate on attachment (in) security in the workplace specifically, rather than individuals' general attachment (in)security, to explore how abusive supervision can affect employees' attachment (in)security in the workplace. We now present the theory to develop the hypotheses in the following sections.

The mediating effects of attachment avoidance and attachment anxiety

We propose that abusive supervision will increase employees' attachment avoidance and attachment anxiety (the two dimensions of attachment insecurity) at work. Abusive leadership behaviors, such as rejection and relational mistreatment, create doubts in employees about their relational value ("the degree to which they believe that others value having relationships with them"), likability, and ability to connect with others (Smart-Richman & Leary, 2009, p. 366), This results in increased attachment avoidance and attachment anxiety at work. Specifically, supervisors perceived as abusive can amplify employees' attachment avoidance because the derogatory treatment by these supervisors alienates employees and subsequently makes them uncomfortable approaching or interacting with them. The demoralizing feelings imposed by supervisors can further dissuade employees from engaging fully in effective interpersonal interactions at work. Essentially, in such conditions, employees can withdraw their involvement and commitment at work (Tepper, 2000) and consciously avoid any potential interpersonal interactions at work, such as task arrangements and coordination with colleagues, which will require interacting with supervisors perceived as abusive. In addition, abusive supervisors can increase employees' attachment anxiety because the perceived negativity of interacting with such supervisors leads employees to question whether they are considered valuable members of the organization (Farh & Chen, 2014; Jian et al., 2012) and if supervisors will still want to work with them. This doubt can spillover to other interpersonal relationships at work as employees enduring such abusive experiences can worry that other colleagues can also wish to distance themselves, considering that they are not seen as valuable by their supervisors.

Attachment theory (Bowlby, 1969/1982) further indicates that when an individual's attachment security is threatened, the individual will experience distress, seek to restore the sense of attachment security, and not pay attention to others' needs. Mikulincer and Shaver (2007a, p. 150) reported that "people who are either dispositionally secure or induced to feel more secure in a particular context are better able than their insecure counterparts to . . . regard others compassionately and behave prosocially." Empirically, research has demonstrated that people low in attachment security, especially those high in attachment avoidance, are less likely to be concerned about others' welfare (Mikulincer et al., 2003). Therefore, we expect that attachment avoidance and anxiety at work can undermine employees' service performance for several reasons.

First, both attachment avoidance and attachment anxiety reflect relational doubt at work, which directs one's attention to their relationships at work (Bowlby, 1969/1982, 1988) and invokes emotional distress that undermines attention to others' needs and potential actions to assist (Wentzel & McNamara, 1999), a key element in providing service to clients. Second, as higher attachment avoidance signifies a tendency to maintain distance from others (Mikulincer & Shaver, 2007b), individuals with a greater propensity for attachment avoidance tend to dislike caregiving, compared to other activities, in a parenting context (Nelson-Coffey et al., 2017). We anticipate a similar pattern in the work context, as experiencing higher attachment avoidance can demotivate employees from engaging with clients and fulfilling clients' needs. In contrast, higher attachment anxiety, as it reflects concerns about relationships with others (Mikulincer & Shaver, 2007b), is associated with heightened sensitivity but reduced accuracy in interpreting others' emotional expressions (Fraley et al., 2006). We

therefore expect that experiencing higher attachment anxiety at work will impact employees' interpretation of others' emotional expressions and impair their interactions with clients, thus reducing service performance.

H1: Attachment insecurity dimensions, (a) attachment avoidance, and (b) attachment anxiety mediate the relationship between perceived abusive supervision and service performance.

Moderating effect of coworker trust

We now discuss why trusting relationships among coworkers can attenuate the negative relationship between abusive supervision and both attachment avoidance and attachment anxiety at work.

Specifically, employees working in an environment with high coworker trust are more likely to rely on their coworkers and access support and comfort from them to cope with the distress resulting from abusive supervision. For example, in a work context where employees can generally trust their coworkers, those abused can choose to vent their frustrations to their coworkers as a coping mechanism (Ashforth, 1994) and, importantly, be confident that their coworkers will respond with genuine care and concern. It is also likely that in a high-trust environment, employees will come together to share experiences of abusive supervision as a collective defense against this behavior and to provide each other with a much-needed sense of social support. In addition, by enabling employees to successfully establish emotional connections with coworkers, a high-trust environment reassures employees of their capacity to build safe and close relationships with others (Leiter et al., 2015). In an environment where trust among coworkers is high, they can be a secure harbor that comforts employees' emotional distress, alleviates their doubts about their relational value and ability, and eases their attachment avoidance and attachment anxiety due to abusive supervision.

H2: The positive association between perceived abusive supervision and (a) attachment avoidance and (b) attachment anxiety is moderated by coworker trust, such that higher levels of coworker trust weaken the positive relationships.

We also expect that trusting relationships among coworkers can moderate the mediation effect of attachment avoidance and attachment anxiety on the relationship between abusive supervision and service performance. This is because if trust among coworkers can buffer the negative relationship between abusive supervision and the two dimensions of attachment insecurity, then it can mitigate the negative mediation chain from abusive supervision to employees' service performance. We thus propose:

H3: The mediation effects of (a) attachment avoidance and (b) attachment anxiety on the relationship between perceived abusive supervision and service performance are moderated by coworker trust, such that higher levels of coworker trust weaken the mediation effects.

The present studies

We conducted two studies to assess our hypotheses. Study 1 was a time-lagged study in which we gathered data from healthcare workers in the UK. Study 2 was a multisource, time-lagged study in which we collected data from nurses and their supervisors at hospitals in Romania. Together, these studies offer a solid foundation for testing and validating our conceptual model.

We explored in both studies whether the proposed mechanisms can offer additional explanations for the association between abusive supervision and service performance by controlling for the effects of self-concept-related mediators, namely organization-based self-esteem (Jian et al., 2012) and

organizational identification (Lyu et al., 2016), identified in previous studies. In brief, abusive supervision sends a signal to employees that they are not valued individuals deserving of favorable treatment, which can lower their organization-based self-esteem and diminish their sense of self-worth and motivation to deliver service to others. In addition, abusive supervision can alienate employees from viewing themselves as members of the organization, reducing organizational identification and decreasing their motivation to serve others on behalf of the organization. We also controlled for resource depletion to tease out a mechanism derived from a resource perspective (Whitman et al., 2014), highlighting that employees can deplete their energy by regulating the negative emotions resulting from abusive supervision and thus cannot exert effort to serve others. Controlling for these potential mediating influences helped to assess whether perceived attachment avoidance and attachment anxiety have unique effects in explaining the link between abusive supervision and service performance beyond the three established mechanisms.

