The Relevance of Leader-Member Exchange During a Crisis:

Assessing the Meditating Role of Social Exchange Relationships to Predict

Intention to Leave

Abstract

Purpose - This study explores how the strength of relations between organization, leader, and nursing staff influences the intention to leave one's job during crisis conditions. Drawing on social exchange theory, we analyze how perceived organizational support and leader-member exchange mediate the effect of informational justice and personal protective equipment on intention to leave among nurses.

Design/methodology/approach – The research uses partial least squares structural equation modeling (PLS-SEM) with a sample of 159 surveys to nurses gathered in Argentina during April-November 2020.

Findings – The study finds that the leader-member exchange has a mediating effect between informational justice, the provision of personal protective equipment, and the intention to leave. Perceived organizational support was not significantly related to the intention to leave due to COVID-19.

Practical implications – Even during crises like COVID-19, high-quality relationships between supervisors and supervisees can reduce the likelihood of leaving an organization, while organizational support may be less important during such times. Our findings suggest that organizations and healthcare managers should pay attention to having effective planning and provision of personal protective equipment and provide clear and accurate information during crisis periods.

Originality/value – Our study contributes to Social Exchange Theory literature during crises. Our findings suggest that in times of crises in nursing, the leader-member exchange takes on greater significance, and becomes central in explaining the connection between resources, information, and the decision to leave one's organization.

Keywords

Introduction

In recent years, there has been growing global concern about an increasingly critical shortage of nurses, a situation worsened by health crises such as the COVID-19 pandemic, Ebola or severe acute respiratory syndrome (SARS) (Boniol et al., 2022; Kolie et al., 2021; Mayes et al., 2024). According to the director of the World Health Organization (WHO), there is a need for urgent investment in nurses and to ensure the support that they need "to keep the world healthy" (WHO, 2020). Health crises and a lack of knowledge of how best to manage them aggravate the situation. For example, the National Council of State Boards of Nursing (NCSBN, 2023) reported that, in the United States alone, around 100,000 nurses resigned from their positions during the COVID-19 outbreak, with an additional approximately 800,000 nurses planning to depart from their roles by 2027. This outcome is not restricted to COVID-19. Indeed, studies conducted during different public health crises, such as the Ebola outbreak and severe acute respiratory syndrome (SARS), showed that the intention to leave tended to increase among nurses during those periods (Chang *et al.*, 2006; Kolie *et al.*, 2021). Similarly, during the COVID-19 crisis, a meta-analysis of studies from diverse countries, including Australia, Egypt, Saudi Arabia, Taiwan, and Romania, found that approximately one-third of nurses contemplated leaving their positions (Ulupınar and Erden, 2024). This is a major problem because nurses are critical for the quality of the healthcare system and are in direct and extended contact with patients more than any other healthcare professional (Butler et al., 2018; Mayers et al., 2024). Therefore, understanding how to manage healthcare crises while keeping nurses committed to their organizations represents an urgent area for health services research.

A key question in addressing this challenge is the extent to which theory developed during normalcy applies to crisis periods. A crisis period is one in which an

organization's ability to carry out its core mission is threatened—in the case of healthcare organizations, the capacity to deliver effective care itself is hindered, and for which it lacks experience in handling (James *et al.*, 2011). Furthermore, a crisis period may reshape workplace relationships, as it involves high levels of uncertainty and, being non-routine, organizations often have limited experience in managing it. Crises present unique challenges that require organizations to adopt new or unconventional approaches to overcome them (Waldman *et al.*, 2001). Although previous research has assessed the role of leadership and organizational support in healthcare crises and their effects on behavioral outcomes, including reducing employee uncertainty (Ruppel *et al.*, 2022; Sun *et al.*, 2023), much of the current theory on healthcare management is based on evidence developed under non-crisis conditions.

The theory we focus on in this paper is that of social exchange theory (SET), which we hold may help inform a better understanding of leaders' or organizational actions that could decrease the intention to leave among nursing professionals. SET holds that employees tend to reciprocate actions from another party, such as a manager or organization, which serves as an "initiating action" of social interaction (Blau, 1964).

