The Work-Life Balance of Nursing Professionals:
An Information Technology Context

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Evaluating Information Technology (IT) and Nursing Professionals' intentions to leave their organizations during COVID-19 using Critical Lens Theory found similar perceptions toward job burnout and the 6Cs of nursing. Both groups suffer from similar levels of emotional exhaustion. Nurses exhibit lower levels of Depersonalization and Personal Accomplishment than IT Professionals. IT professionals scored lower across the 6Cs of nursing, supporting the stereotype of IT professionals exhibiting lower levels of care and compassion toward customers. IT Professionals scored higher on Personal Accomplishments. Interestingly, both groups seemed to keep their options open in seeking new jobs or quitting their current position.

Keywords: 6C's of Nursing, Critical Realism Theory, nursing values, intention to leave

INTRODUCTION

COVID-19 stress affected most workers, most notably frontline workers. Understanding the pressures of frontline workers during COVID-19 required identifying essential workers, particularly IT and nursing professionals (Blau, Koebe, & Meyerhofer, 2021). According to the American Psychological Association, American workers experienced heightened rates of burnout in 2021, with 79% of adult employees experiencing work-related stress. Nearly 3 in 5 employees reported a lack of interest, motivation, or energy (26%) or a lack of effort at work (19%). Meanwhile, 36% reported cognitive weariness, 32% reported emotional exhaustion, and 44% reported physical fatigue—a 38% increase since 2019 (Abramson, 2022). We posit that the critical realism perspective could lay a fruitful foundation for an interdisciplinary research approach to understanding the retention and turnover of frontline Information Technology (IT) and Nursing Professionals (Wikgren, 2005). Retaining IT professionals is an ongoing problem exacerbated by the stresses and strains of supporting an online workforce due to COVID-19. A survey published in October 2021 by TalentLMS, part of the Epignosis Group of Companies, and recruiting software company Workable polled 1,200 IT workers and found that 72 percent of respondents in the US said they are thinking of quitting their jobs in the next 12 months (Lewis, 2021). In a survey of over 200 health systems, the average bedside Registered Nurse (RN) turnover in 2020 rose to an all-time high of 18.6%. This increase in nursing turnover, up nearly 2% from 2019, represented the most significant annual increase in the last seven years (Peng & Rewers, 2021).

The shortage of IT and Nursing professionals and the likelihood of a tight job market were anticipated because of the expected retirements of baby boomers (Levanon, Cheng, & Paterra, 2014) but became exasperated because of COVID-19 (Shuai, Chmura, & Stinchcomb, 2021). Healthcare employment fell by 1.58 million between February and April 2020, resulting in some parts of the healthcare system stretched beyond capacity (Rhyan, Turner, & Miller, 2020). Despite an increase in Nursing turnover during COVID-19, 94.3% of nurses with prepper traits self-reported good to excellent health, with 76.3% self-reporting intent to stay with their employer (Hackbarth & Kolakowski, 2020). Prepper nurses are resilient, compassionate, communicative, adaptable, and tech-savvy, with a general thirst for knowledge. We argue that nursing calls for a particular personality type with associated personal values that help nurses cope with demanding job roles (Bagley, Abubaker, & Sawyer, 2018). The 6Cs of Nursing (Care, Compassion, Competence, Communication, Courage, and Commitment) reflect these values (Cummings & Bennett, 2012) (Attree, 2001).

While the evidence is fragmentary, the personal attributes of successful IT managers include adaptability, autonomy, customer service, dependability, detail-mindedness, effort and achievement, persistence, stress tolerance, and teamwork (Lounsbury, Sundstrom, Levy, & Gibson, 2014). However, IT workers are often ill-prepared to react positively to aggressive customers. However, regulating emotions spiked by bold customers is essential to IT employees' long-term health and retention (Shih, Lie, Klein, & Jiang, 2014). We also suggest that IT employees and nurses who exhibit prepper traits remain with their employer longer and that the 6Cs of Nursing might signal a similar retention potential for IT professionals. Kwatampora et al. (2020) emphasized the importance of job satisfaction, emotional attachments, and a sense of obligation in predicting nurse turnover intentions (Kwatampora, Wanyama, & Eyamu, 2022).

