

Higher education leadership, quality of worklife and turnover intention among Lebanese academics in COVID-19: a moderated mediation model

Lebanese academics in COVID-19

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Abstract

Purpose – The purpose of this study is to explore the human resource development (HRD) implications of perceived higher education (HEd) leadership effectiveness on academics' quality of worklife (QWL) in the context of COVID-19. Drawing on conservation of resource theory, this study explains the mediating role of resource adequacy (RA); then this study investigates the moderating role of COVID-19-related risk perception (CRP) on the relationship between university leadership (UL) and both academics' turnover intention (TI) and academics' QWL.

Design/methodology/approach – This study used a quantitative research exploiting the pandemic experiences and perceptions survey, PEPS, to collect data from 300 academic staff in private and public HEd institutions in Lebanon. The analyses include the test of the mediating effect of RA as well as the moderated mediation effect of CRP through regressions, PROCESS and bootstrapping.

Findings – The findings suggest that by enhancing RA, effective UL positively influences the QWL and mitigate the TI in Lebanese HEd. Furthermore, this study found that CRP weakens the direct relationship of UL on RA and the indirect effect of UL on the QWL and TI via RA such that the relationships are weakened when COVID-19 risk perception was high rather than low.

Practical implications – The results imply that HEd HRD professionals could think of effective human resource interventions of how to maintain good working environment where academics are facilitated to acquire high level of resources which lead to improving their QWL and mitigating the negative outcome (TIs).

Originality/value – To the best of the authors' knowledge, no research has been made to investigate the moderated mediation model of the "pandemic experience and leadership perceptions" (PEPS) in the HEd sector in Lebanon, addressing academics' experiences in business schools. This study is unique because it was conducted during the utmost pandemic outbreak (mid academic year 2021) collecting data in real time. This research contributes to the HRD literature by showing empirical evidence of the relationships in the context of Lebanese HEd institutions.

Keywords Higher education leadership, COVID-19, Resource adequacy, Risk, Turnover intention, Worklife, Lebanon, Human resource development, COR

Paper type Research paper

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Introduction

The human resource development (HRD) is progressively the most researched field in the broader scope of human resource management (Garavan *et al.*, 2012). It is mostly demonstrated by formal organizational and personal practices designed to improve the potential contribution of human resources to the organization. HRD practices develop employees' abilities to enhance their quality of worklife (QWL), performance, career development, involvement and others to accelerate the organizational success (Otoo *et al.*, 2019). Leaders may take a holistic approach to address the employees' worklife by providing services and resources that help them work more effectively (Bagtasos, 2011). The turnover intention (TI) is renowned as a negative workplace outcome that usually should be avoided by HRD (Kim and Hyun, 2017); nevertheless, it is affected by immediate superiors' leadership (Waldman *et al.*, 2015).

For many decades, higher education institutions (HEIs) in Lebanon have been affected over the decades by political, economic and social crises. In 2019, the COVID-19 outbreak took the Lebanese people by storm. The repercussions of the pandemic have been particularly felt in HEIs, imposing a quick shift toward online teaching, not only in Lebanon but worldwide (Crawford *et al.*, 2020; Jena, 2020; Toquero, 2020; Mukaram *et al.*, 2021). In addition to the concurrent severe collapse in the country's economy, the pandemic transformed homes into offices and classrooms, puzzling the higher education (HEd) system and pressuring the university leadership (UL) and the academics' QWL. While online teaching was more of an individual endeavor prior COVID-19, it had become an institutional obligation during the pandemic. Major barriers were felt in HEd while adopting online teaching, mainly, infrastructure weaknesses, lack of technological usability, lack of institutional and leadership support, power outage, limited and unstable access to the internet and deficiencies of resources (Truss and Anderson, 2023). Moreover, the government interest was skewed away from the education sector toward health care, leaving the HEd without neither funding, investment in infrastructure nor digital tools (Bizri *et al.*, 2021a; El-Ghali and Nauffal, 2020).

Nearly every country in the world had implemented, at some level, a nationwide lockdown of educational institutions. In developed countries (e.g. USA, UK, Ireland, Australia, Germany, Italy), the transition was prompt, whereas in developing countries, this transition was nonexistent (e.g. Malaysia), incremental (e.g. India, Singapore, Jordan, Egypt, United Arab Emirates) and full transition (e.g. China, Chile, Hong Kong) (Crawford *et al.*, 2020). The transition to online education in Lebanon followed the trend but faced several constraints: lack of tech equipment at home (computers, printers, etc.), power outages and at times total blackouts, instructors' lack of online teaching training and work-family conflict (Bahous *et al.*, 2022). Moreover, there are disparities among education systems in different countries, including Lebanon. These may include factors related to education system in terms of flexibility (as seen in USA and Canada), attendance (being obligatory in Lebanon), level of investment in education through providing training and quality resources (evidently in developed countries) and resource accessibility such as proper internet connection, tech equipment, electricity power and infrastructure (more available abroad even in the Arab countries) (Bahous *et al.*, 2022; UNESCO, 2020). Thus, the HEd sector in Lebanon was not the only one grappling with the repercussions of the pandemic or facing constraints in delivering education online. The global shared challenges were evident, which suggest the study to be relevant beyond Lebanon.

Furthermore, the research of HRD in HEd has been undervalued. The technological evolution and the subsidies reduction foreshadow major changes in universities affecting the adequacy of resources necessary for online teaching which include technological equipment, online platforms, qualified staff and management support (Collins, 2014). In this challenging context, we highlight two major issues. First, the study contributes new proposals for "HRD processes to support the development of game-changing pedagogical

practices and adds a much needed HRD ‘voice’ to issues of academic and professional development in HEd” (Anderson, 2020, p. 454). Anderson assumes that the effectiveness of pedagogy is based on the support and the creation of a favorable “environment” for learning. This helps academics ensure this shift in a record time which, again, emphasizes the contribution that HRD practices can bring in this respect. Second, it refers to the role of leadership in HEIs which seems to be distinct from other organizations in terms of their management and requirements dictating the “academic leadership.” Accordingly, traditional leadership models and individual leaders are requested to show more flexibility in the workplace (Davis and Jones, 2014; Mukaram *et al.*, 2021). From this perspective, the international Commission is a loud call to the HEI’s actors (academics, learners, etc.) to rethink the education system post COVID-19 and the disruptions the pandemic generated (UNESCO, 2020). If leaders’ role is to help fight in times of crisis (Mukaram *et al.*, 2021), how do academics perceive their leadership practices of HRD in HEd?

