Impact of Psychological Resources on Employee Engagement: The Mediating Role of Positive Affect and Ego-Resilience

Rahman Khan1, Jean-Pierre Neveu2, Ghulam Murtaza3, and Kashif Ullah Khan4

Abstract
The main purpose of this research is to examine the role of psychological resources in predicting the engagement of night shift employees. Specifically, it tests how resources like supportive organizational climate, family support, and self-efficacy could help employees stay engaged during night shift work. Additionally, this study explores the mediating role of positive affect and ego-resilience. The cross-sectional data collected from night shift employees (n = 208) working full-time in Canada, the UK, and the US were collected over a period of 3 months. Results of the statistical analysis confirm the significant direct role of self-efficacy and supportive organizational climate in predicting employee engagement. Furthermore, the indirect role of such resources through the mediation of positive affect and ego-resilience was also found. The impact of family support on employee engagement appears significant only through mediators. The current study extends the existing understanding about the role of psychological resources in determining the engagement of night shift employees. It further adds to the literature by explaining mechanisms using positive affect and ego-resilience as mediators.

Keywords
supportive organizational climate, family support, self-efficacy, ego-resilience, positive affect, employee engagement

Introduction
Night work cannot be denied as a social and economic reality. Taking, for example, the European Community, about 13.2% of the total employees work in the night shift during the year 2018 (Szkiela et al., 2020). Previously in most of the industrialized countries, employees were working in night shifts only for some essential services such as healthcare, public safety, transportation, etc. (Costa, 2008; Garbarino, 2006). But in recent decades due to increased demand relating to the economic market, the organizations are more focused on re-organizing labor and thus such employment isn’t limited to any specific sector but covers almost every work area like manufacturing, construction, food service, etc. (Arcangeli et al., 2018; Golden, 2015; Khan et al., 2018; Martins et al., 2021).

But re-organization of work in continuous cycles has significant social and economic repercussions in terms of individuals, organizations, and community (Perez et al., 2019). Especially in the organizational context, night shift work has been linked to various negative outcomes such as workplace accidents and errors (Åkerstedt et al., 2002; Gold et al., 1992), reduced operational performance (Waggoner et al., 2012), turnover intentions (Lee et al., 2015), and absenteeism (Costa et al., 1990; Shen & Dicker, 2008). Additionally, previous research on occupational health also highlights the disruptive role of such shifts on employee health as well as social well-being (Price, 2011; Vicente-Herrero et al., 2016). Having all these issues still, the night shift remains highly necessary and in a managerial perspective it remains challenging to motivate employees to perform well during such symptomatically labeled “graveyard shift.”

The current study tests motivational underpinnings that help individuals in staying engaged when working at night. Commonly, the positive role of extrinsic factors remains the focus of interest as a significant predictor of employee acceptance. Such factors may include additional pay, flexible breaks, or additional rest days. However, relatively less attention has been devoted to intrinsic factors that can motivate employees and are necessary for higher individual commitment. Even

1Westminster International University Tashkent, Uzbekistan
2Université de Pau et des Pays de l’Adour, Bayonne, France
3Kedge Business School, Marseille, France
4GIK Institute of Engineering Sciences and Technology, Topi, Pakistan

Corresponding Author: Rahman Khan, Westminster International University Tashkent, 12 Istiqbol Street, Tashkent 100047, Uzbekistan.
Email: rahmankhan.86@yahoo.com
some previous evidence suggests the good side of the night shift and confirms that an individual may enjoy working in it (King, 2010). Thus, based on the Conservation of Resources (COR) perspective (Hobfoll, 1989, 2001) and Job Demands-Resources (JDR) theory (Bakker & Demerouti, 2014) the current study suggests how psychological resources could help the individual to stay engaged during the night work.

Although a vast body of research has tested the positive role of psychological resources on different samples like academicians (Alzyoud et al., 2014), entrepreneurs (Laguna et al., 2017), and nursing practitioners (D’Emiljo & Du Preez, 2017), etc. But the impact of such resources in elevating individual’s engagement during extraordinary stressful conditions like night shift remains unexplored. It justifies the importance of exploring such a mechanism that links psychological resources to employees’ engagement in a different environment.

The current study specifically tests the direct role of three key psychological resources, that is, supportive organizational climate, self-efficacy, family support in predicting engagement of night shift employees. Additionally, it analyzes the mediating role of ego-resilience and positive affect among these relationships. This paper, first, build the argument about hypothesized relationships based on existing literature by linking it with Conservation of Resources theory (Hobfoll, 1989) and Job Demands-Resources (JDR) theory. Then it provides details about the methodology in terms of research design, data collection procedure, participants, and study measures. Afterward, it presents the findings specifically related to descriptive and model fit, etc. Finally, it concludes by providing a detailed discussion on the contribution of this study and relevant recommendations.

This study makes three main contributions to the existing research. Firstly, the current study makes a theoretical contribution by exploring the impact of various psychological resources on the engagement of night shift employees which has been rarely explored in the existing literature. Secondly, based on the conservation of resources perspective (Hobfoll, 1989) and Job Demands-Resources (JDR) theory, this study contributes in terms of exploring the process through which such resources have an impact on employee engagement by testing parallel mediation of ego-resilience and positive affect. Finally, in terms of methodology, this study tests the hypothesized relationship by taking a sample of night shift employees from three different countries.

**Theory**

In this section, first, definitions of all study constructs have been provided and then the study hypotheses have been developed based on the existing literature.

**Construct Definitions**

There are six main constructs in the current study, that is, supportive organizational climate, self-efficacy, family support, ego-resilience, positive affect, and employee engagement.

Supportive organizational climate is defined as “Individuals’ perceptions on the quality of communication and social support in their work environment.” It remains individual level construct in the current study based on previous research (Mäkikangas et al., 2007, 2016). Self-efficacy is defined as “An individual’s belief in his or her capacity to execute behaviors necessary to produce specific performance attainments” (Bandura, 1977, 1986). In this study family support remains a part of social support which is defined as “Social interactions or relationships that provide individuals with actual assistance or with a feeling of attachment to a person or group that is perceived as a caring or loving” (Hobfoll & Stokes, 1988, p. 499). Ego resilience is defined broadly as “The personality’s capacity to adapt to uncertainty” (Block, 2002). Affect is the experience of consciously accessible feelings (Fredrickson, 1998). Specifically, Positive affect refers to a dimension in which high levels are characterized by “high energy, full concentration, and pleasurable engagement, whereas low positive affect is characterized by sadness and lethargy” (Watson et al., 1988). Employee engagement is comprised of three dimensions, that is, intellectual, affective, and social engagement. Intellectual engagement is as “the extent to which one is intellectually absorbed in work,” affective engagement is defined as “the extent to which one experiences a state of positive affect relating to one’s work role,” and social engagement is defined as “the extent to which one is socially connected with the working environment and shares common values with colleagues” (Soane et al., 2012).