We suggest nurses and IT workers during COVID-19 exhibited similarities in workforce retention. Nurses bear much of the brunt of daily patient interactions, leading to burnout and dissatisfaction with their jobs. Nurses work with many COVID-19 patients and experience long hours and emotional stress, which exasperates turnover issues within the nursing profession. Similarly, IT professionals work long hours and deal with emotionally distraught workers who require systems fixes and immediate resolution of problems. During COVID-19, IT professionals worked long hours but supported large numbers of workers telecommuting from work, who needed secure connections, upgraded security, improved hardware, and a lack of software and hardware solutions to an utterly different work environment (Grange et al., 2020; Yang et al., 2022). We believe that IT professionals who exhibit prepper characteristics, like their nursing counterparts, will be more likely to be successful and stay in their current jobs. Preppers prefer stable careers that seek roles aiming to detect threats, pitfalls, and safety issues (Assessments, 2020). This study posits that nurses and IT professionals with intentions to stay with their employer score higher in prepper attributes.

Following the introduction, we discuss the importance of critical realism in staging the study, followed by trait perspectives of nursing and IT professionals. The paper will conclude with a discussion of captured variables, results, conclusions, and future directions.

CRITICAL REALISM (CR) THEORY

Critical Realism is a valuable research approach to studying institutions, teams, students, and workers (including nurses and IT professionals) experiencing stress and change (Bagley, Sawyerr, & Abubaker, 2016). We suggest that IT and nursing professionals fall into predictable personality types and are more or less likely to remain in an organization. The concept of Critical Realism (CR) and its later evolution of ideas from Hegel and Marx, known as Dialectical Critical Realism (DCR), comes from philosophy rather than social science (Scambler & Scamble, 2015). Understanding CR requires philosophical language and reasoning, which is often challenging for researchers with no grounding in formal logic or the discipline of philosophical analysis. Researchers must construe, interpret, describe, and combine knowledge about people and the relevant social structures to create the CR perspective (Bagley et al., 2016). CR also allows researchers to integrate their perspectives about social groups, teams, committees, gender, racial groups, and the like, forming a central role in our lives (Ritchie, 2020). A key feature of CR is the suggestion of

necessity (Sayer, 2004). This feature of CR suggests that many unknown relationships are neither necessary nor essential when comparing different social groups working in teams.

When nurses and IT professionals work together as part of their team, and the team is successful, success will occur because individuals in the team might have similar or complementary traits that lead to team success and job satisfaction. Prepper traits may exist individually and within the group, but individual experiences impact employee retention differently (Hackbarth & Kolakowski, 2020). Necessity is also central to the CR approach to causation. CR argues that causation is a causal power or liability (susceptibilities) possessed by individuals whose job skills are not just measured by what happens in a routine workday (Sayer, 2004), meaning that IT professionals and nurses are performing in a typical way, in addition to the impacts of COVID-19. Causal powers depend on the nature of the things or structures we work with, prepping for contingencies that might never occur. IT professionals are typically prepared for unexpected events, such as cyber-attacks, while nurses prepare for unexpected medical emergencies. CR suggests that what happens has nothing to do with regular instances to observe and quantify but what happens when the nonroutine occurs. The methodological implication implies that social research should place more emphasis on conceptualization and description than a positivist approach and that the search for regularities through quantitative analysis should be less critical and more open to nonredundant events (Sayer, 2004). COVID-19 is a relevant opportunity to test CR in a non-regular set of circumstances.

CR assumes that basic knowledge of standard situations is fundamental and has value (Bagley et al., 2016) but also suggests a need for interdisciplinary research and technology user studies, mainly concerned with many levels of information creation and how different users seek, use, and process information. It is the task of the researcher to explain the mechanisms that influence information seeking, not only on a practical level but by observing the user and their broader community and by revealing possible underlying causes and relations of events (Wikgren, 2005).

Gorski (2013) highlights several areas where the researcher's vision using the CR perspective clarifies nurses' and IT professionals' relations and intentions. What causes (Causality) Nurses and IT Professionals to burnout or managerial actions that reduce turnover? Causality never occurs as a "constant coincidence" between events. Instead, causation derives from the characteristics of similar groups, whether natural or social. There is no "structure/agency problem." Human agents like nurses and IT Professionals are bio-psycho-social (complex) actors with reshifting intentionality causes (Gorski, 2013).