The conservation of resources theory (COR), which is based on two principles, resource investment and the resource loss, is evident in the pandemic context and has been challenging for academics (Hobfoll, 1989; Ito and Brotheridge, 2003; Halbesleben *et al.*, 2014; Merino *et al.*, 2021). This occurs due to the emergence of many factors, namely, the work overload, lack of resources, underqualified leadership, inadequate funding, difficult interactions with students and job insecurity (Barkhuizen and Rathmann, 2008; Tytherleigh *et al.*, 2005). Academics are likely to experience a loss of previously acquired resources and a deterioration in their QWL, which in turn reinforces TIs. HEIs are urged to demonstrate organizational leadership to support academics and be able to develop their human resources despite the disruption caused by COVID-19. Novitasari (2020) affirms that perceived organizational support (POS) positively affects the performance of academics both directly and indirectly. POS is “an employee’s perception that the organization values his or her work contributions and cares about the employee’s well-being” (Eisenberger *et al.*, 2016, p. 3). This support becomes particularly important given that academics presents a perceived high risk of COVID-19 when being in direct contact with students. Their contamination by the virus can paralyze teaching or even lead to the outright closure of establishments. Under these conditions, the use of online teaching, the adequacy of resources (availability of key resources to meet requirements) and the COVID-19-related risk perception (CRP; the feeling of being exposed to risk) depend on the UL (at the global level and by the immediate supervisor).

Cumulatively, this research attempts to present several theoretical and empirical contributions. The implications in HRD concept are aligned with the practices performed in HEIs in times of crisis. This study analyzes the academics’ QWL based on PEPS that is primarily designed for health care and reviewed for the HEd context. Drawing on COR theory, it highlights the effects of UL on TI (loss) and the QWL (gain) by focusing on the mediating role of resource adequacy(RA) (gain) and the moderated mediation effect of CRP (loss). COR theory highlights that stressors caused by COVID-19 affect the professors and their reactions to acquire or protect their resources (time, energy, technology, access to digital tools). Accordingly, this theory can be used to explain how university leaders can marshal the professors’ needs and help minimizing the negative impact of those stressors (Zhou *et al.*, 2018; Merino *et al.*, 2021).

This research empirically tests the proposed model of the UL during the pandemic outbreak, in the context of Lebanese HEIs that is used to operate exclusively in person. To our knowledge, this study is the first to explore the perceptions and experiences of academics in the HEd sector during the COVID-19 pandemic while others explore it from the students’ perspective or in the health-care sector in Lebanon (Bizri *et al.*, 2021b, 2021a;

[Zeenny et al., 2020](#)). The spread of the pandemic shows that the reinvention of learning methods is essential and the HRD is crucial. In practice, the analysis of the academics' current experiences help HEI leaders develop and retain their personnel, improve their QWL and evolve the human resources practices and set appropriate recovery plans ([Hobfoll, 1989](#); [Ariyabuddhiphongs and Khan, 2017](#); [Jena, 2020](#)).

Lebanese contextual background

Recently, many crises have erupted in Lebanon. The October 2019 popular uprising hindered all employees from reporting to work; the financial crisis jolted the pattern of buying power; the explosion of Beirut port in August 4 devastated the capital; but COVID-19 outbreak definitely impeded the presence of employees at work in all sectors. Accordingly, the pandemic outbreak forced HEIs to close their campuses and switch to teaching fully online. The HEd sector in Lebanon comprises one public university (Lebanese University) and 42 HEIs in the private sector, 31 of which are universities.

The academic year 2019–2020 has been unusual for HEIs ([El-Ghali and Nauffal, 2020](#)). The main challenge was to switch from the usual means of teaching to completely remote learning ([Goghari et al., 2020](#)), albeit, online diplomas are not accredited by the Lebanese Ministry of Education. The second major challenge was teaching from home that urged professors to change their teaching styles, methods and systems ([Izumi et al., 2020](#)). Despite the academics' duty to deliver best teaching practices, distance learning was not well accepted because of the inadequacy between the real needs and the mobilized resources that reflects the scarcity of resources ([Schleicher, 2020](#)). Most of the educational workforce lacks appropriate equipment at home (computers, scanners, printers, etc.), suffers from power outage (reaching 22/24 h), poor internet connection let alone its total shutdown and lack of training and development of mastering technology in education. However, the dedication of teaching staff has shown that the implementation of online teaching as a rescue scenario was possible due to their' goodwill, commitment and above all their resilience toward crises.

Literature review and hypotheses development

Dealing with stressful conditions, we report a study grounded in the COR theory ([Hobfoll, 1989](#)) which emphasizes the concept of acquiring and maintaining resource investment, and developing the academic workforce for enhancing academics' well-being and highlighting the role of the leadership in HEIs. [Hobfoll \(1989\)](#) explains that "people strive to retain, protect, and build resources and that what is threatening to them is the potential or actual loss of these valued resources, his model identifies four kinds of resources whose loss and gain result in stress or eustress (i.e. well-being)." COR outlines resources as object resources (car, house), condition resources (marriage, seniority), personal resources (traits and skills such as self-efficacy), energy resources (time, money) and social support that is not included into any of the four previous categories. COR theory suggests that employees are motivated to retain their current resources besides acquiring new resources to perform their tasks and reach their goals. In addition, to compensate for the loss or gain of resources, they invest in other acquired resources or those available in their environment. The accumulation of resources investment leads to enrich the resource pool, thus, get into "gain spiral." On the contrary, if this accumulation causes loss, then, it results in "loss spiral" ([Hobfoll, 1989](#); [Westman et al., 2005](#)).

University leadership and turnover intention

Universities during the pandemic are on the cusp of great changes and leaders in HEd find themselves in a defensive in these moments. The academic leadership is a "process of social

influence” (Gigliotti, 2017, p. 197); it is associated with actions and empowerments (Cameron, 2011). University leadership refers to behaviors, actions and characteristics exerted by persons in the leadership roles within the academic institutions. University leaders include all of the administrators, chairmen of faculties, deans, provosts, directors and heads of departments who are responsible for making strategical decisions. Effective UL is vital in fostering good work environment, better QWL and promoting academic excellence. In this regard, university leaders have a clear vision for the future; support for faculty, staff and students; ensure adequate resources; and must be able to make sound decisions (O’Mullane, 2011). Universities are distinctive organizational entities where academic leaders are expected to bolster the production of knowledge, motivate the academic personnel and positively affect their morale, productivity and the acceptance of change (Ramsden, 1998; O’Mullane, 2011). In the context of crisis and pandemic, the perceived UL (supporting, improving capabilities, feeling safe, allocation of resources, training, developing, etc.) depends on the actions taken by academic leaders, those resulting in positive outcomes such as reducing the academics’ TI and improving the academics’ QWL.