Finally, we also controlled for perceived task significance and general self-efficacy when predicting service performance. We controlled for perceived task significance because it is a job design factor theorized to relate to employees' helping behaviors and performance (Allan et al., 2018; Grant, 2008). General self-efficacy was included to account for the influence of one's overarching sense of personal agency that can apply across various domains (Luszczynska et al., 2005). We adhered to Heggestad et al. (2019) recommendations regarding scale adaptation in both studies. We endeavored to retain items from scales used in the studies, selected items that preserved content validity, and conducted confirmatory factor analysis (CFA) to verify construct structures. In Study 2, we implemented Brislin's (1980) rigorous back-translation procedure, avoided significant changes to the wording of the English items, and conducted CFA to ensure that all items accurately reflected their underlying constructs.

Study 1

Method

Procedure and participants

The data for this study were collected from healthcare workers in the UK using Prolific, an online platform for participant recruitment, which has been utilized in previous studies (e.g., Wu et al., 2018). Questionnaires were administered at different time points (three separate waves) at intervals of four weeks to minimize the likelihood of common method bias. In the first measurement round (Time 1), participants rated abusive supervision, coworker trust, and two control variables, task significance and general self-efficacy. In the second wave (Time 2), attachment avoidance, attachment anxiety, organization-based self-esteem, organizational identification, and resource depletion were assessed. Service performance was measured in the third wave (Time 3). We initially conducted a screening survey to determine if individuals worked under supervisors, had coworkers, and if their jobs involved serving customers. Out of 248 workers who responded to the survey and met the conditions, 231 completed the Time 1 questionnaire, 203 completed the Time 2 questionnaire, and 176 completed the Time 3 questionnaire. We analyzed the complete data from these 176 workers.

We asked participants to report their sex (male = 1, female = 2), education (high school = 1, college = 2, Bachelor's degree = 3 and Master's or above = 4), age (18–30 = 1, 31–40 = 2, 41–50 = 3, 51–60 = 4, and over 60 = 5) and tenure (less than 5 years = 1, 6–10 years = 2, 11–15 years = 3, and more than 15 years = 4) in the organization (Liaw et al., 2010). Most of them were women (84%). The majority (78%) were 40 years old or younger (18–30 years = 39%, 31–40 years = 39%, and 41 years or older = 22%). On average, 57% had worked in their organizations for 5 years or fewer (5 years or fewer = 57%, 6–10 years = 24%, and more than 10 years = 19%). Regarding education, 5% of the respondents attended high school, 15% had a college degree, 51% had a bachelor's degree, and the remaining 29% had a master's or a higher qualification.

There is no difference between those who only responded to the screening survey (n = 72) and the final participants (n = 176) regarding their age (χ^2 (4) = .51, p = .97, Cramer's V = .05) and sex

(χ^2 (1) = .02, p = .90, Cramer's V = .008). The respondents were different in terms of tenure with the organization χ^2 (3) = 29.83, p < .001, Cramer's V = .35) such that those who responded only to the screening survey have a higher proportion (61% and 22%) in the tenure groups (1 to 5 years and 6 to 10 years) than the proportions (39% and 10%) in the respective tenure groups among the final participants.

Measures

We employed a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) for all the items included in the questionnaire.

Abusive supervision. Abusive supervision was assessed using fifteen items from the scale developed by Tepper (2000). A sample item is: "My supervisor gives me the silent treatment." Cronbach's α was .97.

Coworker trust. Trust among coworkers was evaluated using six items from the scale developed by Cook and Wall (1980). A sample item is: "If I get into difficulties at work, I know my coworkers would help me out." Cronbach's α was .90.

Attachment avoidance. Attachment avoidance was measured using nine items developed by Simpson et al. (1996). A sample item is: "I am not very comfortable having to depend on other people (at work)." Cronbach's α was .84.

Attachment anxiety. Attachment anxiety was measured using eight items developed by Simpson et al. (1996). A sample item is: "I often worry that others (at work) don't really like me." Cronbach's α was .80.

Service performance. Service performance was measured using five items from Bettencourt et al. (2001) scale, which covers various aspects of service delivery. We excluded one item from Bettencourt et al.'s scale that pertains to promoting products or services to customers, as it is suitable for a sales context but not for the healthcare context. A sample item is: "I follow customer-service guidelines with extreme care." Cronbach's α was .78.

Controls. We controlled for workers' sex (male = 1, female = 2), education (high school = 1, college = 2, Bachelor's degree = 3 and Master's or above = 4), age (18–30 = 1, 31–40 = 2, 41–50 = 3, 51–60 = 4, and over 60 = 5) and tenure (less than 5 years = 1, 6–10 years = 2, 11–15 years = 3, and more than 15 years = 4) in the organization (Liaw et al., 2010). In addition, we controlled for workers' perceived task significance, general self-efficacy, organization-based self-esteem, organizational identification, and resource depletion. We applied the four-item scale from Grant (2008) to evaluate perceived task significance, with a Cronbach's α of .86. A sample item from this scale is: "My job enhances the welfare of other people." We included general self-efficacy as it helps us account for an individual's perceived capability to handle challenges, persist through difficulties, and achieve success (Luszczynska et al., 2005). We utilized ten items from the General Self-Efficacy scale developed by Schwarzer and Jerusalem (1995), with a sample item being: "I can always manage to solve difficult problems if I try hard enough," and a Cronbach's α of .91. Organization-based self-esteem was gauged using ten items from Pierce et al. (1989) scale, with a representative item: "I am important in the hospital I work for," and a Cronbach's α of .93. The level of organizational identification was assessed using Mael and Ashforth's (1992) six-item scale (Cronbach's α = .90), with a sample item: "This organization's successes are my successes." Resource depletion was measured using nine items from the State Self-Control Capacity Scale developed by Christian and Ellis (2011), with a sample item: "I feel mentally exhausted," and a Cronbach's α of .94.

Table 1. Descriptive statistics of variables in study 1.

Correlations										
Variables	1	2	3	4	5	6	7	8	9	10
1. Perceived abusive supervision	.89 (.97)									
2. Coworker trust	−.08	.89 (.92)								
3. Attachment avoidance	.22**	−.42**	.79 (.89)							
4. Attachment anxiety	.07	−.37**	.32**	.73 (.82)						
5. Service performance	−.12	.27**	−.41**	−.29**	.75 (.79)					
6. Organizational identification	−.17*	.26**	−.31**	−.06	.26**	.88 (.91)				
7. Resource depletion	.20**	−.18**	.38**	.39**	−.08	−.16*	.87 (.94)			
8. Organization-based self-esteem	−.31**	.35**	−.34**	−.40**	.37**	.50**	−.35**	.87 (.94)		
9. Task significance	−.18**	.13	−.12	−.12	.23**	.21**	−.01	.30**	.86 (.85)	
10. General self-efficacy	.03	.25**	−.17*	−.39**	.39**	.17*	−.29**	.45**	.24**	.82 (.91)
Mean	1.89	5.53	3.60	3.07	5.85	4.09	3.80	5.30	6.45	5.32
SD	1.12	1.00	1.02	0.99	0.70	1.50	1.42	0.98	0.61	0.78

Note: Sub-diagonal entries are the latent construct inter-correlations. The first entry on the diagonal is the average variance extracted square root (AVE) and the second entry (in parentheses) is the composite reliability (CR) score.
*$p < .05$; **$p < .01$. Two-tailed tests.