According to Settoon et al. (1996), there are two key constructs of social exchange, perceived organizational support (POS) and leader-member exchange (LMX) which serve to explain employee's relationships with managers and organizations respectively. Evidence from non-crisis contexts suggests that higher levels of POS and LMX with their managers improve worker well-being and intention to remain in one's organization (Brunetto *et al.,* 2013). Moreover, recent research shows that POS and LMX may complement HR practices during crises helping employees to cope with uncertainty and enhancing positive attitudes and behaviors (Bricka et al., 2023; Lai and Cai, 2023). Nevertheless, the relative importance of each (i.e., POS and LMX) is an

important issue that has not been explored in the context of a healthcare crisis. This is a critical gap because the two concepts are nonequivalent, with POS involving a broader exchange relationship between employees and the organization, while LMX entails a more focused, dyadic exchange relationship between subordinates and their managers. They also have distinct antecedents and outcomes, represent different targets (i.e., the organization and the manager), and may require different actions to manage effectively (Settoon et al., 1996; Wayne et al., 1997; Wayne et al., 2002). Both POS and LMX have been shown to positively relate to organizational commitment, including during the COVID-19 crisis (Dulebohn et al. 2012; Rurkkhum and Detnakarin, 2024). However, to our knowledge, no study has differentiated the two in this context.

The context of the initial phase of a health crisis like COVID-19 presents healthcare organizations with atypical demands that could challenge SET. In particular, a crisis may alter how employers manage information as they respond to the threat in two key ways. First, stress and anxiety tend to restrict information processing and to view new information with more suspicion (Staw et al. 1981). Second, a crisis may drive employers to engage in impression management, which involves managing how information is presented in order to favorably influence a person's view of themselves or the organization. A critical choice is the decision to deny or acknowledge the reality of a situation (Elsbach 1994), which can impact trust. During COVID-19, organizations engaged in crisis management as there was an increased prevalence of undocumented infections and uncertainty about the characteristics and consequences of the disease (Hartney *et al.*, 2022; Liu and Cao, 2022). Moreover, especially during the first wave, many hospitals lacked basic equipment for their employees (Mayes *et al., 2024*).

In this paper, we consider informational justice, which represents the degree to which communication is perceived as transparent and fair, with the provision of

personal protective equipment (PPE) provision. Past research that assessed how PPE provision and informational justice affects employee's perceptions about their managers and organizations (Cheung, 2013; Colquitt *et al.*, 2013; Ralph *et al.*, 2022; Sonis *et al.*, 2022). Although previous research suggests perceptions of informational justice and the adequate provision of PPE may decrease employees' intention to leave (Cole *et al.*, 2021; Kim, 2009), there is a lack of research that assesses how employees' perceptions about how their managers and other representatives of their organizations help to explain the effect of informational justice and PPE on nurses' intention to leave.

Considering that the provision of PPE and the adequacy of information and procedures tend to be managed by various representatives within organizations (e.g., nursing managers, doctors, and HR staff), the academic understanding of the role of nurses' social exchange relationships with their managers and organizations to explain the effects of PPE and informational justice on the nurses' intention to leave during a public health crisis context is far from complete.

Accordingly, the aim of this research is to provide a better understanding of the mediating role of two different types of social exchange relationships such as LMX and POS in the effects of informational justice and the adequate provision of PPE on nurses' intention to leave in health crises taking as an example during the first wave of the COVID-19 outbreak. The paper is structured as follows: the next section outlines the theoretical background and hypotheses, followed by the methodology and results sections. Finally, the paper concludes with the sections that provide the discussion of the results and the concluding remarks.

Background

Social Exchange Theory

Although studies assessing the key roles of LMX and POS often employ different theoretical perspectives, such as organizational support theory (Eisenberger *et al*., 2020) and LMX theory (Graen & Uhl-Bien, 1995), our study adopts social exchange theory (SET) as its theoretical framework for the following reasons. First, seminal studies linking POS and LMX as central variables predominantly rely on SET (Settoon *et al*., 1996; Wayne *et al*., 1997). Second, research exploring the relationship between justice and these social exchange constructs tends to use SET (Cropanzano *et al*., 2002; El Akremi *et al*., 2010; Wayne *et al*., 2002). Lastly, studies examining the influence of LMX and POS on intention to leave, particularly among nursing professionals, commonly draw upon SET (Brunetto *et al*., 2013; Trybou *et al*., 2014).

