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Who saves the saviours during a pandemic? career calling protects healthcare workers from burnout and resigning

Anna Dalla Rosa[1] · **Michelangelo Vianello**[1] · **Saija Mauno**[2]

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Abstract
This study investigates whether career calling protects individuals from the challenges posed by fear of COVID-19 and job demands on burnout and turnover intentions during the COVID-19 pandemic. Cross-sectional data were collected from February to March 2021, involving a sample of 275 healthcare workers in Italy responsible for treating COVID-19 patients. Path analysis was employed to test direct, indirect, and conditional associations. The findings revealed a significant sequential mediation: Job demands partially mediated the relation between fear of COVID-19 and burnout, while burnout completely mediated the relation between fear of COVID-19 and turnover intentions. Furthermore, career calling moderated the relation between fear of COVID-19 and job demands, as well as between burnout and turnover intentions. When an individual's sense of calling was high, the relation between fear of COVID-19 and perceived job demands, as well as between burnout and turnover intentions, was null. This study supports the notion that career calling acts as a personal resource, providing protection for individuals in the face of highly stressful work environments.

Keywords Career calling · Fear of COVID-19 · Burnout · Job demands · Turnover intentions

Introduction

Since 2020, SARS-CoV-2 and the related COVID-19 pandemic had a huge worldwide negative impact. More than 700 million people were diagnosed with COVID-19, and among them more than 6 million died (World Health Organization, 2023a). Italy was severely hit by COVID-19, counting more than 22 million confirmed cases of and more than 190.000 deaths from January 3, 2020 (World Health Organization, 2023b). Italy's health care surge in COVID-19 cases was sudden, and the number of people requiring intensive care increased exponentially. The speed of the spread and the severity of symptoms have put the whole health system under unprecedented pressure. Systematic reviews and meta-analyses (e.g., Al Maqbali et al., 2021; Macaron et al., 2023; Marvaldi et al., 2021; Salari et al., 2020) highlighted that healthcare workers in the last two years suffered from increased psychological symptoms such as stress, fear, anxiety, depression, and sleep disturbances. Among these consequences, higher risks of burnout and increased turnover intentions stand out as serious adverse implications at the individual, organizational, and social levels (Panagioti et al., 2018). Healthcare workers have been grappling with the challenges of COVID-19, which has left them feeling helpless, fatigued, and burned out (Barello et al., 2020; Conti et al., 2021; Macaron et al., 2023). As a result, many have contemplated leaving their job or reevaluating their career choices (Falatah, 2021). Factors such as increased workload, constant contact with COVID-19 patients, and fear of being infected were identified as critical factors in increasing the risks of burnout and psychological distress (Giusti et al., 2020; Savoia et al., 2020; Rapisarda et al. 2022).

Despite all these negative conditions, healthcare workers acted as front-line soldiers against a frightening and invisible enemy and kept providing life-saving services. Both the media, politicians, and the public have supported and cheered healthcare workers around the world as if they were heroines and heroes. This hero narrative which portrayed healthcare workers as acting prosocially with an

✉ Anna Dalla Rosa
anna.dallarosa@unipd.it

[1] Department of Philosophy, Sociology, Education and Applied Psychology, University of Padova, via Venezia 14, 35131 Padua, Italy

[2] Department of Psychology, University of Jyväskylä, Jyväskylä, Finland; Faculty of Social Sciences, University of Tampere, Tampere, Finland

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acknowledged degree of personal risk that transcends professional duty, helped build a collective identity of healthcare workers as individuals who are called to their job (Cox, 2020).

People with a calling experience a transcendent guiding force to do a work perceived as helpful and meaningful, they are passionate about their work and willing to make sacrifices to pursue it (Vianello et al., 2018). The sense of being called, the strong passion and the meaning attached to work motivate people to exert their effort for the benefits of others and overlook external obstacles in pursuing their callings (Duffy et al., 2018). The Work as a Calling Theory (WCT; Duffy et al., 2018) suggested that the sense of being called to do meaningful work may create vulnerabilities in some situations, increasing the exposure of individuals to burnout. Emergencies may be one of these situations in which the so-called "dark side" of calling might be activated. The feeling of being called to one's job, which is usually positively related to well-being (Dobrow et al., 2023), may turn out to be ineffective or even counterproductive during extreme situations such as an aggressive pandemic in which employees with a calling might give just too much, potentially reaching a state of exhaustion over time. On the other hand, within the framework of the Conservation of Resources theory (COR; Hobfoll, 1989) and adopting a resource gain perspective, perceiving a calling can be seen as a resource itself that enables other resources (Creed et al., 2014; Terry & Cigularov, 2022). Perceiving a calling is related to a deeper sense of meaning and devotion that may enhance the resilience of individuals to resource-draining stressors, such as fear of contagion and high job demands. Research that clarifies whether perceiving a calling during the COVID-19 pandemic was a resource or a risk is still scarce (e.g., Uzunbacak et al., 2022; Zhang et al., 2020; Zhou et al., 2020) and results regarding its buffering role have been mainly collected in nonemergency situations (Creed et al., 2014; Goštautaitė et al., 2020).

