

RESEARCH ARTICLE

# The Relationship Between Burn out and Organizational Culture Among Health Systems' Employees During the COVID-19 Pandemic

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## Abstract

The relationship between burn out and organizational culture have not been thoroughly investigated in non-patient-facing health systems' employees, such as analysts and administrative managers. Therefore, the relationship between organizational culture and burn out among health systems' employees is investigated. A 57-question Likert scale survey was sent to health systems' employees. A total of 67 responses were collected. Two factor analysis models about and canonical correlation between burnout and organizational culture are presented. The results show that organizational culture factors and burnout factors are related. There is an 83% correlation between burn out and organizational culture among health systems' employees. This research contributes to the literature by being among the first to study non-patient-facing health systems' employees' perceptions of organizational culture and experiences of burn out. Additionally, this research has several practical implications for health systems' leaders. For example, leaders should focus on improving organizational culture to alleviate burn out in health systems' employees.

**Keywords:** Burn out; Organizational Culture, Hospitals, Factor Analysis, Canonical Correlation.

## 1. Introduction

Organizational culture (OC) is a factor in every workplace. Schein defines OC as including tangible artifacts, the organization's values and beliefs, and underlying assumptions that lie and operate unconsciously within an organization's employees (Schein, 2010; van Rooij& Fine, 2018). These assumptions influence employees' behavior. OC can originate and be perpetuated by an organization's leaders (Dawes & Topp, 2022). Due to the potential of OC to influence behavior, leaders should study how to cultivate and maintain a positive OC.

In addition to behavior, OC can affect burnout rates. Burnout is composed of three dimensions: exhaustion, which is defined as feeling worn out, depleted, debilitated, and less energetic; depersonalization, in which employees have negative or inappropriate

attitudes toward clients, are irritable, lose idealism, and withdraw from others; and reduced personal efficacy in performance and inability to cope with problems (Maslach, 2017). Even though several studies have shown a relationship between OC and burnout, a lack of research has studied both patient-facing and non-patient-facing health systems' employees during the COVID-19 pandemic.

Most studies conducted during the novel pandemic focus on patient-facing employees, such as physicians and nurses (Mangory et al., 2021; Mohr et al., 2021; Reitz et al., 2021a; Watson et al., 2019a; Zadow et al., 2017). Therefore, the purpose of this study is to determine the relationship between OC and burnout among health systems' employees and identify how the latent factors of OC and burnout are related during the novel pandemic.

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## 2. Literature Review

### 2.1 Definition of Organizational Culture

OC is composed of several factors. One factor is perceived organizational support, which is composed of support from leaders and transformational leaders who listen to and address employees' concerns (Reitz et al., 2021b). Other factors include teamwork, peer relationships, the ability to develop in one's role, involving employees in decision-making, blamelessness when employees make mistakes, and how employees treat customers (Abuosi et al., 2022; Bourgault & Goforth, 2021; Ferguson et al., 2022; Lin et al., 2022; Singer et al., 2009).

Among operating room nurses, for example, teamwork is imperative to cultivating respect among co-workers and one indicator of a positive OC (Lin et al., 2022; Mutonyi et al., 2022). An open and honest environment in which co-workers are friendly and respectful toward one another is indicative of a positive OC (Burns et al., 2021). The authors study aspects of OC with primary focuses on nurses, physicians, medical students, and other clinical staff. Therefore, additional research is needed to show perceptions of OC among non-patient-facing employees in health systems.

### 2.2 The Relationship Between Organizational Culture and Burn out

Numerous studies have found that a negative organizational culture can contribute to burnout in healthcare and non-healthcare industries. For example, a study by Maslach and Leiter (2008) found that employees who perceived their workplace culture as unsupportive were more likely to experience burnout (Maslach & Leiter, 2008). Similarly, a study by Mäkikangas and Kinnunen (2016) found that employees who experienced high levels of organizational conflict and role ambiguity were more likely to experience burnout (Mauno et al., 2016).