SET allows us to examine two levels of social exchange: (1) the relationship between nurses and their supervisors (i.e., LMX), and (2) their organizations (i.e., POS). These levels of social exchange mediate the effects of PPE and informational justice on nurses' intention to leave during a crisis period. In this line, SET allows us to understand how initiating actions that may be performed by different representatives of the organizations (Levison, 1965) such as managers, physicians, or HR staff that generate unspecified social exchange responses from employees that differ from the economic exchange (Blau, 1964). For example, an organization's initiating actions may be represented by the provision of necessary PPE to nurses to perform their jobs (Speroni *et al.*, 2015) or detailed information to facilitate employee's well-being, especially during a crisis period (Corcoran *et al.*, 2023). It is expected that these initiating actions will generate diffuse future obligations or social exchange responses (Blau, 1964). These responses tend to foster positive employee outcomes, such as

higher organizational commitment, or reduce employees' negative outcomes, such as the intention to leave the organization (Brunetto *et al.*, 2013).

Accordingly, we assess, drawing on SET, how the effects of nurses' perceptions of management and provision of adequate PPE and informational justice on their intention to leave during the first wave of the COVID-19 outbreak may be explained by two different types of social exchange relationships such as LMX and POS. Past research used SET to analyze how managers initiating actions such as servant leadership and LMX may reduce negative employee outcomes such as workplace deviance among nurses (Trybou *et al.*, 2014; Yasir and Jan, 2023). Figure 1 illustrates the theoretical framework that underpins this study.

Hypotheses Development

Informational justice refers to employees' perceptions of the adequacy of explanations provided by managers. These explanations are perceived more positively when they are reasonable, timely, and specific (Shapiro *et al.*, 1994). Moreover, informational justice is one of the four dimensions (procedural, interpersonal, distributive, and informational) that make up organizational justice (Colquitt, 2001). Recent research found that organizational justice is negatively related to turnover intention among workers in the health-care sector (Khanam *et al.*, 2024). Regarding informational justice, a study performed in South Korea among employees' that survived to a downsizing in organizations shows that those employees who perceive higher informational justice tend to decrease their intention to leave (Kim, 2009). Moreover, qualitative research performed during the first wave of COVID-19 found that leaders' effective and transparent communication was a key factor in building trust and

enhancing leader-member relationships because, during this period, communication changed frequently due to the emerging evidence and messaging (Hartney *et al.*, 2022).

PPE refers to the necessary protective equipment used in healthcare settings to treat patients such as masks, eye protection, gowns and gloves (Shiao *et al.*, 2007). During public health crises such as SARS, Ebola, or COVID-19, the lack of PPE is a relevant issue that conditions the performance and well-being of healthcare professionals (Chang *et al.*, 2006; Speroni *et al.*, 2015). Past research has found that a lack of PPE is related to mental and emotional disorders among healthcare professionals (Khanal *et al.*, 2020). Managers may struggle to guarantee sufficient access to PPE during public health crises, which may increase nurses' intentions to leave their jobs. For instance, past research from the United States found that the perceived level of anxiety and stress caused by news about shortages of PPE and medical equipment positively affected the turnover intention among nurses during COVID-19 (Cole *et al.*, 2021). Furthermore, a study performed in Ghana found that resource provision adequacy was negatively related to nurses' turnover intention (Poku *et al.*, 2022).

The Mediating Role of Leader-Member Exchange

LMX centers around a relationship-oriented approach and concentrates its analytical lens on the dyadic relationship between a leader and a member within an organization (Gerstner *et al.*, 1997; Graen *et al.*, 1995). Moreover, LMX captures the level of trust, respect, and loyalty in manager-subordinate interactions (El Akremi *et al.*, 2010). In this sense, leaders' effective and transparent communication tends to enhance employees' perception of a high-quality leader-member relationship (Colquitt *et al.*, 2013).

