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**Exhaustion while teleworking during COVID-19:
a moderated-mediation model of role clarity,
self-efficacy, and task interdependence**

JEL Classification: D23; J81

Keywords: teleworking during COVID-19; emotional exhaustion; role clarity; task interdependence; work overload

Abstract

Research background: The global COVID-19 pandemic created an unprecedented challenge not only for employees' well-being, but also for the nature of their work, as teleworking became the norm for many of them almost overnight. Thus, there is a need to a more fine-grained understanding of the specific job demands experienced while teleworking during COVID-19, and the specific resources that mitigate the detrimental effects of demands and help employees to adopt resilient responses during and beyond COVID-19.

Purpose of the article: Drawing upon the job demands-resources model, the present study aims at investigating the link between work overload (a job demand) and employee well-being (i.e., burnout), considering role clarity (a job resource) as a mediator, and task interdependence and self-efficacy as two potential boundary conditions.

Methods: In order to examine the link between work overload, role clarity and emotional exhaustion moderated by task interdependence and self-efficacy, we used survey data from 701 Romanian employees at a large information technology company, who worked from home during COVID-19. We employed regression-based path analysis to examine the hypothesized relations.

Findings & value added: The results reveal that role clarity partially mediates the relation between work overload and emotional exhaustion while teleworking during COVID-19. Moreover, the results from the moderated mediation analysis show that role clarity, self-efficacy, and task interdependence interact in their effects on emotional exhaustion. This study has important theoretical and managerial implications for employee well-being that go beyond the pandemic. As this study shows, when high levels of workload and task interdependence cannot be avoided, employees' personal (self-efficacy) and job (role clarity) resources might be particularly useful to reduce their exhaustion while teleworking. Based on these results, managers can design better jobs for remote workers and more flexible work arrangements in the future.

Introduction

The unprecedented outbreak of COVID-19, which brought not only a health crisis, but also an international economic threat (Kniffin *et al.*, 2020; Kufel, 2020; Korzeb & Niedziółka, 2020; Ingusci *et al.*, 2021; Zinecker *et al.*, 2021) has required many of employees to work from home, regardless of their preferences, abilities, and the type of work (Rigotti *et al.*, 2021; Wang *et al.*, 2021). Thus, working from home or *teleworking* (known also as remote work, telecommuting) that was previously practiced occasionally by a few employees (Allen *et al.*, 2015; Dima *et al.*, 2019), has become the new norm for many of them (Bolisani *et al.*, 2020). This meant that many employees found themselves suddenly working from home with little choice or training (Kniffin *et al.*, 2020). The sudden and unexpected shift to a mandatory mass teleworking was challenging for many employees and organizations, even for those with prior telework experience (Chong *et al.*, 2020; Rudolph *et al.*, 2020).

Besides being forced to work from home, many employees also experienced increased family demands due to the closure of schools and childcare facilities (Kniffin *et al.*, 2020). For many of them, mandatory mass teleworking has blurred boundaries between their personal and work life (Ru-

dolph *et al.*, 2020). Some employees had to contend with pay cuts, unpaid leave or job loss (Ojo *et al.*, 2021), which increased uncertainty vis-à-vis job and financial security (Britt *et al.*, 2020; Rudolph *et al.*, 2020). Employees likewise faced challenges in the way their work was organized, that is, they experienced elevated workload (e.g., Wang *et al.*, 2021) and unclear job instructions (i.e., high role ambiguity; Rigotti *et al.*, 2021; Rudolph *et al.*, 2020). All these challenges that employees had to face during the pandemic caused high strain levels, such as burnout (Britt *et al.*, 2020; Brown, 2020; Segers, 2020) and varying mental disorders such as anxiety, post-traumatic stress, depression (Carey *et al.*, 2020; González-Sanguino *et al.*, 2020; Moore & Kolencik, 2020; Rigotti *et al.*, 2021).

At the same time, sudden transition to mandatory teleworking made it difficult for the organizations to prepare well-planned telework policies and managerial practices to support employees to cope with the challenges imposed by COVID-19 (Errichiello & Pianese, 2021). When organizations provide insufficient support or resources, especially when individual ability to cope with changes in the environment (i.e., resilience) is low, there is a higher probability that employees' cognitive and affective functioning will be impaired while teleworking during COVID-19 (Kuntz, 2021). This suggests that organisations may foster employees' resilience by managing risk factors (i.e., factors with detrimental effects on well-being, so-called job stressors or demands) and by developing resources, that is, factors that protect well-being (Rigotti *et al.*, 2021). Resilience in the workplace has been conceptualized in many ways, for example, as a protective factor associated to certain personal attributes, which allows individuals to restore their well-being after being exposed to a crisis, or as a cognitive-emotional process of adaptation to acute stressors by using personal, social and contextual resources (see Kuntz, 2021). Certainly, the COVID-19 pandemic presents several daunting challenges. However, it also presents various opportunities, especially considering the resources that organizations can provide to support teleworkers' well-being and their work performance (Rudolph *et al.*, 2020).

Although studies have begun to identify the individual and organizational factors that support employees to adopt resilient responses during the COVID-19 crisis (e.g., Heath *et al.*, 2020; Kuntz, 2021; Ojo *et al.*, 2021), much research is needed to identify resilience-promoting factors that may diminish the negative impact of stressors and help to build a resilience capacity. For example, in her qualitative study, Kuntz (2021) highlighted both individual factors (e.g., personality traits and personal resources such as self-efficacy) and organizational-level factors (e.g., managerial support, role clarity, supportive communication, ongoing feedback) that help em-

ployees to deal with the pandemic-related job stressors (e.g., work overload, job complexity) and to maintain their psychological well-being during COVID-19. It is important that research pinpoints how organizational, social, and personal factors interact to determine employees' well-being during the COVID-19 pandemic in general, and with regard to the teleworking context in particular.

The current study addressed this gap by investigating the relationship between work overload, which has been acknowledged as a key pandemic job stressor (Wang *et al.*, 2021) and employee well-being (i.e., burnout), considering role clarity as a mediator in this relationship, and task interdependence and self-efficacy as two potential boundary conditions. The job demands-resources (JD-R) model (Bakker & Demerouti, 2017) and the assumptions of conservation of resources (COR) theory (Hobfoll, 1989) were used to investigate the relationship between these contextual and individual factors in predicting burnout among IT professionals who worked from home during COVID-19. No previous studies, to our knowledge, have investigated the mediating and moderating roles of these factors in the work overload-burnout relationship. We focused on task interdependence, because this work-related stressor has previously been found to have a moderating effect on the link between COVID-19 stressors (e.g., daily COVID-19 task setbacks) and emotional exhaustion, which is acknowledged as a core dimension of burnout (e.g., Chong *et al.*, 2020). Moreover, self-efficacy appears to be a vital personal resource for employees during the COVID-19 outbreak, because self-confidence in the ability to successfully perform (Bandura, 1997) has been related to lower levels of job-related stress (Britt *et al.*, 2020).

Investigating the interaction effects of task interdependence and self-efficacy on the link between work overload, role clarity, and burnout sheds important insights on the degree to which personal resources such as self-efficacy may lessen the detrimental effects of job stressors (e.g., work overload), given that it might not be feasible to reduce these stressors during a pandemic (Rudolph *et al.*, 2020).

This study also expands previous research on teleworking during COVID-19 in developing countries (see Wang *et al.*, 2021) by including data from information technology (IT) professionals at a large company in Romania, a country with low telework rates before the pandemic (Mihalca, Ratiu *et al.*, submitted). To analyze the data, we first conducted confirmatory factor analyses (CFAs) to check for the measurement model and common method variance, and then we employed path analysis (i.e., conditional process analysis; Hayes, 2018) using PROCESS macro for SPSS.