Conversely, a positive organizational culture can protect from burnout. In the non-healthcare industry, Halbesleben and Buckley (2004) found that employees who perceived their workplace culture as supportive and empowering were less likely to experience burnout (Halbesleben & Buckley, 2004). Malik et al. concluded that a favorable working environment is necessary to reduce the incidence of job burnout in every industry, especially the higher education sector (Malik et al., 2022). Furthermore, O'Connor et al. found that work-related factors such as workload and work relationships are determinants of burnout

(O'Connor et al., 2018). Role clarity, professional autonomy, feeling fairly treated, and access to supervision protect from burnout (O'Connor et al., 2018). In the healthcare industry, among operating room nurses, OC can moderate burnout (Sojeong & Sujin, 2022). However, the authors study only nurses and a work-oriented OC, not other types of OC, such as a culture of justice.

A patient safety culture in which employees are not blamed for mistakes and feel able to report mistakes without fear of retaliation is negatively related to burnout (Burns et al., 2021; Lu et al., 2022). Additionally, a lack of support from supervisors can increase burnout rates (Cocker & Joss, 2016; Reitz et al., 2021b). Moreover, among nurses in Taiwan, factors from the Organizational Culture Inventory (OCI) comprised of innovation, bureaucracy, and support were studied to create an overall OC score (Wu et al., 2023).

The authors also studied self-efficacy, which is part of the personal accomplishment and professional efficacy factors of burnout (Maslach et al., 1996; Wu et al., 2023). Perceived organizational support's efficacy on mediating burnout has also been studied among nurses and providers (e.g., physicians, respiratory therapists, patient care technicians) (Reitz et al., 2021b; Yanbei et al., 2023).

Patient safety culture was studied among nurses in Germany; however, the relationship between patient safety culture and burnout was not studied (Roth et al., 2021). Furthermore, the research focuses upon patient-facing employees and not non-patient-facing employees. Claponea and Iorga (2023) analyze burnout and perceptions of organizational justice among medical and non-medical employees but do not analyze other aspects of OC, such as organizational support.

In the non-healthcare industry, several factors of OC were studied. For example, a study of the education industry revealed that creating, collaborating, controlling, and competing were latent factors of OC (Abustan et al., 2023). The results showed that, among teachers in Laguna, OC was perceived as highly favorable. Furthermore, employees' value of creativity has been shown to affect how companies innovate (Hock et al., 2016). Flexibility and collaboration are also factors of OC in manufacturing and 190 non-healthcare companies (Stich et al., 2018; Verdu-Jover et al., 2018). However, the research does not study how these OC factors affect burnout.

These studies show that each of the aforementioned factors of OC can contribute to burnout among patient-facing employees of health systems. The factors studied in non-healthcare industries could be studied for non-patient-facing health systems' employees. However, the same might not hold true for non-patient-facing health systems' employees. Therefore, further research is needed.

### 2.3 Measuring Organizational Culture and Burn out

Several authors measure OC and burnout in separate scales. For example, Yap et al. (2014) use the Nursing Culture Assessment Tool to study how nurses perceive OC in long-term care facilities. Another study surveyed healthcare personnel who worked in hospitals, clinics, and state and private institutions by separating OC factors into different scales, such as organizational justice and perceived organizational

support; and the MBI (Claponea& Iorga, 2023). Some studies combine OC and burnout questions, such as Roth et al. (2021). However, Roth et al. surveyed only nurses. Burns et al. (2021) did not use an existing scale to measure OC but created their own (Burns et al., 2021). The authors combined the OC scale with the Stanford Professional Index to measure the relationship between OC and burnout among academicians at the University of Toronto's school of medicine. The authors did not assess the reliability and validity of their new OC scale.

None of the studies use a combined reliable and validated scale. Therefore, this study combines OC questions from several validated scales and burnout questions from the Maslach Burnout Inventory – General Survey (MBI-GS) (Maslach et al., 1996). A list of OC questions and their sources, separated by the latent factors in the original studies, are provided in Table 1.