In healthcare organizations, and specifically during a public health crisis such as the COVID-19 outbreak, managers must ensure the adequate provision and quality of PPE, which tends to be scarce (Corcoran *et al.*, 2023). Furthermore, providing PPE and training on its use has been shown to reduce nurses' stress and anxiety levels (Cui *et al.*, 2020). Accordingly, previous research indicates that, specifically in such contexts, the perception of effective planning and provision of PPE may be critical for nurses' perceptions of leadership in healthcare organizations (Ralph *et al.*, 2022).

Drawing on SET, positive employee perceptions of adequate informational justice provided by managers or other organizational representatives may enhance their perceived LMX. These higher perceptions of LMX, in turn, evoke positive reciprocating responses from employees, benefiting various targets such as co-workers, managers, and the organization at large or reducing negative employee outcomes such as intention to leave the organization (Cropanzano and Mitchell, 2005; Lavelle *et al.*, 2015; Setton *et al.*, 1996). In this line, Dulebohn *et al.* (2012), in their meta-analysis, identified the positive effects of LMX on various advantageous outcomes for both employees and organizations. These include enhanced job satisfaction, increased organizational commitment, elevated citizenship behavior, and improved job performance. Specifically, past research indicates that the existence of high-quality LMX among nurses is associated with a decreased intention to leave the organization in a non-crisis context (Portoghese *et al.*, 2015). Thus, we expect that nurses who perceive that leaders who attempt to communicate in a reasonable and tailored way and show a consistent management approach of PPE in a crisis period will develop a higher LMX and, as a consequence, will tend to reciprocate, decreasing their intention to leave their jobs during a crisis period. Thus, we propose that:

H1: LMX will mediate the negative relationship between informational justice and nurses' intention to leave.

H2: LMX will mediate the negative relationship between PPE and nurses' intention to leave.

The Mediating Role of Perceived Organizational Support

POS conceptualizes a global exchange relationship between the employee and the organization (Setton *et al.*, 1996). It explains how employees perceive decisions and actions executed by representatives of the organization as reflective of the organization itself (Eisenberger and Stinglhamber, 2011; Levinson, 1965). In this sense, POS represents how employees develop global beliefs based on the extent to which the organization takes care of them or values their contributions (Eisenberger *et al.*, 1986). In this line, healthcare professionals perceive the adequate provision of PPE as an instrumental support and the perception of effective planning and provision of PPE tends to be related to the enhancement of POS (Corcoran *et al.*, 2023; Sonis *et al.*, 2022). Additionally, POS may be enhanced by informational justice (Cheung, 2013), since those who perceive that representatives of the company provide clear and accurate information about procedures tend to feel valued by the organization. Specifically, during a crisis, healthcare managers should be aware of the situation and communicate relevant information to employees. Additionally, they must be capable of collaborating and communicating effectively with diverse stakeholders (Ahti *et al.*, 2023).

Previous research indicates that POS is predictive of several positive employee outcomes, including affective commitment, job satisfaction, and citizenship behavior (Kurtessis *et al.*, 2017). Moreover, past research assessed the negative effect of POS on

the overall intention to leave among nurses in a non-crisis period (Filipova, 2011).

Accordingly, drawing in the SET and the norm of reciprocity (Blau, 1964; Gouldner,

1960), we expect that nurses who perceive they receive the necessary protective

equipment and experience informational justice from different organizational

representatives, such as senior managers or HR professionals, will tend to feel a higher

POS. In turn, they are likely to reciprocate this positive organizational support and

reduce their intention to leave their jobs during a crisis period. For all the above said,

we hypothesize that:

H3: POS will mediate the negative relationship between informational justice

and nurses' intention to leave.

H4: POS will mediate the negative relationship between PPE and nurses'

intention to leave.

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Source: The authors.