The remainder of this study is divided into six different sections. In the first section, Theoretical framework, the relevant theoretical approaches for the development of our hypotheses are described. In the Methodology section, the measures and the procedure used during data collection were detailed. The Data analysis section reports the statistical analyses conducted to check for the measurement model and common method variance. The next two sections contain the results and the discussion of these results in relation to previous research. In the last section, Conclusions, the theoretical and practical implications of the study, as well as the limitations and avenues for future research, are presented.

Theoretical framework and hypotheses development

Job demands-resources (JD-R) model

The JD-R model (e.g., Bakker *et al.*, 2003; Demerouti *et al.*, 2001) represents an extensively-used theoretical framework, which addresses the specific set of factors associated with employees' well-being (e.g., employee burnout, job strain), namely job demands or stressors and job resources. In what regards job demands, as stated by the JD-R model, they represent organizational psycho-social aspects of work that require extended mental and emotional effort and that are related to different psychological costs (e.g., burnout; Bakker *et al.*, 2005). Work overload, increased work pressure, and role ambiguity are examples of job demands. On the contrary, job resources represent aspects of work that facilitate the attainment of work goals, as well as employees' growth and development. Job resources can diminish job demands and their related psychological effects (e.g., Bakker & Demerouti, 2017). However, job resources are not only necessary to cope with stressors, but also used to obtain other important resources (Bakker & Demerouti, 2014). Resources can be positioned at different levels, that is, organization level (e.g., job security), level of social relations (e.g., colleagues and supervisor support), level of work organization (e.g., role clarity), and level of task (e.g., skill variety; Bakker *et al.*, 2004). Since job demands impede the activation of resources, there is a negative relationship between the two (Bakker *et al.*, 2004; Demerouti *et al.*, 2001).

Within the JD-R model, job demands are stated as triggers for the health damage process, whereas job resources are stated as triggers for the motivational process (e.g., Bakker & Demerouti, 2014). In particular, job demands are the most predictive factors for burnout and psychosomatic health problems (e.g., chronic fatigue, sleep disorders) as they deplete individual ener-

getic resources. Job resources contribute to fulfilling individuals' psychological needs (i.e., autonomy, relatedness, and competence; Ryan & Deci, 2000), and consequently increase their work engagement (Bakker *et al.*, 2004; Bakker *et al.*, 2005). Numerous studies have revealed a link between high job demands and/or the lack of job resources and employee burnout (see Alarcon, 2011; Lee & Ashforth, 1996, for meta-analyses). In both meta-analyses, job demands (e.g., role ambiguity, work overload) were found to correlate stronger with emotional exhaustion (i.e., the core aspect of burnout; Schaufeli & Vandierendonck, 1993) than job resources (e.g., autonomy, control). This suggests that employees are more sensitive to resource losses (Lee & Ashforth, 1996). This finding supports the assumptions of COR theory that job demands have a greater effect on stress than job resources (i.e., primacy of loss hypothesis; Hobfoll, 1989).

Moreover, within the JD-R model an interaction effect of job demands and resources on employee well-being (e.g., job stress, burnout; Bakker & Demerouti, 2007) has been stated. In particular, resources have been proposed to diminish the detrimental effects of job demands on job-related stress and burnout. There is an increasing number of studies supporting the interaction or buffering effect of various job resources on job-related stress (see Bakker & Demerouti, 2014). In general, employees who have many resources available have been found to deal better with job demands (Bakker *et al.*, 2005).

One of the major extensions of the JD-R model is the addition of personal resources (see Xanthopoulou *et al.*, 2007), which represent individuals' perceptions of their own capability to successfully control and influence environment (Xanthopoulou *et al.*, 2009). It has been reported that personal resources are strongly associated with varying aspects of psychological well-being (e.g., general job satisfaction) and other desirable outcomes (e.g., motivation, work performance). This is because higher personal resources promote a more positive self-perception, and thus, a better accordance between individuals' set goals and their abilities (Xanthopoulou *et al.*, 2007, 2009). For example, Xanthopoulou *et al.* (2007) examined the moderating and mediating effect of self-efficacy beliefs, optimism, and organizational self-esteem on employee exhaustion and work engagement. The authors did not find a moderating effect of these personal resources on the link between job demands and employee burnout. However, they demonstrated that these personal resources mediate the link between job resources and emotional exhaustion, which suggests that job resources are important aspects in preventing exhaustion because they activate employees' personal resources. The authors concluded that personal resources help individuals to have more positive appraisals of stress situations.

Drawing on these theoretical assertions and empirical findings, the current study aimed at investigating the moderating role of self-efficacy in the indirect effect of work overload (job demand) on burnout (i.e., emotional exhaustion) via role clarity. In addition, the present study examined the moderating effect of task interdependence (job demand) on the link between role clarity (job resource) and burnout, as predicted by work overload.

Work overload-burnout relationship

As already mentioned, the dependent variable in this study is burnout, which is defined as a state of exhaustion that can be emotional, mental, and physical, and that is caused by an extended period of stress (Maslach *et al.*, 2001). Burnout has been conceptualized as a construct with three dimensions, that is, emotional exhaustion, cynicism or depersonalization, and inefficacy or reduced personal accomplishment (e.g., Maslach *et al.*, 2001; see also Halbesleben & Buckley, 2004).

Emotional exhaustion represents a perception of excessive fatigue, which is determined by continuing exposure to job demands (Bakker *et al.*, 2008). Employees who feel emotionally exhausted generally perceive that they do not possess the needed resources to perform their work (i.e., a depletion of resources; Halbesleben & Buckley, 2004). Depersonalization describes a callous or detached attitude toward the work itself or the coworkers, whereas reduced personal accomplishment represents a diminished perception of ability on the job or lack of work performance (Maslach *et al.*, 2001; see also Bakker *et al.*, 2008). Burnout has been extensively studied as an outcome of job-related stress (Maslach *et al.*, 2001), which is understandable given its negative consequences for both individuals and organizations (for a review, see Cordes & Dougherty, 1993). For example, at the individual level, burnout has been related to several mental and psychosomatic disorders such as psychological distress, depression, irritability, anxiety, fatigue, insomnia, headaches (e.g., Halbesleben & Buckley, 2004). At the organization level, it has been consistently related to negative attitudes towards work (e.g., low levels of satisfaction at job) and work-related outcomes (e.g., reduced productivity, absenteeism, personal turnover; Schaufeli & Enzmann, 1998). Research has also revealed that emotional exhaustion is more strongly connected to work outcomes, such as personal turnover and absenteeism (e.g., Lee & Ashforth, 1996) than the other burnout dimensions, which indicates the central role of this dimension in the burnout process (Bakker, 2008).

Much of the research on the predictors of burnout has examined the situational stressors (i.e., job demands) as the proximal factors of burnout (Halbesleben & Buckley, 2004). For example, meta-analyses by Lee and Ashforth (1996) and Alarcon (2011) have revealed that among the job demands, work overload and role ambiguity were the most important predictive factors of burnout, and particularly of emotional exhaustion.

Work overload has been consistently found as a significant predictor of burnout (e.g., Cordes & Dougherty, 1993; Ilies *et al.*, 2010). Work overload reflects the amount and difficulties of work and was operationalized as the amount of work and conflicting demands (Karasek, 1990; Spector & Jex, 1998), which are associated with lack of mental and physical capacities to meet the demands (Bakker *et al.*, 2005). Based on the JD-R model, when work overload is high, individuals need to exert additional effort to successfully accomplish their work tasks. The greater the effort exerted, the higher the psychological effects such as fatigue and annoyance. The long-term effect of work overload and its associated psychological costs are the depletion of individuals' resources and the state of exhaustion (Demerouti *et al.*, 2001). Research has shown that subjectively-perceived work overload is among the key predictors of emotional exhaustion (e.g., Moore, 2000), and is also an important antecedent of affective disorders (e.g., affective distress; Ilies *et al.*, 2010).