**Table 1.** OC Survey Questions, Factors, and Sources

Survey Item	Scale	Latent Factor/Subscale
C1 - I show concern for my co-workers' well-being.	Organizational Citizenship Behaviour	Interpersonal Helping
C2 - My co-workers show concern for my well-being.	Organizational Citizenship Behaviour	Interpersonal Helping
C3 - I am satisfied with my job.	Michigan Organizational Assessment Questionnaire	Overall Job Satisfaction
C4 - My direct supervisor pays attention to what I'm saying.	Newly Licensed Registered Nurse (NLRN) Survey	Supervisory Support
C5 - My supervisor listens to job-related difficulties.	Organizational Citizenship Behaviour/ NLRN Survey a	Loyal Boosterism/Supervisory Support
C6 - My supervisor encourages those he/she supervises to express their opinions.	Organizational Citizenship Behaviour/ NLRN Survey	Loyal Boosterism/Supervisory Support
C7 - I have a good chance to be promoted.	Job Descriptive Index/NLRN Survey	Satisfaction with Promotion
C8 - I have opportunities to do a number of different things.	Job Characteristics Inventory/NLRN Survey	Variety
C9 - Members of my work unit/department are involved in decisions that directly affect their work.	Distributive and Procedural Justice/ NLRN Survey	Procedural Justice
C10 - Decisions are made based on research, data, and technical criteria, as opposed to political concerns.	Distributive and Procedural Justice/ NLRN Survey	Procedural Justice
C11 - I think that my present employer is a great organization to work for.	Psychological Attachment Instrument/ NLRN Survey	Compliance/Organizational Commitment
C12 - My supervisor and other leaders inspire me to perform my best.	Organizational Commitment Questionnaire/NLRN Survey	Organizational Feedback/Supervisory Support
C13 - I am friendly toward my co-workers.	NLRN Survey	Work-group Cohesion
C14 - My co-workers are friendly toward me.	NLRN Survey	Work-group Cohesion
C15 - I show my co-workers how to work successfully.	NLRN Survey	Mentor Support
C16 - My co-workers show me how to work successfully.	NLRN Survey	Mentor Support

C17 - I give honest feedback to my co-workers.	Job Characteristics Inventory/NLRN Survey	Feedback/Mentor Support
C18 - My co-workers and supervisor give me honest feedback.	Job Characteristics Inventory/NLRN Survey	Feedback/Mentor Support
C19 - Patient and employee safety are never sacrificed to get more work done.	Hospital Survey on Patient Safety Culture (HSOPSC)/NLRN Survey	Staffing and Work Pace/Quantitative Workload
C20 - I have the level of technology needed to perform my job effectively and safely.	NLRN Survey	Organizational Constraints
C21 - I have the supplies and equipment needed to perform my job effectively and safely.	NLRN Survey	Organizational Constraints
C22 - As an employee, I feel comfortable reporting potential or actual patient and employee safety problems.	Hospital Survey on Patient Safety Culture (HSOPSC)	Communication Openness
C23 - Our procedures and systems are good at preventing errors from happening.	Hospital Survey on Patient Safety Culture (HSOPSC)/Procedural Justice	Overall Perceptions of Patient Safety/ Procedural Justice
C24 - I participate in quality improvement processes, such as root cause analyses.	Distributive and Procedural Justice/ NLRN Survey	Procedural Justice
C25 - A patient is likely to receive high-quality care on my unit (or hospital in general if not patient-facing).	Distributive and Procedural Justice/ NLRN Survey	Procedural Justice
C26 - My unit/department often works as a team to improve processes or systems of care as result of errors that were reported in my unit (or hospital in general if not patient-facing).	NLRN Survey	Work-group Cohesion
C27 - I effectively carry out my roles and responsibilities.	Nursing Culture Assessment Tool (NCAT)/NLRN Survey	Behaviors/Autonomy
C28 - My co-workers use appropriate language with patients, family, and visitors.	NCAT/NLRN Survey	Communication/Organizational Constraints
C29 - I use appropriate language with patients, family, and visitors.	NCAT/NLRN Survey	Communication/Organizational Constraints
C30 - Overall, the culture of the hospital is positive.	NCAT/NLRN Survey	Satisfaction/Organizational Constraints
C31 - Overall, the culture of the organization helps to make sure that patients are given high-quality care.	NCAT/NLRN Survey	Satisfaction/Organizational Constraints

**Sources:** Ashkanasy et al., 2011; Kovner, Brewer, Fairchild, Poornima, & Kim, 2007; Kovner, Brewer, Fairchild, Poornima, & Kim, 2007; AHRQ, 2023; Kennerly et al., 2012; Kovner, Brewer, Fairchild, Poornima, & Kim, 2007

Furthermore, most studies about OC and burnout in health systems focus on nurses and physicians instead of administrative employees (Kobuse et al., 2014; Montgomery et al., 2013; Mutonyi et al., 2022; Paul et al., 2018; Reszel et al., 2019; Rezaei et al., 2020; Slåtten et al., 2019; Woon & Tiong, 2020).