However, turnover occurs when employees quit the company. This behavior is exhibited internally or externally, voluntarily or involuntarily and functionally or dysfunctional (Naumann, 1992). Employees’ turnover is mainly affected by immediate superiors’ leadership (Waldman *et al.*, 2015) and the TI is its immediate precursor, even a proven antecedent (Ajzen, 1991). Thus, it is important for leaders to understand these warnings and try to act on such intentions (Jacobs and Roodt, 2008). Turnover intention is often attributed to poor working conditions such as a stressful work environment, poor human resource management (Boamah and Laschinger, 2016), demanding jobs and lack of resources (Schaufeli and Bakker, 2004). However, when change occurs, organizations must mobilize resources such as attention, support, well-being, perception of belonging, learning opportunities, performance rewards and strengthening organizational commitment to retain employees (Rousseau, 1998; Ng and Butts, 2009). Based on COR theory and the social support, perceived supervisory support demonstrated a significant and negative effect on both TI and burnout (Chami-Malaeb, 2021). Other studies prove that leadership plays a moderating role in preventing TI (Apostel *et al.*, 2018). Abusive supervision that is characterized by hostile verbal and nonverbal behavior psychologically affects employees and increases voluntary TIs (Seo and Chung, 2019). Hence, we argue that UL adversely affects the TI (Long *et al.*, 2012). According to COR theory, turnover is the result of resource loss (Zhang *et al.*, 2019) and the environmental context threatens the resources currently held by the staff (status, position, etc.) or leads to their depletion. Consequently, COVID-19 represents a state of major transformations affecting the HEd sector. This change generates losses and gains of resources with predominance of losses (Rousseau, 1998). Thus, we focus on the UL to explore its impact on academics’ TI during COVID-19, and formulate the following hypothesis:

H1a. In the context of COVID-19, university leadership (UL) is negatively related to academics’ turnover intention (TI).

University leadership and quality of worklife

QWL is given an increased interest as an “HRD mechanism” (Gurkoo and Mufeed, 2018, p. 362) and development of favorable work environment that satisfies the needs of employees (Koonmee and Virakul, 2007). QWL was initially related to the organizational climate and the evolution of tasks (job enlargement and job enrichment) prior to being associated with the development of “a more humanized work environment” where human

resources are meant to be developed rather than just being employed (Srivastava and Kanpur, 2014, p. 55). Leiter and Maslach (1999) analyze six dimensions of worklife in PEPS (workload, control, rewards, community, equity, values) that can affect burnout among employees. They conclude that these dimensions influence the relationship between the individual and work. Similarly, the way employees perceive their superiors' leadership behaviors affects the QWL (Kara *et al.*, 2018). In short, there are as many dimensions as there are studies on the QWL but the majority of these dimensions revolves around "specific characteristics of the job (e.g., pay, hours of work, skill requirements, job content) and on aspects of the wider environment (e.g. working conditions, training, career prospects, health insurance cover, etc.)" (Royuela *et al.*, 2008, p. 404). Despite that the QWL affects the professional lives of employees, QWL has received little attention in academia until recently (Ngcamu, 2017). It is crucial that university leaders consider this matter to improve the performance and to ensure the retention of both academics and employees (Johnsrud, 2002; Moestain *et al.*, 2020). This is even more significant in times of crisis and particularly during the COVID-19 pandemic which is quite threatening for academics who are usually in direct contact with students. In this regard, we argue that better QWL is subject to the leadership role in shaping academics' work experience through risk protection and allocation of appropriate resources (Leiter *et al.*, 2010). Similarly, when the work environment allows employees to access information, resources and support, their propensity to control the workload and to have good relations at work will be greater. They will feel rewarded for their achievements, tend to believe that leadership practices and policies are fair and perceive some alignment between the organizational values and their own (Laschinger and Finegan, 2005).

Although the majority of previous studies have focused on the dimensions and outcomes of QWL, this study stands out as it marshals COR theory to explain the impact of UL on QWL. Like any other crisis, the pandemic generates stress and concern among the population; academics are no exception. Thus, the stress factors that threaten an individual lead initially to protect his earned resources and himself against possible future losses before moving toward the acquisition of new resources (Hobfoll, 1989). In this regard, academics are urged to invest in resources with the intention to compensate loss or to acquire new resources (Westman *et al.*, 2005; Halbesleben *et al.*, 2014; Merino *et al.*, 2021). A failure of their investment causes a loss of initial resource which leads to additional losses generating "loss spirals," as opposed to a successful investment which leads to "positive gain spiral" (Hobfoll *et al.*, 2012; Zhou *et al.*, 2018; Zhang *et al.*, 2019). Getting into this vicious cycle, individuals revert back to their environment to call on available resources and grow them thereafter (Hobfoll, 1989; Westman *et al.*, 2005; Halbesleben *et al.*, 2014). The immediate superiors' leadership roles provide a good base of available resources to reduce the distress of individuals and improve the working conditions strongly blackened by COVID-19. Based on the above, we formulate the following hypothesis:

H1b. In the context of COVID-19, university leadership (UL) is positively related to academics' quality of worklife (QWL).

The mediating role of resource adequacy

During the pandemic, the shift to remote teaching affected professors' QWL and required additional support and resources to perform properly. COR theory proposes that it is the perceived available resources that are valued rather than the actual amount of resources. Accordingly, resources motivate individuals and construct their embeddedness (Rubenstein *et al.*, 2020; Zhang *et al.*, 2019). They are essential drivers managed by the university leaders

to ensure academics' development and performance (Alsaaty and Morris, 2015). The scarcity of resources may lead to work overload, social conflict and lack of efficiency (Leiter and Maslach, 2003). Bailey *et al.* (2021) explain that the adequacy of resources is positively associated with QWL. Consequently, Bakker and Demerouti (2007) stated that resources are important in their own right, while Schaufeli and Bakker (2004, p. 296) argue that "job resources refer to those physical, psychological, social, or organizational aspects of the job that either/or (1) reduce job demands and the associated physiological and psychological costs; (2) are functional in achieving work goals and (3) stimulate personal growth, learning and development."

The educational disruption and the use of e-learning resources during COVID-19 lead academics seek more digital platforms (UNESCO, 2020). For instance, videoconferencing and teaching equipment (electronics such as laptops, computers, iPads and internet connections) are used to put students and academics in virtual classrooms to ensure proper delivery of teaching material (Coman *et al.*, 2020). Losing access to such resources may interrupt the process of distance learning (Sadeghi, 2019). HEIs provide academics with resources that are either tangible for effective teaching process (Edokpolor and Dumbiri, 2019) or intangible such as the technology boom, learning and growth that are vital to online teaching and difficult to recreate (Silva and Oliveira, 2020).

In this context, leadership is a key success factor in HEd (Tsinidou *et al.*, 2010); it has the ability to provide resources to achieve teaching, learning and researching goals (Cameron, 2011). In this study, we assume that the perception of UL in terms of providing support, expressing hope for success, identifying actions to improve performance, expressing confidence and helping feel safe positively affect the perception of adequate resources. Leaders exchange resources with employees to motivate them (Deichmann and Stam, 2015). The adequacy of resources (teaching equipment, online resources, university staff availability, university staff competence and information to work from home) influences effectively the quality of employees' worklife (Perrewe and Ganster, 2010). Based on COR, employees look for acquiring and maintaining resources, known as a gain in the future, that in turn can reduce the employees' TI (Hobfoll, 1989; Bakker and Demerouti, 2007). In this study, we revealed that whenever the context changes following the pandemic outbreak the perception of UL depends on the actions taken to help academics through this ordeal. Thus, we propose the following hypothesis:

H2. In the context of COVID-19, university leadership (UL) is positively related to resource adequacy (RA).