Measurement model

We conducted CFA to assess the validity and reliability of the constructs. We included ten latent variables (abusive supervision, coworker trust, attachment avoidance, attachment anxiety, organizational identification, organization-based self-esteem, resource depletion, service performance, general self-efficacy, and task significance) in the measurement model to estimate the overall model fit. Due to the small sample size and to reduce the large number of degrees of freedom that can result in estimation issues, item parcels were employed as indicators of the latent variables. Parceling generally enhances the variable-to-sample size ratio and yields more stable parameter estimates (Bandalos, 2002). Parcels were formed by sequentially averaging items with the highest and lowest loadings to create balanced parcels and minimize residual covariance (Little et al., 2013). Therefore, eight parcels were generated for abusive supervision, three for coworker trust, five for attachment avoidance, four for attachment anxiety, three for organizational identification, five for organization-based self-esteem, five for resource depletion, five for general self-efficacy, two for task significance, and three for service performance. The fit of the measurement model was acceptable ($\chi^2 = 1356.04$, df $= 815$, $p < .001$; CFI $= .91$; TLI $= .90$; RMSEA $= .062$). In addition, all the composite reliability scores exceeded .80, and the average variance extracted (AVE) scores were greater than .50, indicating high convergent validity (Fornell & Larcker, 1981). Discriminant validity was also confirmed, as shown in Table 1, where the square root of the AVE for all constructs exceeded the corresponding inter-construct correlation estimates (Fornell & Larcker, 1981).

Results and discussion

We employed composite scores to construct two models for hypothesis testing. Initially, we developed a path model to investigate the mediation process from abusive supervision through attachment avoidance and attachment anxiety to service performance. Then, we formulated a path model incorporating the moderating effect of coworker trust to explore the moderated mediation process. We estimated both models using structural equation modeling (SEM) in STATA, employing the maximum likelihood estimation method with default standard errors.

We controlled for the mediating influences of organizational identification, resource depletion, and organization-based self-esteem to assess the distinct mediation effects of attachment avoidance and anxiety in the link between abusive supervision and service performance. In addition, we accounted for the direct associations of task significance, general self-efficacy, sex, education, age, and tenure with service performance. Results (Table 2, section a) indicated that abusive supervision was significantly associated with attachment avoidance ($B = .20$, $p < .01$) but not with attachment anxiety ($B = .06$, $p = .38$). Attachment avoidance negatively influenced service performance ($B = -.23$, $p < .01$), whereas attachment anxiety did not ($B = -.07$, $p = .18$). The indirect association between abusive supervision and service performance via attachment avoidance was negative ($B = -.05$, $p = .01$, 95% C.I. = $-.08$ to $-.01$), supporting Hypothesis 1a. However, the indirect association via attachment anxiety was non-significant ($B = .00$, $p = .46$, 95% C.I. = $-.02$ to $.01$), failing to support Hypothesis 1b.

We introduced an interaction effect between abusive supervision and coworker trust to predict both attachment avoidance and attachment anxiety in the second model (Table 2, section b). The remainder of the model specifications were identical to those in the first model. The results showed that the interaction term of abusive supervision and coworker trust on attachment avoidance was negative ($B = -.13$, $p = .04$). We plotted the moderation results using Aiken and West's (1991) method of ±1 standard deviation from the mean of the moderating variable (coworker trust). Figure 2 indicates that the simple slope test reveals a significant positive relationship between abusive supervision and attachment avoidance when perceived coworker trust is low (simple slope = .34, $p < .01$) but a non-significant relationship when perceived coworker trust is high (simple slope = .08, $p = .27$), lending support to Hypothesis 2a. The interaction effect on attachment anxiety was negative but not significant ($B = -.11$, $p = .08$), hence Hypothesis 2b was not supported.

To examine the conditional indirect effect of abusive supervision on service performance via attachment avoidance at different levels of coworker trust, we set high, medium, and low levels of coworker trust (Table 2 section b). The indirect negative association of abusive supervision on service performance via attachment avoidance was significant at low ($B = -.08$, $p < .01$, 95% C.I. = $-.13$ to $-.02$) and medium levels of coworker trust ($B = -.05$, $p < .01$, 95% C.I. = $-.08$ to $-.01$), respectively. The indirect effect was not significant when coworker trust was high ($B = -.02$, $p = .28$, 95% C.I. = $-.05$ to $.02$), supporting Hypothesis 3a. Given the non-significant interaction effect between abusive supervision and coworker trust on attachment anxiety, it was not surprising to find a non-significant conditional indirect effect of abusive supervision on service performance via attachment anxiety at low ($B = -.01$, $p = .32$, 95% C.I. = $-.04$ to $.01$), medium ($B = -.01$, $p = .43$, 95% C.I. = $-.02$ to $.01$), or high ($B = .00$, $p = .58$, 95% C.I. = $-.01$ to $.01$) levels of coworker trust. Hypothesis 3b was therefore not supported. Our findings still held even when all control variables were removed from both models.

The results of Study 1 show that attachment avoidance mediates the relationship between abusive supervision and service performance. This aligns with the proposition that abusive supervision discourages employees from engaging in effective interpersonal interactions (Mikulincer & Shaver, 2007b), undermining their service performance. In addition, the findings confirm that coworker trust mitigates the positive relationship between abusive supervision and attachment avoidance, as well as the mediation effect of attachment avoidance on the relationship between abusive supervision and service performance.

