




The effects of relational human resource management: A moderated mediation model of positive affective climate and collective occupational calling

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Abstract

Relationship-oriented human resource management (HRM) contributes to organizational functioning by promoting employee relationships, coordination, and cooperation. We propose unit-level positive affective climate as a motivational mechanism through which relationship-oriented HR systems can positively influence unit service quality and relationships with beneficiaries, and prevent individual emotional exhaustion. Moreover, we propose collective occupational calling serves as an alternative motivational source that can substitute for the positive effects of positive affective climate. In analyzing a sample composed of 742 nurses from 48 nursing units of two hospitals in China with data collection at three time points before and after the COVID-19 outbreak, our results supported the substituting effects of unit-level collective occupational calling on positive affective climate stemmed from relationship-oriented HR systems. Our study connects strategic HRM and motivation research by shedding light on an affective mechanism from relationship-oriented HR systems and the contingencies involving employees' various sources of motivation, such as occupational calling. We further discuss theoretical and practical implications of the research.

KEYWORDS

collective occupational calling, nursing work, positive affective climate, relationship-oriented HR systems

1 | INTRODUCTION

Relationship-oriented HRM seeks to build employee relationships, as compared to broader HR systems that emphasize employee task performance (Gittell et al., 2010; Kehoe & Collins, 2017). Examples of relationship-oriented HR practices include employee selection with an emphasis on cooperation, training in conflict resolution, team-based compensation, and job design that promotes information sharing (Evans & Davis, 2005; Gittell, 2008; Gittell et al., 2010). Previous studies have demonstrated that relationship-oriented HR practices can enhance organizational functioning (Kehoe & Collins, 2017; Soltis

et al., 2018) due to their facilitation of positive employee relationships. These relationships are beneficial to employees who can then better access information, more flexibly deploy their skills, and more fluidly coordinate with other employees (Gittell et al., 2010; Kaše et al., 2009; Kehoe & Collins, 2017; Nahapiet, 2011). Yet this framing offers a narrow explanation of the benefits of relationship-oriented HRM, which typically uses the lens of social capital theory (Nahapiet & Ghoshal, 1998) to argue that relationships provide valuable resources that organizations can utilize in executing tasks (Levin & Cross, 2004). We seek to supplement this research by taking an affective perspective on relationship-oriented HRM. Our view is

rooted in research suggesting that positive workplace relationships elevate employees' positive affect (Dutton & Heaphy, 2003; Methot et al., 2016; Methot et al., 2021). From this perspective, relationship-oriented HR not only provides valuable channels of information and resource flow but also boosts the affective climate of the workplace.

To date, research has preferred the social capital arguments for relationship-oriented HRM over arguments based on employee affect. In a 20-year review, Bannya et al. (2022) reported that studies of instrumental (e.g., task-based) employee relationships were more than four times more common than studies of affective employee relationships (e.g., friendship). Regardless of the nature of relationships being developed, very little research has examined the affective outcomes of relationship-oriented HR practices. Two exceptions are Kaše et al. (2009) and Good et al. (2023). Kaše et al. (2009) and Good et al. (2023) demonstrated that relationship-oriented HR practices elevated employees' positive affect and further impacted knowledge sharing. Yet neither study was able to examine employee affect as an explanatory mechanism between relationship-oriented HR systems and employee outcomes.

To augment the relationship-oriented HRM literature, we consider whether relationship-oriented HRM benefits organizations through its effects on unit-level positive affective climate (i.e., employees' shared experience of positive feelings within a work unit; Menges et al., 2011). As a critical motivational source, positive affective climate has been shown to promote unit and individual outcomes, especially relationship-oriented outcomes (Herman et al., 2008; Parke & Seo, 2017; Pirola-Merlo et al., 2002). Our core perspective is that relationship-oriented HR practices can make employees feel good, and elevated positive affective climate can be motivating for employees.

One contingency we place on this perspective involves employees' alternative sources of motivation for their work. Substantial research shows that employees find motivation from multiple sources within and outside the organization (Diefendorff & Chandler, 2011). In this sense, positive affective climate is not employees' only source of motivation, and its efficacy in motivating employees may depend on the degree to which employees are motivated by other sources. In this regard, we examine workers' occupational calling as a contingency of the relationships between positive affective climate and unit outcomes. Occupational calling has been defined as a consuming, meaningful passion for making a positive impact in one's occupation (Bloom et al., 2021; Dobrow & Tosti-Kharas, 2011; Thompson & Bunderson, 2019). Occupational calling is formed in part from peoples' desires to "fulfill a specific life role, regardless of sacrifice, that will make a meaningful contribution to the greater good" via their work (Coulson et al., 2012, p. 84). Rooted in this view, we suggest that some types of work enable employees to see the connection more clearly between their efforts and societal good. For this reason, occupational calling differs across varied work contexts, and the motivational effect of positive affective climate may depend on the degree to which workers in a unit have high levels of calling.

Our examination of the affective function resulting from relationship-oriented HRM involves an investigation of nursing units in Chinese hospitals where the quality of the service and the relationship between nurses and patients are key performance indicators with a particular relational focus. Specifically, we examine how relationship-oriented HR systems can create a positive affective climate that motivates employees to achieve better unit service quality and nurse-patient relationships. We also highlight the well-being benefit for nurses in units with strong relationship-oriented HR practices: These practices elevate the positive affective climate of the unit and lead employees to experience less emotional exhaustion (Maslach & Jackson, 1981).

Our paper contributes to HRM and occupational calling research in three significant ways. First, our research expands theory on relationship-oriented HR systems by introducing positive affective climate as a mechanism through which relationship-oriented HR systems influence unit performance and individual emotional exhaustion. Second, we extend existing research that views employee motivation primarily as a function of internal HR systems (Jiang et al., 2012). We highlight collective occupational calling as a type of motivation that stems not from HR practices but instead from employees' sensemaking of their identities within their roles (Gottschalg & Zollo, 2007; Ryan & Deci, 2000). This taps into extant conversations in the strategic HRM literature about investments in particular occupations (e.g., nurse, firefighter) where employees have high occupational motivations (Chadwick & Flinchbaugh, 2021). Finally, we expand the occupational calling literature by conceptualizing and testing it at the unit level and by examining it alongside HR practices. Although research on occupational calling has predominately applied an individual lens to employees' experiences of calling, we highlight that individuals' inner identities, external environmental requirements, and social processing may lead to collective occupational calling at higher levels. This is noteworthy in the context of our study (i.e., nursing during the COVID-19 pandemic outbreak), where nurses' shared experiences united for the "greater good." The model of this study is shown in Figure 1.

2 | THEORETICAL BACKGROUND AND HYPOTHESES

2.1 | Relationship-oriented HR systems

Strategic HRM scholars have recently advocated for study of more targeted systems dedicated to achieving specific organizational goals that align with organizational needs (Kehoe & Collins, 2017). Relationship-oriented HRM represents one stream of research with a more targeted focus, emphasizing the influences of HR practices upon employee relationships (Gittell et al., 2010; Kehoe & Collins, 2017; Methot et al., 2018; Mossholder et al., 2011). Previous studies have demonstrated that relationship-oriented HR practices can help enhance organizational functioning during times of crisis and when organizations are facing external threats (e.g., Gittell, 2008;