This study includes non-patient-facing employees' perceptions of OC and experiences with burnout, particularly if the modified survey used in this research has continued validity and reliability among health systems' employees. This study contributes to the literature by focusing on mainly non-patient-facing

employees unlike the previously cited studies.

Based on the previously cited literature about perceptions of OC and burnout and the lack of studies including non-patient-facing health systems' employees, the research questions are as follows:

- Are factors of OC related to one another among health systems' employees?
- Are burnout symptoms related to one another among health systems' employees?
- Are factors of OC related to burnout among health systems' employees?

### 3. Materials and Methods

#### 3.1 Setting, Measurement, and Study Design

This is a cross-sectional study that was approved by the Harrisburg University of Science and Technology Institutional Review Board (reference number 20221026). Data was collected via a 57-question Likert scale validated and reliable survey from Kovner et al. that measures aspects of OC and burnout and combines latent factors of OC from different OC scales (Kovner, Brewer, Fairchild, Poornima, Kim, et al., 2007; Kovner et al., 2014).

Further information about how the instrument was validated and shown to be reliable can be found via Kovner et al.'s studies and in the studies cited in Table 1 (Kovner, Brewer, Fairchild, Poornima, Kim, et al., 2007; Kovner et al., 2014). The scale was modified to include demographics questions, such as the department in which participants worked and the name of their job roles.

The survey was published on JotForm.com, and a link was sent to trade organizations and people of influence within health systems to distribute to their networks and reduce selection bias. Informed consent was obtained at the beginning of the survey, and participants could exit the survey at any time without penalty or their previous answers being saved. Survey responses were collected from February 2022 to October 2022.

**Table 2.** *Departments*

Department	Number of Respondents
Administration	20
Board of Directors	4
Community Health	3
Diagnostic Imaging/Radiology	1
ED	4
Inpatient Psychiatry	1
Inpatient Surgery	2
Lab Services	1
Med/surg	2
OR/PACU	1
Pharmacy	1
Quality and Patient Safety	4
Step down/Transitional	1
Analytics	4
Case Management/Social Work	1
Finance	1

#### 3.2 Participants

All employees who worked for a health system were eligible to participate. Eligible employees were invited to participate via trade organizations, such as hospital associations and accountable care organizations. People of influence, such as human resource managers, also distributed the survey.

#### 3.3 Analysis

All data were analysed using R, a statistical analysis software. Since all survey questions were mandatory to answer, there were no missing data to address. The data were split into OC and burnout responses. Factor analyses were conducted on the OC questions and the burnout questions. Finally, canonical correlation was conducted on both the OC factor model and the burnout factor model.

### 4. Results

The survey had a total of 67 responses. Each participant was a health systems' employee; therefore, all 67 responses were included in the analysis. Tables 2 and 3 show that most participants were administrators (middle- or senior-level management) and worked in administrative departments, such as nursing administration. Table 4 also shows that many participants worked in non-profit health systems with over 500 beds and located in urban areas.

Graduate Medical Education	1
Information Technology	2
Marketing/Business Development	2
Operations	1
Strategy	5
Patient Experience	1
Radiation Oncology	2
Refused to Answer	3

**Table 3.** *Position*

<b>Position Title</b>	<b>Number of Respondents</b>
Administrator/Assistant Administrator/Supervisor	18
Board Member	3
Consultant	4
Case Manager	1
Clerical	1
IT Support	2
Medical Assistant	12
Medical Doctor (MD)	10
Patient Coordinator/Access Representative	3
Chaplain	1
Physician Chief/Chair	1
Project Manager	1
Registered Nurse	7
Residency Coordinator	1
Other	2

**Table 4.** *Hospital Size, Location, and Type*

	<b>Number of Respondents</b>
<b>Bed Size</b>	
6 – 24 beds	6
25 – 49 beds	1
50 – 99 beds	3
100 – 199 beds	7
200 – 299 beds	3
300 – 399 beds	5
400 – 499 beds	8
500 beds or more	34
<b>Location</b>	
Rural	26
Urban	41
<b>Type</b>	
Federal	2
For-profit	20
Non-profit	45