RA has not been tested yet in the relationship between UL and TI, while trust, job performance, commitment and employee engagement proved to mediate this relationship (Ariyabuddhiphongs and Khan, 2017; Gyensare *et al.*, 2017). RA also mediated the negative relationship between proactive burnout prevention and the burnout behavior (gain/loss resources) in many sectors like government agencies, educational and health-care institutions (Otto *et al.*, 2021). Moreover, it mediates the relationship between management trust, employees' performance and employees' well-being in organizations (Dirks and Ferrin, 2002; Chin and Idris, 2017). RA played a mediation role between teachers' occupational stressors and their burnout (Betoret, 2006), also, between the usefulness of resources and the intention to use them in online teaching (Kio and Lau, 2017). Nevertheless, in organizations, the resources can function as either a mediator or moderator between the environmental factors and the organization outcomes (Judge *et al.*, 1997).

Based on the above evidence, we assume that if professors perceive that university leaders provide adequate tangible and intangible resources, this will strengthen the

relationship between UL and QWL and mitigate the negative relationship between UL and TI. Therefore, we propose the following hypotheses:

- H3a.* COVID-related resource adequacy (RA) mediates the negative relationship between university leadership (UL) and turnover intention (TI).
- H3b.* COVID-related resource adequacy (RA) mediates the positive relationship between university leadership (UL) and quality of worklife (QWL).

The moderated mediation role of risk perception

Risk perception is known as personal belief about the likelihood of suffering from a disease (Champion and Skinner, 2008). Yildirim *et al.* (2021, p. 2) conceptualize the perceived risk “as individuals’ psychological evaluations of the possibility and consequences of a negative outcome.” Perceived risk of COVID-19 is associated with anxiety, fear of the pandemic, vulnerability, disruption in daily behaviors and dissatisfaction in the worklife (Yildirim *et al.*, 2021). Because the full impact of COVID-19 remains unknown, Lee *et al.* (2021) claim that risk perception of COVID-19 (CRP) might affect the academic performance. University leaders ought to impose preventive precautions, embrace virtual teaching and systems and ensure that resources are distributed fairly among academics to reduce their risk perception (Butnaru *et al.*, 2021; Christensen *et al.*, 2021). Recently, CRP was intensively studied in different sectors (Dryhurst *et al.*, 2020). It moderates the relationship of individuals’ perceived efficiency and their behavior compliance (Roma *et al.*, 2020), the relationship between investors’ risk avoidance, uncertainty avoidance and the intention to invest (Arshad *et al.*, 2020) and the impact of team identification on vitality and game satisfaction (Kinoshita and Matsuoka, 2023). In the hospitality sector, Zhou *et al.* (2018) argue that positive leadership behavior may play an important role in enhancing employees’ work engagement when moderated by higher self-efficacy. In this regard, employees believe they may gain more resources, experience better QWL and less desire to quit. We include CRP as a moderator because it could potentially provide insight into how university leaders can guarantee adequate resources for their faculties differently with high or low CRP. Very little research has examined the moderating role of CRP in different sectors and no research has been done in HED, hence, we propose the following hypothesis.

- H4.* COVID-19-related risk perception (CRP) moderates the relationship between university leadership (UL) and resource adequacy (RA) in such a way that the relationship will be weaker for academic staff with high CRP level.

According to Yildirim *et al.* (2021), people with high level of mental well-being are more able to deal with CRP and to reduce parental anxiety. Risk perception can be managed through leadership that minimizes the stress of COVID-19, by providing the necessary resources (Arslan and Yildirim, 2021). Accordingly, leadership maintains the QWL (Nanjundeswaraswamy and Swamy, 2012) and diminishes the TI (Wang and Wang, 2020) that are mediated by the adequacy of resources (Leitão *et al.*, 2019). Under the premise that individuals instinctively look for resources to reach their goals (Hobfoll, 1989), employees remain in their institutions as long as they provide the resources needed. Simultaneously, employees with adequate resources experience better QWL. A depletion of these resources results in enhancing the TI (Zhang *et al.*, 2019).

In this vein, Edwards and Lambert (2007, pp. 6–7) suggest that “moderated mediation refers to a mediated effect that varies across levels of a moderator variable.” We suggest an integrated framework in which RA mediates the impact of UL on both QWL and TI while

CRP moderates the relationship between UL and RA. Thus, it is logical to predict that the indirect effect of UL on QWL and TI via RA will be higher with academics perceiving low CRP than those with high CRP. Hence, we propose the following hypotheses:

- H5a.* CRP moderates the indirect relationship of UL to TI via RA, such that the mediating role of RA is weaker when CRP is high.
- H5b.* CRP moderates the indirect relationship of UL to QWL via RA, such that the mediation of RA is weaker when CRP is high.

Figure 1 illustrates the moderated mediation relationship proposed in this study, which includes the direct relation between both the UL and worklife and TI, the mediating role of RA in both relationships and the moderating effect of CRP on the relationship between UL and RA.

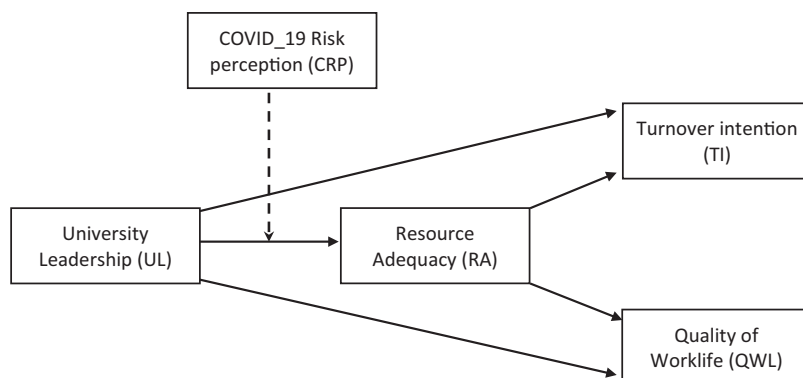
Method

Sample and procedure

The data in this study were collected from academic staff of the faculties of Business Administration from all Lebanese operating universities, public and private. The study is conducted in April–June 2021 during the pandemic outbreak reporting information in a real time. Deans of Business Administration faculties were contacted to send the questionnaire to faculty members, full and part timers. Two weeks later, a reminder was sent to accelerate the speed of data collection. A sample of 315 complete online questionnaires was administered through Qualtrics at a 40% response rate. There were 300 valid questionnaires after cleaning the outliers and missing data.