Shedding light on which situations might trigger the dark side of calling would provide empirical evidence toward the WCT. We might be able to learn from this recent pandemic how workers could be prepared to handle future emergencies. Also, more research is needed to identify personal resources, such as career calling, that may enable employees to overcome stressful working and environmental conditions (Waters et al., 2021). In this study, we will argue that calling protects healthcare workers from the negative role of a threatening and highly demanding work environment.

This study extends previous knowledge (Dobrow et al., 2023) by investigating whether the positive role of calling occur even under extreme working conditions. In addition, if having a calling will turn out to be a protective factor, this information could be used by managers and counsellors to promote evidence-based practices that foster a sense of having a calling as a way to cope with psychological distress. In the following sections, we present the theoretical background, the hypotheses, and the results of this study. Finally, we discuss theoretical and practical implications of our findings.

A conditional process model

During the pandemic, healthcare workers experienced increased exposure to traumatic stimuli, as they dealt with the profound effects of the COVID-19 virus. The fear of COVID-19, arising from the perceived risk of contagion and the potential consequences of contracting or transmitting the virus, created a significant obstacle that healthcare workers had to overcome in order to fulfill their duties effectively. First, fear of COVID-19 may amplify the subjective perception of existing job demands. Driven by their fear, healthcare workers may interpret their work environment and tasks as more demanding than they would under normal circumstances. This perception can be influenced by the adoption of additional precautionary measures due to concerns about personal safety and the safety of loved ones. Moreover, systemic issues arising from the pandemic, such as irregular working hours, overtime work, rotating shifts, and understaffing, might have further exacerbated the subjective perception of job demands (e.g., Gómez-Urquiza et al., 2017). Second, the fear of COVID-19 can disrupt the balance of resources and starts a spiral of resource losses. The effort required to control or modulate the automatic fight-or-flight response elicited by fear, which would otherwise lead healthcare workers to consider leaving their workplace or minimize personal contact with patients, drains their cognitive and affective resources. These resources could have been allocated to address other demanding activities, and their absence may heighten the perception of job demands (Gross, 2007). The COR Theory (Hobfoll, 1989) explicitly categorizes threats of loss, actual loss, or lack of gain of resources as demands, which are known to be directly related to burnout (Alarcon, 2011). This confluence of factors, where job demands increase (also due by fear of COVID-19) while resources remain low, contributes to emotional exhaustion - a pivotal component of burnout. The second component of burnout, i.e., cynicism, occurs as a maladaptive coping mechanism to deal with excess demands and low resources (Alarcon, 2011). Reduced personal accomplishment, a facet of burnout, is associated with this maladaptive coping style (Alarcon, 2011). Indeed, burnout is a downward spiral that occurs when employees' job demands increase and when their resources are low (Alarcon, 2011). Thus, the inability to manage different and simultaneously occurring job

demands may increase the risk of burnout in health care workers.

Hypothesis 1: Fear of COVID-19 is positively related to burnout directly (H1a) and indirectly through partial mediation of job demands (H1b).

Burnout has consequences on the physical and mental health of healthcare workers, adversely affects patient care, and destabilizes the workforce (Hodkinson et al., 2022; Panagioti et al., 2018). The negative effect of burnout on the physical and psychological well-being of healthcare workers leads to various forms of job withdrawal, such as absenteeism, intention to leave and behavioral turnover (Park & Min, 2020). Therefore, we expect burnout to be linked with greater turnover intentions. This notion aligns with the COR model (Hobfoll, 1989), in which turnover intentions are viewed as the culmination of a resource loss spiral initiated by an environmental stressor (such as COVID-19) leading to fear of COVID-19, elevated job demands, and eventually burnout. Furthermore, we expect to observe a positive direct relation between fear of COVID-19 on turnover intentions, since it is compatible with both the fight-or-flight reaction tendency that fear commonly elicits and commonly adopted emotion-focused coping strategy, namely situation selection or avoidance (Gross, 2007). Employees might perceive leaving their current job (i.e., "avoidance") as a means to alleviate their strain. Empirical evidence supports this argument. In samples of nurses, Labrague and De los Santos (2021) found that fear of COVID-19 was related to increased intentions to leave the organization and the job. During the Ebola outbreak in West Africa, Kollie et al. (2017) observed that fear among nurses forced them to choose between their own safety and their job. Fear of COVID-19 and burnout are therefore expected to be positively related with turnover intentions. Consistent with the above, we developed the following hypotheses:

Hypothesis 2: Fear of COVID-19 is positively related to turnover intentions (H2a) both directly (as an avoidant coping response) and indirectly (H2b), through partial mediations of job demands and burnout.

Having a calling is a positive experience related to a deeply meaningful, gratifying, and fulfilling sense of self-actualization and self-transcendence (Vianello et al., 2020). Experiencing work as a calling is a resource itself that may enable additional resources such as higher motivation, organizational and occupational commitment, satisfaction, and work meaning (Duffy et al., 2018). Hence, calling can contribute to a resource gain spirals (see Hobfoll, 1989).

A large body of literature showed a negative relation between calling and burnout (e.g., Creed et al., 2014; Goštautaitė et al., 2020; Khan et al., 2023; Jo et al., 2018). People with a calling feel higher efficacy and personal accomplishment in their job: Calling is related to a higher perceived ability (Dobrow & Heller, 2015) which can be expected to protect from the low self-efficacy dimension of burnout. Moreover, individuals with a calling perceive their job to be socially valuable and derive from it a meaning, which is likely to protect them from cynicism. Finally, perceiving a calling may help individuals regulate their emotions effectively (Gross, 2007). Specifically, calling fosters attention and consciousness through its facet of pervasiveness. Indeed, a defining feature of calling is that it engulfs individual's thoughts (Dobrow, 2006): When calling is high, attention will be focused on the profound meaning of work activities, on the sense of being called to perform them, and on the feeling that work activities are a source of positive personal identity. Calling might activate *attentional deployment* strategies that help individuals to actively cope with emotional stressors. These mechanisms might reduce the risk of emotional exhaustion (Jackson-Koku & Grime, 2019). Therefore, we expect that experiencing work as a calling will provide healthcare workers with resources (Hobfoll, 1989) that protect them from burnout.

Hypothesis 3: Career calling has a negative relation with burnout.

In addition, we expect calling to be negatively related to turnover intentions. People who feel their work is a calling tend to identify with their work and experience it as important and meaningful (Vianello et al., 2018). Having a calling contributes to the individual's self-concept, hence quitting would be painful and demanding. Highly called individuals find meaning in the activities they perform and are willing to make sacrifices to keep working. Their gain, in terms of belonging, self-concept, personal fulfilment, and the feeling of living a meaningful life, repay individuals with a calling for the sacrifices they made. In addition, they also identify with the organization in which they work if they see the organization itself as a tool for achieving their goals and fulfilling their calling (Cardador et al., 2011). The strong connection between perceiving a calling and seeing a job as part of one's identity explains why calling is positively related to career commitment. A committed person has a strong desire to continue to carry out the same profession and feels compelled to not quit regardless of the costs. Increased commitments are related to low mental withdrawal behaviors and low turnover. Furthermore, calling has been observed to be negatively related to turnover intentions in previous studies (Gerdel et al., 2022). Drawing from both theory and empirical evidence, we expect calling to be negatively related to turnover intentions.

Hypothesis 4: Career calling has a direct negative relation with turnover intentions.

Consistent with the COR theory (Hobfoll, 1989) we expect that perceiving one's job as a calling is related with the acquisition of additional resources. These resources, such as improved emotional regulation strategies and higher self-efficacy, prove advantageous in stressful circumstances, preventing resource loss spirals and subsequent negative outcomes on well-being and motivation. Specifically, we anticipate that healthcare workers who perceive their job as a calling will exhibit less burnout and less turnover intentions when faced with the added psychological and practical demands associated with caring for COVID-19 patients. This assumption finds support in previous research indicating that calling serves as a buffer against stressors related to burnout (Zhang et al., 2020; Creed et al., 2014) and protect workers from workaholism (Dalla Rosa & Vianello, 2020). Thus, calling actively protects individuals from stressors, particularly when they find themselves in exceptionally challenging situations (Duffy et al., 2018; Dalla Rosa & Vianello, 2020; Zhou, 2022).