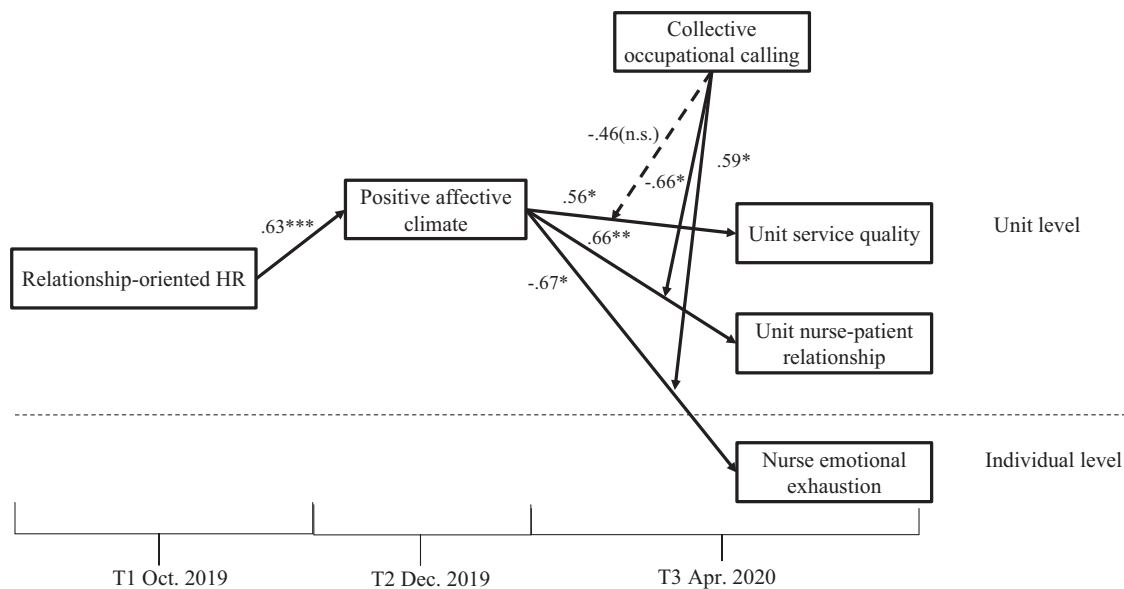


FIGURE 1 Theoretical model and direct effects. $N = 48$ at the unit level; $N = 742$ at the individual level.

Gittell et al., 2006) that require coordination and collaboration (e.g., hospitals, see Gittell et al., 2010). Examples of relationship-oriented HR practices include employee selection for interpersonal skills and cooperation, training in conflict resolution procedures, using quality—rather than quantity—metrics for performance, rewarding teamwork, and promoting information sharing (Evans & Davis, 2005; Gittell, 2008; Gittell et al., 2010).

Researchers have highlighted that HR practices may impact organizational or unit-level outcomes via shared climate within units (Dutton et al., 2006; Mossholder et al., 2011). These studies emphasize that unit climate signals employees as to valued and expected behaviors (Bowen & Ostroff, 2004; Mossholder et al., 2011). However, evidence in this vein has to date primarily focused on more cognitive or task-based aspects of the unit (e.g., relational coordination, Gittell et al., 2010) while offering limited attention to the affective component of climate (Carr et al., 2003; Mossholder et al., 2011; Ostroff, 1993; Tumasjan et al., 2020). This is an important area given the role of relationships in employees' emotional experiences and work motivation (Brief & Weiss, 2002).

2.2 | Positive affective climate as a motivational mediation mechanism

Positive affective climate describes the shared experience of positive feelings among unit members (Menges et al., 2011). Because social interactions facilitate positive affect (Methot et al., 2018), affective climate can result from frequent and high-quality interactions between coworkers (Choi et al., 2003; Herman et al., 2008; Menges et al., 2011). Research shows that affective climate can emerge in an entire organization (Menges et al., 2011) or in subunits of an organization where members experience more frequent interactions and

shared experiences (e.g., Cropanzano et al., 2017; Herman et al., 2008). Not only does a positive affective climate lead members to have warm feelings toward each other, but it also leads members to perceive the entire unit as accepting, sincere, and supportive (Carr et al., 2003; Choi et al., 2003).

Although research has not yet connected relationship-oriented HR practices to positive affective climate, broader theory with respect to relationship-oriented HR systems suggests these practices could lead to positive affective climate in units (Evans & Davis, 2005; Mossholder et al., 2011). The theory suggests that relationship-oriented HR systems reinforce trust, positive relationships, role clarity and helping behaviors, which can enhance employees' positive affective state (Good et al., 2023). For example, selecting and training employees' interpersonal skills facilitates workforces with a stronger ability to build relationships. This creates opportunities for employees to experience positive feelings associated with connectedness and belongingness (Chiaburu & Harrison, 2008; Methot et al., 2018). HR practices that promote information sharing or training with respect to conflict resolution further help employees to build high quality relationships and avoid negative feelings associated with conflict and isolation (Good et al., 2023). HR practices that measure and reward the quality of performance (rather than quantity) encourage positive emotions associated with a “job well done” rather than the anxiety and worry that employees experience when trying to meet quotas and production counting—particularly in the nursing context (Mostafa, 2017). Taken together, these practices build positive relationships and encourage supportive exchanges between unit members, thus elevating members' feelings that the unit is warm and supportive (Jiang & Liu, 2015; Kehoe & Collins, 2017; Messersmith et al., 2011). Given the prior theoretical and empirical research, we expect relationship-oriented HR practices to foster a positive affective climate for the unit. Hence, we hypothesize:

Hypothesis 1. Nursing unit relationship-oriented HRM is positively related to unit-level positive affective climate.

As a type of shared climate, positive affective climate plays a significant role in motivating unit employees and enhancing unit outcomes (Tumasjan et al., 2020). First, it activates positive emotions, which facilitates better cognitive judgment and attentional awareness (Diefendorff & Chandler, 2011; Parke & Seo, 2017). In this vein, individuals in a positive emotional state expand their attention to a larger situation, and thus are more willing to engage in extra-role behaviors (Fredrickson, 2004). Second, positive affective climate elevates employees' desire to engage in collective action with one another (Menges & Kilduff, 2015). This prosocial desire benefits several aspects of unit functioning, including information sharing, engagement, and helping behaviors (Mason & Griffin, 2003). In addition to facilitating improved performance, positive affective climate also discourages dysfunction that would otherwise hurt service performance (Barsade, 2002).

Overall, this elevated prosocial motivation should result in employees performing more effectively, particularly for performance that is relational in nature (e.g., the quality of the nurse-patient relationship). In the nursing context, building high-quality relationships with patients is a core component of job performance. Nurses seek not only to provide medical treatment but also to support and comfort patients as part of their work. This involves earning patients' trust and caring for their mental and physical well-being. For these reasons, nurses in a high positive affective climate should be better suited (relative to nurses in low positive affective climate) to serve and create high quality relationships with patients.

In addition, we expect positive affective climate to negatively relate to nurses' emotional exhaustion as it enables nurses to experience more positive emotions such as warmth and sincerity. These shared emotions can provide employees with emotional energy so as to prevent them from emotional exhaustion (Albrecht et al., 2015; Grandey & Gabriel, 2015; Parke & Seo, 2017). Positive affective climate also elevates the warmth and sense of belonging associated with being a member of the unit, fulfilling members' needs for affiliation (Judge & Kammeyer-Mueller, 2012). In this way, positive affective climate provides beneficial social support and relationships that can be protective from emotional exhaustion (Chiaburu & Harrison, 2008; Halbesleben & Bowler, 2007; Morgeson & Humphrey, 2006). Taken together, we propose positive affect climate as a mechanism that connects relationship-oriented HR practices with unit service quality, nurse-patient relationship, and individual nurses' emotional exhaustion.

Hypothesis 2. Nursing unit-level positive affective climate mediates the effects of relationship-oriented HRM on (a) unit service performance, (b) unit nurse-patient relationship, and (c) nurse emotional exhaustion.

2.3 | Collective occupational calling

As we note above, positive affective climate represents a motivational mechanism through which relationship-oriented HR practices benefit unit outcomes and employee well-being. This focus on motivation leads us to consider whether motivation emanating from sources outside the organization (i.e., occupational calling) plays a contingency role in this process. Occupational calling is an other-oriented motivation developed as individuals map their occupations to their primary life purpose and connection to society (Dik et al., 2012).

Although occupational calling is often conceptualized as an individual characteristic, we expand this perspective to consider occupational calling at the unit level. This raises questions about how occupational calling might emerge at the unit level (Kozlowski & Klein, 2000). Occupational calling is unlikely to emerge through convergence processes where individual members agree about the extent to which the unit as a whole feels a shared call toward its work. Such a view would negate occupational calling research that highlights the identity construction process through which each individual integrates their own sense of self with their view of work (Bloom et al., 2021; Bunderson & Thompson, 2009; Thompson & Bunderson, 2019). In the calling literature, calling develops as individuals navigate the match between their own internal identities and the external requirements placed upon them (i.e., duties, obligations, and responsibilities associated with their occupation, see Thompson & Bunderson, 2019).