Methods

Sample

To conduct the study, we collected data through an online survey distributed via

nursing managers and nursing forums on social networks, targeting nurses actively

caring for patients during the crisis period. The fieldwork took place between April and

November 2020. These months are part of the first wave of COVID-19 in Argentina

which took place from March to December 2020 (Ministerio de Ciencia y Tecnología,

2021). 164 surveys were initially collected from nurses. After collecting the data, we conducted a screening process and excluded observations with suspicious response patterns, such as inconsistent answers (Hair *et al.*, 2021). A final sample of 159 valid responses was considered for analysis. This sample exhibits similar characteristics and is representative of the nursing population in Argentina (Brislin, 1980). For example, it has a higher proportion of females (85.53%), and the majority of respondents are 25 years or older (96.46%). Additionally, we conducted a power analysis using G*Power software to estimate the minimum required sample size for our proposed theoretical model. Considering an alpha of 0.05, a medium effect size of 0.15 (Nitzl, 2016), a power of 0.80 (Hair *et al.*, 2021), and four predictors, a sample size of 85 individuals was found to be adequate for the statistical analysis.

Finally, given that Spanish is the primary language in Argentina, the questionnaire was translated from English using a back-translation method (Brislin, 1980). Furthermore, common method bias was assessed through procedural and statistical methods (Podsakoff *et al.,* 2003), and there was no indication of the constructs being biased.

Considering that the data for this study were collected through a one-time survey, and the predictor and criterion variables cannot be measured from different sources, we implemented several recommendations to assess and mitigate common method bias (Podsakoff *et al.*, 2003). Thus, following the recommendations of Podsakoff *et al.* (2003), we initially evaluated specific procedural methodological aspects. First, we assured respondents of the anonymity and confidentiality of their responses, reducing the risk of dishonest answers. Second, we avoided complex syntax in the questionnaire and refrained from using double-barreled questions.

In addition, we assessed the statistical procedures. First, we performed a full collinearity test using variance inflation factors (VIF) in SmartPLS 4.0.7.8. The highest VIF value was 2.184, which is below the threshold of 3 as recommended by Hair *et al.* (2019).

Measurement Instruments

Informational Justice is measured using the dimension elaborated by Colquitt (Colquitt, 2001). This research uses four items to assess this measure, for instance, "Has (he/she) explained the procedures thoroughly?". PPE was measured using two items adapted from Shiao *et al.* (2007). An example of these items is: "I feel that the protective measures at work are generally effective". This research uses four of the POS validated scale (Eisenberger *et al.*, 1997). A sample item was "My organization cares about my opinions". LMX was measured using four items adapted from Wayne *et al.* (1997). A sample item was "My working relationship with my manager is effective". Finally, Intention to Leave is a single-item construct adapted from the one used by Shiao *et al.* (2007) to study the SARS pandemic. We asked about the following statement: "I am looking for another job or considering resigning because of the risk of COVID-19". This single-item construct was chosen considering that a single item is the best measurement approach when a construct is narrow in scope, unidimensional and explicit (Sackett and Larson, 1990). In this sense, this single-item construct is less ambiguous in its measurement of the construct of interest, as it uses clear language and establishes a direct link to a specific context (i.e., the COVID-19 crisis) (Allen *et al.*, 2022).

Data Analysis

This study uses as an analysis technique the structural equations analysis with partial least squares structural equation modeling (PLS-SEM) which is a statistical second-generation technique employed to estimate complex path models involving composites and their interconnected associations (Hair *et al.,* 2021). In PLS-SEM path models, a dual set of linear equations is formulated. First, the measurement model describes the link between constructs and their indicators. Second, the structural model assesses the relationship between constructs (Hair *et al.,* 2021). The PLS-SEM method was chosen for the following reasons. First, PLS-SEM is known to be advantageous in academic research that focuses on theory development rather than strong theory confirmation (Hair *et al.,* 2021). Second, PLS-SEM is a suitable method for conducting mediation analysis (Hair *et al.,* 2021). Third, PLS-SEM is well-suited to handle highly complex models (Akter *et al.,* 2017). Finally, PLS allows for researchers to draw reasonable conclusions from survey data given our sample size of 159 (Nitzl, 2016).

Results

Measurement Model Evaluation

This section evaluates the reliability of factor loadings and internal reliability of the constructs as part of the assessment of the measurement model evaluation (Table I). In this process, items with outer loadings below 0.708 were removed (e.g., POS3, which had an outer loading of 0.545) (Hair *et al.*, 2019).