Instruments

The main variables were extracted from the Pandemic Experience and Employees Perception-PEPS designed by Leiter (2020) [1] covering five dimensions, four of which were used and stated below. The pandemic experience and employees perception survey is designed to test the pandemic experience in healthcare. This survey was adapted to the HED sector and tested for validity and reliability. Responses were based on a five-point Likert scale where greater scores indicate better leadership support, greater adequacy of resources,



Source: Authors' own

Figure 1.
Conceptual model

more favorable work environment, perception of risk and more TI. Table 1 shows the principal factor analysis of all the dimensions and their loadings, in addition to Cronbach's alpha and Kaiser–Meyer–Olkin (KMO) results of all factors.

University leadership measures how leaders support, express confidence, improve capabilities, believe in academics' actions, help feel safe and honestly assess the situation during the pandemic period. A sample question is "university leadership expressed hope for success" on a five-point scale ranging from 1 – not at all to 5 – frequently, if not always. The five items were adapted from PEPS ($\alpha = 0.833$) used in Bailey *et al.* (2021). The UL scale showed good reliability ($\alpha = 0.922$, CR = 0.874, AVE = 0.581).

Risk perception aims to capture the perceived risk to self, colleagues, students and university on a scale ranging from 1 – No risk at all to 5 – Life threatening risk. The four items were adapted from PEPS ($\alpha = 0.805$) used in Bailey *et al.* (2021). A sample question is "How dangerous to you personally was the virus during the pandemic period?". The scale showed good reliability ($\alpha = 0.917$, CR = 0.875, AVE = 0.510).

Resource adequacy subscale captures the adequacy of online related equipment, support staff and information on a scale ranging from 1 – completely inadequate to 5 – completely adequate. The five items were adapted from PEPS ($\alpha = 0.835$) used in Bailey *et al.* (2021). A sample question is "Please rate the university support staff availability." The scale showed good reliability ($\alpha = 0.838$, CR = 0.766, AVE = 0.502).

Quality of Worklife subscale measures the perceptions of manageable work hours, working within areas of competencies, supported decision, appreciation and social support from the university and colleagues on a five-point Likert scale ranging from 1 – strongly disagree to 5 – strongly agree. The seven items were adapted from PEPS ($\alpha = 0.829$) used in Bailey *et al.* (2021). A sample question is "I felt a sense of support with my work group." The scale showed good reliability ($\alpha = 0.770$, composite reliability [CR] = 0.773, average variance extracted [AVE] = 0.501).

Turnover intention: A mono-item scale, asks respondents "It is likely that I will leave the organization in the next 12 months" on a five-point Likert scale ranging from 1 – strongly disagree to 5 – strongly agree (Ng and Butts, 2009).

Results and findings

Reliability and validity of measures

Data analysis was performed using SPSS 25 and PROCESS (Hayes, 2015) on a sample of 300 cases. To prevent common method bias in cross-sectional study, we used the appropriate option in the Qualtrics settings for anonymity and change order of questions. Harman's single factor test explained only 34.22% < 50%; thus, the common method bias was considered less likely. Table 1 shows that the results of the Principal Factor Analysis are

Construct	No of items	Means	SD	Loadings		KMO	α	AVE	CR
				Min	Max				
University leadership	5	3.341	0.999	0.744	0.791	0.897	0.922	0.581	0.874
Resource adequacy	5	3.446	0.835	0.385	0.796	0.812	0.838	0.502	0.766
Risk perception	4	3.094	0.959	0.778	0.834	0.720	0.917	0.510	0.875
Quality of worklife	5	3.549	0.746	0.402	0.961	0.755	0.770	0.501	0.773
Turnover intention	1	2.41	1.330						

Table 1.
Factor analysis for subscales and validity

Notes: α = Cronbach's alpha; AVE = average variance extracted; CR = composite reliability; Max = maximum; Min = minimum; SD = standard deviation

Source: Authors' own

unidimensional. The mean of all the scales were computed for the purpose of running the regressions among variables. The KMO of all the constructs is significant ($p < 0.001$) (KMO for UL: 0.897, RA: 0.812; CRP: 0.720; QWL: 0.755) indicating that the sampling is adequate. Table 1 also shows that loadings of all the items in each factor are >0.3 (Hair *et al.*, 1995), the AVE exceeded the cutoff of 0.5 and all factors are reliable with Cronbach's alpha exceeding the threshold of 0.7 showing reliability of all scales. The CR is greater than 0.7 which point out good reliability and validity of the scale.

Descriptive analysis

This survey is conducted on academic staff teaching in Lebanese HEIs. After cleaning missing values and outliers 300 cases out of 315 were used. As shown in Table 2, the sample is composed of 46.3% males and 53.7% females, a majority of 78.7% holding PhD degrees. Within the sample, 73% have been teaching in HEIs for more than 10 years; distributed across academic roles; working in public, private or both HEd sectors; 90% having adequate space at home for teaching online; 51% working full time; 74.7% are married; and aged more than 28 years old. Table 2 also shows the difference in the relationship of the descriptive groups with each one of the main variables of the study. A better QWL was

Variable	Subgroup	Responses (%)	Means				
			UL	RA	CRP	QWL	TI
Gender	Male	139 (46.3)	3.298	3.366	3.158	3.485	2.68
	Female	161 (53.7)	3.396	3.524	3.012	3.618	2.19
Education	Master	63 (21)	3.469	3.685	2.964	3.625	2.35
	Doctorate	236 (78.7)	3.304	3.377	3.135	3.527	2.44
	Other	1	4.000	4.600	1.500	3.800	1.00
Experience	<5 y	20 (6.7)	3.570	3.600	3.287	3.700	2.00
	5–10 y	61 (20.3)	3.432	3.567	3.032	3.682	2.39
	>10 y	219 (73)	3.295	3.398	3.093	3.498	2.46
Relationship	Single	66 (22)	3.151	3.287	3.234	3.389	2.42
	Married	224 (74.7)	<i>3.404</i>	<i>3.491</i>	<i>3.065</i>	<i>3.600</i>	2.39
	Divorced	7 (2.3)	2.971	3.400	2.750	3.400	3.00
	Widowed	3 (1)	3.666	3.666	2.916	3.600	2.33
Academic role	Lecturer	111 (37)	3.428	3.562	2.955	3.606	2.31
	Assistant professor	99 (33)	3.519	3.497	3.042	3.681	2.42
	Associate professor	40 (13.3)	2.790	3.170	3.312	3.197	2.65
	Full professor	50 (16.7)	3.236	3.308	3.330	3.440	2.44
Sector	Public	136 (45.3)	3.144	3.319	3.246	3.509	2.17
	Private	102 (34)	<i>3.551</i>	<i>3.700</i>	<i>2.943</i>	3.598	2.56
	Both	62 (20.7)	3.429	3.306	3.008	3.554	2.71
Space	Adequate	270 (90)	3.381	3.503	3.080	<i>3.592</i>	2.37
	Inadequate	30 (10)	2.980	2.933	3.216	3.156	2.77
Work status	Full time	154 (51.3)	3.484	3.497	3.020	<i>3.638</i>	2.36
	Part time	146 (48.7)	3.205	3.397	3.164	3.464	2.47
Age	<27	0					
	28–46	142 (47)	3.353	3.426	3.121	3.522	2.56
	47–61	129 (43)	3.294	3.434	3.095	3.540	2.29
	>61	29 (9.7)	3.489	3.593	2.956	3.717	2.28

Note: Italic numbers indicate the higher in category

Source: Authors' own

Table 2.
Demographics of respondents; $n = 300$; percentages and means

predicted in the married academics, living in adequate space homes, working as full timer and in private universities.