Work overload has been found to be a key challenge of teleworking during COVID-19 (Wang *et al.*, 2021). Given the challenges imposed by this type of teleworking, we expect that perceived work overload will be a stressful job demand for teleworkers, with adverse effects on their exhaustion.

Hypothesis 1. Work overload will be positively correlated to emotional exhaustion while teleworking during COVID-19.

Role clarity as a mediator in the work overload-burnout relationship

Role clarity and its opposite (role ambiguity) are important aspects of occupational stress, and thus have been explored in many studies (Alarcon, 2011; Bliese & Castro, 2000; Lang *et al.*, 2007; Lee & Ashforth, 1996). Role clarity represents the extent to which employees believe that they receive clear and precise information about their work roles and behaviors (Rizzo *et al.*, 1970). This means that employees are aware of their responsibilities and roles within the organization and understand what is expected of them from their supervisors or organizations (Vullingsh *et al.*, 2018).

Role ambiguity or lack of role clarity has been consistently associated to various aspects of strain (e.g., burnout, well-being, depression; Lang *et al.*, 2007). Employees tend to invest additional resources (e.g., time, effort) to seek out information when they perceive that there are significant information shortages with regard to what is expected of them (De Clercq, 2019), which can cause a depletion of resources when job demands (e.g., work overload) are high (Rubino *et al.*, 2009). This leads to an imbalance between demands and resources, which finally increases burnout (Bakker *et al.*, 2004).

We argue that role clarity is of particular importance in the context of teleworking, where there is a higher need for clearly-defined duties and tasks due to the physical separation between employees (cf. Caillier, 2014). Almost 30% of the employees interviewed during the early months of COVID-19 in a qualitative study conducted by Kuntz (2021) mentioned the importance of role clarity for their well-being and for their ability to cope with pandemic-related stressors. Thus, we predict that teleworkers' emotional exhaustion in the context of teleworking during COVID-19 will be higher to the extent that lower role clarity is experienced due to the depletion of resources. Furthermore, we expect that the uncertainty-reducing effects of role clarity will mediate the work overload-emotional exhaustion relationship.

Hypothesis 2. Role clarity will be negatively associated with emotional exhaustion while teleworking during COVID-19.

Hypothesis 3. Role clarity will mediate the link between work overload and emotional exhaustion while teleworking during COVID-19.

Task interdependence as a moderator in the link between role clarity and burnout

Task interdependence is a central concept in the research of organizational design (Raveendran *et al.*, 2020) concerning individuals as well as teams (Van der Vegt *et al.*, 2006). It is defined as the degree to which employees need support and information from their coworkers to effectively accomplish their job-prescribed duties (Van der Vegt *et al.*, 2003).

Under the conditions of high task interdependence, employees depend on and interact frequently with their colleagues in order to successfully accomplish their work goals (Chong *et al.*, 2020; Welbourne & Sariol, 2017). Thus, in the context of high task interdependence, employees need to adjust their own behavior and work rhythm to those of their coworkers,

which increases feelings of limited autonomy and control over their work (Dust & Tims, 2020), and as a consequence it may cause frustration and stress (Golden & Veiga, 2005; Wong *et al.*, 2007). In addition, task interdependence has been shown to moderate the association between job stressors and strain (e.g., Aubé *et al.*, 2009; Welbourne & Sariol, 2017). For example, Welbourne and Sariol (2017) demonstrated that task interdependence moderates the link between interpersonal stressors (i.e., incivility or negative behaviors such as ignoring or excluding coworkers, addressing a coworker unprofessionally) and counterproductive work behavior. In a similar way, Aubé *et al.* (2009) demonstrated the moderating effect of task interdependence in the link between counterproductive behaviors and employee well-being. In both studies, high task interdependence amplified the detrimental impact of the job stressors on psychological well-being.

In the study by Chong *et al.* (2020), task interdependence moderated the relationship between COVID-19 task setbacks (e.g., task-related disruptions and difficulties imposed by COVID-19) and emotional exhaustion. More specifically, the association between task setbacks imposed by COVID-19 and emotional exhaustion was stronger for teleworkers who had higher (compared to lower) task interdependence.

Drawing upon existing research, we argue that in the context of teleworking during COVID-19, the negative impact of work overload on emotional exhaustion is stronger in the case of high task interdependence. This is because under the conditions of high task interdependence, employees are requested to not only invest resources into dealing with the work overload, which represents one of the key challenges of teleworking during COVID-19 (Wang *et al.*, 2021), but to invest resources to communicate and coordinate their efforts with coworkers in order to successfully perform their job tasks (cf. Chong *et al.*, 2020). We also expect that emotional exhaustion will decrease when teleworkers with high task interdependence receive the needed resources (i.e., role clarity) for coping with work overload.

Hypothesis 4. Task interdependence will moderate the link between role clarity and emotional exhaustion such that the higher the task interdependence, the stronger the negative association between role clarity and emotional exhaustion while teleworking during COVID-19.

Self-efficacy as a moderator in the link between role clarity and burnout

It has been stated that self-efficacy represents a key personal resource that lessen the detrimental effects of job demands (Perrewé *et al.*, 2020;

Xanthopoulou *et al.*, 2007). Because self-efficacy concerns individuals' beliefs in their capabilities to meet given situational demands and successfully perform specific tasks (Bandura, 1997; Gist & Mitchell, 1992), it is logical to expect that job-related stressors would be less detrimental for employees with high self-efficacy beliefs (Jex *et al.*, 2001). Put differently, self-efficacy is expected to impact stressor-strain relationship, because employees with high self-efficacy beliefs are more likely to be confident in their capability to successfully accomplish the job requirements even when they are exposed to different job stressors (e.g., work overload; Stetz *et al.*, 2006). Despite the potential moderating effect of self-efficacy on the relation between job stressors and job strain, only a few studies have investigated this moderating effect (e.g., Jex & Gudanowski, 1992; Jex *et al.*, 2001; Schaubroeck & Merritt, 1997; Siu *et al.*, 2007), but not while teleworking during COVID-19.

Furthermore, these studies have reported mixed findings. For example, Jex and Gudanowski (1992) could not find evidence for a moderating effect of self-efficacy on the link between job stressors (e.g., role ambiguity, hours of work) and strain (e.g., anxiety, job dissatisfaction), whereas Jex *et al.* (2001) did find a three-way interaction between job stressors (i.e., work overload, role clarity), employees' self-efficacy beliefs, and their coping styles (i.e., avoidance and active coping). In particular, when active coping was high, self-efficacy had a moderating effect on the role clarity-job strain relationship. However, when active coping was low, the moderating effect of self-efficacy was not statistically significant. In addition, self-efficacy moderated the positive relationship between work overload and job strain, but only when avoidance coping was low. Jex *et al.* (2001) concluded that self-efficacy is likely to be a moderator in the relation between stressors and strain only when effective coping styles are used (e.g., active coping).

Siu *et al.* (2007) argued that a plausible explanation for these mixed results is the use of different measurement levels for self-efficacy (i.e., degree of specificity; Gist & Mitchell, 1992). More specifically, the use of domain-specific measures (e.g., Jex *et al.*, 2001) or general self-efficacy measures (e.g., Perrewé *et al.*, 2020; Salanova *et al.*, 2002; Xanthopoulou *et al.*, 2007) could explain these mixed results. General self-efficacy can be considered a trait-like characteristic (Chen *et al.*, 2001), because it represents the belief in one's capacity to perform successfully across various situations (Judge *et al.*, 1998). In this study, the focus is on general self-efficacy. We postulate that high general self-efficacy serves as a personal resource, which buffers the detrimental effects of job demands on employee well-being. Specifically, employees with high general self-efficacy are less negatively affected by job stressors in terms of well-being (i.e., burnout;

Siu *et al.*, 2007). In addition, we argue that high general self-efficacy is especially relevant for attenuating employees' burnout in the demanding circumstances imposed by the COVID-19 crisis. Employees rely even more on their personal resources such as self-efficacy beliefs (Mihalca, Ratiu *et al.*, submitted) and self-management tactics (Mihalca, Irimias *et al.*, submitted) to effectively deal with the challenging work situations imposed by teleworking during COVID-19 (cf. Tri *et al.*, 2019).