The internal reliability of the constructs is evaluated using different indices, including Cronbach's alpha (Cα), composite reliability (CR), and Dijkstra–Henseler´s ρΑ, which present a threshold value >0.7 as recommended by Hair *et al.* (2021).

Moreover, the constructs of this study also meet the criteria for convergent validity, as evidenced by the average variance extracted (AVE) of the constructs which exceed the threshold value of 0.5 recommended by Hair *et al.* (2021). In conclusion, the tests indicate that the constructs used in the proposed model show reliability and validity.

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Table II shows the results for the discriminant validity of the constructs assessed using the heterotrait–monotrait (HTMT) ratio of correlations approach. Our results indicate that discriminant validity is not an issue, as the highest HTMT ratio is 0.711, as shown in Table II, which is lower than the threshold of 0.85 (Hair *et al.,* 2021). Additionally, we verify that the square root of the AVE for each construct exceeds the corresponding correlation coefficients, satisfying the Fornell and Larcker criteria (Fornell & Larcker, 1981) and ensuring discriminant validity (see Table III). This confirms that each construct is distinct from the others in the proposed model.

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Structural Model Evaluation

PLS-SEM evaluates the significance of the model's parameters through a bootstrapping procedure (Hair *et al.,* 2021) that, in the specific case of this research, is

tested using 10,000 subsamples. Furthermore, we employ a one-tailed test since we make assumptions about the coefficient sign in our hypotheses (Kock, 2015). Moreover, potential collinearity issues are discarded due to the predictor's variance inflation factor (VIF) being lower than the recommended threshold of 3 (Hair *et al.,* 2021).

All direct effects are significant (Table IV), apart from the relation between POS and intention to leave due to COVID-19. The coefficient of determination (R^2) represents the in-sample predictive power of the endogenous constructs within the model. The analysis reveals that the model as a whole explains 50.2% of the variance in POS, 40.0% of the variance in LMX, and 9.4% of the variance in intention to leave (Table III), representing large effect sizes (Becker *et al.*, 2023).

Table IV presents the results of the path coefficients. The findings revealed that LMX plays a significant negative mediating role between informational justice and nurses' intention to leave (β=-0.151; p-value = 0.002). Therefore, the hypothesis H1 was supported. Moreover, the mediating effect of LMX between PPE and nurses' intention to leave (β=-0.059; p-value = 0.023), was negative and significant. Thus, the hypothesis H2 is supported. Nevertheless, regarding the mediating effect of POS, our results found that POS mediating effect between informational justice and nurses' intention to leave (β=-0.010; p-value = 0.416) was non-significant. In the same line, the mediating role of POS between PPE and nurses' intention to leave (β=-0.049; p-value = 0.420) was non-significant. In our test, hypotheses H3 and H4 were rejected.

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Discussion

The results of this study demonstrate that the uncertainty and stress of a crisis period, could provoke that one type of positive social exchange relationship, this is, LMX, may play a crucial role in decreasing the intention to leave. Specifically, LMX helps to explain how the nurses' perceptions of informational justice and adequate PPE provision decrease the intention to leave among nurses. In other words, our results suggest that a high-quality social exchange relationship between nurses and managers plays a key role in understanding how the adequacy of explanations and material resources provided during a crisis may affect nurses' intention to leave.

These results highlight the central role of LMX in decreasing the intention to leave during a crisis. Firstly, our results support LMX as having a mediating effect on the relationship between informational justice and intention to leave among nurses. While no previous study has examined the mediating role of LMX between informational justice and intention to leave, these results follow Hartney *et al.* (2023), who found that healthcare leaders could improve their credibility and build trust by communicating more frequently and decisively during the first wave of COVID-19. A potential explanation for this result is that information related to organizational procedures and decisions concerning nurses tends to be managed by nursing managers. Thus, nurses' perceptions of higher informational justice are positively related to a stronger dyadic social exchange between nursing managers and nurses. This, in turn, plays a key role in enhancing nurses' positive feelings toward their managers and reducing their intention to leave in a climate of unpredictability, even facing dire circumstances such as a lack of PPE.