Conversely, social structures (teams) have an agency that exceeds and influences the intentions of the individual. The fundamental problems impacting a team, like COVID-19, reflect group and individual differences rather than how the individual functions within the group (Gorski, 2013). Nurses and IT professionals have rational thought and intentionality, but this does not logically "entail" much, if anything, all by itself. Explanations explaining how they deal with COVID-19 need not be sensible or realistic. We must remember that scientific knowledge does not consist of just "propositions" or "statements" about events or phenomena. The CR context elicits a fallible description of structures and processes (Gorski, 2013) but cannot generate specific principles about the order in individual lives or team relationships. Nevertheless, it produces guidelines to follow (Gorski, 2013) by viewing how things are and disclosing the nature of reality.

IT PERSONALITY TYPES

Retaining IT professionals is an ongoing problem exacerbated by the stresses and strains of supporting an online workforce due to COVID-19. Business leaders often realize greater profitability when they have strategies to retain IT employees (Dixon, 2016). IT managers were challenged in the COVID-19 environment by a need to support and maintain an increasing number of workers who wanted to work remotely. Through the lens of CR, we sought an intuitively derived value framework using appropriate evidence to suggest retention strategies that avoided oppressing, abusing, or exploiting IT professionals working from home (Bagley et al., 2016).

Recent research using Holland's (1985) vocational theory, Schneider's (1987) ASA model, and the Big Five narrow traits model of personality examined traits that distinguished 12,695 IT professionals from

73,140 individuals in other occupations. IT professionals had significantly higher levels of agreeableness and tough-mindedness and lower conscientiousness, emotional stability, extraversion, assertiveness, customer service orientation, optimism, and work drive. These findings reinforce the need for these distinctive traits of functional value and person-occupation fit during dynamic technological and organizational change. A study evaluating Haley's six strategies for supporting helpdesk staff during rapid change found that communication, leadership, and culture strategies positively impacted individual change readiness (Perkins, 2014). Many IT studies looking at factors affecting professional competencies might look at personal characteristics, the nature of the work, and perhaps organizational climate. However, IT studies rarely look at the behaviors of IT staff that directly affect how they perform their jobs. Rutner et al. (2008) found that emotional dissonance affects work exhaustion, followed by turnover intention. IT workers must devote mental resources to coping with that emotional distress (Paige S.Rutner, Bill C. Hardgrave, & D. Harrison McKnight, 2008). The thought process is that workers must create and maintain a passionate demeanor that includes the frequency and variety of displays of emotion that subsequentially impact attentiveness and energy levels (Hochschild, 1983) (J. A. Morris & Feldman, 1996; J.A. Morris & Feldman, 1997). We believe evaluating an IT worker's emotional demeanor, as expressed in the 6C's of nursing, may provide additional insight into workplace burnout and retention.

Replacing IT employees creates significant challenges. From the 1970s through the 1990s, IT employee turnover ranged between 15-33% in the United States (Dixon, 2016). More recently, Tech Companies (software, not hardware) experienced a turnover rate of 13.2% in 2017, a historically high churn (Booz, 2018). The US Bureau of Labor Statistics (BLS) found that the percentage of Information Systems (IS) professionals leaving their jobs was 22.8% in 2020 and 69.2% in Professional and Business Services. A 2020 LinkedIn study found that people left jobs because of compensation dissatisfaction and rewards, lack of career advancement, a desire for more challenging work, and unhappiness with the work culture and environment. It costs an employer an average of 33% of an employee's annual salary for exit and approximately $16,500 per person, earning a median salary of $50,000 per year (Booz, 2018). As pandemic life recedes in the US, people leave their jobs searching for more money, flexibility, and happiness. Many are rethinking what work means to them, how they are valued, and how they spend their time. According to the US Labor Department, a record 4 million people quit their jobs in April 2021 alone.

We believe that personality type based on the six Cs of Nursing plays a role in retention and dealing with the stress of the job and may impact happiness. Similarly, healthy IT personalities remain with an organization rather than leave, disrupting its workflow. Given equal pay and benefits, we posit that IT professionals are more likely to deal with the stress and strain of a post-COVID-19 world, saving employers overhead costs by reducing the cost of hiring and training new IT workers.