The endeavour in this study is to extend previous findings on occupational stress and burnout (e.g., Jex *et al.*, 2001; Siu *et al.*, 2007) by examining self-efficacy in conjunction with task interdependence as moderators of the relationship between work overload as a stressor, role clarity as a resource, and burnout (i.e., emotional exhaustion) while teleworking during COVID-19. It is expected that role clarity will be strongly and negatively linked to emotional exhaustion only among teleworkers who report high levels of self-efficacy. Moreover, self-efficacy is expected to intensify the negative association between role clarity and emotional exhaustion while teleworking during COVID-19 only when task interdependence is low.

Hypothesis 5. Self-efficacy will moderate the link between role clarity and emotional exhaustion such that the higher the self-efficacy, the stronger the negative association between role clarity and exhaustion while teleworking during COVID-19.

Hypothesis 6. There will be a three-way interaction among role clarity, task interdependence, and self-efficacy in predicting emotional exhaustion while teleworking during COVID-19.

Figure 1 illustrates all hypothesized relations.

Methodology

Sample description

The data set for the present study was obtained from a single large IT company based in Romania¹. We collected data in a single company to control

¹ For the current study, a data set from a larger survey on teleworking during COVID-19 was used. The data were sliced in accordance with Kirkman and Chen (2011) recommendations, such that there was no overlapping between the variables used in this study and those used in the two studies derived from the same survey and submitted (except for demographics, some control variables and the two independent variables of work overload and

for potential confounding variables due to differences between organizations in terms of teleworking policies and practices. All employees of the company (approximately 2,000 employees) were invited to take part to the current study. In total, 701 professional employees with non-managerial roles (35% response rate) were recruited for this study, using convenience sampling. The mean age of participants in our study was 32.13 years ($SD = 6.78$) and their median tenure in job position was 26 months (range: 1-360 months). There were 372 (53%) males and 318 (45.4%) females, with 11 participants (1.6%) not reporting their gender. Most of the respondents (96%) had a permanent employment status and were well educated, that is, 92% of them held at least a bachelor's degree. Respondents held various job positions, including IT developers (25.7%), application management services consultants (22.7%), testers (13.8%), IT consultants (8%), business solution consultants (7.4%), and other.

Procedure

The data was collected in June 2020, during the state of alert period declared in Romania on May 15, 2020, following the nationwide lockdown that began on March 25, 2020. The survey link was distributed by the Human Resources (HR) representative after the organization expressed its intention to participate in the study. Data was collected anonymously and participants could withdraw from the survey at any moment. The participation was voluntary and the confidentiality of participants' responses was assured. All employees could complete the online survey during their working hours.

Measures

Unless otherwise indicated, the items were scored on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Work overload was measured using five items adapted from Spector and Jex (1998) Quantitative Workload Inventory. An example item is "My job requires me to work very fast".

self-efficacy). Also, while there is some overlap between the variables investigated in these studies, in the current study we included a sub-sample of employees without managerial roles and several unique variables such that different results were obtained, and different theoretical aspects were addressed.

Role clarity was measured with three items adapted from Rizzo *et al.* (1970) role ambiguity scale. This scale has a well-established discriminant validity and reliability (e.g., Kelloway & Barling, 1990). Response options ranged from 1 = absolutely false to 7 = absolutely true. A sample item is “I know exactly what is expected of me in my job”.

To measure general self-efficacy, the eight-item New General Self-Efficacy scale by Chen *et al.* (2001) was used. A sample item is “I am confident that I can perform effectively on many different tasks.”

Task interdependence was measured using a 5-item scale developed by Van der Vegt *et al.* (2003). An example item is “I have to work closely with my colleagues to do my work properly”.

Emotional exhaustion, which is the core aspect of burnout (e.g., Schaufeli & Van Dierendonck, 1993), was measured by three items from the Maslach Burnout Inventory (Schaufeli *et al.*, 1996). The respondents had to rate the items on a 7-point Likert scale, with response choices that range from 0 (never experienced such a feeling) to 6 (experience such feelings every day). An example item is “I feel emotionally drained from my work”.

Control Variables

As previous research on telework has indicated that age and job tenure influence teleworkers’ well-being (e.g., Schaufeli *et al.*, 1996; Gajendran & Harrison, 2007), age of participants (in years) was controlled, as well as their job tenure (in months) when testing our model. In addition, as the current study was conducted under the unique circumstances of COVID-19, employees’ well-being (e.g., emotional exhaustion) might be influenced by the pandemic. Therefore, the following variables were controlled: fear of COVID-19, negative emotionality (corresponding to neuroticism), and loneliness. To measure *fear of COVID-19*, we used the 7-item scale developed by Ahorsu *et al.* (2020). An example item is “I am most afraid of coronavirus-19”. *Negative emotionality* was assessed using three items (e.g., “I am someone who...worries a lot”) from the Big Five Inventory (Soto & John, 2017). Finally, *loneliness* was measured with three items from the revised UCLA loneliness scale (Russell *et al.*, 1980). The three items assessed how frequently the participants perceive they “lack companionship”, are “left out” or “isolated from others” on a scale ranging from 0 (never) to 4 (always).

Data analysis

Measurement model

Several preliminary CFAs were conducted using AMOS 23.0 to check for the discriminant validity of the constructs included in this study. The model fit indices reported in the study are the ones widely used in the literature (e.g., Bentler, 1990; Bentler & Bonett, 1980; Steiger, 1990), that is, the comparative fit index (CFI), Tucker-Lewis index (TLI), and root mean square error of approximation (RMSEA). A value of 0.90 or larger for CFI (Hu & Bentler, 1990) and TLI (Bentler & Bonett, 1980) was considered to denote an acceptable model fit, while the value of RMSEA should be less than 0.08 for an acceptable model fit (e.g., Hu & Bentler, 1990). Our hypothesized model (see Figure 2) which included five factors (i.e., work overload, role clarity, task interdependence, self-efficacy, emotional exhaustion) showed an acceptable model fit according to the fit indices: $\chi^2 = 761.46$, $p < 0.001$; CFI = 0.94; TLI = 0.93; RMSEA = 0.05 (see Table 1). This five-factor model was also compared with some alternative models, in which the factors were combined. As can be noted in Table 1, the results revealed that the five-factor model had a significantly better fit to the data than all alternative models ($\Delta\chi^2$ s ranged from 929.62 to 4202.03, $p < 0.001$). Thus, the results supported the distinctiveness of the five constructs included in the hypothesized model.

Testing Common Method Variance

Common Method Variance (CMV) can be a serious concern when the focal explanatory variables as well as the dependent variables are subjective measures obtained from the same participant (Podsakoff & Organ, 1986). As in our study data was obtained from a single source with self-reported measures, it was necessary to test for CMV. To check whether CMV is a threat for our results, the one-factor testing approach (Podsakoff *et al.*, 2003) was used. In particular, CFAs were used and the chi-square difference and the test significance were calculated in order to determine the differences that may exist between the five-factor model (i.e., the multifactor model) and the model in which the five factors are combined (i.e., the single-factor model). The results indicated a significant difference between the single-factor and the multifactor model (see Table 1). Therefore, the results suggest that CMV does not represent a concern in this study.

Results

The descriptive statistics (means and standard deviations), the correlations, and reliabilities of all study variables are given in Table 2. Note that the correlations between the variables under study were in the expected direction.