This study has several limitations. Participants are healthcare professionals working in various environments with differing job requirements due to the diverse nature of their roles. Since these individuals are not from a single organization, the study does not capture information on their team structures. In addition, a self-reported service performance measure is utilized, as data was collected through Prolific, where only individual responses can be gathered. To overcome these limitations, in Study 2 we focused on nurses and their supervisors in Romanian hospitals. This allowed us to examine our hypotheses in a specific healthcare context, hospitals, where client or patient care is paramount. This setting also provided the opportunity to document the team structure in the selected hospitals. Recognizing the potential limitations of self-reported service performance measures in Study 1,

Table 2. Unstandardized results of path analyses in study 1

	Attachment avoidance	Attachment anxiety	Organization-based self-esteem	Organizational identification	Resource depletion	Service performance
a. Unstandardised estimates (standard error) of the mediation path analysis						
Control Variables						
Task significance						.07 (.08)
General self-efficacy						.24** (.07)
Sex						−.12 (.12)
Education						.03 (.06)
Age						.03 (.04)
Tenure						−.04 (.02)
Independent Variable						
Perceived abusive supervision	.20** (.07)	.06 (.07)	−.27** (.06)	−.22* (.10)	.25** (.09)	−.02 (.04)
Mediator						
Attachment avoidance						−.23** (.05)
Attachment anxiety						−.07 (.05)
Organization-based self-esteem						.09 (.06)
Organizational identification						.03 (.04)
Resource depletion						.12** (.04)
Indirect effect						
Perceived abusive supervision-attachment avoidance-service performance						−.05* (.02)
Perceived abusive supervision-attachment anxiety-service performance						.00 (.01)
b. Unstandardized estimates (standard error) of the moderated mediation path analysis						
Control Variables						
Task significance						.06 (.07)
General self-efficacy						.24** (.06)
Sex						−.12 (.12)
Education						.03 (.06)
Age						.03 (.06)
Tenure						−.04 (.02)
Independent Variable						
Perceived abusive supervision	.21** (.06)	.07 (.06)	−.27** (.06)	−.22* (.10)	.25** (.09)	−.03 (.04)
Moderator						
Coworker trust	−.42** (.07)	−.37** (.07)				.00 (.05)
Interaction Effect						
Abusive supervision x coworker trust	−.13* (.06)	−.11 (.06)				.01 (.04)
Mediator						
Attachment avoidance						−.23** (.05)
Attachment anxiety						−.07 (.06)
Organization-based self-esteem						.09 (.07)
Organizational identification						.03 (.04)
Resource depletion						.12 (.04)
Conditional indirect effect (through attachment avoidance)						
Low coworker trust						−.077** (.03)
Mean coworker trust						−.048** (.02)
High coworker trust						−.019 (.02)
Conditional indirect effect (through attachment anxiety)						
Low coworker trust						−.012 (.01)
Mean coworker trust						−.005 (.01)
High coworker trust						.003 (.01)

Note: $n = 176$; *$p < .05$, **$p < .01$; Unstandardized regression coefficients with standard errors in parentheses.

multisource data was used in Study 2 and supervisors rated nurses' service performance. In addition, Study 1 employed a four-week time lag between consecutive waves of data collection. Gollob and Reichardt (1987) argued that "because different time lags have different effects . . . no one time lag by itself can give a complete understanding of a variable's effects" (p. 82). Zapf et al. (1996) also
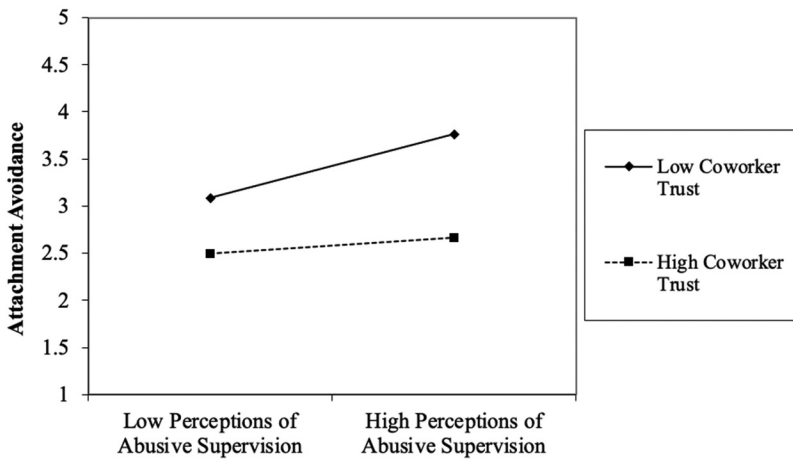
Figure 2. Plot of moderated relationship of coworker trust on perceived abusive supervision – attachment avoidance relationship in study 1

recommended using distinct time lags. Considering different perspectives on appropriate time lags, Study 2 adopted a shorter two-week interval to determine whether the effects initially observed were detectable over a short-term period. Lastly, as Study 1 involved participants from the UK, Study 2 aimed to use a sample from another country to enhance the generalizability of our findings.

Study 2

Method

Procedure and participants

This study uses data collected from nurses and their supervisors in Romanian hospitals. Hospital access was facilitated through the research team's contacts and previous research affiliates. Data were collected using paper and pencil questionnaires. Nurses measured the independent, mediating, and moderating variables, while supervisors assessed the outcome variable, namely nurses' service performance, to minimize the likelihood of common method bias. The nurse questionnaires were administered in two waves, separated by an interval of two weeks. In the first measurement round, nurses rated their perceptions of abusive supervision, coworker trust and two of the control variables in this study, namely, task significance, and general self-efficacy. In the second wave, they assessed their levels of attachment avoidance, attachment anxiety, organization-based self-esteem, organizational identification, and resource depletion. We distributed 290 questionnaires across 33 hospitals, of which 272 were returned at Time 1 (a 94% response rate) and, at Time 2, 255 questionnaires were collected (a 92% response rate).

A contact person in each hospital who did not participate as a respondent in the survey administered the questionnaires. The respondents were informed that their responses would be anonymous and confidential to the organization, that only the research team would have access to the questionnaires, and that reports would be based on aggregated results regarding various employee characteristics and perceived leader behaviors. Ethical approval for the project was granted by the Scientific Council of Babeş-Bolyai University of Cluj Napoca. For anonymity, each nurse used a personal code consisting of the initials of their first name, family name, and birth date. After the questionnaires were delivered to the research team, the contact person collected the codes from the responding nurses. Supervisors rated the performance of the nurses participating in the study. Supervisors were instructed to use the same codes as the nurses (initials of first name, family name, and the birth date of each

subordinate) to match the two sets of questionnaires. The contact persons provided the codes of the responding nurses to the supervisors, or when available, the supervisors accessed the internal employee dataset within the hospital to collect the birth dates. The final sample comprised 255 nurses and 35 supervisors (senior nurses and doctors). Most of the nurses were women (80%). The majority (62%) were 40 years old or younger (18–30 years = 31%, 31–40 years = 31%, and 41 years or older = 38%). On average, 69% had worked at their hospitals for 10 years or fewer (less than 5 years = 41%, 5–10 years = 28%, and more than 10 years = 31%). Regarding education, 24% of the respondents had attended high school, 51% held a bachelor's degree, and the remaining 25% had earned a master's qualification. As for the supervisors, most (57%) were female, 50 years old or younger (66%), and had been working in their hospitals for more than 10 years (66%).