Similar to the findings for English Hospital Nurses, we expect IT Professionals to fall into four broad categories based on the six C's of nursing: Personality, Self-Esteem, and Depression: Burnout Potential, Work-Life Balance, Stress; "Hardy Personality"; and Intention to Leave (Bagley et al., 2018). Past research used statistical analysis to identify four groups: "The Soldiers," with medium scores on most measures, who bravely "soldier on" in their roles; "Cheerful Professionals," who cope successfully with their roles and a variety of challenges in upwardly mobile careers; "High Achievers," IT professionals with firm profiles of a "Hardy Personality," and "Commitment" to fundamental nursing values; and "Highly Stressed, Potential Leavers," with indicators of significant psychological distress, and difficulty in coping with IT challenges. Anticipated results suggest that IT personality types are more prone to retention, given equal pay and benefits (Bagley et al., 2018).

THE 6CS OF NURSING AND IT

Bagley et al. (2018) define the 6 C''s of Nursing as care, compassion, competence, communication, courage, and commitment. Care is the core of the nurse's role, the nurse being the immediate carer and comforter of an individual's or family's stressful life changes that might include easing the pain and suffering in the context of COVID-19. Compassion consists of the inherent and acquired personality traits of intelligent and empathic identification of each patient's fears, anxieties, anguish, and hopes. Competence

involves developing the technical skills to manage complex medical tasks and the ability to master, apply, and integrate new technologies. Communication involves listening and talking to others. Courage requires persistence in stressful situations, implementing new ways of optimizing patient care, and overcoming the stress of identifying with patients' pain and grief. Commitment involves a dedication to understanding and applying new skills and technology (Bagley et al., 2018).

Similar to nursing, we believe IT professionals faced with the challenges of COVID-19 would also exemplify the 6Cs. During the initial outbreak of COVID-19, IT professionals transitioned teams of workers to work at home, upgraded security and added new hardware/software for employees working at home, trained individuals to work within a different technical framework, and supported another way to work in teams. IT professionals cared about employees dealing with technological challenges working in remote locations. They needed to show compassion to remote workers who were not working in person. They needed to develop additional competencies in security to establish reliable protection in remote work locations. They needed to improve communication skills to support remote workers rather than doing the work themselves. They needed to explain what to do to a remote and technologically ignorant workforce. They needed the courage to face hardware shortages and constant software updates to keep their organizations running. Moreover, they needed to commit to an entirely different employee and customer service model because of COVID-19.

THE IMPORTANCE OF VALUE

Nursing educators in North America and the UK consistently argue and teach coherent frameworks of values, such as the 6Cs, which could assist nursing students in performing complex and challenging roles. Similarly, IT professionals utilize professional values and ethics that encourage employees and customers to expect consistent and professional support. Nurses may have their idealistic values about nursing crushed by hospital bureaucracies, especially when nurse-patient ratios are poor, and the anxiety-laden culture of the hospital fails to support this devoted section of its staff (Gottlieb, 2013; Maben, Latter, & Macleod, 2006; McSherry, Pearce, Grimwood, & McSherry, 2012). For these reasons, nurse educators argue that in undergraduate education, nurses should "anchor and internalize" a set of fundamental values that will support them during the stresses of a nursing career that they will inevitably face (Day et al., 2017). Similarly, IT professionals in most business schools expose students to a basic set of ethics and performance standards.

We believe that nurses and IT professionals need all of the qualities described in the 6Cs to survive in a complex and demanding profession, especially when confronted with the unique challenges of COVID-19. By 2018, more nurses were leaving the nursing profession in England than were joining the nursing profession (Triggle, 2018). There has also been a decline in other nurse training courses (Marsh, 2018). There appears to be a "downward spiral" as nurse-patient ratios worsened during COVID-19, the nursing job has become more stressful, and increasing numbers have left the profession. The problems facing nurses in their demanding roles may lead to profound psychological distress, burnout, and even suicidal behavior, which have been described in different cultures, regardless of healthcare delivery models (Bagley et al., 2018; Hackbarth & Kolakowski, 2020). American research, too, has clearly shown the negative, downward spiral that poor nurse-patient ratios in hospitals can set in motion. Overworked nurses caring for many patients cannot use their professional skills adequately, leading to disenchantment with nursing and increased anxiety, depression, and burnout, which leave many nurses departing the nursing field (Hackbarth & Kolakowski, 2020). In addition, IT professionals exhibit higher agreeableness and tough-mindedness and lower conscientiousness, emotional stability, extraversion, assertiveness, customer service orientation, optimism, and work drive (Lounsbury et al., 2014).