Univariate analysis

Table 3 shows the mean scores, standard deviation and correlations of the study variables. UL and CRP record moderate levels of 3.34 and 3.09, respectively, whereas RA and QWL show higher means of 3.44 and 3.54, respectively, while the academic staff indicate a lower intention to quit their institutions in the coming year with a mean of 2.41.

Bivariate analysis

Table 4 indicates that UL is positively correlated with RA, QWL and negatively to TI. RA is positively correlated to QWL and negatively to TI. This demonstrates the importance of the UL in promoting resource gains and reducing resource losses such TI.

Multivariate analysis

The key analysis of this study is to test whether the indirect relationship between UL and QWL/TI through RA varies depending on the level of academics' CRP.

In Table 4, the results of the multivariate regression show that the UL is negatively correlated to TI ($b = -0.512, p < 0.001$) and positively correlated to QWL ($b = 0.557, p < 0.001$). Consequently, the results support *H1a* and *H1b*. The results show a significant positive relationship between UL and RA ($b = 0.518, p < 0.001$) where the UL plays a major role in providing adequate resources in such a framework, therefore supporting *H2*.

The mediation allows us to investigate the mechanism that UL exerts its effect on TI and QWL. *H3a* and *H3b* assume that RA mediates these associations. Using PROCESS, Table 5 shows that the effect of the mediator RA on TI while controlling for UL is significant ($p < 0.001$). The bootstrapped 95% confidence interval (CI) results show the null coefficient fall outside the lower and upper level (0.052; 0.155) and includes the effect (-0.228) suggesting partial mediation. A ratio of total effect is accounted by the indirect effect of 83%. In the same table, we find that RA partially mediated the relationship between UL and QWL. The bootstrapped 95%CI results show the null coefficient fall outside the lower and upper level (-0.351; -0.111) and includes the effect (0.101) suggesting partial mediation. Thus, both relations were partially mediated by RA and *H3a* and *H3b* are supported.

Moderated mediation of risk perception

H4 was conducted, CRP moderates the relationship between UL and RA in such a way that the relationship is less positive for academic staff with heightened CRP level. Table 6 shows that the moderation was significant ($b = -0.088, se = 0.041, p < 0.001$) which implies that the interaction [UL*CRP] predicted QWL and TI. Specifically, the strength of the relation between UL and RA increases when the academics' risk perception is low ($b = 0.610, se = 0.596, p < 0.001$) and vice versa at high CRP ($b = 0.441, se = 0.511, p < 0.001$). The interaction of CRP and UL accounts for 0.09% added variation in RA (ΔR^2). Figure 2 shows the change in the slope as a result of the interaction at the mean = 3.094, mean + 1SD = 4.053, mean - 1SD = 2.134, which is consistent with our hypothesis. Such effect is more salient under low CRP than under high CRP and *H4* is supported.

Following the methodology developed by Hayes (2015) and Preacher et al. (2007), we tested the moderation mediation, *H5a*, *H5b*, the conditional effect was found to vary according to the magnitude of the moderator CRP. Table 7 shows that the indirect effect of UL on QWL through RA varies significantly across different levels of CRP ($\Delta\beta = -0.169$,

	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Means	1															
SD		1														
1. Gender																
2. Age	-0.169**	1														
3. Edu	-0.086	0.02	1													
4. Sector	-0.032	-0.111	-0.045	1												
5. Role	-0.181**	0.151**	0.322**	-0.195**	1											
6. Experience	-0.138*	0.383**	0.029	-0.129*	0.253**	1										
7. Marital	-0.083	0.173**	-0.096	-0.009	0.032	0.102	1									
8. Children	-0.105	0.144*	-0.026	-0.051	0.049	0.088	0.566**	1								
9. Space	-0.037	-0.097	0.059	-0.037	-0.03	0.002	0.029	0.032	1							
10. UL	3.341	0.999	0.018	0.013	-0.06	0.139*	-0.131*	-0.082	0.079	0.083	-0.121*	1				
11. CRP	3.094	0.959	-0.028	-0.042	0.056	-0.117*	0.154**	-0.023	-0.088	-0.035	0.043	-0.096	1			
12. RA	3.446	0.835	0.071	0.043	-0.135*	0.044	-0.140*	-0.091	0.091	0.027	-0.205**	0.619**	-0.117*	1		
13. TI	2.41	1.330	-0.170**	-0.093	0.016	0.167**	0.056	0.075	0.015	-0.013	0.089	-0.385**	0.047	-0.409**	1	
14. QWL	3.549	0.746	0.054	0.059	-0.049	0.033	-0.130*	-0.106	0.087	0.095	-0.176**	0.745**	-0.075	0.598**	-0.460**	1

Note: $p < 0.001$ **

Source: Authors' own

Table 3.
Correlation among all variables, means, standard deviation

$p < 0.05$). Specifically, the indirect effect of UL on QWL through RA is weaker when CRP is high ($\beta = 0.441, p < 0.01$) than when it is low ($\beta = 0.610, p < 0.01$). Table 7 indicates that the effect of UL on RA is weaker when CRP is high, providing support for $H4$. In addition, to assess the conditional indirect effect of the UL on QWL via RA as a function of CRP, we used the bootstrapping method of analysis. The indirect effect at mean + 1SD and mean - 1SD were examined at the 95%CI. As shown in Table 7 the conditional effect of UL on QWL via RA changes according to the level of CRP. This means that when risk perception was lower

Table 4.
Regressions of dependent and independent variables

Variables	RA			QWL			TI		
	R^2 (%)	β	p -value	R^2 (%)	β	p -Value	R^2 (%)	β	p -Value
University leadership	38.4	0.518	00.00***	55.9	00.557	00.00***	14.8	-0.512	00.00***
Resource adequacy				36.1	00.539	00.00***	16.7	-0.650	00.00***

Notes: * $p < 0.05$ level; ** $p < 0.01$ level; *** $p < 0.001$ level
Source: Authors' own