To test the stated hypotheses, the SPSS version of bootstrap-based PROCESS macro (version 3.5; Hayes, 2018) was used. More specifically, the mediation and moderated mediation models were tested using Ordinary Least Squares (OLS) regression analyses (Hayes, 2013). As none of the control variables (e.g., age, tenure in job position) were significant predictors of exhaustion, except for negative emotionality, they were excluded from subsequent analyses (Bernerth & Aguinis, 2016) and the results were reported without them.

For the mediation analysis, we first checked whether the correlations among the predictor, mediator and criterion variables were significant. For determining the significance of the effects, the bootstrap confidence intervals (CIs) based on 5000 random samples (Hayes, 2013) were used. Note that the effects are significant when the CIs do not include zero value. As bootstrapping helps to avoid problems of statistical power caused by non-normal distributions, this method was used to detect significant indirect effects (Cole *et al.*, 2008; MacKinnon *et al.*, 2004). The results of the OLS regressions are given in Table 3, where path Model 1 includes the main effects on the dependent variable (i.e., emotional exhaustion), and path Model 2 includes all interactions effects on this dependent variable.

Hypothesis 1 stated that work overload has a positive main effect on teleworkers' exhaustion. As indicated by the results presented in Table 3, work overload was positively and significantly associated to exhaustion ($\beta = 0.82$, $p < 0.001$), while controlling for negative emotionality ($\beta = 0.64$, $p < 0.001$). These results fully support our Hypothesis 1.

The hypothesis which stated that role clarity would negatively relate to emotional exhaustion (Hypothesis 2) was also supported by data ($\beta = -0.27$, $p < 0.001$).

To test Hypothesis 3 according to which role clarity would mediate the positive relation between work overload and emotional exhaustion, a simple mediation analysis was conducted. We found that the 95% confidence interval for the indirect effect of work overload on emotional exhaustion through role clarity ($\beta = 0.04$; BootSE = 0.01) did not include zero value (95% Boot CI [0.01, 0.07]), suggesting a significant indirect effect. We also controlled for negative emotionality ($\beta = 0.59$, $p < 0.001$). The direct effect of work overload on exhaustion remained statistically significant although

it was reduced, which indicates a partial mediation ($\beta = 0.78$; BootSE = 0.06, 95% Boot CI [0.66, 0.90]). Thus, our Hypothesis 3 was supported (see Table 3).

Next, we tested the moderated mediation, considering role clarity as a mediator, and task interdependence and self-efficacy as moderators. The variables that defined the products were mean-centred to prevent multicollinearity, and simple slope analysis was performed in order to investigate the moderation effect in-depth. As suggested by Long and Ervin (2005), because heteroskedasticity can occur frequently in cross-sectional data, there should be methods used to correct for heteroskedasticity and conduct a cautious data analysis. Because a violation of the constant variance assumption in the data was found, an HC4 (Cribari-Neto) heteroskedasticity-robust test to get more accurate inferences (Hayes & Cai, 2007) was also performed. Then, a slope analysis was conducted, plotting the conditional effects of task interdependence and self-efficacy at different values (1 standard deviation below the mean, mean, and 1 standard deviation above the mean).

Hypothesis 4 stated that task interdependence might have a moderating effect on the link between role clarity and emotional exhaustion, predicted by work overload. As presented in Table 3, the results from the moderated mediation analysis revealed that the interaction of role clarity and task interdependence has a significant effect on emotional exhaustion ($\beta = -0.24$, $se(HC4) = 0.09$, $p < 0.001$), indicating that the link between role clarity and emotional exhaustion was moderated by task interdependence. Moreover, the index of partial moderated mediation ($\beta = 0.0281$, BootSE = 0.01, 95% Boot CI [0.0052, 0.0663]) indicated that the indirect effect of role clarity on exhaustion was linearly linked to task interdependence. The results of the moderated mediation also revealed that the indirect relation between work overload and emotional exhaustion was partially mediated by role clarity only when task interdependence was average or high (see Figure 3). The indirect effect was stronger ($\beta = 0.0541$, BootSE = 0.02) and significant at a high level of task interdependence (95% Boot CI [0.0204, 0.1082]), however it was weaker ($\beta = 0.0327$, BootSE = 0.01) and significant at an average level of task interdependence (95% Boot CI [0.0102, 0.0685]). More specifically, the highest level of exhaustion was predicted by work overload when task interdependence was high and the role clarity was low. Furthermore, even in the presence of high task interdependence, the exhaustion was low when role clarity was high. Thus, Hypothesis 4 was partially supported by our data.

Next, we tested Hypothesis 5, which stated that self-efficacy has a moderating effect on the link between role clarity and exhaustion predicted by

work overload. The results of the moderated mediation analysis revealed an interaction effect of role clarity and self-efficacy on teleworkers' exhaustion ($\beta = -0.21$, $se(HC4) = 0.10$, $p < 0.05$), indicating that the link between role clarity and exhaustion was moderated by self-efficacy. The conditional indirect effect of self-efficacy on role clarity and exhaustion was statistically significant ($\beta = 0.0297$, $BootSE = 0.01$, 95% Boot CI [0.0014, 0.0734]). The results of the moderated mediation showed that the indirect effect of role clarity on the work overload-exhaustion relationship was significant only when self-efficacy had mean or high values (see Figure 4). The conditional indirect effect of work overload on teleworkers' exhaustion (via role clarity) at different levels of self-efficacy was stronger ($\beta = 0.0495$, $BootSE = 0.02$) and significant at a high level of self-efficacy (95% Boot CI [0.0171, 0.1027]) than at an average level of self-efficacy ($\beta = 0.0341$, $BootSE = 0.01$). More specifically, emotional exhaustion was the lowest when both role clarity and self-efficacy were high. It can be concluded that Hypothesis 5 received partial support from the data.

The last hypothesis, that is, Hypothesis 6, predicted a three-way interaction effect (role clarity x task interdependence x self-efficacy) on the link between work overload and exhaustion. The results have revealed that the conditional indirect effect was statistically significant at mean levels of task interdependence and self-efficacy ($\beta = 0.0339$, $BootSE = 0.01$, Boot CI [0.0097, 0.0673]), mean levels of task interdependence and high levels of self-efficacy ($\beta = 0.0527$, $BootSE = 0.02$, Boot CI [0.0170, 0.1000]), high levels of task interdependence and low levels of self-efficacy ($\beta = 0.0396$, $BootSE = 0.02$, Boot CI [0.0090, 0.0835]), high levels of task interdependence and average levels of self-efficacy ($\beta = 0.0583$, $BootSE = 0.02$, Boot CI [0.0192, 0.1091]), and high levels of both task interdependence and self-efficacy ($\beta = 0.0771$, $BootSE = 0.03$, Boot CI [0.0265, 0.1414]). Regarding the three-way interaction, the indirect effect of work overload (through role clarity) on exhaustion was particularly diminished only when certain levels of self-efficacy and task interdependence were reported. Thus, Hypothesis 6 was only partially supported.

Figure 5 illustrates the interaction effects of task interdependence and self-efficacy on the relationship between role clarity as focal predictor and exhaustion as dependent variable. As illustrated in Figure 5, the lowest level of emotional exhaustion occurred when employees had high levels of self-efficacy and role clarity, although task interdependence was also high. The highest level of exhaustion occurred for employees with low role clarity and high task interdependence, despite high self-efficacy.

Discussion

As teleworking during COVID-19 is challenging in many ways, particularly in terms of employee well-being (Rudolph *et al.*, 2020), it is necessary to determine the factors that have detrimental effects on well-being (i.e., job stressors) as well as the factors that may diminish the detrimental effects of the stressors on mental health strain (Britt *et al.*, 2021). The present study supports and advances the JD-R model (e.g., Bakker *et al.*, 2003; Demerouti *et al.*, 2001), by exploring the mechanisms and boundary conditions of employee well-being while teleworking during COVID-19.