Like nurses, the information technology worker is prone to exhaustion, leading to job burnout. Shih (2013) suggests that environmental factors in IT work, such as emotional dissonance, perceived workload, role ambiguity and conflict, autonomy, and fairness of rewards, may be antecedents to job burnout. However, though work exhaustion is an essential factor, depersonalization and lessened feelings of personal accomplishment are critical dimensions to consider in IT worker burnout (Shih, Jiang, Klein, & Wang,

2013). Rutner et al. (2008) found that emotional dissonance predicts work exhaustion and that job satisfaction is influenced directly by role ambiguity and work Exhaustion. Job satisfaction influences IT employee turnover intentions (Paige S. Rutner, Bill C. Hardgrave, & D. Harrison McKnight, 2008). Laumer et al. (2015) found that work exhaustion negatively impacted job satisfaction, organizational commitment, and turnover intentions, whereas techno-exhaustion only indirectly caused these psychological and behavioral responses through work exhaustion. In addition, employees who use IT as a supporting tool for their daily work process (such as HR workers) report higher levels of techno-exhaustion than employees for whom IT is the core of their work (IT professionals, such as software developers) (Maier, Laumer, & Eckhardt, 2015).

SURVEY INSTRUMENTS

Two hundred and fourteen (214) Nursing and one hundred and ninety-six (196) IT professionals completed a national Qualtrics random national survey instrument of nursing and IT professionals that included gender and measured professional experience. The 10-minute survey limited the number of demographic and survey questions. Respondents first completed the six-item scale of the 6C Values of Nursing (Table 1). They also completed the Maslach Burnout 20-item survey and three questions related to their intention to leave their current place of employment. The 6C's of nursing reflects the positive nature and desired attributes of nursing and IT professionals. We thought IT professionals would similarly reflect the positive nature of their IT careers and a positive mindset. We examined the degree to which nursing and IT respondents were not confident in endorsing or applying these values.

Eighty-five percent of the survey sample were full-time employees, while approximately fifteen percent were part-time or traveling nurses. Fifty-seven percent were women, and forty-two percent were male. Roughly forty-three percent earned advanced or higher degrees, while 57% were college graduates or lower. The participants were approximately 82.6 % white, 8.3 % Black or African American, 0.8 % American Indian, and 7.8% Asian. Fifty-seven percent of the participants had been at their organization for over ten years.

The Nursing Values Survey (NVS) (Table 1) invites a response set where we invite positive responses (agreement with) and positive answers about a personal commitment to each of the six facets of professional values in nursing or IT Customer service. Respondents answered these six questions last, which may have influenced their responses. The 6Cs focus on how nurses and IT professionals present themselves professionally and personally in the best possible light—as they would like to be rather than as they "actually" are. If this bias occurred, we may have underestimated correlations with indicators of distress, alienation from nursing, burnout, depersonalization, and desire to leave nursing.

FINDINGS

Nursing Values Scale (NVS)

The NVS (Table 1) follows a simple format, stating fundamental values. We included the nursing data from Bagley et al. (2018) for comparison purposes since the data was collected before COVID-19. The nursing data comparisons from 2018 and 2020 are not statistically significant, and this result suggests that the 6 C's of Nursing did not change significantly during the height of COVID in 2020. The 6Cs for IT professionals are statistically significant from the nursing data. While IT professionals reflect the 6Cs, they are not as strong as those of nursing, supporting a similar finding of Maier (2015), who found that IT professionals are less affected by tech exhaustion than IT users. The 2018 nursing data also found that 25% of nurses responded with all 4s to the 6Cs. The 2020 COVID nursing data only had six nurses responding with all 4s. So, even though the differences between the COVID and prior-to-COVID groups were not statistically significant, there was an overall effect of nurses being less in tune with the 6Cs.