Table 5.
Mediation of resource adequacy

	Coef.	S.E.		T	p -value	
University leadership, Resource adequacy and Quality of worklife						
Direct and total effects						
1) UL predicts QWL – path c	0.455	0.035		12.774	0.000	
2) UL predicts RA – path a	0.522	0.037		13.968	0.000	
3) QWL/RA and UL – path b	0.194	0.042		4.5343	0.000	
QWL/UL and RA direct effect – path c'	0.453	0.035		12.780	0.000	
	Effect	S.E.	LL95CI	UL95CI	F	Sig(Two)
	0.101	0.026	0.052	0.155	211.992	0.000
University leadership, Resource adequacy and Turnover intention						
Direct and total effects						
	Coef.	S.E.		T	p -value	
2) UL predicts TI – path c	-0.284	0.105		-4.172	0.000	
1) UL predicts RA – path a	0.518	0.038		13.618	0.000	
3) TI/RA and UL – path b	-0.440	0.105		-4.172	0.000	
4) TI/UL and RA direct effect – path c'	-0.284	0.088		-3.221	0.001	
	Effect	S.E.	LL95CI	UL95CI	F	Sig(Two)
	-0.228	0.061	-0.351	-0.111	36.042	0.000

Source: Authors' own

Table 6.
Moderation of risk perception between university leadership and resource adequacy

Interactions	β	se	t	p	95%CI	R^2 (%)	ΔR^2 (%)	ΔF
UL*CRP	-0.088	0.041	-2.112	0.035***	(-0.170; -0.006)	62.92	0.09	(64.70; 4.46)
Mean - 1SD	2.134	0.610	0.596	10.242	0.000***	(0.493; 0.727)		
Mean + 1SD	4.053	0.441	0.511	8.624	0.000***	(0.340; 0.541)		

Source: Authors' own

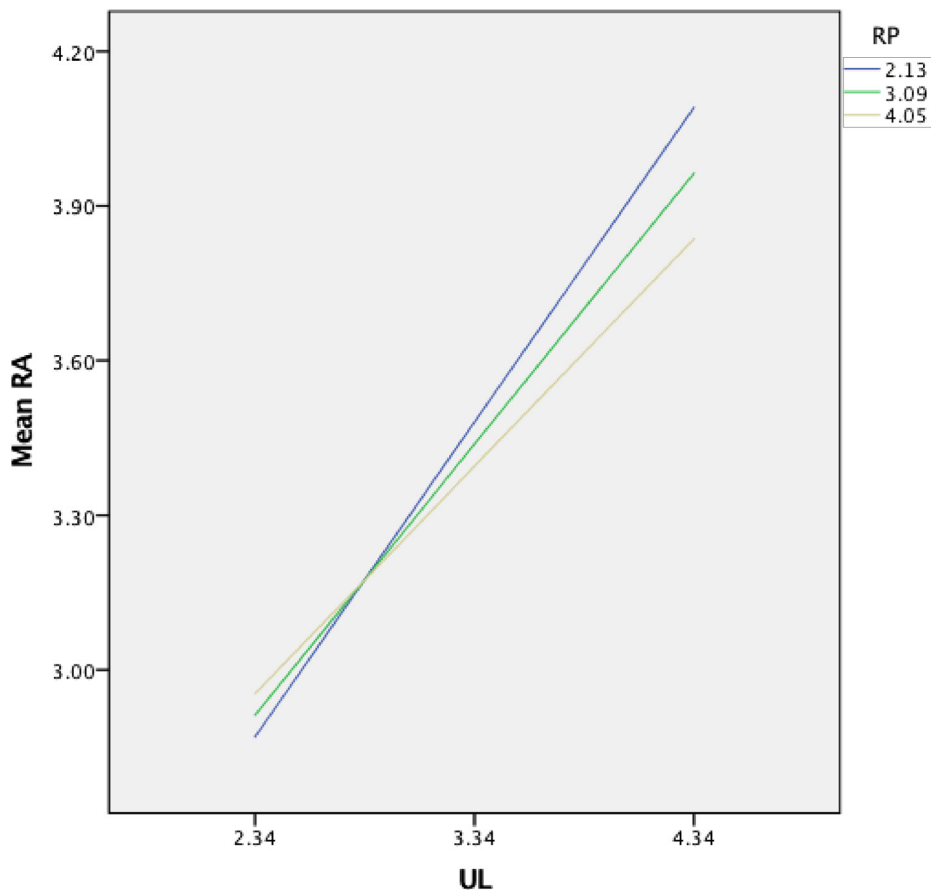


Figure 2. Moderation of risk perception

Source: Authors' own

Interactions		β	<i>se</i>	<i>CI</i>
IMM/TI		0.039	0.021	(0.004; 0.086)
Mean - 1SD	2.135	-0.269	0.075	(-0.418; -0.128)
Mean + 1SD	4.054	-0.194	0.055	(-0.306; -0.091)
IMM/QWL		-0.017	0.009	(-0.036; -0.002)
Mean - 1SD	2.135	0.121	0.032	(0.061; 0.186)
Mean + 1SD	4.054	0.087	0.024	(0.043; 0.139)

Table 7. Direct and conditional indirect effect of resource adequacy as a function of risk perception

Note: IMM = Index of Moderated Mediation

Source: Authors' own

(mean – 1SD), the positive relationship between UL and QWL and TI via RA is significant. The index of moderated-mediation was = -0.014 [$p < 0.001$, 95%CI = -0.0037 , -0.002]. However, with higher risk perception, this effect is lower but remains positive (less positive). Hence *H5a* and *H5b* are supported.

The overall results are shown in [Figure 3](#) on the diagram of the conceptual model below.

Discussion and implications

To frame our study which aims to clarify the relationship between UL and both the QWL and TI, we draw our argument from the COR theory. Our objective is to identify how the UL and the resources under the threat of COVID-19 can promote the QWL and how their deficiencies can give rise to TI among HEd professors.