The results of this study reveal that work overload is positively linked to employee burnout (i.e., emotional exhaustion) while teleworking during COVID-19. This finding is in accordance with the results of previous studies, which have revealed that work overload is a predictive factor of emotional exhaustion in the work context (e.g., Alarcon, 2011; Lee & Ashforth, 1996) as well as in the context of teleworking during COVID-19 (Wang *et al.*, 2021).

Furthermore, our results reveal that role clarity, which is deemed as a job resource, is negatively correlated to emotional exhaustion and partially mediates the work overload-emotional exhaustion relationship. Thus, higher levels of work overload made IT professionals to perceive that they receive less clear and precise information about their work roles and responsibilities, which finally increases their emotional exhaustion. Our findings support the assumptions of the JD-R model, according to which job resources are negatively related to both job stressors and emotional exhaustion (Bakker *et al.*, 2003; Demerouti *et al.*, 2001). While previous studies have mainly investigated the direct effects of role clarity on emotional exhaustion (e.g., Lang *et al.*, 2007; Lee & Ashforth, 1996), our findings reveal that role clarity mediates the positive relationship among work overload and exhaustion. As such, our findings provide useful insights on the underlying mechanisms by which work overload predicts teleworkers' emotional exhaustion in the unique circumstances of teleworking during COVID-19.

Furthermore, the results of this study reveal that the indirect association (via role clarity) between work overload and teleworkers' emotional exhaustion varies when different levels of task interdependence (a job stressor) are involved. This finding suggests that when task interdependence is high, especially in the context of teleworking during COVID-19, IT sector employees need additional resources such as clear information about their responsibilities to maintain their exhaustion levels low, because task interference is "a factor that exacerbates resource loss" (Chong *et al.*, 2020, p.

1411). Furthermore, our results revealed that the interaction effect of role clarity and self-efficacy on the relation between work overload and emotional exhaustion occurred only for average and high levels of self-efficacy, but not for low levels of self-efficacy. The finding that emotional exhaustion is the lowest when both role clarity and self-efficacy were high indicates that employees are less negatively affected by job stressors in terms of their well-being when contextual (i.e., role clarity) and personal (i.e., self-efficacy) resources are combined, particularly in the context of teleworking during COVID-19.

Furthermore, the lowest level of emotional exhaustion while teleworking during COVID-19 was found when both role clarity and self-efficacy were high, even though task interdependence was also high. On the contrary, despite high self-efficacy, the highest level of exhaustion was found when IT professionals reported low role clarity and high task interdependence. These results suggest that when job demands (e.g., task interdependence, work overload) are high and role clarity (a job resource) is also high, emotional exhaustion is reduced, because employees know what to do in their job, even though they have considerable work to do and have to coordinate their efforts with coworkers to accomplish the job-related tasks (Bliese & Castro, 2000). Moreover, our findings pinpoint that self-efficacy is not strong enough to buffer the detrimental effects of job stressors (e.g., work overload) on exhaustion when role clarity is low.

Summing up, the findings of the current study offer important insights into the job demands that employees, in particular IT professionals may face while teleworking during COVID-19, and into the contextual and personal resources that can be beneficial in mitigating the negative effects of job demands and supporting these employees to adopt resilient responses during and beyond the COVID-19 pandemic. These insights can, however, go beyond the context of teleworking during the COVID-19 and contribute to the understanding of how to address the challenges and potential drawbacks of remote work and better applications of flexible work arrangements.

Conclusions

The present study advances the current understanding of *how* and *when* job demands or stressors (e.g., work overload) negatively influence employees' emotional exhaustion while teleworking in the context of the unique challenges and demands imposed by the pandemic. In particular, we have demonstrated that work overload positively relates to employee emotional

exhaustion via role clarity, especially for teleworkers with high task interdependence. Our results pinpoint the importance of supporting both employees and organizations to effectively deal with the demands imposed by teleworking during and beyond the pandemic, without compromising their well-being. In particular, our study indicates that employee well-being can be preserved by designing high-quality jobs for teleworkers (Wang *et al.*, 2021, p. 36), for example, by clarifying their job responsibilities (i.e., role clarity) and supporting their self-efficacy beliefs.

Our findings have several practical implications for organizations. As our results indicate that work overload and task interdependence are related to employee burnout, an important concern for organizations should be to reduce overwhelming levels of workload and task interdependence in order to prevent employee mental health problems while teleworking during COVID-19 (Xanthopoulou *et al.*, 2007). However, if it is not feasible to reduce these job demands, especially under the unique circumstances of teleworking during COVID-19, organizations should identify the specific job resources which may be most beneficial in supporting employees to cope with these job demands (Britt *et al.*, 2021). Our finding concerning the role clarity as the underlying mechanism explaining the link between work overload and employees' emotional exhaustion suggests that organizations should act proactively to reduce the sources of role ambiguity (De Clercq, 2019). In particular, organizations should implement formal role descriptions or adopt feedback mechanisms to help employees understand what is expected of them from their supervisors or organizations (Xanthopoulou *et al.*, 2007). Moreover, organizations should also clarify the specific performance targets and the means needed to achieve these targets (e.g., time), as these are especially important in the context of teleworking (cf. De Clercq, 2019). We found a moderating effect of task interdependence in the association between work overload and teleworkers' exhaustion mediated by role clarity, and thus it will be beneficial for organizations to help teleworkers understand the interrelatedness of their work tasks and to stimulate routines of knowledge sharing in order to facilitate the collective accomplishment of these types of tasks (De Clercq, 2019).

Furthermore, our results indicate that self-efficacy represents a personal resource, which buffers the negative effects of work overload on employee exhaustion only when role clarity in the context of teleworking during COVID-19 is high, even though task interdependence is high. Therefore, organizations should aim at increasing teleworkers' self-efficacy through leadership, feedback on performance or intensive trainings designed to prepare them for diverse types of experiences (e.g., teleworking for a longer period; Mihalca, Ratiu *et al.*, submitted). Moreover, our findings suggest

that teleworkers' exhaustion can be decreased when high self-efficacy and high role clarity interact.

Finally, our results can be used to support managers in identifying employees who better suit to teleworking, for example, employees who have high self-efficacy and/or those with low task interdependence. This is especially relevant in the context of high rates of telework that are possible to remain post-COVID-19 (Chong *et al.*, 2020).

We acknowledge several potential limitations of this present study. First, the data were single-source and self-report, and thus common method bias might have been problematic (Podsakoff *et al.*, 2003). However, our results reveal that common method bias does not represent a concern in the current study. Nevertheless, to address common method bias problem, future studies should use a dual-source and time-lagged design, which would allow a more rigorously test of the hypotheses. In particular, using different sources of data (e.g., from employees, managers, colleagues) and measuring the predictors and the outcomes at different time will reduce the likelihood of artificially inflated associations among variables (Podsakoff *et al.*, 2003). Second, this is a cross-sectional study and thus no causal relations could be drawn between the variables. Future studies should employ longitudinal designs, which would allow us to make causal inferences and track changes over time. Finally, our sample includes only employees working in the IT sector and thus the findings cannot be generalized to other sectors that are not part to this study. In addition, although our employee sample comprised a variety of positions, all of them worked for the same IT company. Thus, future studies should replicate these findings by gathering data from multiple organizations, from the same or different industry.