Hypothesis 5: Career calling buffers the relations between fear of COVID-19 and job demands (H5a), job demands and burnout (H5b), and burnout and turnover intentions (H5c), such that these relations are weaker or null when calling is high.

Method

Participants and procedure

The present study tests a conditional process model in which career calling is negatively related to burnout and turnover intentions and buffers the relations between fear of COVID-19 and job demands, between job demands and burnout, and between burnout and turnover intentions (Fig. 1).

The study used a cross-sectional design. A convenience sample was recruited among healthcare employees working in a COVID-19 hospital in northern Italy. Participants were invited to participate in the study by their managers. Participation was voluntary, participants could answer the survey at work or at home. Data were collected using an online survey, hosted in Qualtrics. Data were collected from 11 February to 17 March 2021, after one year from the beginning of the pandemic in Italy and during the third wave of COVID-19.

This study was performed in accordance with the ethical standards of the national research committee (AIP), the Italian law (Legislative Decree n. 196/2003), the EU regulation (GDPR n. 2016/679), and the 1964 Declaration of Helsinki and its later amendments. Informed consent was obtained from all participants.

The sample consisted of 275 Italian health workers (85% females). All data were used. Their mean age was 45.74 ($SD = 9.39$) and ranged between 23 and 64 years. The educational levels of the participants varied between middle school (14%), high school (40%), bachelor's degree (32%), master's degree (4%), post-graduate degree (5%) and others (7%). Regarding professional roles, 75% were nurses, 22% were healthcare assistants and 4% were others. The sample consisted of 47% employees working with patients with COVID-19 during home care activities. Remaining employees were working with COVID-19 patients under standard hospital care (53%). Between those who worked in hospital care, 37% worked in COVID-19 intensive care units, 58% in COVID-19 wards with three different degrees of intensity, 5% working at the triage. On average, participants had worked in their professions for 20.78 years prior to data collection ($SD = 10.43$, $Min = 0.25$, $Max = 40.5$).

Sample size was determined pragmatically as the number of employees who consented to participate in the study within the data collection timeframe, which ended right before the start of the vaccination campaign. A post-hoc power analyses was conducted using the pwrSEM package (Wang & Rhemtulla, 2021) with an alpha of .05, a sample size equal of 275, 1,000 simulations, and our estimates as population parameter values. The results suggested that our sample size is adequate to detect the target relations. Regarding H1, the study had a power of .95 to detect the relation between fear of COVID-19 and burnout, a power of 1 to detect the relations between fear of COVID-19 and job demands, and between job demands and burnout. Regarding H2, the study had a power of .52 to detect the relation

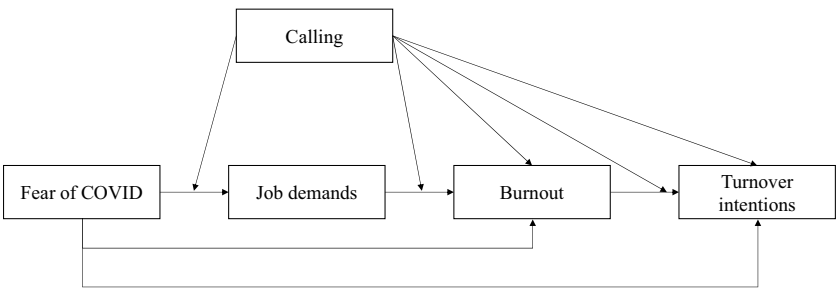

Fig. 1 The proposed conditional process model

between fear of COVID-19 and turnover intention, and a power of 1 to detect the relation between burnout and turnover intention. The post-hoc power analysis yielded a power of 1 for the relation between calling and burnout (H3), calling and turnover intentions (H4) and a power of .90 for the moderation of calling on the relation between burnout and turnover intentions and of .96 for the moderation of calling on the relation between fear of COVID-19 and job demands (H5).

Measures

The measures of calling, job demands, and burnout were already available in Italian; the other measures were translated and back-translated in Italian by two independent experts, following Brislin (1970). Cronbach's alpha coefficients, reported in Table 1, are good (> .80).