Our results indicated that academics who perceive that their leaders are supportive and effective show a lower propensity to leave and exhibit a better QWL. This is consistent with previous research where leadership contributed in improving QWL ([Leiter et al., 2010](#)), increasing organizational commitment and loyalty ([Kara et al., 2018](#)), maintaining psychological security and a sense of belonging ([Lee et al., 2019](#)), enhancing work engagement ([Christensen et al., 2021](#)), diminishing voluntary turnover ([Zhang et al., 2019](#)) and reducing turnover ([Chami-Malaeb, 2021](#)). This implies that the university leaders can support their faculty and staff to alleviate the adverse conditions they experience during the pandemic. Such leadership is a crucial social resource that enables preservation of existing resources and amplifies them relatively to the contextual needs ([Hobfoll, 1989](#)). Significantly in our study, the transition to online education imposed by the pandemic also leads to resource loss, as existing resources were geared to in-class learning ([Merino et al., 2021](#)). To recover from and offset any potential loss, academics needed to invest in new resources (virtual technologies, platforms, means of sharing knowledge [...]) to adapt to the new context ([Anderson, 2020](#); [Butnaru et al., 2021](#); [Ayuk, 2022](#)). However, acquiring resources will bolster employees' energy and promote their enthusiasm and work commitment ([Zhou et al., 2018](#)). In addition, UL has a positive effect on RA in HEd. In line with our findings, leadership that ensures adequate resources to academic personnel is more likely to result in

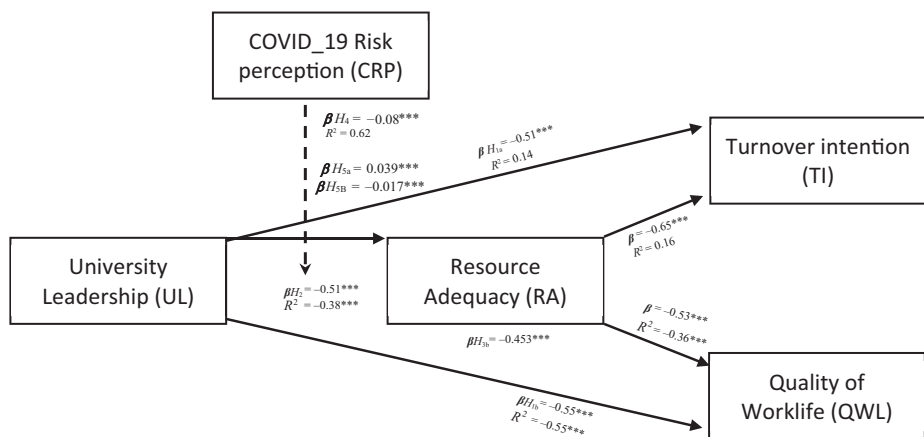


Figure 3.
Conceptual model
with results

Source: Authors' own

academics' engagement (Christensen *et al.*, 2021). We also found a partial mediation of RA indicating that the UL significantly exerts a direct impact on both QWL and TI as well as a significant indirect effect via RA. This provides novel results related to HEd while in other research, RA mediated the relationship between academics' occupation stressors and teaching burnout (Betoret, 2006) and between proactive burnout prevention and burnout (Otto *et al.*, 2021). Furthermore, the different levels of risk perception moderated the effect of UL to RA in such a way higher academics' CRP weakened the positive impact exerted by university leaders toward resources adequacy. This reveals that higher level of CRP lessens the resources earned already highlighting the threat generated by this pandemic. Finally, the moderated mediation results demonstrated how the indirect effect of UL on the QWL and TI via RA varies according to the levels of CRP. This effect is established and is less positive when risk perception is high. Previous research has not confirmed the moderation or moderated mediation of risk perception in HEd except for Roma *et al.* (2020) that study it in health. Therefore, we argue that UL fosters the development of human resources QWL and lessens the TI when both relationships operate through the adequacy of resources, particularly in a context characterized by low levels of CRP.

Using COR theory as a theoretical framework, we offer a novel explanation in understanding the role of UL and the link to academics' QWL and TI. This research creates important theoretical contributions. First, it advances aspects of the direct effect of UL on QWL and TI. This leadership role is valued by academics as an important contextual resource which helps them improve their QWL. Second, it contributes to investigating the mediating mechanism of RA. We found that when academics perceive effective leadership, they will possess valuable resources to pledge better QWL and lessen TI. Academics in HEIs will derive resources from university leaders to obtain additional new resources and reach "positive gain spirals" (Hobfoll *et al.*, 2012). Finally, in examining the link aforementioned, our findings addressed the research gap in HEd associated to the contextual factor of CRP that could buffer this mechanism.

In practice, the relationships established in our research imply that HEI leaders are called to rethink HEd policy in Lebanon and consider the prevailing context, the role of leadership and the adequacy of resources. This is resourceful to potentially create more resilient systems in times of crisis, embrace the digital revolution, support working remotely in any financial or environmental crises and fight against any unforeseen disruptions in the future. Our empirical research suggests that there is more value to be derived from the UL specially in times of crisis and sudden shift to digital education (Anderson, 2020; Ayuk, 2022). University leaders should benefit from these findings and assist academics to perform professionally (teaching online and/or in person, researching) by ensuring resources free from any concern of inadequacy or deficiency. The findings of this study have practical and theoretical implications for the HRD in HEd as well as for academic leadership, researchers and policymakers. This research prompts HEIs to be mindful of how they select and develop university leaders to demonstrate idealized impact and inspire positive outcomes. There is a need for HEd to pay attention to the prospect role of university leaders to make the learning and the knowledge transmission widely accessible off campuses. The HRD, based on three components, training, education and development (McLean and Akaraborworn, 2015), increases productivity and goes beyond the design and implementation of training programs. It emphasizes individual and organizational learning to facilitate behavior change (Alhejji *et al.*, 2020). The HRD can thus play a major role in developing the academics' knowledge and performance of online teaching and in supporting this practice considered revolutionary in the academic world in a record time (Anderson, 2020).

In regard to COR, this study can serve as a driver for university leaders by emphasizing how the provision of accessible and appropriate resources can alleviate stress among academics. This research is original in terms of sectoral emphasis (HEd), methodology (moderated-mediation), instrumentation (PEPS) and the context (Lebanon, COVID-19). Our study highlights important factors that leadership may help explain how to promote QWL and diminish TI.

Limitations and future recommendations

Our study has several limitations. It was conducted in the HEd sector in Lebanon, restricted only to academics working in business schools while other faculties needed hybrid teaching or labs so they are more prone to risk. The sample collected and the instrument adopted have not been previously used in the HEd sector. Another limitation could be the use of cross-sectional design; a longitudinal study might help better investigate the conceptual model. Moreover, the low response rate is an inherent limitation that stems from the circumstances, the effects of several crises and the general culture of neglecting to respond to surveys. With the instrument not being adopted in the HEd sector and our main hypotheses involving mediation and moderation, it is less possible for common method variance to invalidate our results (Siemsen *et al.*, 2010). Hence, the preceding may pose an issue of generalization. Future research can address these issues and elaborate new findings.

Further research can analyze the impact of the transition between traditional education and distant learning when universities return to normal teaching settings. Future studies can incorporate flexible work arrangements, examine the threat/opportunities of online teaching on academics' QWL and how the transmission of knowledge exacerbated psychological states of professors. COVID-19 has set forth the challenges and responses to embrace the use of virtual learning in the short and long term. Later on, many other actors came into play such as economic, financial and poverty constraints preventing students from commuting to campuses in Lebanon, which excel the demand for remote learning. This deserves scholarly attention where the longitudinal data design might provide additional insights. Because PEPS was tested for the first time in this domain, it is beneficial that future research covers both HEd and other business sectors in different countries.

Note

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