Based on the scree plot determining the optimal number of factors, 3 factors were extracted from the OC model. The factor loadings are shown in Figures 1 and 2. As shown in Fig. 1, in Factor 1 of the model describing cultural factors, the questions with significant loadings (0.40 – 0.91) regarded job satisfaction, promotability, data-driven decisions, believing that one’s employer is great to work for, co-workers showing respondents how to work successfully, never sacrificing patient safety to accomplish more work, being equipped

technologically and otherwise to perform one’s job, feeling comfortable with reporting safety problems, having systems that prevent errors, patients being likely to receive high-quality care, teamwork to improve systems of care, having an overall positive OC, and having an OC that results in high-quality care. Therefore, Factor 1 describes work efficacy, being equipped to work effectively, perceptions of patient care, quality and safety, and overall culture.

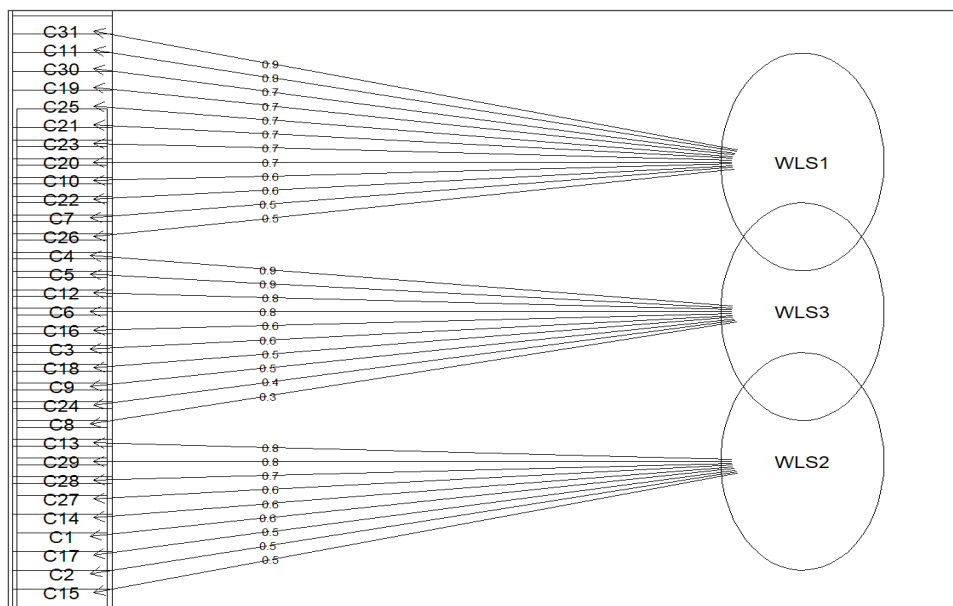


Figure 1. Factor Analysis – Organizational Culture

Factor 2 shows significant loadings (0.40 – 0.83) among the questions of participants’ co-workers showing concern for participants and vice versa, involving employees in decision-making, respondents being friendly toward their co-workers and vice versa, respondents showing co-workers how to work successfully and vice versa, respondents giving honest feedback to their co-workers and vice versa, having the supplies and equipment needed to perform one’s job successfully and effectively, feeling comfortable reporting actual or potential safety problems, teamwork to improve safety, participants effectively doing their jobs, and participants using appropriate language with patients and visitors.

Therefore, Factor 2 describes employees’ relationships with co-workers, teamwork, having a blameless safety culture, and work efficacy.

Factor 3 shows significant loadings (0.42 – 0.91) for the questions of co-workers showing concern for respondents’ well-being, job satisfaction, supervisors paying attention to what employees are saying and listening to job-related difficulties, supervisors encouraging employees to express their opinions,

promotability, leaders inspiring employees to perform their best, having friendly co-workers, participants showing co-workers how to work successfully and vice-versa, giving honest feedback to one another, participation in quality improvement initiatives, and teamwork to improve quality processes. Thus, co-workers’ empathy, supervisors’ listening to and considering employees, job growth, employee relationships, teamwork, and a quality-oriented culture are described in Factor 3.