We argue these external requirements are often placed upon the unit as a whole and thus are likely to be shared among units of workers. In the nursing context, the external requirements created from a healthcare crisis such as the COVID-19 outbreak may have had unit-level impacts, given that nursing units treat different patient groups. For example, some units (e.g., respiratory care) were more likely to experience sharp increase in nursing needs than other units (e.g., genetic diseases) since they were more directly impacted by the outbreak. As such, occupational calling may have been more particularly activated for nurses whose units faced high levels of urgency and demands because of the outbreak. In addition, for nurses in intense COVID-19 environments, their occupational calling was more salient than for those more removed from the pandemic's effects. Researchers identified a similar effect after the tragedy in the US on 9/11—Americans who lived closer to New York (or were personally affected by the attacks) were more likely than those farther away to volunteer in relief efforts (Beyerlein & Sikkink, 2008).

Although unit members form their calling narratives from their own individualized experience, these shared duties, obligations, and responsibilities may lead coworkers to socially influence one another when they process the match between themselves and their work. Several different mechanisms can underlie this process. Social information processing theory (Salancik & Pfeffer, 1978) suggests workers interpret their environment through interaction with coworkers. Research has shown that job attitudes are socially formed and that coworkers often share similar views of their work (Kilduff & Brass, 2010). Similarly, unit members are likely to discuss their work with one another as they form their own occupational calling.

Alternatively, contagion can occur when members are exposed to others' cognitive and emotional situations (Barsade, 2002; Degoe, 2000). Occupational calling might display similar contagion effects when members seeing their work as a calling impact other members' desire and ability to see their own work as a calling. These social processes would lead to between-unit differences in occupational calling, even if calling was individually formed for each employee. This would not mean unit members share the same occupational calling narratives, but rather that their individual occupational calling levels within a unit are likely to be similar due to similar external requirements and the social interaction and reinforcement processes within units.

An alternative conceptualization of collective occupational calling could follow the logic of team personality construct (e.g., Gonzalez-Mulé et al., 2014) by depicting collective calling as a function of the membership composition of the unit. In this logic, members may not necessarily converge on similar views of their own independent callings, but instead are attracted and selected into units which ultimately differ through composition rather than agreement. This view conforms to what Kozlowski and Klein (2000) refer to as "pooled unconstrained" emergence, denoting that units could be characterized by their average level of calling, even if they do not share perspectives on their own individual calling narratives. In this form of emergence, we would not expect social influence, but we would expect some agreement due to similar themes individuals generated when forming their independent calling narratives (Bloom et al., 2021; Schabram et al., 2023).

2.4 | The substituting effects of collective occupational calling

Collective occupational calling and positive affective climate involve overlapping motivational processes. Both are prosocial in nature, though they differ in how they form and how they orient workers' motivations. Positive affective climate captures nurses' emotional experiences with their coworkers in their units, whereas collective occupational calling orients nurses toward their contributions to the societal good. However, because both represent a form of prosocial motivation, they exert overlapping or substitutionary effects (Gardner et al., 2017). That is, positive affective climate facilitates positive emotions that encourage nurses' prosocial behavior within units (i.e., coordinating, extra-role behaviors, or building patient relationships). However, in nursing units with a high level of collective occupational calling, this effect will be less pronounced. This occurs because nurses with high occupational calling already have a prosocial motivation to make societal contributions. For these nurses, their emotional reaction to their immediate work environment should not be a critical factor in their prosocial motivation and behavior.

Instead, employees in units with high levels of occupational calling experience the prosocial motivation to care for patients in service to the greater good (Bunderson & Thompson, 2009). They find their job meaningful and important (Yoon et al., 2017) and are motivated to

serve and connect with patients (Coulson et al., 2012). This motivation comes from a match between their identity and their work (Bloom et al., 2021) and can create a sense of moral duty to live out a calling in service to society (Bunderson & Thompson, 2009). This moral duty limits the effects of affective climate. Nurses who show up to work out of a felt obligation to care for society do not draw motivation from positive emotions stemming from interpersonal interactions. Instead, their work is driven by a strong internal sense that they must serve patients, regardless of how they feel about their current work environment. We contend that for high-calling units, positive affective climate has weaker motivational effects; these nurses are already motivated more by what they ought to do than how their work environment makes them feel.

Note that we expect positive affective climate and occupational calling to substitute for one another. One implication of this position is that the motivation sources do not amplify each other (i.e., they do not lead to improved outcomes over solely one high-level motivational source). Although units can have both high positive affective climate and occupational calling, due to structural limits to prosocial motivation's impact on units, prosocially motivated nurses cannot double their efforts (Mostafa et al., 2019). Our position is thus that prosocial motivation is beneficial, but the effect of multiple sources of prosocial motivation is limited. For this reason, we expect positive affective climate to be beneficial for unit outcomes under conditions of low collective occupational calling and for its effect to be weaker in units with higher levels of occupational calling.

We posit a similar substitutionary interaction with respect to nurses' emotional exhaustion. A positive affective climate that creates positive emotions naturally buffers employees from experiencing emotional exhaustion. However, this effect may be less pronounced in units with higher levels of collective occupational calling. In these units, nurses are already protected from exhaustion due to their identity-driven duty to persist in their work (Hirschi, 2011; Praskova et al., 2014). Empirically, Yoon et al. (2017) found that physicians with higher levels of calling reported less burnout in their work. As with unit performance outcomes, we expect the prosocial motivation from collective calling and positive affective climate to have a substitutionary interaction in predicting nurses' emotional exhaustion. For nurses in units with low collective occupational calling, positive affective climate is valuable for inducing positive emotions that bring positive energy and protect employees from emotional exhaustion. By contrast, in units with higher levels of occupational calling, positive affective climates have less benefit given that nurses are likely already insulated from emotional exhaustion due to the prosocial motivation stemming from their high collective calling. Hence, we hypothesize:

Hypothesis 3. Nursing collective occupational calling moderates the effects of unit-level positive affective climate on (a) unit service quality, and (b) nurse-patient relationships, and (c) nurse emotional exhaustion, such that these effects are stronger when collective occupational calling is low rather than high.

We further hypothesize that these effects establish conditional indirect relationships, connecting relationship-oriented HR systems to both unit outcomes and nurses' emotional exhaustion. Units with strong relationship-oriented HR systems generate a high level of positive affective climate. This climate should have a positive effect on service quality and nurse–patient relationship and reduce emotional exhaustion, provided the unit has a relatively low level of collective occupational calling. By contrast, for units with higher levels of collective occupational calling, the indirect effect of relationship-oriented HR practices on unit employee outcomes via positive affective climate is weakened. For these units, relationship-oriented HR practices and the positive affective climate they facilitate are less impactful because employees are already motivated by virtue of their transcendent duty to serve society. Hence, we propose a second-stage moderated mediation effect contingent upon collective occupational calling.

Hypothesis 4. Nursing collective occupational calling moderates the indirect effects of relationship-oriented HRM on (a) unit service quality, (b) nurse–patient relationships, and (c) nurse emotional exhaustion, such that these indirect effects are stronger through unit-level positive affective climate when collective occupational calling is low rather than high.

3 | METHODS

3.1 | Sample and procedures

Our sample was collected from two large public hospitals in Southwestern China. One hospital was located in the city center and the other in a suburb of the provincial capital, each with a charter to serve the inhabitants in their respective areas. This setting provided an ideal context for testing our theory because it controlled for the timing of the COVID-19 pandemic's spread (i.e., the outbreak reached both hospitals at roughly the same time), as well as included a variety of nursing units with diverse functions and new demands occurring during the pandemic. Moreover, because of similar pandemic effects for hospitals within an approximate geographic location, we were able to isolate collective calling effects for different nursing units. The assistants in two hospitals anonymized the data and matched participants across survey administrations. Nurses were assured participation was voluntary and responses would be confidential.