**Hypotheses Development**

**Supportive organizational climate and employee engagement**. Supportive organizational climate is the level of support an individual gets from his/her peers, departments, and supervisor to successfully perform work duties (Luthans et al., 2008). Because of numerous benefits it has remained focus of interest in vast previous research. Specifically, it has been studied and found significantly related with various work outcomes such as job satisfaction (Schyns et al., 2009), work performance (Lee et al., 2016; Luthans et al., 2008), and employee commitment (Rhoades et al., 2001) etc. In addition to that, it has significant role in predicting employee’s well-being (Feldt et al., 2000; Hayat & Afshari, 2020).

By taking Job Demands-Resources (JDR) perspective, the current study proposes the resource based view of supportive organizational climate. Specifically, it suggests that supportive organizational climate may act as a job resource, that is, physical, social, or organizational aspects of the job that may be functional in achieving work goals” (Bakker & Demerouti, 2008). As job resources can bring a feeling that an individual is capable of dealing with stress situations (Hobfoll & Freedy, 1993) so supportive organizational climate can play a significant role during night shift work. This goes along with the COR perspective as well (Hobfoll, 1989, 2001) that by having access to sufficient resources individuals remain less
vulnerable to stressful conditions. Various such job resources (e.g., opportunities to learn, job autonomy, and performance feedback) have been suggested linked with employee engagement (Freemey & Tieman, 2009; Schaufeli et al., 2009). As previous research widely accepts that individuals who feel comfortable at their workplace and perceive their colleagues as supportive show more involvement and commitment so this study proposes that such benefits may also exist in terms of engaging employees during night shift.

Additionally, previous research has also confirmed the role of supportive organizational climate in predicting accumulation of various other psychological resources. Specifically, research showed that availability of supportive organizational environment can enhance individual’s ability to be resilient and effectively handle stressful situations (Ferreira et al., 2018; Hayat & Afshari, 2020). This supports the previous research suggesting that an individual can acquire ego-resilience through environmental conditions such as supervisory support (Hobfoll et al., 2015). Additionally, individuals with higher level of ego-resilience remain more engaged comparing their counterparts (Gawke et al., 2017). So ego-resilient employees having supportive organizations might be in a better position to handle stressful night shift and stay engaged.

Similarly, in addition to resilience, such climate can also bring positive feelings and makes individual more optimistic and hopeful. This accumulated reservoir of resources in turn relates to work outcomes (Luthans et al., 2008). Specifically, organizational support has been confirmed as a predictor of employee’s positive affect (Bashshur et al., 2011). And previous research has also found significant role of positive affect in predicting employee engagement (Wang et al., 2017; Yan et al., 2021). So the current study suggests that supportive organizational climate predicts ego-resilience and positive affect which in turn enhances engagement of night shift employees.

Accordingly it hypothesizes that:

**Hypothesis 1a.** Supportive organizational climate has a positive relationship with engagement of night shift employees.

**Hypothesis 1b.** The linkage between supportive organizational climate and engagement of night shift employees is mediated by ego-resilience.

**Hypothesis 1c.** The linkage between supportive organizational climate and engagement of night shift employees is mediated by positive affect.

**Self-efficacy and employee engagement.** Self-efficacy, that is, one’s own ability to achieve or perform any task, has always been considered key personal resource in various settings. Specifically, previous research have confirmed the significant role of self-efficacy in academia (Hatlevik et al., 2018). Some studies have explored the impact of self-efficacy resource on entrepreneurs’ dynamic capabilities (Kevill et al., 2017) and other with coping behavior of military personnel (Delahatj & Van Dam, 2017). In addition to this, beneficial role of self-efficacy on work outcomes also remains widely accepted (Bhatti et al., 2018; Contreras et al., 2020). Specifically, a meta-analysis (Halbesleben, 2010) confirms the positive role of self-efficacy in predicting employee engagement, that is, “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption” (Schaufeli et al., 2002, p. 74). This evidence goes along the basic principle of Conservation of Resources theory (Hobfoll, 1989) that individuals with greater resources are better able to invest them and deal with stressful situations. Additionally, it validates the Job Demands-Resources (JDR) perspective that personal resources can help individuals to deal with demanding work environments. Individuals with sufficient resources to deal with challenges can achieve organizational goals which elevates their level of engagement (Bakker et al., 2014).

Self-efficacy can enhance individual’s ego-resilience, that is, a coping resource enables one to deal with situational demands (Gillespie et al., 2007) that helps employees in dealing with stressful situations. People with high resiliency are better able to persist in making efforts (Letzring et al., 2005). Several other studies explored role of resilience like Malik and Garg (2017) showed that the impact of learning organization on employee engagement is mediated by ego-resilience. Similarly, mediation of resilience has been proved significant between growth mindset and psychological well-being of students (Zeng et al., 2016). Numerous other studies confirmed the relationship between resilience and engagement (Cooke et al., 2019; Oliveira & Ferreira, 2016). Thus the current study suggests that individuals with high self-efficacy beliefs are more resilient and in turn remain more engaged during night shifts.

Not only ego-resilience but self-efficacy has also been found predicting positive emotions those are helpful in staying engaged during adverse circumstances (Laguna et al., 2017). Positive emotions have been studied and found related with various outcomes such as entrepreneurial performance (Fodor & Pintea, 2017), job satisfaction, and organizational citizenship behavior (Mostafa, 2017). At individual as well as group level, positive affect proved to be significant predictor of task performance (Knight & Eisenkraft, 2015). It is also evident that positive affect is linked to employee engagement (Van Wijhe et al., 2011). So positive affect has clear distant linkage with employee engagement by enabling one to persist during action (Seo et al., 2004). Accordingly, the current study assumes that self-efficacy beliefs increases positive affect of night shift employees which in turn predicts higher level of engagement.