Based on a second scree plot, 2 factors were extracted from the burnout model. Fig. 2 shows the two factors from the burnout model. Factor 1 had significant loadings (0.46 – 0.82) for the questions regarding feeling emotionally drained after work, job interference with home-life and family time, irritability, anxiety, mood swings, always feeling on-edge, fatigued when waking in the morning, and at wits’ end; treating patients as though they are objects, and becoming more callous toward others since starting in their current role.

Thus, Factor 1 describes depersonalization, emotional exhaustion, and work/life balance among respondents.

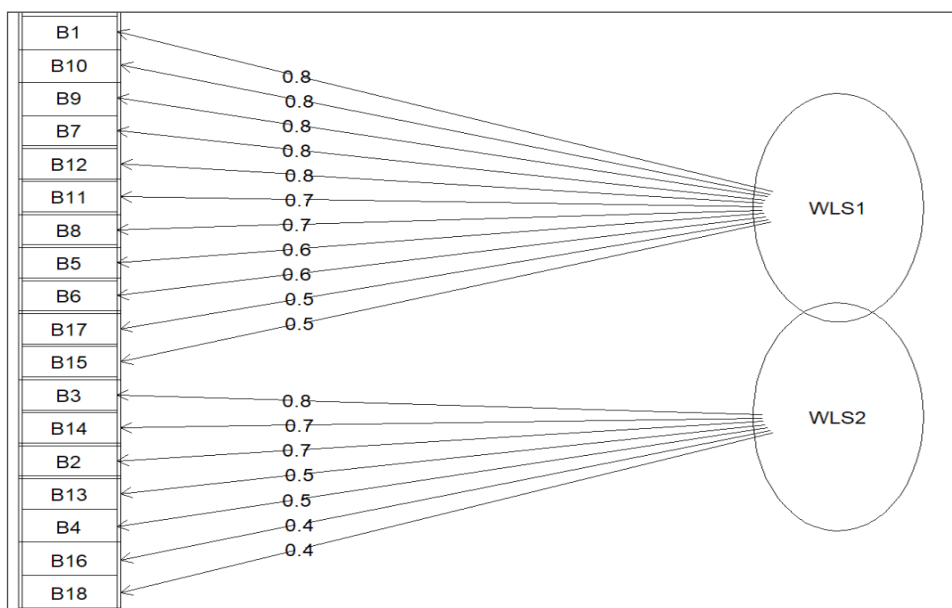


Figure 2. Factor Analysis – Burnout

Factor 2 has significant loadings (0.43 – 0.77) for the questions regarding understanding patients’ and visitors’ feelings, taking one’s current job again, feeling stimulated when working with colleagues, effectively addressing patients’ and co-workers’ problems, being relaxed when addressing emotional problems, and feeling exhilarated after working with or talking to patients. Therefore, Factor 2 describes job satisfaction, engagement, empathy for patients

and visitors, and addressing problems effectively and objectively.

Both models show strong reliability. Table 5 shows that the OC model has a Cronbach alpha of 0.97, and the burnout model’s Cronbach alpha is 0.84. Table 6 shows that the validity of each model is also strong; the OC model’s validity is 0.89, while the burnout model’s validity is 0.97.

Table 5. Model Reliability

	Organizational Culture	Burnout
Cronbach Alpha	0.97	0.84

Table 6. Model Validity

	Organizational Culture	Burnout
Correlations	0.89	0.97

The canonical correlation analysis tested whether OC variables were related to burnout variables. Based on the canonical correlation analysis, there is an 83% correlation between burnout and positive OC in the primary component. Therefore, burnout can be partially explained by OC.

## 5. Discussion

The factor analysis demonstrates a relationship between several OC factors and burnout factors. In regards to OC, as shown in Fig. 1, Factor 1 demonstrates a relationship between work efficacy, being equipped to work effectively, perceptions of patient care, quality and safety, and overall culture. Work efficacy is associated with high quality of care and, in some cases, is included in the definition of quality of care (Allen-Duck et al., 2017; Stavropoulou

et al., 2022). The more effectively employees work, the higher the quality of care.