Measures

We employed the same measures as in Study 1, using a 7-point Likert scale that ranged from *1 (strongly disagree) to 7 (strongly agree)* for all items. The questionnaire was translated from English to Romanian and then back-translated into English by a bilingual researcher (Brislin, 1980). The original and translated versions were compared, and adjustments were made to resolve inconsistencies to ensure the translation's equivalence. We conducted a pilot study on seven nurses to verify the respondents' understanding of the questionnaires, and no significant issues were reported. The Cronbach's α values for all scales used were satisfactory (.95 for abusive supervision, .93 for coworker trust, .93 for attachment avoidance, .88 for attachment anxiety, and .83 for service performance). For controls, we included workers' sex (male = 1, female = 2), education (high school or below = 1, Bachelor's degree = 2, and Master's = 3), age (18–30 = 1, 31–40 = 2, 41–50 = 3, 51–60 = 4, and over 60 = 5), tenure in the hospitals (less than 5 years = 1, 5–10 years = 2, 11–15 years = 3, and more than 15 years = 4), task significance (Cronbach's α = .94), general self-efficacy (Cronbach's α = .94), organization-based self-esteem (Cronbach's α = .95), organizational identification (Cronbach's α = .89), and resource depletion (Cronbach's α = .93).

Measurement model

As in Study 1, item parcels were used as indicators of the latent variables. The parcels were formed by sequentially averaging the highest and lowest loading items in this study (Little et al., 2013), differing from those in Study 1. The fit of the measurement model was good (χ^2 = 1503.41, df = 815, p < .001; CFI = .94; TLI = .93; RMSEA = .058). In addition, all composite reliability scores exceeded .80, and the average variance extracted (AVE) scores surpassed .50, indicating high convergent validity (Fornell & Larcker, 1981). Discriminant validity was also achieved, as listed in Table 3, where the square root of the AVE for all constructs exceeded the corresponding inter-construct correlation estimates (Fornell & Larcker, 1981).

Results and discussion

Nurses were grouped by supervisors within hospitals and the intra-class correlation coefficient (ICC) for service performance was .22. This indicates the presence of between-group variance, necessitating multilevel analysis. Accordingly, we tested the proposed hypotheses using generalized structural equation modeling (GMSEM) in STATA, employing the maximum likelihood estimation method with default standard errors. As in Study 1, we employed composite scores to construct two models. We initially built a model to examine the mediation process from abusive supervision through attachment avoidance and attachment anxiety to service performance, and subsequently included the moderation effect of coworker trust to examine the moderated mediation process altogether. The same control variables used in Study 1 were applied in this study.

Table 4 (section a) indicates that abusive supervision was positively related to attachment avoidance (B = .47, p < .01) and attachment anxiety (B = .34, p < .01). Attachment avoidance was significantly and negatively related to service performance (B = −.15, p < .01), whereas attachment

Table 3. Descriptive statistics of variables in study 2

Correlations										
Variables	1	2	3	4	5	6	7	8	9	10
1. Perceived abusive supervision	.84 (.95)									
2. Coworker trust	−.39**	.92 (.94)								
3. Attachment avoidance	.38**	−.38**	.86 (.93)							
4. Attachment anxiety	.29**	−.25**	.39**	.82 (.89)						
5. Service performance	−.19**	.29**	−.30**	−.04	.92 (.94)					
6. Organizational identification	−.21**	.29**	−.40**	−.09	.21**	.91 (.94)				
7. Resource depletion	.38**	−.32**	.69**	.30**	−.17**	−.28**	.86 (.94)			
8. Organization-based self-esteem	−.31**	.29**	−.56**	−.23**	.29**	.40**	−.47**	.91 (.96)		
9. Task significance	−.22**	.28**	−.50**	−.15*	.26**	.32**	−.36**	.60**	.95 (.95)	
10. General self-efficacy	−.32**	.38**	−.31*	−.15*	.27**	.34**	−.35**	.47**	.33**	.87 (.94)
Mean	1.74	5.80	2.23	3.45	6.05	4.63	2.28	5.89	6.09	5.91
SD	0.98	1.00	1.20	1.16	0.75	1.63	1.18	0.96	1.02	0.89

Note: Sub-diagonal entries are the latent construct inter-correlations. The first entry on the diagonal is the average variance extracted square root (AVE) and the second entry (in parentheses) is the composite reliability (CR) score.
$*p < .05$; $**p < .01$.Two-tailed tests.

anxiety was not ($B = .06$, $p = .195$). The indirect association between abusive supervision and service performance via attachment avoidance was significant ($B = −.07$, $p = .01$, 95% C.I. = −.13 to −.01), supporting Hypothesis 1a, but the indirect association via attachment anxiety was not significant
($B = .02$, $p = .21$, 95% C.I. = −.01 to .05), failing to support Hypothesis 1b.

In the second model (Table 4 section b), we introduced the interaction effect between abusive supervision and coworker trust to predict both attachment avoidance and attachment anxiety. The rest of the specifications in the model were identical to those in the first model. The interaction term between abusive supervision and coworker trust on attachment avoidance was significant ($B = −.12$, $p = .04$). We plotted the moderation results following Aiken and West's (1991) method of ± 1 standard deviation from the mean of the moderating variable (coworker trust). Figure 3 shows that abusive supervision has a positive relationship with attachment avoidance when perceived coworker trust is low (simple slope = .39, $p < .01$), but a non-significant relationship when perceived coworker trust is high (simple slope = .15, $p = .19$). This finding supports Hypothesis 2a. However, the interaction effect between abusive supervision and coworker trust on attachment anxiety is not significant ($B = 0.03$, $p = .56$), failing to support Hypothesis 2b.

Finally, Table 4 (section b) shows that the indirect negative association of abusive supervision on service performance via attachment avoidance was significant when coworker trust was at a low level ($B = - .05$, $p = .04$, 95% C.I. = −.10 to −.002). However, when coworker trust was at the medium level ($B = - .04$, $p = .06$, 95% C.I. = −.07 to .002) or the high level ($B = −.02$, $p = .26$, 95% C.I. = −.06 to .01), the indirect effect was not significant. This finding supports Hypothesis 3a. However, Hypothesis 3b was not supported as the conditional indirect effects of abusive supervision on service performance via attachment anxiety were all non-significant when coworker trust was either low ($B = .02$, $p = .16$, 95% C.I. = −.01 to .04), medium ($B = .02$, $p = .15$, 95% C.I. = −.01 to .05), or high ($B = .02$, $p = .17$, 95% C.I. = −.01 to .06). The findings still held when we removed all control variables from the estimated models.