Calling The presence of a calling was assessed with the Unified Multidimensional Calling Scale (UMCS; Vianello et al., 2018). The UMCS is composed of 22 items measuring seven dimensions: passion, purposefulness, sacrifice, pervasiveness, prosocial orientation, transcendent summons, and identity. The scale was previously found to possess good internal consistency, measurement invariance across time and calling domains, as well as concurrent and discriminant validity (Vianello et al., 2018). Items were answered on a 5-point Likert rating scale, with 1 being *strongly disagree* and 5 being *strongly agree*.

Fear of COVID-19 Fear of COVID-19 was assessed with the Fear of COVID-19 Scale (Ahorsu et al., 2020). The scale is composed by seven items and was previously found to provide reliable and valid scores (Ahorsu et al., 2020). Items were answered on a 5-point Likert rating scale, with 1 being *strongly disagree* and 5 being *strongly agree*.

Job demands Job demands refer to issues related to workload, work patterns and the work environment. In this study, these dimensions were assessed using the job demands subscale of the Italian version of the Health and Safety Executive Indicator Tool (HSE-IT; INAIL, 2017). The scale is composed by eight items and was previously found to possess good internal consistency and validity (Rondinone et al., 2012). Responses were given on a Likert scale ranging from 1 (*never*) to 5 (*always*).

Burnout Burnout was evaluated with the Italian version of the Maslach Burnout Inventory, adapted and validated by Borgogni et al. (2005). The scale is a widely used and well-established measure for assessing burnout and consists of 16 items that make up three subscales: emotional exhaustion, cynicism and professional inefficacy. The scale was previously found to possess good internal consistency and acceptable concurrent and discriminant validity (Borgogni et al., 2005). The responses were given on a Likert scale ranging from 1 (*never*) to 5 (*always*).

Turnover intentions Turnover intentions were measured with the three items of the employee turnover intentions scale (Mobley et al., 1978). Mobley et al. (1978) observed correlation in the expected direction and in line with the literature, which supported the concurrent and discriminant validity of scale scores. Items were answered on a 5-point Likert rating scale, with 1 being *strongly disagree* and 5 being *strongly agree*.

Data analysis

Hypotheses were tested using a path model for observed variables (mean composite scores) estimated using IBM AMOS 20. To favor interpretability, scores were standardized before computing the interaction terms and estimating the model (Tabachnick & Fidell, 2013). No data or participants were excluded. The proportions of missing data were 27% for job demands and burnout, 32% for calling, 38% for fear of COVID-19 and turnover intentions. T-tests for independent samples were performed to assess the effect of non-random sampling on means. No significant differences were found on the variables investigated in this study comparing participants with and without missing data (on the same variables).

Table 1 Descriptive statistics, correlations, and internal consistencies for all variables

	N	Min	Max	*M*	*SD*	1	2	3	4	5	6
1. Career Calling	208	1.27	5.00	3.27	.65	*.94*					
2. Fear of COVID-19	199	1.00	5.00	2.37	.83	.003	*.89*				
3. Job demands	216	1.13	4.88	2.85	.68	-.08	.32*	*.89*			
4. Burnout	216	1.20	4.50	2.83	.77	-.46*	.32*	.56*	*.89*		
5. Turnover intentions	200	1.00	5.00	2.14	1.03	-.53*	.22*	.23*	.55*	*.93*	
6. Age	195	23	64	45.74	9.39	.04	-.08	-.12	-.13	-.05	
7. Gender (1 = female)	196	-	-	1.85	.36	.15*	.08	.005	-.02	*-.07*	-.04

* $p < .01$. Cronbach's alphas are reported on the main diagonal.

Missing data were handled with full information maximum likelihood estimation. To probe the nature of the moderation, we conducted a sub-group analysis using a pick-a-point approach (Aiken & West, 1991). For each significant moderation we estimated a slope for the subgroup of participants with high levels of calling (1 *SD* above the mean; n = 29) and one slope for the subgroup of participants with low levels of calling (1 *SD* below the mean; n = 30).

Results

Table 1 shows the descriptive statistics, zero-order correlations between study variables and their internal consistencies estimated using Cronbach's alpha coefficient. The mean level of calling observed in this study is consistent with levels of calling observed in other samples of Italian workers and in samples of healthcare workers (Dalla Rosa et al., 2020; Dalla Rosa & Vianello, 2020; Gerdel et al., 2022; Goštautaitė et al., 2020; Huang et al., 2022).