Being equipped to work effectively is related to quality of care; if employees do not have all the resources that they need to work effectively, then quality of care will decrease (Patterson et al., 2021). Patterson et al. (2021) show a correlation between having all the resources needed to work effectively and quality of care was shown between administrative managers and patient-facing employees. Their results corroborate the results of the factor analysis that shows that being equipped to conduct one’s job and quality of care are related. Abuosi et al. (2022) support the Factor 2 of the OC model that shows a relationship between teamwork and having a blameless safety culture in which no employee is blamed for safety errors. As a result, quality of care can increase.



Abuosi et al.'s study, among others, reinforces the results of the factor analysis that shows that supervisor support for a blameless culture, teamwork, and reporting potential and actual safety events, are conducive to promoting high-quality care (Adamson et al., 2018; O'Leary et al., 2014). Therefore, supervisors should ensure that they are supporting a blameless culture and teamwork to increase the quality of care.

Moreover, teamwork can enhance the efficacy of either accomplishing work or resisting a change (Deng et al., 2021; Li et al., 2018). As shown in the factor analysis, teamwork impacts the perception of quality of care; if employees do not feel as though responsibilities are being spread evenly across different team members, then they will believe that the quality of care is being reduced (Burstyn & Holt, 2022). Burstyn & Holt's study is about mainly nurses and physicians, but the results of the factor analysis show that their results are similar among non-patient-facing health system employees. Furthermore, strained relationships with co-workers reduces teamwork efficacy (Burstyn & Holt, 2022). Difficulty while dealing with certain co-workers' personalities results in a lack of teamwork.

Factor 2 also shows a relationship between co-workers showing concern for one another, friendliness between co-workers, and having a quality- and safety-oriented culture by feeling comfortable reporting actual and potential safety issues. If supervisors and co-workers do not show concern for others, then they will be perceived as being unfriendly (Burstyn & Holt, 2022). Their lack of concern may impact safety; some employees may not feel comfortable speaking about potential and actual safety issues.

Factor 3 concerns mainly peer and supervisor relationships. Participants who were satisfied with their jobs may be more likely to have supervisors and leaders who listen to and support them (Steinhardt et al., 2016). Unlike in the literature, the factor analysis shows that specific supervisor behaviors of listening to employees and showing concern for employees' well-being impact employees' job satisfaction. In addition, the factor analysis shows not only relationships between positive supervisor behaviors and job satisfaction but also positive supervisor behaviors and potential for growth within the health system. Supervisors who listen to and consider their employees may be more likely to develop them (Szilvassy&Širok, 2022). Factor 3 implies that quality of care is impacted by relationships between co-

workers and employees' relationships with supervisors and potential for growth. Professional development among nurses has been shown to increase quality of care, which includes improved nurse communication with patients and clearer discharge instructions (Harper et al., 2023). This study implies that, if non-patient-facing employees are encouraged to grow in their roles, then quality of care might increase.

Regarding burnout, the factor analysis in Fig. 3 shows that emotional exhaustion, depersonalization, and work/life balance are related. Emotional exhaustion leads to depersonalization (Demerouti et al., 2001; Huang et al., 2016; Knani et al., 2018; Park et al., 2021). Employees may no longer feel empathy toward others due to being emotionally drained. Furthermore, workers may depersonalize to protect themselves from further emotional exhaustion (Leiter & Maslach, 2001). Park et al.

(2021) show that a heavy workload leads to emotional exhaustion. Their result corresponds with the factor analysis' results that work/life balance and emotional exhaustion are related. If employees have a high workload, then their work may interfere with their home-life and lead to emotional exhaustion. Since emotional exhaustion is related to burnout, job interference with home-life may cause depersonalization.

Employees who see patients and visitors as impersonal objects may not treat those patients and visitors well, which could impact patient satisfaction. Depersonalization affects patient care and perceptions of level of service; customers who interact with employees with the burnout symptom of depersonalization are more likely to believe that they are being treated badly (Nesher Shoshan & Sonnentag, 2020; Prabath et al., 2022). Therefore, supervisors should ensure that work/life balance is being maintained by modelling work/life balance in their own lives and encouraging employees to take vacations and not work past their allotted work hours.