Secondly, our results contribute to the central role of leadership behavior during a crisis (Pearson and Claire, 1998), even in cases of potentially life-threatening

shortages of equipment because our study found a significant mediation effect of the LMX in the relationship between PPE and intention to leave among nurses. Although there is no previous study that assessed the mediating effect of LMX between PPE and intention to leave among nurses, in line with previous qualitative research, our study confirms that PPE provision may be critical to nurses' perceptions of leadership (Ralph *et al.*, 2022). Moreover, our findings match those observed in previous research performed in Italy regarding the significant negative effect of LMX on intention to leave among nurses (Portoghese *et al.*, 2015). In line with past research that found managers played a critical role in the delivery of care during COVID-19 by controlling access to PPE (Corcoran *et al.*, 2023), our results suggest that nurses' perceptions of the adequate provision of PPE enhance their relationship with their leader and could mitigate their choice to leave the organization.

However, we did not find a significant mediating effect of POS between informational justice, PPE, and intention to leave among nurses. According to our results, the direct relationship between POS and intention to leave among nurses is non-significant. In this line, it is relevant to note that some past studies that assessed the relationship between POS and intention to leave among nurses found a weak negative correlation just (Abou Hashish, 2015; Galletta 2016; Sharif, 2021). Moreover, past research in emerging countries or after a health crisis reported a non-significant effect of POS on intention to leave (Freire and Azevedo, 2023; Labrague *et al.*, 2018). Finally, a study conducted among nurses in Belgium found that while POS has no significant effect on the intention to leave, LMX significantly reduces it (Trybou *et al.*, 2014). We propose two explanations for our non-significant results that require further research.

First, our findings may be explained by a lack of coordination among the many actors involved in the response to COVID-19, a situation that could probably happen in

other health crises due to their unexpectedness and the potential response deficiencies. This lack of coordination could harm the social exchange relationships between nurses and organizational representatives (e.g., nursing managers, doctors, and HR staff), especially those organizational actors seen as being less exposed to similar risks of infection (McMurray *et al.*, 2023). Thus, considering that social exchange relationships are based on the norm of reciprocity (Gouldner, 1960), if an individual perceives an unequal social transaction, this may indicate that an effective social exchange process is not occurring. For example, in a qualitative study performed in Canada, nurses interviewed expressed the importance of being carefully listened to by organizational representatives and how they were heard compared to physicians when evaluating leadership quality (Corcoran *et al.*, 2023).

Second, according to a meta-analysis conducted by Zhu et al. (2023), years of work in the nursing profession play a relevant role in explaining the effect of perceived organizational support (POS) on the intention to leave. A potential explanation for this is that nurses with longer tenure in their profession may exhibit lower sensitivity to organizational support, as they tend to have higher expectations of their organization (Trybou et al., 2014; Zhu et al., 2023). Considering that the nurses we surveyed were often senior, with 71% having more than five years of experience and 48% having more than ten years, they may expect greater support from various representatives of the organization, such as physicians, senior managers, and the HR team, especially during a crisis period.

Theoretical implications

Our paper contributes to research using social exchange theory in a crisis. As such, it represents one of the few empirical investigations aiming to assess how informational justice and the provision of PPE during a health crisis affect the intention to leave the organization mediated by two social exchange key constructs. Considering the current nurses' shortage across the globe, our research supports a better understanding of how organizations may be benefited from the adequate planning and provision of PPE and the delivering of transparent and clear information regarding procedures and actions to be taken in a crisis period.

Specifically, our results highlight the key role of the dyadic social exchange relationship between subordinates and their managers in a crisis. In this sense, managers may provide constant feedback and support, unlike other agents of the organization. In contrast to previous findings (Brunetto *et al.*, 2013), our study suggests that not all the organizational actors may generate the desired positive effect in nurses' perceptions which serve to retain them in a crisis context. In this regard, our research builds on previous qualitative studies that identified nursing managers as key in reducing nurses' intention to leave by improving communication quality (Hartney *et al*., 2023) and ensuring access to critical resources, such as PPEs, during crises (Corcoran *et al*., 2023). Expanding on these findings, we demonstrate how the dyadic relationship between leaders and team members within an organization mediates the impact of PPE provision and informational justice on nurses' intention to leave.