We collected three waves of surveys, beginning before and ending after the COVID-19 outbreak. Surveys 1 and 2 were collected prior to the pandemic (October and December 2019). Survey 1 asked the nurses for their perceptions of relationship-oriented HR practices as well as their demographic information. Head nurses (i.e., direct supervisors of those nurses) were also contacted to obtain basic information about each unit. Then, 1024 responses were returned from a 1100 nurse pool across 59 units. Survey two asked nurses to evaluate the positive affective climate of their unit. During the second wave, 870 responses were collected from 54 units. Survey three was

administered in April 2020, after the COVID-19 outbreak. The head nurses reported their evaluation of nurse–patient relationships and nurse service quality, while nurses reported on their level of occupational calling amid the COVID-19 outbreak and emotional exhaustion at this time point. In the third wave, we obtained 802 responses from employee nurses and 54 responses from their head nurses. After matching all the three waves of data and deleting cases containing excessive missing values, the final sample consisted of 48 valid responses from the head nurses and 742 valid responses from the employee nurses, which yielded an 81.36% unit-level response rate and a 67.45% individual-level response rate. The average number of the employee nurse respondents from each unit was 15.46 ($SD = 9.17$). The average age of the head nurses was 42.24 ($SD = 6.90$) and of the employee nurses was 30.96 years ($SD = 6.60$), and the average organizational tenure of the head nurses was 22.01 years ($SD = 8.48$) and of the employee nurses was 7.40 years ($SD = 6.40$). Then, 97.73% of the head nurses and 97.05% of the employee nurses were female, and 91.11% of the head nurses and 98.32% of the employee nurses had a college degree or above.

3.2 | Measures

All surveys were distributed in Chinese. All scales used in the research were originally in English and then translated into Chinese by following the translation and back-translation procedures suggested by Brislin (1970). Other than positive affective climate, which was measured using a five-point Likert scale (from 1 being “not at all” to 5 being “a great deal”), all the other variables were measured using seven-point Likert scales (from 1 being “not at all” or “strongly disagree” to 7 being “a great deal” or “strongly agree”). Our measures along with other supplemental materials are available at (https://osf.io/ayk7u/?view_only=d9a795dd958e41bbb72978af38dd5cba).

3.2.1 | Relationship-oriented HR practices (T1)

We measured relationship-oriented HR practices following the same approach as Gittell et al. (2010). In addition, to ensure the practices specified in Gittell et al. (2010) captured aspects salient to nurses in Chinese hospitals, we interviewed the HR departments of two hospitals. With their consultation, we confirmed six practices measured from Gittell et al. (2010) by asking nurses to respond to the following items: (a) “What is the extent to which your unit has a procedure for nurse selection that emphasizes interpersonal and social skills?” (b) “What is the extent to which your unit has regular meetings (likely weekly) for information exchange and sharing?” (c) “What is the extent to which your unit has conflict resolution procedures for nurse coordination?” (d) “What is the extent to which your unit has performance-based measures for nurse service quality?” (e) “What is the extent to which your unit provides rewards for nurse coordination?” and (f) “What is the extent to which your unit leader plays the role as a boundary spanner that links communications between upper

managers and nurses?” The Cronbach's alpha was 0.90. We asked nurses to rate their perceptions of implemented HR practices within a unit, as previous research has found this approach to better capture HR implementation than those reported by managers (Van Beurden et al., 2020). Before aggregating relationship-oriented HR practices to the unit level, we examined the ICC1, ICC2, and $Rwg_{(j)}$ values, which supported aggregation to the unit level (ICC1 = 0.26, ICC2 = 0.83, and $Rwg_{(j)}$ = 0.94) (Bliese, 2000; James et al., 1984).

3.2.2 | Positive affective climate (T2)

We used five items from Choi et al. (2003). Similar to Herman et al. (2008), we used a referent-shifted measure of positive affective climate. A sample item was “In general, how warm do you think your unit is?” The Cronbach's alpha was 0.95. The aggregation statistics supported aggregating these items to the unit level (ICC1 = 0.22, ICC2 = 0.75, and $Rwg_{(j)}$ = 0.92).

3.2.3 | Collective occupational calling (T3)

Occupational calling was measured by using a four-item calling scale from Dik et al. (2012). A sample item was “I have a calling to my nursing work.” The Cronbach's alpha was 0.94. As we were interested in the perceptions of occupational calling invoked after the COVID-19 outbreak, the survey instructions asked respondents to rate their calling since the onset of the COVID-19 outbreak. Aggregation statistics supported the unit-level of calling construct (ICC1 = 0.19, ICC2 = 0.75, and $Rwg_{(j)}$ = 0.84).

To further validate our collective occupational calling measure at the unit level, we extended a post hoc survey after collecting our primary data by asking two general directors from two hospitals overseeing all nursing units to evaluate the COVID-19 impact on each nursing unit. Specifically, the item using a 7-point Likert scale was, “Between March and June 2020, please rate the extent to which each unit was affected by COVID-19 due to the increasing need of treating, supporting, or providing relevant service to COVID-19 patients.” This item was shown to be significantly correlated with our measure of collective occupational calling ($r = 0.37$, $p = 0.01$), providing additional evidence for the emergence of unit-level occupational calling amid the COVID-19 outbreak.

3.2.4 | Nurse–patient relationships (T3)

We used the seven-item measure from Ma'Ayan and Carmeli (2016). Since their research referents were auditors and auditees, we changed the referents to nurses and patients in our study. A sample item was “Nurses and patients discuss recommendations to overcome difficulties.” The Cronbach's alpha was 0.69.

3.2.5 | Nurse service quality (T3)

The measure was from Liao and Chuang (2004) with seven items. We changed the referents in the sentences from “customers” in Liao and Chuang (2004) to “patients” to fit in our nursing context. For example, we asked head nurses to rate their units on items such as “Being able to help patients when needed” and “Approaching patients quickly.” The Cronbach's alpha was 0.82.

3.2.6 | Emotional exhaustion (T3)

Nurses reported their emotional exhaustion using a four-item measure from Maslach and Jackson (1981). A sample item was “I feel exhausted at the end of the workday.” The Cronbach's alpha was 0.89.

3.2.7 | Control variables

To increase the precision of our estimation, we included some individual-level and unit-level control variables. Specifically, at the individual level, we included *nurse age* and *nurse tenure*. Previous studies have shown that these two variables can influence employee satisfaction and job performance (Sturman, 2003). However, these two variables were highly correlated in our sample ($r = 0.80$). To avoid multicollinearity, we removed nurse age from the model (while shifting to include nurse age at the individual level did not change our main results). We did not control for employee gender and education, as there was little variation for these two variables in our sample (97% nurses were female and 98% had an associate college degree or above). At the unit level, we added a dummy variable *hospital* to control for the differences from two hospitals in our sample. We also controlled *unit size* because the number of people in each unit can influence the frequency and depth of communication and interactions within each unit. Moreover, we included *unit tenure* as a control to represent nurse unit human capital (Kehoe & Collins, 2017), which was the average aggregated from the nurse tenure in each unit (ICC1 = 0.10, ICC2 = 0.57).

3.3 | Measurement model

We conducted a series of multilevel confirmatory factor analyses to ensure that variables used in this study are distinct constructs. To keep an appropriate ratio of indicators to sample size, we randomly parceled items to three index indicators for all factors (Kline, 2015; Landis et al., 2000). We compared our six-factor measurement model to other more parsimonious models that constrained constructs to be a single factor (see Table 1). The results show that our measurement model ($\chi^2 = 383.34$, $df = 168$, $CFI = 0.97$, $TLI = 0.96$, $SRMR_{within} = 0.03$, $SRMR_{between} = 0.11$, $RMSEA = 0.04$) fit better

TABLE 1 Multilevel confirmatory factor analyses.