Factor 2 shows that relationships exist between job satisfaction, engagement, empathy for patients and visitors (personalization), and addressing problems effectively and unemotionally. How employees address problems could indicate whether they are burned out. Furthermore, several studies have shown a negative correlation between job satisfaction and emotional exhaustion, personal accomplishment, and depersonalization (Chen et al., 2022; Lopes et

al., 2022). Burnout is also negatively associated with engagement (Agarwal et al., 2020; Maslach, 2017). Burned out employees are often not engaged with their work. Thus, leaders should ensure that employees are engaged by distributing workplace satisfaction and culture surveys and asking employees to provide feedback about their organization's environment and work.

The factor analysis contributes to the literature by showing that effective problem-solving skills are related to job satisfaction, engagement, and personalization.

The canonical correlation showed an 83% correlation between OC and burnout. Several studies corroborate the results of the canonical correlation. For example, supervisor support mitigates burnout symptoms and improves employee engagement (Heyns et al., 2022).

Health systems' leaders should ensure that they are creating a strong OC in which supervisors support their employees, employees feel adequately equipped to perform their jobs and are involved in decision-making, teamwork is prevalent, and co-workers treat one another well.

## 6. Limitations

Since individuals were contacted, there may have been potential bias in participant selection. Moreover, the sample size is relatively small (n=67), despite over 100 trade organizations and individuals being contacted to distribute the survey. Many of those contacted were hesitant or unwilling to distribute the survey. When leaders distributed the survey to their teams, the response rate was low.

Since the authors were not privy to how many people were in the departments to potentially take the survey, a response rate could not be calculated. Moreover, many trade organizations and health systems did not follow-up with the authors once contacted. Future studies could attempt to gain more participants, specifically if the researchers know someone of influence who can distribute the survey to a health system or if the authors work for a health system where a convenience sample could be used.

To protect the anonymity of the participants, demographics information such as race, gender, and age were not obtained. Future studies could obtain and correlate demographics data with perceptions of OC and burnout rates.

## 7. Contributions

### 7.1 Contributions to the Literature

This study contributes to the literature in several ways. This study focuses on mainly non-patient-facing employees. Previous studies about the perceptions of OC and burnout focus on mainly nurses and physicians. Second, this study uncovers new relationships among aspects of burnout and intrinsic characteristics, such as showing a relationship between effective problem-solving skills and burnout dimensions such as depersonalization and personal accomplishment.

Previous studies have shown that certain intrinsic characteristics and skills are related to how employees cope with burnout but not how those characteristics relate to burnout dimensions (Maslach, 2017; Mijakoski et al., 2022). Moreover, this study uses a factor analysis and canonical correlation to show the relationship between latent factors of OC and burnout on one another among health systems' employees. Previous studies have not used similar methods.

### 7.2 Contributions to the Healthcare Industry

The results of this study show leaders which aspects of OC they can focus upon to improve burnout rates among health systems' employees. First, this study shows the importance of teamwork and involving employees in decision-making, especially regarding the health system's mission and vision, in mediating burnout. Health systems' leaders can focus on cultivating an OC in which employees collaborate with one another.

For example, they can implement team-building activities and social events to strengthen relationships among employees.

Second, this study shows ways that leaders can identify whether their employees are becoming burned out. For example, employees who treat patients and visitors with harsh language may be depersonalizing patients and visitors.

Therefore, leaders can speak with employees privately and address the root cause of their depersonalization and possible burnout. Leaders may find that employees do not feel supported by their supervisors, which, as previous studies have shown, contributes to burnout.

Leaders can then cultivate a culture in which supervisors support their employees by providing employees with the resources needed to work effectively and efficiently. They can also cultivate a culture in which work/life balance is emphasized

to mitigate burnout (Ali et al., 2021; Watson et al., 2019b; Welp et al., 2015). A lack of work/life balance indicates that workload may be overwhelming for employees (Fan, 2018). Leaders could model positive behaviors, such as using vacation time, and encourage employees to leave work at a certain time every day.

## 8. Conclusion

Since OC is highly correlated with burnout, leaders would be wise to cultivate a positive OC in which employees are involved in decision-making, support one another, and treat one another in a friendly manner; effective problem-solving skills are encouraged and taught; and communication is open and honest. Leaders who cultivate a positive OC and encourage positive behaviors among employees will help alleviate burnout, which will improve patient satisfaction, quality of care, and employees' work lives.

## 9. References

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