Previous literature have overlooked role of self-efficacy in engagement of night shift employees. As working in third shift has an impact on one’s routine life that’s connected with its surroundings so personal resources can be crucial in dealing with such situations. Specifically, this study postulates...
that engagement of night shift employees is contingent upon
the state of an individual’s resources. This leads to the fol-
lowing hypotheses:

**Hypothesis 2a.** Self-efficacy positively related to engage-
ment of night shift employees.

**Hypothesis 2b.** The linkage between self-efficacy and
engagement of night shift employees is mediated by ego-
resilience.

**Hypothesis 2c.** The linkage between self-efficacy and
engagement of night shift employees is mediated by posi-
tive affect.

**Family support and employee engagement.** Family support
in emotional as well as material terms has been found ben-
eficial in various domains. For example, family caregiv-
ers can help in coping of cancer patients (Litzelman et al.,
2017). Similarly, family financial support has a significant
positive relationship with entrepreneurial self-efficacy
(Sieger & Minola, 2017). It has also been studied in the
context of prisoners and proved to be significantly impor-
tant in elevating emotional health of their families (Wood-
all & Kinsella, 2017). Specifically, in work context it has
been tested with firm’s performance (Neneh, 2017) and job
satisfaction of employees (Kwok et al., 2015). Apart from
this, the existing literature also confirms family support as
a valuable social resource that predicts employee engage-
ment (Karatepe, 2015). Family support is a key dimension
of social support, that is, “Social interactions or relation-
ships that provide individuals with actual assistance or with
a feeling of attachment to a person or group that is per-
ceived as a caring or loving” (Hobfoll & Stokes, 1988, p.
499) and has been widely analyzed in various occupational
psychology studies. Such social resources are evident of
helping individuals to cope with stressful conditions (Kur-
tessis et al., 2017).

In line with resource caravans notion of Conservation
of Resources theory (Hobfoll, 1989, 2001) personal resources
are considered as outcome of social conditions. Social condi-
tions brings resiliency to the people striving in stressful con-
ditions (Hobfoll & Freedy, 1993). Specifically, previous
research confirms family support as a predictor of resilience
which enables an individual to deal with stressful conditions
(Howard et al., 1999). So this study suggests that family sup-
port enhances ego-resilience of night shift employees which
in turn make them more engaged. Additionally, family sup-
port has direct relationship with positive emotions (Rathunde,
2001) and individuals having such emotions may remain
more engaged during night shift.

Previous research lacks in terms of evidence confirming
how family support plays a certain role in engagement of
night shift employees, since a decision to work nightshifts
presupposes previous arrangements with spouses and chil-
dren over functional work-time schedules. So this leads to
the following:

**Hypothesis 3a.** Family support is positively related to
engagement of night shift employees.

**Hypothesis 3b.** Family support and engagement of night
shift employees’ linkage is mediated by ego-resilience.

**Hypothesis 3c.** Family support and engagement of night
shift employees’ linkage is mediated by positive affect.

**Methodology**

**Data Collection Procedure**

Random sampling was used to select participants for this
cross-sectional study. Due to limited resources and access to
night shift employees in three countries, a cross-sectional
study design was selected to collect data for hypothesized
relationships. Employees residing in three countries, that is,
Canada, the UK, and the US, and working in various indus-
tries like telecommunication, manufacturing, logistics, etc.
were invited to participate in the study through LinkedIn pro-
fessional network. Specifically, employees working on night
shift were allowed to participate in the study. After taking
initial consent from participants, the online questionnaire
was shared through the SurveyMonkey link that remained
available for 3 months. Participation in this study was volun-
tary and no financial reward was offered to respondents.
Feedback was provided only to those respondents who ini-
tially requested study results.

**Study Participants**

Initially, 1,286 employees working in the night shift were
allowed to participate in the study, and 242 completed the
online questionnaire with a response rate of 18.81%.
The final sample was 208 as 20 respondents were no more work-
ing in night shift, while an additional 14 ceased residing in
the three target countries. The final sample N=208 was com-
prised of 144 (69.2%), 41 (19.7%), and 23 (11.1%) respon-
dents from US, UK, and Canada, respectively. The majority
of the study participants were male, that is, 151 (72.6%)
compared with females, that is, 57 (27.4%). Most of the
study respondents, that is, 145 (69.7%) were under the age of
40 years. Statistics in terms of marital status were 122
(58.7%) single, 66 (31.7%) married, 19 (9.1%) divorcee, and
1 (0.5%) widowed.

**Measures**

A 41 items survey instrument was adopted to gather partici-
pants’ responses. It comprised six different scales, including
supportive organizational climate (4 items), family support
(4 items), self-efficacy (10 items), ego resilience (4 items),
positive affect (6 items), and employee engagement (9
items). Additional control variables included are age, gen-
der, marital status, and one item related to current working
shift status.
Supportive organizational climate. To measure supportive organizational climate, four items were adopted from the previous research on work characteristics (Lehto, 1991; see also Feldt et al., 2004; Mäkikangas et al., 2007). Sample items include “Our workplace is dominated by an atmosphere of openness and solidarity,” and “In difficult tasks I can call on the assistance of my co-workers.” This construct was measured on a 5-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree), where higher values indicate a supportive climate at the workplace.

Family support. Four items measured family support from the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988). Sample items include “My family really tries to help me” and “I get the emotional help and support I need from my family.” Scale items were measured on a 5-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree). Additionally, a note was included in the questionnaire “Family can be spouse, parents, siblings, etc.” to clarify the family meaning, especially for those who are single.

Self-efficacy. Self-efficacy was measured by adopting the Generalized Self-Efficacy Scale (Schwarzer & Jerusalem, 1995). The scale consists of 10 items such as “I can always manage to solve difficult problems if I try hard enough” and “I am confident that I could deal efficiently with unexpected events.” To fit the scale length with others in the survey, it was amplified to a 5-point Likert scale (1 = Not at all; 5 = Very well).

Ego-resilience. Ego resilience was evaluated using the four items Brief Resilient Coping Scale (Sinclair & Wallston, 2004). Sample items include “I look for creative ways to alter difficult situations” and “Regardless of what happens to me, I believe I can control my reaction to it.” This scale was measured on a 5-point Likert scale (1 = Not at all; 5 = Very much) was used to measure positive affect.