The results of Study 2 support the hypothesis that attachment avoidance mediates the relationship between abusive supervision and service performance. Additionally, as expected, the results also showed a significant positive association between abusive supervision and attachment anxiety, which aligns with the proposition that abusive supervision evokes worry and doubt in employees about their relationships with others and their value in the organization (Farh & Chen, 2014; Jian et al., 2012). In addition, coworker trust was found to moderate the positive association between abusive supervision and attachment avoidance, as well as the mediation effect of attachment avoidance on the relationship between abusive supervision and service performance.

General discussion

Across the two studies, we observed that abusive supervision leads to higher attachment avoidance, mainly when coworker trust is low, which in turn undermines employees' service performance. Our hypothesis that perceived abusive supervision increases employees' attachment anxiety at work was not consistently confirmed in the studies, as we found a significant positive association between abusive supervision and attachment anxiety only in Study 2. However, attachment anxiety was not associated with employees' service performance in either study. A potential explanation is that attachment anxiety stems from inconsistent caregiving behavior or social treatment (Bowlby, 1969/1982), and abusive supervision is more about social rejection than inconsistency. In addition, while attachment anxiety at work can demotivate employees from delivering services and focus on their concerns, it can also motivate individuals to seek more attention from others and, thus, be more willing to accommodate others' requests to alleviate fears of being disliked (Srivastava & Beer, 2005; Wu et al., 2014). This ambivalence in delivering service can explain why we did not observe a direct association between attachment anxiety and service performance. The findings indicated that attachment avoidance is the particular source of attachment insecurity that explains why abusive supervision can impair employees' service performance.

Across both studies, the mean score for abusive supervision is low (1.89 vs. 1.74 for the UK and Romania, respectively), and coworker trust is high (5.53 vs. 5.80 for the UK and Romania, respectively). In the UK, healthcare professionals are well-respected and protected under workplace policies against abusive behaviors. This shows that UK health professionals expect abuse-free workplaces and can perceive abuse more readily than health professionals elsewhere who lack awareness and/or policies against abuse at work. This accounts for the relatively higher mean of abusive supervision (1.89 vs. 1.74) in the UK compared to Romania. We contend that the high mean score of coworker trust in the UK and Romania is fundamentally a feature of healthcare, where medical professionals depend on each other to perform their duties and tasks.

Given the nature of the UK healthcare context, employees' reliance on coworkers against abusive supervision will be less. Therefore, there is a negligible correlation between abusive supervision and coworker trust ($r = -0.08^{ns}$) in Study 1. In contrast, there are complex supervisory structures in Romanian healthcare, and the occurrence of supervisor abuse is more ingrained in the Romanian nursing context due to the high perceived authority of supervisors. This could have manifested in a more evident and active role of coworkers as attachment figures in healthcare organizations, specifically in situations involving abusive supervision. Accordingly, this could have resulted in a moderately negative correlation between abusive supervision and coworker trust ($r = -.39^{**}$) in Study 2. However, due to structural factors in healthcare settings, such as the interdependence of different jobs or roles, standard operating procedures, and professional standards that influence how workers interact and develop trust with each other, a compensatory effect between abusive supervision and coworker trust is unlikely to occur. This is because such negative supervision experiences can evoke varied reactions from workers, such as leaving their posts, confronting the abusive supervisor, or showing compliance to supervisors (Lyu et al., 2019; Zhang et al., 2022).

In addition, across both studies, the variance explained by both attachment avoidance and anxiety beyond the commonly studied mediators (organization-based self-esteem, organizational

Table 4. Unstandardized results of path analyses in study 2

	Attachment avoidance	Attachment anxiety	Organization-based self-esteem	Organizational identification	Resource depletion	Service performance
a. Unstandardized estimates (standard error) of the mediation path analysis						
Control Variables						
Task significance						.02 (.06)
General self-efficacy						.12* (.06)
Sex						.06 (.11)
Education						−.02 (.05)
Age						−.02 (.06)
Tenure						.01 (.05)
Independent Variable						
Perceived abusive supervision	.47** (.07)	.34** (.07)	−.31** (.06)	−.35** (.10)	.45** (.07)	−.05 (.05)
Mediator						
Attachment avoidance						−.15** (.06)
Attachment anxiety						.06 (.05)
Organization-based self-esteem						.11 (.06)
Organizational identification						.01 (.03)
Resource depletion						.08 (.05)
Indirect effect						
Perceived abusive supervision-attachment avoidance-service performance						−.07* (.03)
Perceived abusive supervision-attachment anxiety-service performance						.02 (.02)
b. Unstandardized estimates (standard error) of the moderated mediation path analysis						
Control Variables						
Task significance						.02 (.06)
General self-efficacy						.09 (.06)
Sex						.05 (.11)
Education						−.01 (.05)
Age						−.03 (.06)
Tenure						.00 (.05)
Independent Variable						
Perceived abusive supervision	.27** (.08)	.29** (.08)	−.31** (.06)	−.35** (.10)	.45** (.07)	−.01 (.05)
Moderator						
Coworker trust	−.30** (.07)	−.19* (.07)				.11* (.05)
Interaction Effect						
Abusive supervision x coworker trust	−.12* (.06)	.03 (.06)				.02 (.04)
Mediator						
Attachment avoidance						−.13* (.06)
Attachment anxiety						.07 (.05)
Organization-based self-esteem						.11 (.06)
Organizational identification						.00 (.03)
Resource depletion						.08 (.05)
Conditional indirect effect (through attachment avoidance)						
Low coworker trust						−.05* (.02)
Mean coworker trust						−.04 (.02)
High coworker trust						−.02 (.02)
Conditional indirect effect (through attachment anxiety)						
Low coworker trust						.02 (.01)
Mean coworker trust						.02 (.01)
High coworker trust						.02 (.02)

Note: $n = 255$; *$p < .05$, **$p < .01$; Unstandardized regression coefficients with standard errors in parentheses.