Model	χ^2	df	$\Delta\chi^2$	SRMR	RMSEA	CFI	TLI
Measurement model (six factors)	383.32	168		0.03 (within) 0.11 (between)	0.04	0.97	0.96
Alternative Model 1: The correlation between relationship-oriented HR system and positive affective climate was fixed to be 1.	3319.24	170	2935.92***	0.11 (within) 0.14 (between)	0.16	0.50	0.36
Alternative Model 2: The correlation between occupational calling and emotional exhaustion was fixed to be 1.	1812.83	170	1429.51***	0.14(within) 0.21 (between)	0.11	0.74	0.66
Alternative Model 3: The correlation between emotional exhaustion and service quality was fixed to be 1.	454.38	169	71.06***	0.04(within) 0.27 (between)	0.05	0.96	0.94
Alternative Model 4: The correlation between emotional exhaustion and nurse–patient relationship was fixed to be 1.	453.02	169	69.70***	0.04(within) 0.27 (between)	0.05	0.96	0.94
Alternative Model 5: The correlation between service quality and nurse–patient relationship was fixed to be 1.	392.45	169	9.13**	0.03(within) 0.11 (between)	0.04	0.96	0.95

Abbreviations: CFI, comparative fit index; df, degrees of freedom; RMSEA, root-mean-square error of approximation; SRMR, standardized root mean square residual; TLI, Tucker–Lewis index.

** $p < 0.001$. *** $p < 0.001$ (two-tailed).

TABLE 2 Means, standard deviation, and correlations.

Variable	Mean	SD	1	2	3	4	5	6	7	8
<i>Individual level</i>										
1 Hospital T1	0.61	0.49								
2 Nurse tenure T1	7.40	6.40	0.19***							
3 Nurse emotional exhaustion T3	3.66	1.71	−0.23***	0.01 (0.89)						
<i>Unit level</i>										
1 Hospital T1	0.62	0.49								
2 Department size T1	16.02	8.55	0.14							
3 Unit tenure T1	6.60	2.68	0.47***	0.09						
4 Relationship-oriented HR T1	6.13	0.48	−0.36*	0.11	−0.39**	(0.90)				
5 Positive affective climate T2	4.26	0.49	−0.28	−0.08	−0.45**	0.66***	(0.95)			
6 Collective occupational calling T3	6.04	0.70	0.24	0.17	0.24	−0.01	−0.04	(0.94)		
7 Unit nurse–patient relationship T3	5.86	0.69	0.04	0.03	−0.07	0.13	0.35*	0.12	(0.69)	
8 Unit service quality T3	6.00	0.70	−0.11	−0.03	−0.22	0.16	0.34*	0.06	0.82***	(0.82)

Note: $N = 48$ at the unit level; $N = 742$ at the individual level. Parentheses indicate variables' Cronbach's alpha reliability.

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$ (two-tailed).

with the data than any other model. Thus, the discriminant validities were supported.

4 | RESULTS

The means, standard deviations, and correlations of variables are shown in Table 2. Given the multilevel nature of our data structure, we used multilevel path analysis controlling for random effects at the unit level in Mplus (Muthén & Muthén, 1998). The results are displayed in Table 3. Hypothesis 1 posited a positive relationship

between relationship-oriented HR and positive affective climate. According to the results in Table 3, this relationship was significant and positive ($\gamma = 0.63$, $SE = 0.12$, $p < 0.001$). Thus, Hypothesis 1 was supported.

Hypothesis 2 articulated an indirect relationship between relationship-oriented HR and unit nurse–patient relationships (H2a), unit service quality (H2b), and nurse emotional exhaustion (H2c) via positive affective climate. Results in Table 3 showed that positive affective climate was positively related to both unit service quality ($\gamma = 0.56$, $SE = 0.27$, $p = 0.036$) and unit nurse–patient relationships ($\gamma = 0.66$, $SE = 0.25$, $p = 0.008$), and it was also negatively related to

TABLE 3 Multilevel path analyses testing results with random effects.

	Affective climate T2	Unit nurse service quality T3	Unit nurse–patient relationship T3	Nurse emotional exhaustion T3
Intercept	0.76 (0.78)	3.69* (1.71)	2.36 (1.60)	14.76*** (1.55)
<i>Individual level</i>				
Nurse tenure T1				0.01 (0.01)
<i>Unit level</i>				
Hospital T1	0.07 (0.12)	−0.10 (0.25)	0.02 (0.23)	−0.61** (0.22)
Department size T1	−0.01 (0.01)	0.004 (0.01)	0.01 (0.01)	−0.01 (0.01)
Unit tenure T1	−0.04 (0.02)	−0.02 (0.05)	0.03 (0.04)	−0.06 (0.04)
Relationship-oriented HR T1	0.63*** (0.12)	−0.28 (0.28)	−0.35 (0.26)	−0.43 (0.27)
Positive affective climate T2		0.56* (0.27)	0.66** (0.25)	−0.67* (0.27)
Collective occupational calling T3		0.28 (0.21)	0.42* (0.20)	−0.78*** (0.19)
Positive affective climate T2 × collective occupational calling T3		−0.46 (0.31)	−0.66* (0.29)	0.59* (0.30)

Note: Mean centering was used for interactions. Unstandardized path coefficients and standard errors (in parentheses) are reported. All estimates were retrieved from one model. $N = 48$ at the unit level; $N = 742$ at the individual level.

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$ (two-tailed).

TABLE 4 Indirect effects using Monte Carlo resampling simulations.

Variable	Estimate (SE)	95% CI
Relationship-oriented HR → affective climate → service quality (mean)	0.37 (0.18)	[−0.03, 0.68]
High collective occupational calling (+1 SD)	0.17 (0.27)	[−0.43, 0.71]
Low collective occupational calling (−1 SD)	0.57 (0.20)	[0.22, 0.79]
Difference (high-low)	−0.40 (0.32)	[−1.14, 0.13]
Relationship-oriented HR → affective climate → nurse patient relationship (mean)	0.43 (0.14)	[0.14, 0.71]
High collective occupational calling (+1 SD)	0.14 (0.25)	[−0.44, 0.58]
Low collective occupational calling (−1 SD)	0.73 (0.19)	[0.37, 1.13]
Difference (high-low)	−0.58 (0.27)	[−1.36, −0.01]
Relationship-oriented HR → affective climate → emotional exhaustion (mean)	−0.44 (0.15)	[−0.78, −0.19]
High collective occupational calling (+1 SD)	−0.18 (0.15)	[−0.52, 0.08]
Low collective occupational calling (−1 SD)	−0.70 (0.21)	[−1.17, −0.34]
Difference (high-low)	0.52 (0.20)	[0.15, 0.95]

nurse emotional exhaustion ($\gamma = -0.67$, $SE = 0.27$, $p = 0.013$). To examine the mediation effects of positive affective climate in our Hypothesis 2, we estimated its indirect effects with bias-corrected

95% confidence intervals (CI) using Monte Carlo resampling simulations (MacKinnon et al., 2002; Preacher & Hayes, 2008; Preacher & Selig, 2012). We used the R code developed from Preacher and Selig (2012). Specifically, we ran all simulations 20,000 times. Results are presented in Table 4. With respect to the unit outcome of service quality, the indirect effect was 0.37 ($SE = 0.18$) with 95% CI [−0.03, 0.68]. As the 95% CI contained zero, Hypothesis 2a was not supported. With respect to the unit outcome of nurse–patient relationship, the indirect effect was 0.43 ($SE = 0.14$) with 95% CI [0.14, 0.71]. As the 95% CI did not contain zero, Hypothesis 2b was supported. With respect to the individual outcome of nurses' emotional exhaustion, the indirect effect was −0.44 ($SE = 0.15$) with 95% CI [−0.78, −0.19], which also did not contain zero. Thus, Hypothesis 2c was supported.

Moreover, the regression results in Table 3 show that collective occupational calling was not significantly related to unit service quality ($\gamma = 0.28$, $SE = 0.21$, $p = 0.181$), but it was significantly related to both unit-level nurse–patient relationships ($\gamma = 0.42$, $SE = 0.20$, $p = 0.033$) and individual emotional exhaustion ($\gamma = -0.78$, $SE = 0.19$, $p < .001$).