Positive affect. Positive affect was evaluated using the six markers of high positive affect from the Job Affect Scale (Brief et al.’s, 1988). Respondents were asked how they felt about each marker, that is, active, strong, excited, enthusiastic, peppy, and elated, in the past week. A 5-point Likert scale (1 = Not at all; 5 = Very much) was used to measure positive affect.

Employee engagement. The ISA Engagement Scale (Soane et al., 2012) was used to evaluate employee engagement. This scale comprises nine engagement items that measure three different dimensions, including intellectual engagement, social engagement, and affective engagement. Each dimension comprises three items. Sample items include “I focus hard on my work” (Intellectual engagement), “I share the same work values as my colleagues” (Social engagement), and “I feel positive about my work” (Affective engagement). A 5-point Likert scale was used to measure the employee engagement items.

Demographics
Age, marital status, and gender were included in this study. Age was coded as 1 = 20 to 25 years, 2 = 26 to 30 years, 3 = 30 to 35 years, 4 = 36 to 40 years, 5 = 41 to 45 years, 6 = 46 to 50 years, and 7 = 51 and above. Gender was coded as 0 = male and 1 = female. Marital status was measured as 1 = single, 2 = married, 3 = divorcee, and 4 = widowed.

Results
Data Screening Procedure
As missing values in data may bring misleading results so data collection for this study was designed by keeping responses for each survey question mandatory. The unattempted questions were reminded to the respondents by the survey tool. This way data was having no missing values. Additionally, outliers may cause harm to study results (Hair et al., 2010) so data were screened for any potential outlier but none of the outliers were found. Furthermore, during data screening, normal distribution was checked by conducting a normality test. The results for study variables ranged between acceptable range, that is, −1.96 and +1.96 for skewness and kurtosis thus validating the normal distribution of the study data.

Descriptive Statistics
To analyze data and explain results with meaningful information descriptive inferential statistics were used. Table 1 presents the means, standard deviations, correlations, and Cronbach’s alpha values for the study variables, that is, Gender, marital status, age, supportive organizational climate, family support, self-efficacy, ego-resilience, positive affect, and employee engagement. According to the results, self-efficacy was having the highest scale value with 4.25 while on the other end gender with 1.27 mean showed the lowest scale value.

Descriptive statistics (Table 1) show significant correlations between employee engagement and all explanatory variables, with especially high values between employee engagement and self-efficacy (.43**), ego-resilience (.50**), supportive organizational climate (.57**), and positive affect (.69**). A very strong inter-correlation was noted between self-efficacy and ego resilience (.50**) as well as between supportive organizational climate and positive affect (.44**).

Common Method Bias
To check for any possible common method bias (CMB) in the study data, Harman’s single-factor analysis was conducted. The findings showed that the variance explained by the single factor was 29.41% that is less than the cutoff suggested by Harrison et al. (1996). This evidence confirmed that study data may not have a common method bias issue (Table 2).
Parallel Mediation Model

Parallel mediation model was tested and path analysis results confirmed a good model fit ($\chi^2 = 3.07$, $p < .08$, CFI = 0.99, TLI = 0.93, RMSEA = 0.10, SRMR = 0.01). The results showed a differential relationships between resources, that is, supportive organizational climate, self-efficacy, family support, and employee engagement directly and also through the mediation of ego-resilience as well as positive affect. Supportive organizational climate proved to have direct positive relationship with employee engagement ($\beta = .18$, $SE = 0.03$, $p < .001$) while self-efficacy and family support showed non-significant relationship with employee engagement ($\beta = .14$, $SE = 0.07$, $p = .06$) and ($\beta = .02$, $SE = 0.03$, $p = .37$), respectively. According to standardized indirect effects results supportive organizational climate and self-efficacy both were significantly related to employee engagement ($SIE = 0.13$, $SE = 0.02$, $p < .001$) and ($SIE = 0.31$, $SE = 0.06$, $p < .001$), respectively, while on the other hand family support showed insignificant indirect relationship ($SIE = 0.02$, $SE = 0.01$, $p = .20$).

Figure 1 shows that path coefficients validate partially the various hypotheses. On one hand, the direct and positive relationship between supportive organizational climate and employee engagement is validated (H1a). On another hand, results show insignificant direct relationships between self-efficacy and family support with employee engagement, thus invalidating Hypotheses H2a and H3a. While path analysis indirect effect results showed a significant relationship between supportive organizational climate and employee engagement through the mediation of ego-resilience and positive affect thus validating (H1b and H1c) and also between self-efficacy and employee engagement (H2b and H2c). But the indirect relationship between family support and employee engagement through the mediation of ego-resilience as well as positive affect appeared to be insignificant thus invalidating the hypotheses H3b and H3c.

Concerning the mediating role of ego-resilience and positive affect, Preacher and Hayes’s (2008) recommendations were followed. Bias-corrected confidence intervals after bootstrapping 95% were calculated. Table 3 shows bootstrapped results for the supportive organizational climate, family support, and self-efficacy with employee engagement mediated by ego-resilience while Tables 4 and 5 shows bootstrapped results for the supportive organizational climate, family support, and self-efficacy with employee engagement mediated by positive affect. In line with the structural model, mediation results showed a significant indirect relationship of supportive organizational climate and self-efficacy with employee engagement through ego-resilience ($B = 0.12$, boot $SE = 0.03$, BC-CL [0.06, 0.19]) and ($B = 0.19$, boot $SE = 0.05$, BC-CL [0.10, 0.30]), respectively. And also supportive organizational climate and
self-efficacy is related to employee engagement through mediation of positive affect ($B=0.29$, boot $SE=0.04$, BC-CI [0.22, 0.38]) and ($B=0.25$, boot $SE=0.04$, BC-CI [0.17, 0.33]), respectively. Bootstrapped mediation also showed a significant indirect relationship between family support and employee engagement through ego-resilience ($B=0.12$, boot $SE=0.03$, BC-CI [0.06, 0.21]) as well as through positive affect ($B=0.13$, boot $SE=0.06$, BC-CI [0.02, 0.25]).