The hypothesized model (Fig. 1) was tested and the moderation of calling on the relation between job demands and burnout was found to be small and non-significant (β = .03, *SE* = .04, *p* = .55). Hypothesis 5b was not supported. To improve model fit, the interaction term between calling and job demands and its correlations with calling and job demands were removed. After these modifications, the fit of the model was acceptable with CFI ≥ .90; RMSEA ≤ .10 (Brown, 2006): $\chi^2(8) = 26.52$, *p* = .001, CFI = .94, RMSEA = .09, 90% CI [.06, .13]. Table 2 reports the standardized path estimates of the revised model used to test the hypotheses.

Consistent with hypothesis 1, fear of COVID-19 was positively related to burnout (H1a), job demands were positively related to burnout and partially mediated the relation between fear of COVID-19 and burnout (β = .16; H1b). The direct relation between fear of COVID-19 and turnover intentions was small and non-significant, hence H2a was not supported. However, greater fear of COVID-19 was related to higher turnover intentions indirectly by increasing the perception of job demands and burnout (H2b was supported).

Career calling was negatively related to both burnout and turnover intentions (H3 and H4 were supported). Career calling buffered the relation between fear of COVID-19 and job demands (H5a) and the relation between burnout and turnover intentions (H5c). The model accounted for 15% of variance in job demands, 48% of variance in burnout, and 42% of variance in turnover intentions.

The positive relation between fear of COVID-19 and job demands was smaller when the level of calling was higher (supporting H5a). The relation between fear of COVID-19 and job demands was positive and significant, β = .58, *SE* = .14, *p* < .001, at values of calling lower than 1 *SD* below the mean, and it was non-significant, β = .07, *SE* = .20, *p* = .72, at values of calling higher than 1 *SD* above the mean.

Consistent with hypothesis 5c, we observed that the relation between burnout and turnover intentions was positive and stronger, β = .64, SE = .15, *p* < .001, when calling was low (1 *SD* below the mean). It was smaller and non-significant, β = -.06, SE = .16, *p* = .75, when calling was high (1 *SD* above the mean). Figure 2 presents the final model with standardized estimates and conditional relations. The model's fit was satisfactory: $\chi^2(8) = 26.52$, *p* = .001, CFI = .94, RMSEA = .09, 90% CI [.06, .13].

No relevant differences were observed in the main results accounting for demographic variables (i.e., gender, education, professional role, hospital/home care, hospital units).

Table 2 Standardized estimates, standard errors and p-values for the parameters in the final model

Path	β	*SE*	*p*
Fear of COVID ON Job demands	.31	.07	<.001
Fear of COVID ON Burnout	.16	.05	.002
Fear of COVID ON Turnover intentions	.10	.06	.08
Calling ON Burnout	-.43	.05	<.001
Calling ON Turnover intentions	-.35	.06	<.001
Job demands ON Burnout	.48	.05	<.001
Burnout ON Turnover intentions	.33	.07	<.001
Fear × Calling ON Job demands	-.21	.06	.001
Burnout × Calling ON Turnover intentions	-.16	.05	.005

N = 275. All variables were standardized. Model fit: χ^2 (8) = 26.52, *p* = .001, CFI = .94, RMSEA = .09, 90% CI [.06, .13].

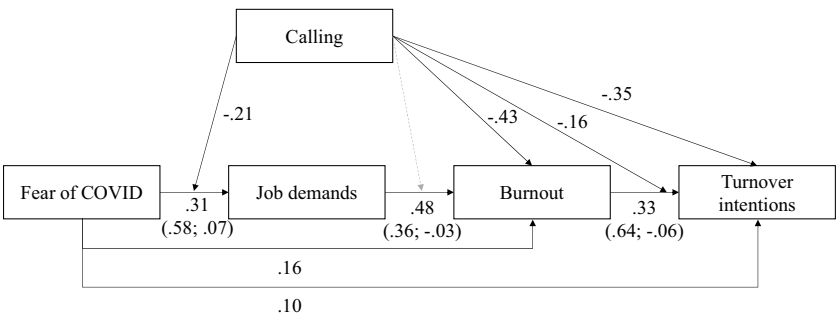

Fig. 2 The final model with standardized estimates and conditional effects. Grey dotted line represent a not significant path removed from the final model. Numbers in parentheses are conditional effects when career calling is 1 *SD* below the mean and 1 *SD* above the mean, respectively

Further exploratory analyses were conducted replacing the composite score of burnout with the three facets of burnout and replacing the composite score of career calling with the seven facets, these analyses are provided in an online supplement: https://osf.io/afhw5

Discussion

Since the onset of COVID-19, the world of work has been compelled to change and adapt considerably. Given the unique nature of health workers' jobs within the context of COVID-19, a greater understanding of the contextual and individual factors related to the well-being and motivation of employees is important to examine. What we can learn from the pandemic can be used in managing future emergencies.