Results for Hypothesis 3 regarding the moderation effect of collective occupational calling are shown in Table 3. We grand mean-centered unit-level positive affective climate and collective occupational calling prior to computing interaction terms. The estimate for the moderating effect of collective occupational calling on the relationship between positive affective climate and unit service quality was not significant ($\gamma = -0.46$, $SE = 0.31$, $p = 0.140$). Thus, Hypothesis 3a was not supported. The moderating effect for collective occupational calling on the relationship between positive affective climate and unit nurse–patient relationship was negative and significant ($\gamma = -0.66$, $SE = 0.29$, $p = 0.020$). Thus, Hypothesis 3b received support. We further conducted simple slope tests (plus and minus 1 SD)

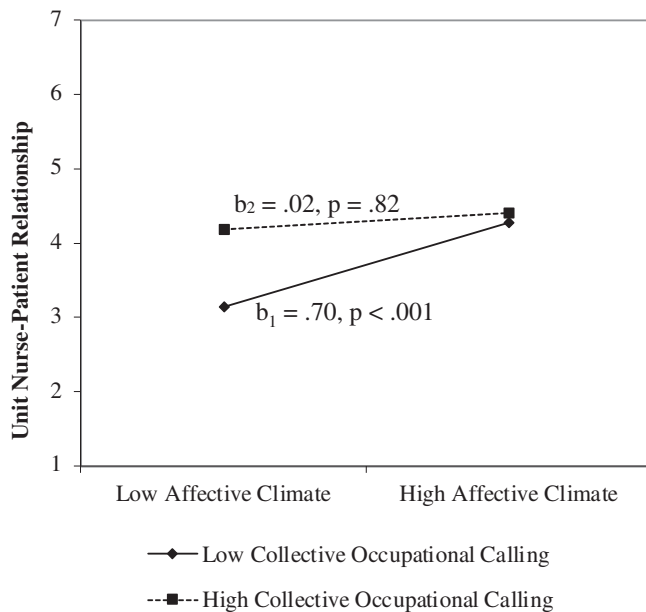


FIGURE 2 Moderating effect of collective occupational calling on the relationship between positive affective climate and unit nurse-patient relationship.

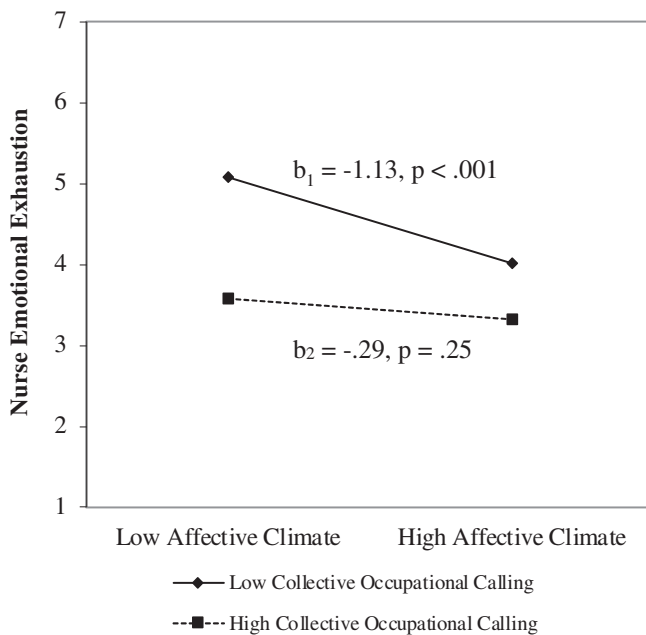


FIGURE 3 Moderating effect of collective occupational calling on the relationship between positive affective climate and nurse emotional exhaustion.

and plotted this interaction in Figure 2. Consistent with the hypothesis, when collective occupational calling was high, the relationship between positive affective climate and unit nurse-patient relationship was not significant ($\gamma = 0.02$, $SE = 0.08$, $p = 0.82$). When collective occupational calling was low, the relationship was significant and positive ($\gamma = 0.70$, $SE = 0.06$, $p < 0.001$).

The estimate for the moderating effect of collective occupational calling on the relationship between positive affective climate and nurse emotional exhaustion was significant ($\gamma = 0.59$, $SE = 0.30$, $p = 0.046$), supporting Hypothesis 3c. Results from simple slope tests were demonstrated in Figure 3. Specifically, when collective occupational calling was high, the relationship between positive affective climate and nurse emotional exhaustion was not significant ($\gamma = -0.29$, $SE = 0.25$, $p = 0.25$). When collective occupational calling was low, this relationship was significant and negative ($\gamma = -1.13$, $SE = 0.19$, $p < 0.001$).

We also used Monte Carlo simulations to estimate the moderated mediation effects. Similarly, we ran all simulations 20,000 times to calculate the 95% bias-corrected CI. The results are shown in Table 4. Specifically, when collective occupational calling was high, the indirect effect of relationship-oriented HR on unit service quality through positive affective climate was not significant ($\gamma = 0.17$, $SE = 0.27$, 95% CI [-0.43, 0.71]); when collective occupational calling was low, the indirect effect was significant and stronger ($\gamma = 0.57$, $SE = 0.20$, 95% CI [0.22, 0.79]). The difference between these two conditions (high vs. low) was not significant ($\gamma = -0.40$, $SE = 0.32$, 95% CI [-1.14, 0.13]). Thus, Hypothesis 4a was not supported. When collective occupational calling was high, the indirect effect of relationship-oriented HR on unit nurse-patient relationship through positive affective climate was not significant ($\gamma = 0.14$, $SE = 0.25$, 95% CI [-0.44, 0.58]). However, when collective occupational calling was low, the indirect effect was significant and stronger ($\gamma = 0.73$, $SE = 0.19$, 95% CI [0.37, 1.13]). The difference between these two conditions (high vs. low) was also significant ($\gamma = -0.58$, $SE = 0.27$, 95% CI [-1.36, -0.01]). Thus, Hypothesis 4b was supported. Moreover, when collective occupational calling was high, the indirect effect of relationship-oriented HR on nurse emotional exhaustion through positive affective climate was not significant ($\gamma = -0.18$, $SE = 0.15$, 95% CI [-0.52, 0.08]). However, when collective occupational calling was low, the indirect effect was negative and significant ($\gamma = -0.70$, $SE = 0.21$, 95% CI [-1.17, -0.34]). The difference between these two conditions was significant ($\gamma = 0.52$, $SE = 0.20$, 95% CI [0.15, 0.95]). Therefore, Hypothesis 4c received support.

4.1 | Supplementary analyses

As a supplementary analysis, we examined alternative forms of emergence of occupational calling at the unit level. In our conceptualization, shared external requirements and social influence processes should lead units to experience shared views on their individualized occupational calling. However, an alternative form of emergence (Kozlowski & Klein, 2000) would emphasize the internal nature of occupational calling—that individuals rely on their own identities and narratives as they form their individualized calling (Bloom et al., 2021). As a post hoc analysis, we examined several alternative operationalizations of unit calling (e.g., minimum, maximum, standard deviation). In these operationalizations, calling was not significantly related to unit outcomes, nor did it moderate the effects of positive affective

climate. Only measures of central tendency (i.e., mean, median) resulted in effects estimated in the primary analysis. Full results are available in the online supplements.

As an additional supplementary analysis, we used the COVID-19 impact variable (general nurse director ratings of the extent to which each unit was affected by the pandemic) as a control variable. Results were similar, with the exception that the interaction between collective occupational calling and positive affective climate on emotional exhaustion became marginally significant ($b = 0.48$, $p = 0.097$). This slightly weaker effect makes sense given that emotional exhaustion likely increased the most for units most affected by COVID-19 at the onset of the pandemic.

Another supplementary analysis involves the correlation between positive affective climate and occupational calling, which was not significant ($r = -0.04$). On the one hand, this is surprising given that members of a unit, while living out their calling, are likely to form strong positive bonds with the people with whom they work. This process might generate an overall positive affective climate. On the other hand, these constructs represent theoretically different sources of motivation. Occupational calling is more about contributions to society at large, rather than a specific local set of coworkers. Calling is more about the beneficiaries of the work, rather than the collaboration with coworkers in the local workplace. We also took different measurement approaches to the two constructs, potentially impacting their overall correlation. To address this possibility, we conducted a within and between variance analysis. The within-group correlation was 0.23, while the between-group correlation was 0.02. These statistics suggest that individuals who have higher occupational callings see the unit as having higher positive affective climate. However, this relationship did not translate to the unit level in terms of actually creating a shared positive affective climate for the unit.