**Discussion**

The present research aimed to explore the role of motivational resources, including supportive organizational climate, self-efficacy, family support, ego-resilience, and positive affect on employee engagement among night workers. Building from COR (Hobfoll, 1989, 2001) and JDR (Bakker & Demerouti, 2014) theoretical frameworks, an alternative path has been tested, suggesting that night work may also be considered positively by workers. Specifically, this study proposed a resource-based model where employee engagement, defined by a state of cognitive and affective commitment to the job, is impacted by psychological resources. The findings of this study partially supported the hypothesized relationships.

**Theoretical Contributions**

Results of this study validate the COR and JDR based approach, as all motivational resources impacted significantly, and positively on the engagement outcome. Yet, findings also show interesting patterns that contribute to theory enrichment. Firstly, the mechanism of resources is complex. The present research thus validates a mediation model that emphasizes a differential role of resources concerning the outcome. Concretely, the results show that ego-resilience and positive affect facilitate employee engagement. In other words, such motivating factors as self-efficacy, family support, and supportive organizational support, need the psychological pool of resources to develop
and effectively contribute to a state of employee engagement. This important finding adds to previous literature on the necessity to consider differentially the role of resources, as their intrinsic motivational nature should be considered contextually (Hobfoll, 1988; Hobfoll & Walfisch, 1984; Morelli & Cunningham, 2012; Ten Brummelhuis & Bakker, 2012). In the current case, a supportive organizational climate takes the value of a resource passageway due to the specifics of the perceived supportive attitude of fellow night workers. Social bonds among night owls have indeed been found to foster sub-organizational culture, distinct from “regular” daytime work (Powell, 2013).

Secondly, the results highlight the relevance of specific resources that can make night work relatively appealing, or at least functional. For instance, and consistent with the literature, this study suggests that night work relates to a greater sense of autonomy, a perceived latitude from hierarchy, and organizational constraints that relates positively to the development of self-efficacy (Hauck et al., 2010; Stroben et al., 2016). Similarly, results suggest that ego-resiliency acts as a necessary factor for night employee engagement. Ego resiliency corresponds to an individual’s ability to adapt to continuous, often hardly predictable, environmental changes (Farkas & Orosz, 2015). This study thus suggests that, at night, greater work latitude from relaxed supervisory control liberates greater psychological flexibility to face challenging situational demands that condition feelings of employee engagement. Finally, the results confirm previous findings of the role of family support on the quality of work performance and commitment (Wayne et al., 2013). It relates to the Conservation of Resources perspective suggesting family support as a beneficial psychological resource to deal with stressful situations (Hobfoll & Spielberger, 1992). Working at night stands as potentially disruptive for social life. As for the impact of other types of nonstandard work schedules (Davis et al., 2008), the present research suggests that employee engagement of nocturnists is conditioned by previously negotiated arrangements with spouses, children, and other family members.

**Implications for Practice**

The findings of this study have many important implications for practice. Firstly, it’s evident that a supportive organizational climate has a significant impact on the engagement of night shift employees so managers should be creating such a climate at work. This may help employees to deal with stress experienced during the night shift. Employees may develop positive relationships at work in such a supportive climate and this may predict better psychological health as well as work performance (Hayat & Afshari, 2020; Luthans et al., 2008). Secondly, organizations should be providing training and necessary support to elevate an individual’s self-efficacy level. It has been widely validated as a crucial resource in predicting work outcomes (Judge et al., 2007; Klassen & Chiu, 2010) and especially based on findings of this study in making employees more engaged during night shifts. Finally, the results confirmed that family support remains crucial in determining employees’ engagement at work so managers should be avoiding frequent re-scheduling of work shifts so that employees can maintain a specific pattern of personal life. Additionally, employees must be involved when decisions are made regarding their night shift allocation so that individuals having more family support or flexible arrangements can opt for such shifts.

**Limitations**

The first limitation of the present study is its cross-sectional design. Causal relationships could not be asserted, which would have informed about dynamics of resource development and interactions. Yet, patterns of resource dynamics are deemed essential to further test COR theory (Halbesleben et al., 2014). A second issue concerns the sample. It has been collected in three different national environments, including the US, the UK, and Canada. A larger sample would allow differentiating potential cultural differences concerning the value and the impact of conditioning resources. Additionally, the relatively modest sample size also limits the current findings. More participants would have allowed further testing of hypothetical differences between occupations of diverse contents and contexts, from nurses to law enforcement professionals, hotel and food-service employees, and transport workers.

Finally, a further empirical investigation could distinguish between permanent and shift night workers. It’s proposed that more volunteers can be found among permanent night workers which, in turn, may impact the motivation process, different from those toiling under an assigned schedule.

**Conclusion**

This research explores the role of conditioning motivational resources in the context of night work. Unlike many other studies, it considers the night context as focal. Results validate a COR and JDR based perspective of the issue, while it highlights a differential impact of selected resources, including supportive organizational climate, self-efficacy, family support, ego resiliency, and positive affect on employee engagement.
Declarations of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iDS
Rahman Khan https://orcid.org/0000-0002-3539-1377
Kashif Ullah Khan https://orcid.org/0000-0002-0604-3103