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Annex

Table 1. Measurement models

Model	Description	χ^2	Df	CFI	TLI	RMSEA	Change from the hypothesized model $\Delta\chi^2$	Δdf
Hypothesized model	Five-factor model ^a	761.46	242	0.94	0.93	0.05		
Model 1	Four-factor model ^b	1691.08	246	0.83	0.81	0.09	929.62***	4
Model 2	Three-factor model ^c	2581.50	249	0.72	0.69	0.11	1820.04***	7
Model 3	Two-factor model ^d	3880.47	251	0.57	0.53	0.14	3119.01***	9
Model 4	One-factor model ^e	4963.49	252	0.44	0.39	0.16	4202.03***	10

Note:

N = 701; CFI =Comparative Fit Index; TLI =Tucker Lewis Index; RMSEA =root-mean-square error of approximation; *** $p < 0.001$

^a Five factors: work overload, role clarity, task interdependence, self-efficacy , exhaustion;

^b Four factors: work overload, role clarity, task interdependence and self-efficacy were combined, exhaustion;

^c Three factors: work overload and exhaustion were combined, role clarity, task interdependence, and self-efficacy were combined;

^d Two factors: role clarity, task interdependence and self-efficacy were combined, work overload and exhaustion were combined;

^e One factor: work overload, role clarity, task interdependence, self-efficacy, and exhaustion were combined;

Table 2. Descriptive statistics (means and standard deviations), correlations, and reliabilities among study variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Workload	2.87	0.69	(0.82)									
2. Role clarity	3.52	0.64	-0.15**	(0.85)								
3. General self-efficacy	4.18	0.52	-0.07	0.28**	(0.92)							
4. Task interdependence	2.90	0.76	0.29**	-0.13**	-0.19**	(0.79)						
5. Emotional exhaustion	1.87	1.38	0.45**	-0.27**	-0.24**	0.17**	(0.89)					
6. Age	32.10	6.85	0.04	0.14**	0.05	0.06	-0.15**	-				
7. Job tenure	37.85	41.19	0.01	0.07	0.02	-0.09*	-0.06	0.34**	-			
8. Fear of COVID-19	2.31	0.80	0.17**	-0.01	-0.05	0.03	0.22**	0.01	-0.02	(0.88)		
9. Negative emotionality	2.30	0.66	0.10**	-0.22**	-0.42**	0.14**	0.41**	-0.21**	-0.05	0.28**	(0.80)	
10. Loneliness	1.09	0.73	0.09*	-0.14**	-0.26**	0.22**	0.26**	-0.10**	-0.12**	0.13**	0.47**	(0.75)

Note: Numbers in parantheses represent reliabilities; $N = 701$; * $p < 0.05$, ** $p < 0.01$.

Table 3. Direct and conditional indirect effect of task interdependence and self-efficacy on the link between work overload and emotional exhaustion mediated by role clarity

Variable	Role Clarity		Exhaustion	
	Path Model 1	Path Model 2	Path Model 1	Path Model 2
Constant	3.90***(0.18)	0.37*(0.18)	-1.75***(0.32)	-1.50***(0.32)
Negative emotionality	-0.18***(0.04)	-0.17***(0.04)	0.64***(0.08)	0.55***(0.08)
Work overload	-0.13***(0.03)	-0.13***(0.03)	0.82***(0.06)	0.78***(0.07)
Role Clarity			-0.27***(0.07)	-0.27***(0.09)
Task Interdependence			-0.01(0.05)	-0.01(0.05)
Self-efficacy			-0.12(0.09)	-0.13(0.09)
Role clarity x task interdependence			-0.24***(0.09)	-0.27***(0.09)
Role clarity x self-efficacy				-0.31*(0.13)
R ²	0.08	0.08	0.37	0.01
F	10.44***	9.60***	57.21***	5.98**

Note: unstandardized regression coefficients are shown with standard errors between parentheses; *** $p < 0.001$ *, * $p < 0.01$, and ** $p < 0.05$.

Figure 1. The conceptual model

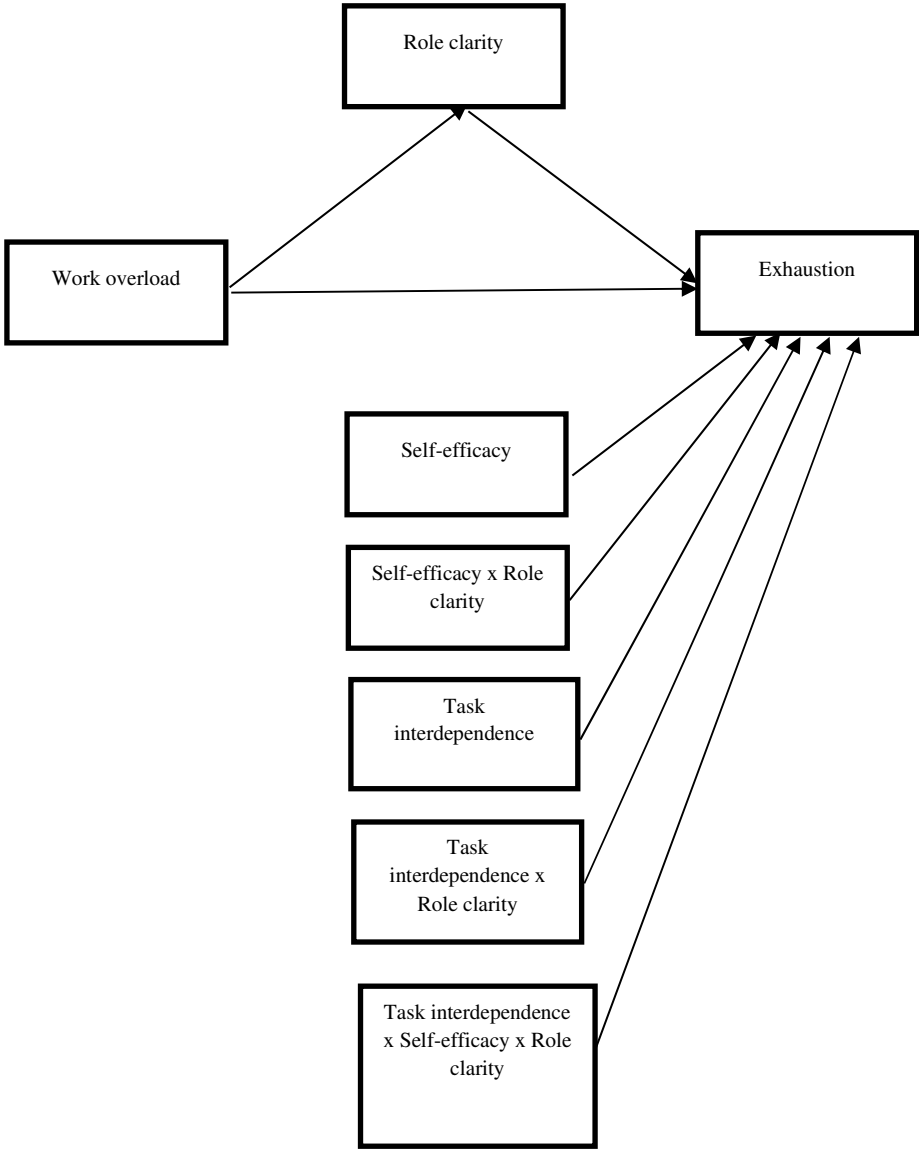
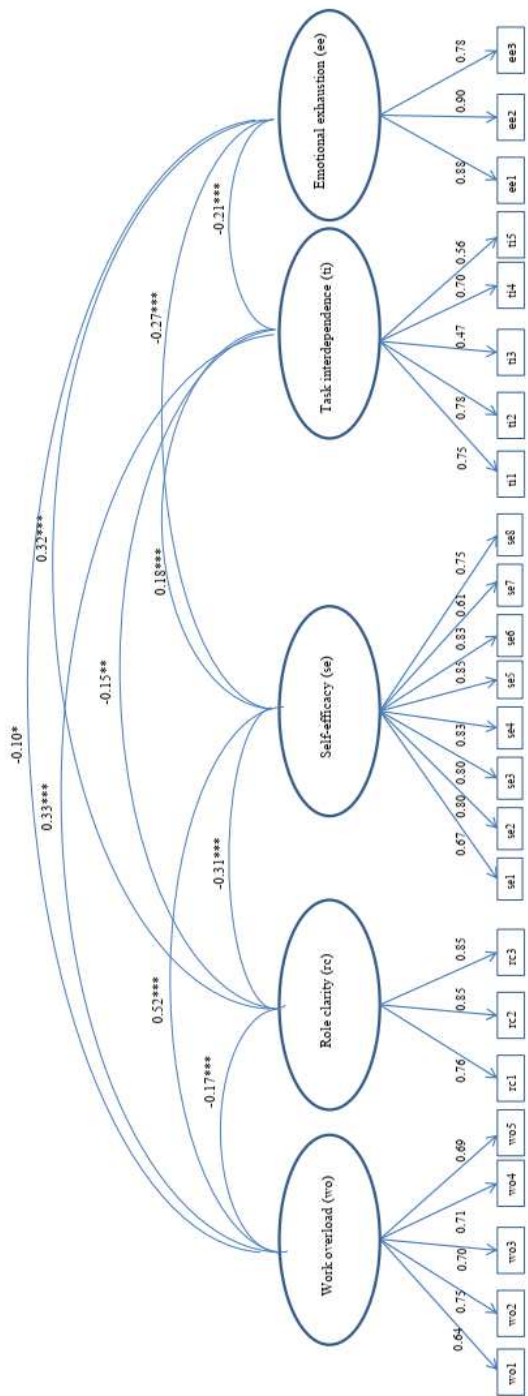
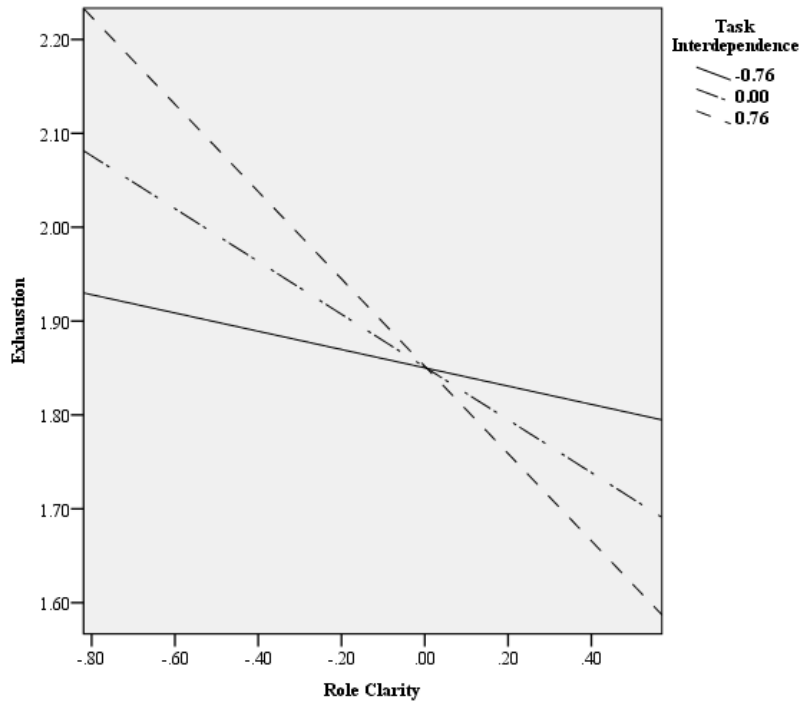