5 | DISCUSSION

In this article, we theorized that relationship-oriented HR systems affected unit service outcomes and employee emotional exhaustion via unit affective climate and that these relationships would be moderated by collective occupational calling that emerged from the context of COVID-19 outbreak. Results showed significant indirect effects through affective climate on nurse–patient relationship and nurse emotional exhaustion as well as substituting effects of collective occupational calling on these indirect effects. For the substituting effects, when nurses' occupational calling was low, relationship-oriented HR systems were positively related to unit nurse–patient relationship and individual emotional exhaustion via affective climate. When nurses' occupational calling was high, these indirect effects were not significant. However, we did not find this substituting effect on the outcome of unit service quality. Our study offers theoretical and practical implications as well as future research directions.

Our study expands theories regarding the processes through which relationship-oriented HR practices influence outcomes via an affective mechanism. Relationship-oriented HR systems have shown to enhance unit-level performance, yet explanations for these effects

tend to emphasize task-related and instrumental mechanisms, such as unit-level coordination (Gittell, 2008; Gittell et al., 2010) or access to knowledge (Kehoe & Collins, 2017). These explanations focus on how employees are able to accomplish tasks due to their specific set of relationships with other employees or external social networking. By contrast, our research supplements this area by exploring a more climate-based affective mechanism for this process. This mechanism captures the broader climate of how employees feel in their immediate work environment with respect to its warmth, sincerity, and solidarity. Through this perspective, we emphasize the motivational aspect of shared employee emotions. Moreover, our finding of the significant indirect relationship of relationship-based HR systems on nurse–patient relationship via positive affective climate implies that this mechanism is particularly effective in shaping relationship-based unit outcomes. We also found a significant effect of positive affective climate in preventing employees from experiencing emotional exhaustion, which highlights a unique perspective about how positive affective climate enhances employee psychological well-being. Moreover, consistent with research from Gittell et al. (2006) and Gittell (2008), our study also shows significant influence of relationship-oriented HRM on unit employee outcomes in dealing with external negative event disruptions. Overall, our theory and findings point to affective climate as a promising new avenue to more fully understand how relationship-oriented HRM influences organizations in a context facing an external threat.

Another key theoretical contribution of this study is in tightening the connection between research on strategic HRM and employee motivation. Whereas strategic HRM research depicts motivation as stemming primarily from internal organizational HR systems and practices, our theory acknowledges that motivation comes from a variety of sources inside and outside the organization (Diefendorff & Chandler, 2011). Relying on this perspective, our theory adds a novel type of contingency to the HRM-effectiveness relationship by considering how employees' occupational calling affects unit employee outcomes. Although several neighboring research streams have acknowledged contingencies that dictate the effectiveness of HR systems, these contingencies have primarily been theorized as being between different sets of practices (e.g., Han et al., 2019), different employee groups (e.g., Lepak & Snell, 1999), or different environmental contexts (Chadwick & Flinchbaugh, 2021; Chang et al., 2021; Kim & Ployhart, 2018). Our approach expands theory regarding when HR systems are most likely to be effective by focusing on employees' personal experiences and identities over which the organization has less control.

Finally, our work expands theory on occupational calling in two important ways. First, we conceptualize and examine collective occupational calling. Although existing research conceptualizes calling at the individual level, we highlight how the pandemic created a situation in shaping workers' shared experiences. While calling is formed at the individual level (Bloom et al., 2021; Zhu et al., 2021), the shared environmental stimuli and the social processing involved in them could lead calling to manifest at a higher level. We also found that collective occupational calling enabled both unit and individual work outcomes. The examination of collective occupational calling recognizes that the

narratives individuals use to construct identities can be influenced by external environment, such as significant world events and public discourse. Second, the substituting effect we propose and examine advances our understanding of the functioning of collective occupational calling. Although existing research primarily positions occupational calling as having a main motivational effect on employee attitudes and behaviors (Thompson & Bunderson, 2019), our work positions calling as a potential substitute for organizationally induced motivation. Although we did not find a significant moderating effect on unit service quality, our study demonstrates that nursing units were highly motivated to serve patients if they enjoyed a positive affective climate induced from relationship-oriented HR systems or if they experienced high levels of occupational calling. While nurses high in both affective climate and occupational calling could not “double the effort,” the units low in both of them suffered the most. This result recognizes the equivalent motivational effect from calling on work and local HR systems.

5.1 | Practical implications

From a practical standpoint and consistent with the prior research, our study highlights the value of implementing relationship-oriented HR systems. Such systems not only benefit coordination and task completion (Gittell et al., 2006) but also promote positive emotions and affective climate, which benefit both unit outcomes and employee emotional well-being. Our study results also echo previous research (Gittell, 2008; Gittell et al., 2006) and suggest that organizational HR managers should consider implementing relationship-oriented HR practices to build resilience and navigate through negative events. Practitioners should also note that relationship-oriented HR systems are not about engaging in entirely different practices from other HR systems but rather about extending attention to relationships within the workplace. For example, selection practices can be conducted by examining not only candidates' capabilities in completing work tasks but also their collaborative strengths and motivations. Our recommendations are thus not to replace existing practices with “relationship-oriented” practices but instead to thread a focus on relationships into all HR initiatives.

Yet our research also shows that the value of these efforts is contingent upon workers' additional sources of motivation. This adds to the contingency approach to HR systems, which recognizes that HR systems are not uniformly effective across situations (e.g., Chadwick & Flinchbaugh, 2021). Our study reveals that although some units did not develop relationship-oriented HR systems or a related positive affective climate, yet these units benefitted most from high levels of collective occupational calling. In a sense, the high collective occupational calling saved some units from suffering adverse outcomes that should have stemmed from the poor practices they had previously put in place. However, for some organizations that have employees with high levels of occupational calling and motivation already, we recommend re-purposing HR investments and discretionary efforts toward other initiatives. For example, for high occupational calling nurses, efforts focused on enhancing nurse's

knowledge, skills, or abilities may bring better outcomes than those focused on motivation.

At the same time, our study asks a challenging question to organizations about how to manage employees' occupational calling. Although an event like the COVID-19 pandemic outbreak might elevate employees' perception of calling temporarily, it may be better to encourage employees to develop and live out their calling (Duffy & Autin, 2013). Although sources of calling are beyond our study (see Bloom et al., 2021 for an explication of this process), organizations are likely to benefit from providing support for employees' career and occupational decision-making that elevates occupational calling. Perhaps managers can enhance employees' sense of occupational calling through daily events and work practices. This may include workplace slogans or celebrations that highlight the societal meaning of their work and exalt their invaluable contributions to society. Effective selection and promotion practices can help select people with greater occupational calling. Given our findings on the collective level of occupational calling, it is likely that high-calling employees when working with like-minded others produce higher motivation to achieve their societal mission. Maintaining—and not impairing—employees' sense of calling would be valuable to the organization and its employees.

5.2 | Limitations

Although our study featured multiple strengths, limitations and weaknesses should temper interpretations. First, we were not able to measure occupational calling before the pandemic as we did not predict the outbreak and did not anticipate calling to become a central aspect of nurses' identity. For this reason, we could not directly measure the degree to which employees' occupational calling changed as a result of the pandemic outbreak. Our post hoc analysis showed that unit-level occupational calling was significantly correlated to the impact of the COVID-19 outbreak on nursing need at the unit level, thus supporting our arguments that collective occupational calling was triggered by external requirements. Although it was not possible for us to directly test the extent to which nurses' occupational calling changed, it would be valuable in future research to test how relevant major public events influence groups of professionals in terms of their occupational calling. Note that this limitation also prohibits us from testing different forms of emergence of collective occupational calling. We find evidence that nurses within units shared a similar level of calling. However, it remains plausible that future research could view unit-level collective calling more as a team composition variable in the sense that members enter units with an a priori view of their own individual calling. In this conceptualization, collective calling does not emerge at the unit level due to social influence or shared external requirements but merely through team composition procedures that lead members to have common views of their own calling (e.g., attraction, selection, and attrition effects may lead units to have common calling regardless of any within-team social processes). Unfortunately, our data are not able to tease out how exactly collective occupational calling emerges at the unit level, and future research in this direction would be valuable.