Finally, in line with previous seminal social exchange studies, our findings confirm that POS and LMX are not equivalent (Settoon *et al*., 1996; Wayne *et al*., 1997). While LMX plays a key mediating role in the effects of informational justice and PPE on nurses' intention to leave during a crisis, POS does not mediate these

relationships. Specifically, our study found that, in this crisis context, POS does not exert a significant effect on intention to leave relative to LMX.

Limitations and Future Research

This work presents the limitation of having only data for Argentina but given the analogous context of health systems in other countries affected by the COVID-19 crisis, it is plausible that the conclusions drawn could be extrapolated to those regions. Subsequent research may aim to validate these relationships in diverse healthcare systems and crisis contexts, exploring direct and mediated relationships for other antecedents and outcomes of POS.

Furthermore, there is an opportunity for advancing understanding regarding the distinctions between LMX and POS to mitigate adverse outcomes such as the intention to leave, while concurrently enhancing positive outcomes such as in-role and extra-role performance. In answering how to address the global nursing shortage, a potentially fruitful line of research would be to consider the relation between perceived organizational support and LMX in distinct contexts. For example, some research suggests that leadership needs are altered during times of crisis (Eichenauer *et al.* 2022). Further research could investigate whether the importance of perceived organizational support increases in nursing staff during times of non-crisis, or if there are potential trade-offs between both elements.

Finally, we take a cross-sectional approach, which presents several limitations. On the one hand, our design allowed us to observe a unique crisis event that evolved quickly. On the other hand, it is subject to biases and prevents us from making any strong case for causality, even as the results can point to its possibility (Maier et al.

2023), and which the use of PLS does not remedy (Rönkkö et al. 2023). A cross-sectional design also prevented observation of the known effects of crisis duration (Förster *et al.,* 2023) on our outcomes of interest. Furthermore, the meaning of words themselves like "telemedicine" and "remote work" likely shifted during COVID-19 (Willson et al. 2022). Our work should be treated as preliminary, and ideally future studies could employ a longitudinal approach to establish temporal separation between predictor and criterion (Podsakoff *et al.*, 2012) and to track possibly shifting meanings likely to occur during crises.

Managerial Implications

Considering that the shortage of nurses is projected to grow in the future (Mayers *et al.*, 2024; Van Merode *et al.*, 2024) and different health crises show that intention to leave tends to increase in those contexts, this study can contribute to nursing management with some recommendations. Firstly, given the challenges of ensuring adequate PPE provision during a crisis, healthcare managers should prioritize effective planning and distribution. Their management of these essential job resources can directly influence nurses' perceptions of their leadership quality. Moreover, the results of this study indicate that nurses weigh the fairness of nursing managers' communication during a crisis. Managers can support the perception of fairness through thorough, candid, and timely explanations about the crisis situation, tailored to the needs of their staff, while ensuring the efficient provision of key job resources.

Additionally, when facing a crisis, our study highlights the centrality of frontline managers in determining nurses' intention to remain in the organization. Therefore, healthcare organizations may be better prepared for a crisis if their managers develop

high-quality leader-member exchange relationships. For instance, senior managers may help nursing managers by providing them with a manageable span of control to improve leader-member exchange and prepare them for crisis contexts by promoting nursing management skills development through leadership training. Furthermore, considering the importance of informational justice in building high-LMX and reducing nurses' intention to leave, it may be recommendable for healthcare organizations to link the successful implementation of informational justice through manager training with the opportunity to grant nursing managers more power and control over rewards and career opportunities for their subordinates, such as pay raises and promotion recommendations, as suggested by Aryee and Chen (2006) and El Akremi *et al*. (2010).

Finally, healthcare organizations can consider how they can more equally contribute to organizational identity (Onken-Menke *et al.,* 2021). Considering that employees tend to see the actions of different agents in an organization as actions of the organization itself (Levinson, 1965), it is important to effectively coordinate the actions of these different agents such as physicians, HR staff, and nursing managers to provide a consistent and clear message. Our results suggest that effective coordination between actors may be especially important in cases where supervisory relationships are weak.

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