Figure 2. The five-factor measurement model (CFA)



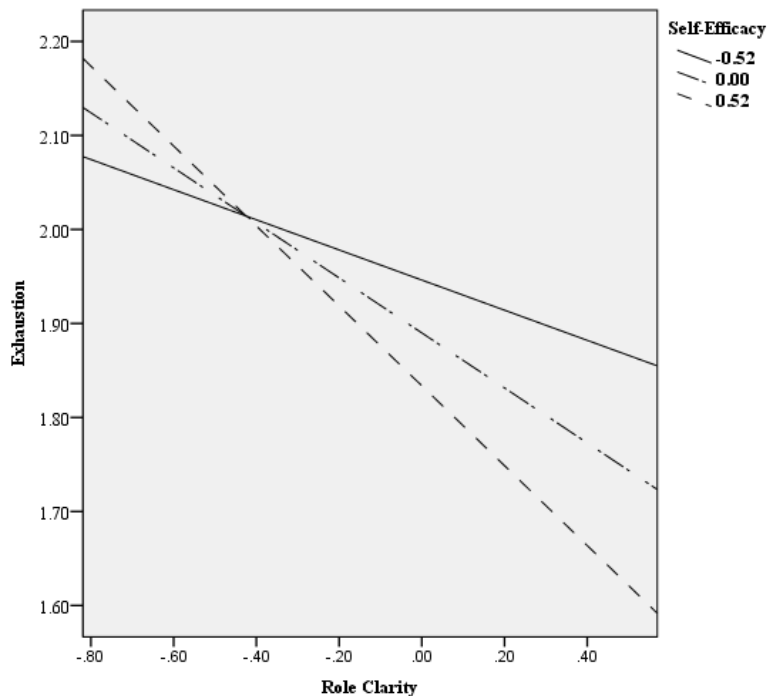
Note: All coefficients are standardized. Residuals are omitted from the figure. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

Figure 3. The interaction effect of role clarity and task interdependence on exhaustion



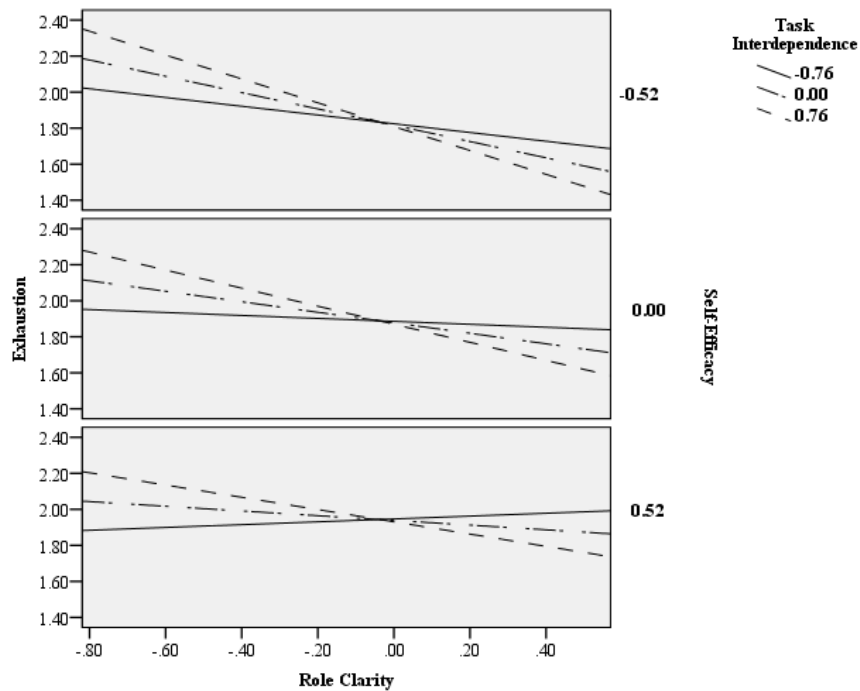
Note: The slopes for the conditional effect of the role clarity on exhaustion were statistically significant ($p < 0.01$) at mean and high levels of task interdependence.

Figure 4. The interaction effect of role clarity and self-efficacy on exhaustion



Note: The slopes for the conditional effect of the role clarity on exhaustion were statistically significant ($p < 0.01$) at mean and high levels of self-efficacy.

Figure 5. Three-way interaction (role clarity x task interdependence x self-efficacy)



Note: The slopes for the conditional effect of the role clarity on exhaustion were statistically significant ($p < 0.01$) at mean levels of task interdependence and self-efficacy; mean level of task interdependence and high level of self-efficacy; high levels of task interdependence and low, mean, and high levels of self-efficacy.