The results of this study showed that fear of COVID-19 was positively related to burnout both directly and indirectly through higher job demands. Fear of COVID-19 was also related to higher turnover intentions via job demands and burnout. More importantly, we examined the role of career calling in these relations. Our data showed that career calling was negatively related to both burnout and turnover intentions. Previous empirical evidence suggests that calling is related to many positive outcomes (e.g., higher satisfaction, commitment, and performance; Duffy et al., 2018), prevents people from developing burnout (e.g., Khan et al., 2023; Creed et al., 2014; Jo et al., 2018; Zhang et al., 2020) and is negatively related to turnover intentions (Dobrow et al., 2023; Khan et al., 2023; Gerdel et al., 2022; Goštautaitė et al., 2020). The current study replicates previous findings in the unprecedented situation caused by the spread of COVID-19. Furthermore, the correlation between calling and turnover intentions observed in this study was slightly higher than a meta-analytic estimate of r = -.35 based on previous studies (e.g., Khan et al., 2023; Creed et al., 2014; Jo et al., 2018; Zhang et al., 2020; Gerdel et al., 2022), suggesting that calling could be even more effective in protecting individuals when environmental conditions are threatening and stressful.

We analyzed the moderating role of calling and observed that calling interrupts the negative vicious cycle at the level of job demands and turnover intentions. Specifically, career calling mitigated the strength of the relation between fear of COVID-19 and job demands and mitigated the strength of the relation between burnout and turnover intentions. When calling was high, fear of COVID-19 had no relation with job demands, and burnout was not associated with increased turnover intentions. This study provides new insights into the protective role of calling. To the best of our knowledge, the relationship between calling and fear of COVID-19 has not been previously examined. Most importantly, our study replicates and extends to the context of the COVID-19 pandemic previous findings that demonstrated that calling acts as a safeguard protecting junior doctors from burnout in the presence of academic stress (Creed et al., 2014) and shielding firefighters' well-being from burnout (Jo et al., 2018). Theoretically, our study challenges the notion of calling's dark side as postulated by the WCT (Work as Calling Theory). According to the WCT, calling is expected to have both positive outcomes (e.g., higher job satisfaction, better job performance) and negative outcomes (e.g., exploitation, workaholism, burnout). However, empirical evidence from a plethora of job and work environments has predominantly supported the positive role of calling (Dobrow et al., 2023; Khan et al., 2023; Creed et al., 2014; Jo et al., 2018; Zhang et al., 2020), leading to the belief that the dark side might be limited to specific individuals under certain extreme conditions that have not yet been observed. Our study suggests that calling may provide protection against stressors and suboptimal adjustment even in extreme working conditions. In addition, this study suggests that the COR theory provides a valuable framework for understanding the role of career calling, which emerges as a robust personal resource that may shield against cycles of resource loss, potentially due to its ability to enhance coping in stressful work environments and prevent withdrawal behaviors. Consistent with this interpretation, previous studies have found positive associations between calling and thriving at work, resilience, and work readiness during the COVID-19 pandemic (Sun et al., 2022; Terry & Cigularov, 2022).

Furthermore, this study contributes to the discourse regarding the mechanisms according to which career calling buffers detrimental workplace outcomes. We observed that calling helped healthcare workers cope with fear of contagion by reducing the strength of the relation between fear of COVID-19 and job demands. This result is in line with findings from Huang et al. (2022) who observed that a high career calling among healthcare workers buffered the negative relation between excessive job demands and job satisfaction. Perceiving a career calling might act as a positive attitude that is associated with positive appraisals of the work environment. For instance, it might help in framing demands as a challenge rather than a threat. Consequently, well-being and satisfaction might be enhanced.

The buffering role of calling we observed could potentially explain why Zhu et al. (2021) discovered that critical activities within COVID-19 intensive care units increased nurses' daily occupational calling. Individuals who feel a strong sense of calling are more likely to effectively cope with work-related stressors, which, in turn, makes them more resilient against burnout and the intention to leave their profession (Creed et al., 2014; Dalla Rosa & Vianello, 2020; Gerdel et al., 2022; Goštautaitė et al., 2020; Khan et al., 2023; Jo et al., 2018; Zhang et al., 2020). Moreover, the effort-justification paradigm suggests that people tend

to place a higher value on and appreciate something more if they have invested considerable effort or overcome challenges to attain it (Harmon-Jones & Mills, 2019). The successful management of emergency situations by healthcare workers may reinforce their belief that they are meant for their job to justify their effort, thereby enhancing their perception of a calling.