References
Åkerstedt, T., Fredlund, P., Gillberg, M., & Jansson, B. (2002). A prospective study of fatal occupational accidents–relationship to sleeping difficulties and occupational factors. Journal of Sleep Research, 11(1), 69–71. https://doi.org/10.1046/j.1365-2869.2002.00287.x
Alzyoud, A. A., Othman, S. Z., & Isa, M. F. M. (2014). Examining the role of job resources on employee engagement in the academic setting. Asian Social Science, 11(3), 103. http://doi.org/10.5539/ass.v11n3p103
Arcangeli, G., Giorgi, G., Mucci, N., Bernaud, J. L., & Di Fabio, A. (2018). Editorial: Emerging and re-emerging organizational features, work transitions, and occupational risk factors: The good, the bad, the right. An interdisciplinary perspective. Frontiers in Psychology, 9, 1533. https://doi.org/10.3389/fpsyg.2018.01533
Bakker, A. B., & Demerouti, E. (2008). Towards a model of employee engagement. Career Development International, 13(3), 209–223. https://doi.org/10.1108/13620430810870476
Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P.Y. Chen & C.L. Cooper (Eds.) Work and well-being: A complete reference guide III (pp. 1–28). John Wiley.
Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD-R approach. Annual Review of Organizational Psychology and Organizational Behavior, 1, 389–411. https://doi.org/10.1146/annurev-org-psych-031413-091235
Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191
Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Prentice-Hall.
Bashshur, M. R., Hernández, A., & González-Romá, V. (2011). When managers and their teams disagree: A longitudinal look at the consequences of differences in perceptions of organizational support. Journal of Applied Psychology, 96(3), 558–573. https://doi.org/10.1037/a0022675
Bhatti, M. A., Hussain, M. S., & Al Doghan, M. A. (2018). The role of personal and job resources in boosting nurses’ employee engagement and performance. Global Business and Organizational Excellence, 37(2), 32–40. https://doi.org/10.1002/joe.21840
Block, J. (2002). Personality as an affect-processing system: Toward an integrative theory. Erlbaum.
Brief, A. P., Burke, M. J., George, J. M., Robinson, B. S., & Webster, J. (1988). Should negative affectivity remain an unmeasured variable in the study of job stress? Journal of Applied Psychology, 73, 193–198. https://doi.org/10.1037/0021-9010.73.2.193
Contreras, F., Espinosa, J. C., & Esguerra, G. A. (2020). Could personal resources influence work engagement and burnout? A study in a group of nursing staff. SAGE Open, 10(1). https://doi.org/10.1177/2158244019900563
Cooke, F. L., Cooper, B., Bartram, T., Wang, J., & Mei, H. (2019). Mapping the relationships between high-performance work systems, employee resilience and engagement: A study of the banking industry in China. The International Journal of Human Resource Management, 30(8), 1239–1260. https://doi.org/10.1080/09585192.2015.1137618
Costa, G. (2008). Sonno e orari di lavoro. Giornale Italiano di Medicina del Lavoro ed Ergonomia, 30(3), 280–282.
Costa, G., Micciolo, R., Bertoldi, L., & Tommasini, M. (1990). Absenteeism among female and male nurses on day and shift-work. Shiftwork: Health, sleep and performance. Peter Lang.
Davis, K. D., Benjamin Goodman, W., Pirretti, A. E., & Almeida, D. M. (2008). Nonstandard work schedules, perceived family well-being, and daily stressors. Journal of Marriage and Family, 70(4), 991–1003. https://doi.org/10.1111/j.1741-3737.2008.00541.x
Delahajj, R., & Van Dam, K. (2017). Coping with acute stress in the military: The influence of coping style, coping self-efficacy and appraisal emotions. Personality and Individual Differences, 119, 13–18. https://doi.org/10.1016/j.paid.2017.06.021
D’Emiljo, A., & Du Preez, R. (2017). Job demands and resources as antecedents of work engagement: A diagnostic survey of nursing practitioners. Africa Journal of Nursing and Midwifery, 19(1), 69–87.
Farkas, D., & Orosz, G. (2015). Ego-resiliency reloaded: A three-component model of general resiliency. PLoS One, 10(3), e0120883. https://doi.org/10.1371/journal.pone.0120883
Feldt, T., Kimmunen, U., & Mauno, S. (2000). A mediational model of sense of coherence in the work context: A one-year follow-up study. Journal of Organizational Behavior, 21(4), 461–476. https://doi.org/10.1002/(SICI)1099-1379(20000621)21:4<461:AID-JOB11>3.0.CO;2-T
Feldt, T., Kivimäki, M., Ranta, A., & Tolvonen, A. (2004). Sense of coherence and work characteristics: A cross-legged structural equation model among managers. Journal of Occupational and Organizational Psychology, 77(3), 323–342. https://doi.org/10.1348/0963179041752655
Ferreira, A. I., Cardoso, C., & Braun, T. (2018). The mediating effects of ego-resilience in the relationship between organizational support and resistance to change. Baltic Journal of Management, 13(1), 104–124.
Fodor, O. C., & Pintea, S. (2017). The “emotional side” of entrepreneurship: A meta-analysis of the relation between positive and negative affect and entrepreneurial performance. Frontiers in Psychology, 8, 310. https://doi.org/10.3389/fpsyg.2017.00310
Fredrickson, B. L. (1998). What good are positive emotions?. Review of General Psychology, 2(3), 300–319. https://doi.org/10.1037/1089-2680.2.3.300
Freeney, Y. M., & Tiernan, J. (2009). Exploration of the facilitators of and barriers to employee engagement in nursing. International Journal of Nursing Studies, 46(12), 1557–1565. https://doi.org/10.1016/j.ijnurstu.2009.05.003
Garbarino, S. (2006). Lavoro notturno. Impatto sulla salute e sulla sicurezza nell’ambiente di lavoro. Giornale Italiano di Medicina del Lavoro ed Ergonomia, 28(1), 89.
Hayat, A., & Afshari, L. (2017). Employee intrapreneurship and work engagement: A latent change score approach. *Journal of Vocational Behavior, 100*, 88–100. https://doi.org/10.1016/j.jvb.2017.03.002

Gilmore, B., Chaboyer, W., & Wallis, M. (2007). Development of a theoretically derived model of resilience through concept analysis. *Contemporary Nurse, 25*(1–2), 124–135. https://doi.org/10.5172/conu.2007.25.1-2

Gold, D. R., Rogacz, S., Bock, N., Tosteson, T. D., Baum, T. M., Speizer, F. E., & Czeisler, C. A. (1992). Rotating shift work, sleep, and accidents related to sleepiness in hospital nurses. *American Journal of Public Health, 82*(7), 1011–1014. https://doi.org/10.2105/ajph.82.7.1011

Golden, L. (2015). *Irregular work scheduling and its consequences* (EPI Briefing Paper 394). EPI.

Hair, J. F., Jr., Black, J. W., Babin, B. J., & Anderson, E. R. (2010). *Multivariate data analysis* (7th ed., pp.1–758). Pearson Education Limited.

Halbesleben, J. R. (2010). A meta-analysis of employee engagement: Relationships with burnout, demands, resources, and consequences. In A. B. Bakker & M. P. Leiter (Ed.), *Employee engagement: A handbook of essential theory and research* (Vol. 8, pp. 102–117). Psychology Press.

Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the “COR” understanding the role of resources in conservation of resources theory. *Journal of management, 40*(5), 1334–1364. https://doi.org/10.1177/0149206314527130

Harrison, D. A., McLaughlin, M. E., & Coalter, T. M. (1996). Context, cognition, and common method variance: Psychometric and verbal protocol evidence. *Organizational Behavior and Human Decision Processes, 68*, 246–261. https://doi.org/10.1006/obhd.1996.0103

Hatlevik, O. E., Thronsden, I., Loi, M., & Gudmundsdottir, G. B. (2018). Students’ ICT self-efficacy and computer and information literacy: Determinants and relationships. *Computers & Education, 118*, 107–119. https://doi.org/10.1016/j.compedu.2017.11.011

Hauk, R. V., Thatcher, S. M., & Weisband, S. P. (2010). Temporal aspects of information technology use: Increasing shift work effectiveness. *International Journal of Information Systems in the Service Sector, 2*(2), 1–18. https://doi.org/10.4018/jiss.2010040101

Hayat, A., & Afshari, L. (2020). Supportive organizational climate: A moderated mediation model of workplace bullying and employee well-being. *Personnel Review, 50*(7/8), 1685–1704. https://doi.org/10.1177/0048348620913336

Hobfoll, S. E. (1988). *The ecology of stress*. Taylor & Francis.

Hobfoll, S. E. (1992). Family stress: Integrating theory and measurement. *Journal of Family Psychology, 6*(2), 99. https://doi.org/10.1037/0893-3200.6.2.99

Hobfoll, S. E., Stevens, N. R., & Zalta, A. K. (2015). Expanding the science of resilience: Conserving resources in the aid of adaptation. *Psychological Inquiry, 26*(2), 174–180. https://doi.org/10.1080/1047840X.2015.1002377

Hobfoll, S. E., & Stokes, J. P. (1988). The process and mechanics of social support. In S. Duck, D. F. Hay, S. E. Hobfoll, W. Ickes, & B. M. Montgomery (Eds.), *Handbook of personal relationships: Theory, research and interventions* (pp. 497–517). John Wiley & Sons.

Hobfoll, S. E., & Walfisch, S. (1984). Coping with a threat to life: A longitudinal study of self-concept, social support, and psychological distress. *American Journal of Community Psychology, 12*(1), 87–100. https://doi.org/10.1007/BF00896930

Howard, S., Dryden, J., & Johnson, B. (1999). Childhood resilience: Review and critique of literature. *Oxford review of education, 25*(3), 307–323. https://doi.org/10.1080/030549899104008

Judge, T. A., Jackson, C. L., Shaw, J. C., Scott, B. A., & Rich, B. L. (2007). Self-efficacy and work-related performance: The integral role of individual differences. *Journal of Applied Psychology, 92*(1), 107. https://doi.org/10.1037/0021-9010.92.1.107

Karatepe, O. M. (2015). The effects of family support and work engagement on organizationally valued job outcomes. *Tourism: An International Interdisciplinary Journal, 63*(4), 447–464.

Kevill, A., Trehan, K., & Easterby-Smith, M. (2017). Perceiving ‘capability’ within dynamic capabilities: The role of owner-manager self-efficacy. *International Small Business Journal, 35*(8), 883–902. https://doi.org/10.1177/0266242616688523

Khan, S., Duan, P., Yao, L., & Hou, H. (2018). Shiftwork mediated disruptions of circadian rhythms and sleep homeostasis cause serious health problems. *International Journal of Genomics, 2018*(4), 1–11. https://doi.org/10.1155/2018/8576890

King, R. A. (2010). *Night shift diary*. Dorrrance.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers’ self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology, 102*(3), 741.

Knight, A. P., & Eisenkraft, N. (2015). Positive is usually good, negative is not always bad: The effects of group affect on social integration and task performance. *Journal of Applied Psychology, 100*(4), 1214. https://doi.org/10.1037/apl0000006

Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management, 43*(6), 1854–1884. https://doi.org/10.1177/0149206315575554

Kwok, S. Y., Cheng, L., & Wong, D. F. (2015). Family emotional support, positive psychological capital and job satisfaction among Chinese white-collar workers. *Journal of Happiness Studies, 16*(3), 561–582. https://doi.org/10.1007/s10902-014-9522-7

Laguna, M., Razmus, W., & Żaliński, A. (2017). Dynamic relationships between personal resources and employee engagement in entrepreneurs. *Journal of Occupational and Organizational Psychology, 90*(2), 248–269. https://doi.org/10.1111/joop.12170

Lee, A. Y. P., Chen, I. H., & Chang, P. C. (2016). Sense of calling in the workplace: The moderating effect of supportive organizational climate in Taiwanese organizations. *Journal of Management & Organization, 24*(1), 129–144. https://doi.org/10.1017/jmo.2016.16

Lee, M. A., Cho, H. J., Ahn, S. H., & Kim, H. J. (2015). Perceptions on fixed night shift system and turnover intention of general hospital
nurses. *Journal of Korean Academy of Nursing Administration*, 21(5), 519–529. https://doi.org/10.1111/jkana.2015.21.5.519

Lehto, A.-M. (1991). *Quality and equality in working life. Appendix of the committee on working conditions* (Research report 39). Statistics Centre of Finland (in Finnish).

Lettzing, T. D., Block, J., & Funder, D. C. (2005). Ego-control and ego-resiliency: Generalization of self-report scales based on personality descriptions from acquaintances, clinicians, and the self. *Journal of Research in Personality*, 39(4), 395–422. https://doi.org/10.1016/j.jrp.2004.06.003

Litke, K., Blanch-Hartigan, D., Lin, C. C., & Han, X. (2017). Correlates of the positive psychological byproducts of cancer: Role of family caregivers and informational support. *Palliative & Supportive Care, 15*(6), 693–703. https://doi.org/10.1017/S1478951517000050

Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate—employee performance relationship. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 29*(2), 219–238. https://doi.org/10.1002/job.507

Mäkikangas, A., Feldt, T., & Kinnunen, U. (2007). Warr’s scale of job-related affective well-being: A longitudinal examination of its structure and relationships with work characteristics. *Work & Stress, 21*, 197–219. https://doi.org/10.1080/02678370701662151

Mäkikangas, A., Schaufeli, W., Leskinen, E., Kinnunen, U., Hyvönen, K., & Feldt, T. (2016). Long-term development of employee well-being: A latent transition approach. *Journal of Happiness Studies*, 17(6), 2325–2345. https://doi.org/10.1007/s10902-015-9696-7

Malik, P., & Garg, P. (2017). Learning organization and employee engagement: The mediating role of employee resilience. *The International Journal of Human Resource Management, 31*(8), 1071–1094. https://doi.org/10.1080/09585192.2017.1396549

Martins, D., Amaro, S., & Silva, S. (2021). The importance of shift work: The hospitality sector. *Journal of Tourism & Development*, 29(3), 233–243. https://doi.org/10.34624/jtvd.vi3.s16.10847

Morelli, N. A., & Cunningham, C. J. (2012). Not all resources owned enterprises: The mediating effect of family-to-work enrichment. *Estudos de Psicologia (Campinas)*, 33(4), 747–755. https://doi.org/10.1590/1982-0275201600400017

Perez, J. F., Traversini, V., Fioriti, M., Taddei, G., Montalti, M., & Tommasi, E. (2019). Shift and night work management in European companies. *Calitatea, 20*(169), 157–165.