Second, our argument positioned affective climate and occupational calling as different sources for employee motivation, yet we were not able to directly observe changes in employee motivation as a mechanism of this process. To some degree this limitation is mitigated by previous theory and research depicting how relationship-oriented HR systems (e.g., Gittell et al., 2010), positive affective climate (e.g., Mossholder et al., 2011), and occupational calling (Bloom et al., 2021) relate to employee motivation. However, we did not have a direct measure of employee motivation or effort. One alternative plausible interpretation of our results is that head nurses perceived higher levels of unit outcomes for certain groups that appeared to have positive climates and/or a sense of calling. There is also a potential sorting effect on collective occupational calling,ⁱⁱ given that relational HR systems might attract employees with high occupational calling. Although this effect is theoretically plausible, the fact that relationship-oriented HR and occupational calling were uncorrelated in our data ($r = -0.01$, *n.s.*) suggests relationship-oriented HR practices were not a major cause of units' collective occupational calling. In this regard, future research into the motivational intersection of relationship-oriented HR systems, affective climate, and occupational calling would be valuable.

Third, we did not measure relationship-oriented HR practices and positive affective climate at the third time point after the COVID-19 outbreak. As such, we are not able to examine how positive affective climate changed (and whether relationship-oriented HR practices had an ongoing influence) after the onset of the pandemic. Prior research has supported that unit-level affective climate usually remains relatively stable over time (usually within 6 months, e.g., Gamero et al., 2008; González-Romá et al., 2002; Parke & Seo, 2017; Tumasjan et al., 2020). While we acknowledge that affective climate might change due to the COVID-19 outbreak since such a significant event might have reshaped nurses' affective experiences, our theoretical model is centered around how positive affective climate shaped by relationship-oriented HR systems may affect service outcomes. To further extend our findings, we encourage future research to investigate the effect of relationship-oriented HR practices on affective climate both before and after an event occurs to see whether the functioning of affective climate remains the same.

Moreover, it is notable that the high mean of the collective calling construct from our nurse sample (mean of 6.04 out of 7) may not be representative of the general population or other occupations. It is comparable to the mean of the occupational calling measure in other studies (e.g., Zhu et al., 2021 reported a mean of 6.14 out of 7 among a set of nurses). But this sample mean is higher than occupational calling in the broader population of workers across jobs (see Andel et al., 2021). In our view, this seems reasonable as workers in nursing occupations generally are more service-oriented and highly value caring for others. However, one possible issue with high means is that standard errors of coefficients can be downwardly biased in the presence of a ceiling effect (Austin & Brunner, 2003). As such, we conducted a supplemental analysis (see Supplement 6 in the shared online link) using a maximum likelihood ratio estimator. The results were similar, except that the main effect of affective climate on unit nurse service quality changed from two- to one-tailed significance. Although this supplemental analysis mitigates the concern that our findings are biased by a

ceiling effect, future research replicating our proposed model would be warranted to verify results are not a statistical artifact.

Finally, the narrow setting of our research focusing exclusively on nursing units was valuable in understanding the nature regarding how the COVID-19 pandemic outbreak influenced our data. However, it represents a limited, narrow slice of the global population of employees. Our arguments may naturally apply to other healthcare and emergency response organizations but may not generalize to workers in other industries and occupations. Although scholars have pointed out the importance of positive affective climate in enhancing service workers' attitudes and performance (e.g., Härtel et al., 2008), its effect may be different for other service jobs (e.g., sales), especially in regard to its overlapping motivational effect with occupational calling. The pandemic context and the societal discourse on nurses' heroism might also inflate nurses' responses to our survey. In addition, data collection came from two sites within proximity to each other situated in a similar national culture. Although by appearances the pandemic's effects on nurses' occupational calling transcended national borders, future research in other settings would be welcomed. For example, collective occupational calling may be more likely to emerge in a collectivistic culture setting such as China where we collected our sample than in an individualistic culture setting, as individuals are likely to have stronger sense of society and to have higher prosocial motivation (Trommsdorff, 1999).

5.3 | Directions for future research

The findings from our study extend a number of useful avenues for future research. First, our results show that the indirect effect of relationship-oriented HR systems on unit service quality via affective climate was not significant, and the moderating effect from collective occupational calling on this mediation chain was also not significant. It implies that affective climate may particularly shape unit relationship-relevant outcomes (i.e., nurse-patient relationship) and employee individual emotional experience (i.e., emotional exhaustion) but may have weak effect on unit functioning (i.e., service quality). Future research can move this line of research and further investigate these relationships.

Moreover, future research can further examine the emergence mechanism of collective occupational calling. Recent conceptualization development suggests that occupational calling as a transcendent passion is an integration of inner and outer requirements (Thompson & Bunderson, 2019). The COVID-19 outbreak required needs from different nursing units. Given shared duties and responsibilities, social interaction and influence processes enable collective occupational calling emergence. In spite of our articulation of this mechanism, it needs further investigation. For example, qualitative studies can be designed to obtain direct evidence from unit members about their narratives about collective occupational calling (Bloom et al., 2021). Moreover, as occupational calling emphasizes personal experiences despite a group context, how individuals frame their own calling and how individual callings contribute to collective calling and its enabling mechanism can also be further studied (Buis et al., 2019).

Future research might also evaluate occupational calling more broadly to account for how society shapes individuals' views of their own occupations. As different societies and cultures espouse value differences (Trommsdorff, 1999), they create the context through which members of an occupation depict their calling narratives. Although we were not able to test this idea in our data, such a view has several implications about how workers' calling narratives reflect the societies within which they work. For example, nurses (and health-care workers more generally) may have felt greater calling in the midst of a healthcare crisis; auditors and regulators may have experienced greater calling during the banking crisis, and air traffic controllers may feel greater calling during/after aviation tragedies. By showing that units indeed have some shared sense of calling beyond simply workers' own identities, our work opens the door for scholarship about how societal and cultural values shape calling. This may even reflect a different construct or dimension of calling previously neglected. Our data do not speak directly to these ideas, yet a possible avenue for future research can be extended from our study.

As our findings suggest the motivational contingency of collective occupational calling stimulated from sources outside the organization (i.e., the pandemic outbreak), future research can continue to investigate different external sources that can enter the work sphere and influence employee motivation. Indeed, the organization is an open system and faces dynamics and challenges from external environment and society. Individual personal motivation, identity, commitment, and affect can also exert influences on employees (Diefendorff & Chandler, 2011). As such, they may also jointly shape employee work motivation with internal HR practices.

In addition, our finding of the substituting effect of occupational calling adds to strategic HRM research in examining substitutes to HR systems, but more research in this vein would be valuable. The idea about substitutes of HRM has a long history, yet little empirical research takes this view (Chadwick & Flinchbaugh, 2021). Several studies have recently investigated HR system substitutes (e.g., Jiang et al., 2015; Messersmith et al., 2018). For example, Jiang et al. (2015) find the substituting effect of service leadership to HPWS on service climate, and Messersmith et al. (2018) find that organizational vertical pay-dispersion policy substitutes for motivation- and skill-enhancing practices on firm financial performance. This line of research shifts HR strategy from "the more the better" toward making the right investments at the right time under the right circumstances.

5.4 | Conclusion

Our study shows that effective relational HRM that prompts positive affective climate can help organizational units meet new demands and challenges from external negative events. While some units had effective implementation of relationship-oriented HR practices to help them weather the storm, other units were less prepared. Of these, some units avoided adverse consequences because they benefitted from nurses' higher levels of occupational calling in situations. We echo the stream of strategic HRM scholars urging organizations to develop effective HR practices/

systems that are conducive to employee motivation and outcomes, but we also suggest that alternative sources for employee motivation be admitted.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

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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ENDNOTES

We included one attention check question on the first two surveys. Then, 178 and 167, respectively, employees failed the check, so they are excluded from analysis. Results (available from the first author) are similar with including these participants.

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