identification, and resource depletion) differs. The Pseudo-ΔR^2 (Singer, 1998) is .13 in Study 1, demonstrating that including attachment anxiety and avoidance explains 13% of the variance in service performance. However, the Pseudo-ΔR^2 value is much lower (.024) in Study 2, indicating that including attachment variables explains only 2.4% of the variance in performance. We assume
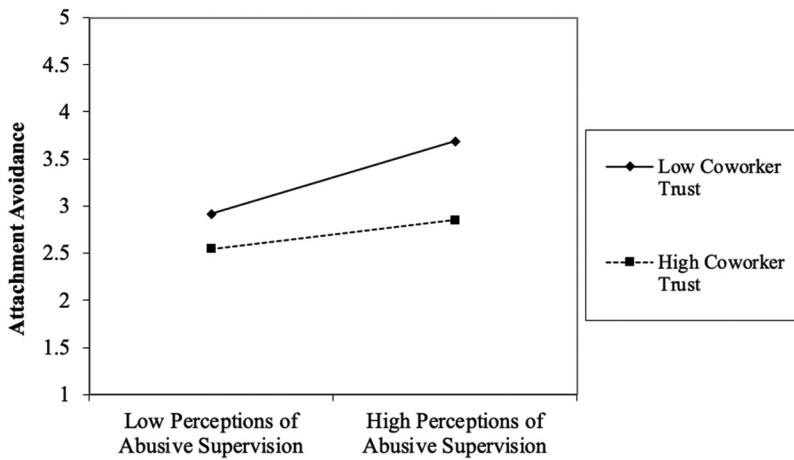
Figure 3. Plot of moderated relationship of Co-worker trust on perceived abusive supervision – attachment avoidance relationship in study 2

that the disparity in Pseudo-ΔR^2 across the two studies can result from the participant recruitment approaches. Since the respondents in Study 1 are from various organizations, the contextual impacts of each organization on service performance were not captured, leaving more room for individual difference variables, such as attachment variables, to account for variances in service performance in our sample. In contrast, participants in Study 2 are from several Romanian hospitals. The settings of Romanian hospitals can influence service performance and thus diminish the predictive effects of attachment variables compared to those in Study 1. Despite these differences, we observed that attachment insecurity variables help explain more variance in service performance after controlling for other variables in both studies.

Theoretical implications

We introduced attachment theory, which concerns how individuals are affected by their connections to others, to understand the relationship between abusive supervision and service performance. Scholars have utilized the lenses of organizational justice, social exchange, and stress to understand the consequences of abusive supervision (Mackey et al., 2017; Zhang et al., 2019). Despite the prominence of these frameworks, they cannot fully capture the nuances involved in employees' psychological reactions to abusive supervision. For instance, when the direct beneficiaries of a job are third parties outside the organization (as in the healthcare industry), a justice or social exchange perspective focusing on retribution/tit-for-tat cannot adequately explain why abuse from organizational representatives (supervisors) can diminish employees' service performance for clients who are not responsible for the provocation. Although a stress-based resource perspective helps explain this "spillover" effect (Deng et al., 2018), research has shown that employees can exhibit extraordinarily high levels of dedication to their jobs under conditions of resource deprivation, hardship, and discomfort as long as they perceive deep meaningfulness in their work and are aware of its impact on potential beneficiaries (Bunderson & Thompson, 2009; De Dreu & Nauta, 2009; Schabram & Maitlis, 2017). We are not suggesting that the lenses of organizational justice, social exchange, or stress fail to explain the relational consequences of abusive supervision entirely. The perception of injustice induced by abusive supervisors can likely be a factor that contributes to higher attachment insecurity at work because employees will question how they can collaborate with people in the workplace when their supervisors mistreat them and lose confidence in them as partners for trustworthy social exchange. Thus, by adopting

attachment theory, we not only bring an other-focused perspective to account for the relational outcomes of abusive supervision but also provide a potential framework that helps integrate different theoretical perspectives to deepen our understanding of the relational consequences of abusive supervision.

This research also offers insight into the role of coworkers in coping with abusive supervision. Given the detrimental effects of abusive supervision, it is crucial to understand how employees can handle these negative experiences (Tepper et al., 2017). Employees, especially in healthcare or nursing, often spend considerable time with colleagues from the same team, making coworkers a readily accessible resource to mitigate the impact of abusive supervision. However, the empirical results are unexpected (Fischer et al., 2021). Based on social exchange theory, Kim et al. (2015) posited that coworker support can weaken the relationship between abusive supervision and knowledge sharing. However, their observed interaction was non-significant and indicated a strengthening effect instead. They proposed that coworker support can be perceived as politically motivated rather than altruistic (Ng & Sorensen, 2008) because individuals sometimes leverage support as a tactic to advance their own agenda of appearing competent and superior (Tepper et al., 2004). Employees subjected to abuse can encounter what is known as the "receiver's dilemma" (Gurevitch, 1985), where they are unsure of the true intentions of their coworkers and thus unable to benefit from the support offered. From a resource perspective, Wu and Hu (2009) noted a "reverse buffering effect" where employees who perceive themselves as abused feel more emotionally exhausted when they receive greater support from coworkers, contradicting their initial hypothesis. They assumed that certain types of coworker support, such as listening to abused employees' complaining and offering consolation, can cause individuals to reexperience the negativity of abusive supervision, intensifying its detrimental effects on emotional exhaustion.

In the current research, we identify perceived coworker trust as a buffering mechanism of abusive supervision and observe the expected attenuating moderating effect. Our theoretical analysis differs in two respects. Firstly, we adopt a unique perspective from prior studies. The findings align with the *compensation hypothesis* (Granqvist & Kirkpatrick, 2008) outlined in attachment theory, which posits that when a primary attachment figure in a specific environment (a supervisor) fails to provide the necessary attachment security, the presence of an alternate source of attachment security (coworkers) can alleviate potential psychological harm. Secondly, we examine a different aspect of coworkers – trust. Unlike coworker supportive behavior, trust in coworkers is a cognitive evaluation reflecting whether it is safe to be vulnerable to coworkers and rely on them (Mayer et al., 1995). Thus, trust in coworkers does not provoke employees' suspicions about the motive of coworkers. This research exhibits that coworkers' role in abusive supervision is more complex than previously assumed. It hinges on the theoretical perspective adopted, the characteristics of coworker interactions, and the outcomes in question.

Our study also extends attachment research in leadership by showing that supervisors and coworkers can affect employees' attachment at work. Research has adopted attachment theory to understand how dispositional attachment styles influence leadership dynamics (Davidovitz et al., 2007; Popper et al., 2000; Richards & Hackett, 2012; Robertson et al., 2018; Wu & Parker, 2017). Only a few studies have examined how employees develop their attachment at work as context-specific attachments (Leiter et al., 2015; Neustadt et al., 2006). We found that supervisors and coworkers are key parties shaping employees' attachment at work. The results revealed that employees' attachment at work affects their social interactions beyond those targets, such as client interactions for service delivery. The findings indicated that attachment avoidance, but not attachment anxiety, is detrimental to employees' service performance, signifying that social withdrawal, not relational anxiety, is central to the negative effect of perceived abusive supervision on employees' service performance. This finding confirms that attachment avoidance and attachment anxiety are two distinct attachment dimensions, each having a unique impact on individual behavior. It also provides additional evidence to support the proposition in attachment theory that social harm (abusive supervision) is critical to developing attachment avoidance (Bowlby, 1969/1982, 1988). This study extends the application of attachment

theory to understanding organizational behavior. Future studies are encouraged to adopt the lens of attachment theory to advance our understanding of social relationships and behavior at work.