Powell, I. (2013). Can you see me? Experiences of nurses working night shift in Australian regional hospitals: a qualitative case study. *Journal of Advanced Nursing, 69*(10), 2172–2184. https://doi.org/10.1111/jan.12079

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879–891. https://doi.org/10.3758/BRM.40.3.879

Price, M. (2011). The risks of night work. *Monitor on Psychology*, 42(1), 38–41.

Rathunde, K. (2001). Family context and the development of undivided interest: A longitudinal study of family support and challenge and adolescents’ quality of experience. *Applied Developmental Science, 5*(3), 158–171. https://doi.org/10.1207/S1532480XADS05034

Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: the contribution of perceived organizational support. *Journal of Applied Psychology, 86*(5), 825. https://doi.org/10.1037/0021-9010.86.5.825

Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, employee engagement, and sickness absenteeism. *Journal of Organizational Behavior, 30*(7), 893–917. https://doi.org/10.1002/job.595

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3*(1), 71–92. https://doi.org/10.1023/A:1015639030326

Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user’s portfolio. Causal and control beliefs* (pp. 35–37). NFER-NELSON.

Schyns, B., van Veldhoven, M., & Wood, S. (2009). Organizational climate, relative psychological climate and job satisfaction: The example of supportive leadership climate. *Leadership & Organization Development Journal, 30*(7), 649–663. https://doi.org/10.1108/01437730910991664

Seo, M. G., Barrett, L. F., & Bartunek, J. M. (2004). The role of affective experience in work motivation. *Academy of Management Review, 29*(3), 423–439. https://doi.org/10.5465/amar.2004.13670972

Shen, J., & Dicker, B. (2008). The impacts of shiftwork on employees. *The International Journal of Human Resource Management, 19*(2), 392–405. https://doi.org/10.1080/09585190701799978

Sieg, P., & Minola, T. (2017). The family’s financial support as a “Poisoned gift”: A family embeddedness perspective on entrepreneurial intentions. *Journal of Small Business Management, 55*, 179–204. https://doi.org/10.1111/jsbm.12273

Sinclair, V. G., & Wallston, K. A. (2004). The developmen of Managerial Psychology, 36(2), 163–176. https://doi.org/10.1002/job.507

Soane, E., Truss, C., Alves, K., Shantz, A., Rees, C., & Gatenby, M. (2012). Development and application of a new measure of employee engagement: The ISA Engagement Scale. *Human Resource Development International, 15*, 529–547. https://doi.org/10.1080/13678868.2012.726542

Stroben, F., Schröder, T., Dannenberg, K. A., Thomas, A., Exadaktylos, A., & Hautz, W. E. (2016). A simulated night shift in the emergency room increases students’ self-efficacy independent of role taking over during simulation. *BMC
Sagiel, M., Kasidel, E., Makowiec-Dąbrowska, T., & Kaleta, D. (2020). Night shift work: A risk factor for breast cancer. *International Journal of Environmental Research and Public Health, 17*(2), 659. https://doi.org/10.3390/ijerph17020659

Ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work–home interface: The work–home resources model. *American Psychologist, 67*(7), 545–556. https://doi.org/10.1037/a0027974

Van Wijhe, C., Peeters, M., Schaufeli, W., & Van den Hout, M. (2011). Understanding workaholism and employee engagement: The role of mood and stop rules. *Career Development International, 16*(3), 254–270. https://doi.org/10.1108/13620431111140156

Vicente-Herrero, M. T, Alberich, J. I. T, García, L. C., Gómez, J. I., García, M. J. T., Garrido, J. A., & Buedo, V. E. (2016). Night work and occupational health. *Revista Española de Medicina Legal, 42*(4), 142–154. https://doi.org/10.1016/j.reml.2016.01.001

Waggoner, L. B., Grant, D. A., Van Dongen, H. P., Belenky, G., & Vila, B. (2012). A combined field and laboratory design for assessing the impact of night shift work on police officer operational performance. *Sleep, 35*(11), 1575–1577. https://doi.org/10.5665/sleep.2214

Wang, Z., Li, C., & Li, X. (2017). Resilience, leadership and work engagement: The mediating role of positive affect. *Social Indicators Research, 132*(2), 699–708. https://doi.org/10.1007/s11205-016-1306-5

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063.

Wayne, J. H., Casper, W. J., Matthews, R. A., & Allen, T. D. (2013). Family-supportive organization perceptions and organizational commitment: The mediating role of work–family conflict and enrichment and partner attitudes. *Journal of Applied Psychology, 98*(4), 606–622. https://doi.org/10.1037/a0032491

Woodall, J., & Kinsella, K. (2017). Playwork in prison as a mechanism to support family health and well-being. *Health Education Journal, 76*(7), 842–852. https://doi.org/10.1177/0017896917716204

Yan, Y., Zhang, J., Akhtar, M. N., & Liang, S. (2021). Positive leadership and employee engagement: The roles of state positive affect and individualism-collectivism. *Current Psychology.* Advance online publication. https://doi.org/10.1007/s12144-021-02192-7

Zeng, G., Hou, H., & Peng, K. (2016). Effect of growth mindset on school engagement and psychological well-being of Chinese primary and middle school students: The mediating role of resilience. *Frontiers in Psychology, 7*, 1873. https://doi.org/10.3389/fpsyg.2016.01873

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment, 52*(1), 30–41. https://doi.org/10.1207/s15327752jpa52012