The role of burnout and turnover intentions on the healthcare system is substantial as it is related to lower workers' well-being and suboptimal patient care undermining a societal need to be in receipt of safe care (Hodkinson et al., 2022; Panagioti et al. 2018). The results of this study show that highly called individuals are more likely than others to stay in the organization and less likely to suffer from negative implications of stressful or emergency situations. Considering that, a practical implication of the study is that assessing individual perception of career calling should be taken into consideration during hiring and selection processes to ensure greater resilience to stressors and lower turnover intentions in the future. Moreover, researchers have recognized the need to identify modifiable personal characteristics which could buffer the consequences of stressful working conditions among employees (e.g., Waters et al., 2021). Perceiving work as a calling is an orientation toward work that can be developed (Vianello et al., 2020), and the results of this study suggest that it could be one solution to reduce employee turnover intentions and preserve workers' mental health in the presence of job extreme demands. Therefore, according to a positive approach to preventing burnout, it would be wise to design interventions that focus on building resources and helping workers cultivate a healthy sense of career calling toward their work. While the focus on this study was on healthcare workers, we speculate that a similar buffering role of calling could be observed in other occupations characterized by challenging yet meaningful work tasks (e.g., firefighters, rescue workers), increasing the relevance of the implications of this study.

Limitations and recommendations for further research

One of the limitations of this study is the cross-sectional nature, which prevents causal inferences regarding the direction of the relations between variables. The expected relationships between the variables were developed in the light of occupational stress theories, but reverse associations cannot be excluded. Among many scenarios, fear of COVID-19 could be a consequence of increased job demands and increased burnout. However, such a situation would not question the buffering role of calling between burnout and turnover intentions, nor the negative relation of calling with burnout and turnover intentions. We positioned calling as a possible antecedent of burnout, but we could not test the opposite direction. It is possible that burnout predicts calling negatively: Individuals who experience exhaustion, cynicism, and diminished personal efficacy may feel less passion for their job, and they could feel that their job contributes less to their purpose in life. Future investigations that explore the temporal precedence between these phenomena are encouraged.

The second limitation of this study concerns common method bias and the fact that all variables were measured at the same time by the same source. Common method bias may have inflated or deflated the size of the relationships that we observed (Conway & Lance, 2010).

A further limitation regarding measures is the absence of a behavioral measure of turnover. Researchers have found that employees' turnover intentions and quit behaviors are correlated, but there is a large discrepancy on the strength of the relationship (Griffeth et al., 2000). Measurement of intention rather than behavior was more feasible considering the limited time and resources that the organization was able to dedicate to this project. Future researchers are invited to assess the impact of common method bias by employing multiple sources of data and including a temporal or psychological separation between measurements of different constructs.

Finally, sample size was small and the participants were mostly women, which may restrict the generalizability of the findings to a larger and more diverse population. Although neither in this study nor in the literature a significant relation between gender and calling, job demands, burnout, and fear of COVID-19 have been observed, we are aware that our results should be interpreted with caution and that replication of these findings with a larger and more diverse sample is needed.

Conclusion

This study investigated the role of career calling as a resource during the COVID-19 pandemic that buffer against stressors, like fear of COVID-19 and job demands, and their relations with burnout and turnover intentions. The findings support our predictions that career calling acts as a protective factor against burnout and turnover intentions and as a buffer between the relation between fear of COVID-19 and job demands and between burnout and turnover intentions. These findings call for greater attention to the experience of work as a calling among the healthcare workforce, which could protect future and current workers from stressors and their detrimental associations with burnout and turnover intentions. Specifically, practitioners should understand the importance of the experience of work as a calling in HR practises and consider how to design interventions to enhance a sense of calling.

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Data availability The datasets generated and analysed during the current study, the code and the outputs are available in the OSF repository: https://osf.io/7s94h/

Declarations

Consent This study was performed in accordance with the ethical standards of the national research committee (AIP), the Italian law (Legislative Decree n. 196/2003), the EU regulation (GDPR n. 2016/679), and the 1964 Declaration of Helsinki and its later amendments. Ethical approval was not required. Informed consent was obtained from all participants. No identifying data were collected in the survey.

Competing Interests The authors report there are no competing interests to declare.

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