Practical implications

The study's findings highlight the significance of mitigating abusive supervision in service organizations. Although detecting abusive supervision can be challenging (Tepper et al., 2007), management tools, such as 360-degree appraisals and soliciting subordinate feedback through anonymous surveys (upward feedback) can capture employees' perceptions of leaders' offensive behaviors (Shum et al., 2020). In addition, organizations can consider evaluating employees' personality traits during the appraisal process to ensure that rater characteristics do not influence assessments of leaders' abusive behaviors (Brees et al., 2013; Wang et al., 2019). Given that employee perceptions significantly affect their behavioral intentions (service performance), organizations should invest in training that fosters positive traits in their workforce, such as robust self-control and resilience. Developing such traits can reduce the probability of employees misinterpreting supervisors' actions as abusive and can even lead them to overlook hostility when it occurs (Zhang & Liu, 2018). Similarly, recognizing that employee perceptions are often influenced by interpersonal interactions with managers and other authority figures, supervisors should be encouraged to identify and rectify misunderstandings with employees promptly to prevent the formation of perceptions of mistreatment and/or supervisory abuse (Mackey et al., 2017). In addition, organizations should enhance supervisors' interpersonal relationships and communication skills and train them to embrace more positive leadership styles (Gonzalez-Morales et al., 2018; Shum et al., 2020; Zhang et al., 2014). Moreover, organizations can evaluate managers' self-control capacity and emotional stability during selection interviews to ensure a better employee experience (Chi et al., 2018). Systematically training employees and supervisors can help determine acceptable and unacceptable behaviors, diminish the likelihood of misunderstandings, and enhance interactions. Finally, organizations should rigorously implement and monitor zero-tolerance policies against abusive workplace behavior to reassure employees of organizational support and reinforce their positive perceptions of the workplace and their supervisors (Restubog et al., 2011).

The study findings also indicate that trust among coworkers is crucial for reducing the negative effect of abusive supervision on service performance. Thus, service organizations should cultivate a culture that fosters trust among employees. Specifically, a culture emphasizing teamwork and collective learning is essential for developing and maintaining trust among coworkers (Leana & Van Buren, 1999). This can be achieved by employing individuals with strong interpersonal skills, investing in relationship-building training programs, and organizing employee social events (Mostafa, 2019). Positive leadership styles, such as transformational, ethical, and self-sacrificing, can also promote trust among employees and their supervisors (Mostafa, 2019; Mostafa & Bottomley, 2020; Pastoriza & Ariño, 2013).

Limitations and future research directions

Although this study makes significant contributions to the literature, it has certain limitations that can highlight new directions for future research. First, while the conceptual rationale in the literature on this topic implies causal relationships, our correlational studies cannot establish causal inferences. Implementing experimental designs will be a future research direction in which to investigate causal effects. Poor service performance can prompt supervisors to exert pressure or act decisively, which employees lacking expected service performance can perceive as abusive (Shum, 2020). Studies utilizing the Victim Precipitation Model (Olweus, 1993) have suggested that some subordinates can be provocative victims who exhibit traits that cause supervisors to display arguably abusive behaviors (Tepper, 2000). Since this study did not explore the possible recursive relationship between abusive supervision and service performance, future research can investigate whether perceptions of abusive supervision and service performance are related in a recursive relationship through dimensions of

attachment insecurity and whether coworker trust can mitigate this relationship. This can provide considerable practical value for organizations to understand why some service employees are more likely to become targets of abusive supervision or how they can avoid such situations and theoretically advance the understanding of triggers of abusive supervision.

Another limitation involves controlling the effects of general self-efficacy rather than task-specific efficacy. General self-efficacy is appropriate for this study because service performance often requires individuals to initiate behaviors autonomously (Rank et al., 2007), especially when addressing customer-related issues, as customer needs, particularly in the health sector, can vary. Future research can employ task-specific self-efficacy in measuring service performance to better control for the sense of agency in specific tasks when examining the association between abusive supervision and service performance in healthcare and other contexts.

The mean scores of perceived abusive supervision in the research were low (mean = 1.89, SD = 1.12 in the UK and mean = 1.74, SD = 0.98 in Romania), indicating low exposure to abusive supervision in the study's samples. Although this is consistent with previous research (Fischer et al., 2021), which has shown that abusive supervision is a low base-rate phenomenon with detrimental consequences for employees, the study's findings should be interpreted cautiously. Since the information on the size of hospitals was not collected in Study 2, a socially desirable response bias in rating abusive supervision, especially in potentially smaller hospital settings, is also a likely limitation. We addressed this issue by ensuring the anonymity and confidentiality of participant responses and using personal codes to match employee and supervisor questionnaires. Future research can incorporate additional measures to control for socially desirable responses. Another limitation of the study resides in the limited generalizability of the findings since the data were collected from healthcare workers from only two countries.

In addition, the sample sizes were relatively small. However, we achieved strong statistical power (1.00) to evaluate our CFA models in both studies through power analysis for structural equation models (Moshagen & Bader, 2024). We also used the correlations between abusive supervision and overall performance (r = −.19) and OCB (r = −.24) reported by Mackey et al. (2017) in their meta-analysis as benchmark effects and calculated the necessary sample size to achieve a power of 0.80. The sample size in Study 1 (n = 176) was sufficient to detect correlations greater than |.24| but not |.19|. In Study 1, the correlation between abusive supervision and service performance was .12 (Table 1), which was not significant. However, the sample size in Study 2 (n = 255) was large enough to detect correlations as small as |.19|—matching the correlation observed between abusive supervision and service performance in Study 2 (Table 3). Based on these calculations, we are confident that the sample sizes, especially in Study 2, provide sufficient power to detect the benchmark effects. However, future research should explore the relationships between these variables in various service contexts using larger samples to enhance the generalizability of the results and increase statistical power.

Finally, concerning the compensation hypothesis proposed in attachment theory (Granqvist & Kirkpatrick, 2008), we concentrated on only one type of relational factor as an alternative source of attachment in the workplace (trust between coworkers). Future research should explore additional relational factors that can provide attachment security at work and similarly mitigate the adverse effects of abusive supervision. For instance, employees can view their organization as the attachment figure (Bowlby, 1969/1982; Mayseless & Popper, 2007), especially if the organization can offer organizational support (Eisenberger et al., 1986) to protect employees' personal welfare. Hence, perceived organizational support can diminish the negative impact of perceived abusive supervision from an attachment theory perspective. This hypothesis warrants further investigation.

Disclosure statement

Ethics statement

All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the ethical standards of the institutional and national research committee and the Declaration of Helsinki.

Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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