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TABLE 1
THE NURSING VALUES SCALE (NVS)

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The Six Item 6C Scale Results of Basic Nursing Traits			
	Professional Nurses (N= 192) Bagley (2018)	Professional Nurses (N= 214) (2020)	IT Professionals (N=182) (2020)
To What Extent Do You Apply or Follow These "Basic Nursing (Customer) Values" in Your Work? (All of the time = 1/Some of the Time = 2/Unsure = 3/Rarely = 4)	Mean (Standard Deviation)	Mean (Standard Deviation)	Mean (Standard Deviation)
Caring is a core part of my nursing (Customer) role	1.85(1.1)	2.16 (0.536)	2.59 (0.787)
Compassion in identifying patients' (Customers) needs	2.40 (1.9)	2.21 (0.508)	2.54 (0.733)
Competence in acquiring and applying professional skills	1.93 (1.6)	2.19 (0.518)	2.52 (0.749)
Communication with patients (Customers) and colleagues	2.22 (1.7)	2.21 (0.531)	2.62 (0.768)
Courage in dedicating myself to the nurse's (Customer) role	2.42 (1.8)	2.27 (0.549)	2.63 (0.802)
Commitment in dedication to patients (Customers)	1.82 (1.6)	2.17 (0.516)	2.58 (0..788)
Scale Total	12.64 (3.6) 2.10 (1.61)	13.22 (2.51) 2.20 (0.53)	15.48 (3.73) 2.58 (0.77)

Maslach's Burnout Inventory

Maslach's Burnout Inventory evaluates nursing and other professionals' career patterns to assess diminished morale due to job stress (Maslach & Jackson, 1986; Maslach, Jackson, Leiter, Schaufeli, & Schwab, 2006; Maslach, Schaufeli, & Leitner, 2001). This 20-item scale has identified the potential for nurses suffering "burnout"—Exhaustion, role disenchantment, the imminence of leaving nursing, frequent sickness, and automated or depersonalized performance of routine duties. It has three subscales, "Emotional exhaustion" (e.g., "I feel emotionally drained from my work"), "Depersonalization" (e.g., "I do not care what happens to some patients"), and "Personal accomplishment." (e.g., "I deal effectively with the problems of my patients"—scored negatively) (Rich & Rich, 1987). The scale is valid and reliable in studies of nurses in various cultural settings (Pisanti, Lombardo, Lucidi, Violani, & David, 2013; Van Bogaert, Meulemans, Clarke, Vermeyen, & Heyning, 2009a, 2009b). Ethnicity and country of origin did not correlate significantly with other variables deployed.

Intention to Leave

Li et al. (2013) suggest several questions to measure the Intention to Leave. Responses to the questions measuring Intention to Leave (Table 2): How likely will you actively look for a new job next year (1=Not at All Likely, 7=Extremely Likely)? I often think about quitting)? I will probably look for a new job within the next year (Li et al., 2011).

TABLE 2
NURSING AND IT PROFESSIONALS' INTENTION TO LEAVE STATISTICS

	Nurses and IT Professionals	N	Mean	Std. Deviation	Std. Error Mean
How likely is it that you will actively look for a new job in the next year (1=Not at All Likely, 7=Extremely Likely)?	Nurses	214	3.19	2.214	.151
	IT Professionals	182	4.00	2.255	.167
I often think about quitting (1=Strongly Disagree, 7=Strongly Agree).	Nurses	214	3.22	2.137	.146
	IT Professionals	182	3.82	2.297	.170
I will probably look for a new job in the next year (1=Strongly Disagree, 7=Strongly Agree).	Nurses	214	3.14	2.302	.157
	IT Professionals	182	3.73	2.235	.166

Table 3 reflects no Statistical difference between Nurses' and IT Professionals' Intentions to Leave. There are slight differences in the individual questions, and IT professionals and nurses seem neutral in their Intentions to Leave and keep their options open.

TABLE 3
NURSING AND IT PROFESSIONALS' INTENTION TO LEAVE GROUP STATISTICS

	Nurses and IT Professionals	N	Mean	Std. Deviation	Std. Error Mean
Intention_To_Leave	Nurses	214	9.5421	6.16789	.42163
	IT Professionals	182	11.5495	6.21220	.46048

Depersonalization

Depersonalization uses nine questions and is one of three sub-groups of burnout. There is a statistical difference between nursing and IT Professionals' Depersonalization. Because of the 6C's, we suggest that nurses are more attached to their patients than IT professionals are to their customers. IT professionals have a stereotype of lacking interpersonal skills, which may explain this result. IT professionals may also spend more time working alone than nurses and may reflect more of their preferred personality.

TABLE 4
DEPERSONALIZATION

	Nurses and IT Professionals	N	Mean	Std. Deviation	Std. Error Mean
Depersonalization	Nurses	214	13.2243	6.90826	.47224
	IT Professionals	182	19.2473	9.71923	.72044

Personal Accomplishment

Personal Accomplishment (Table 5) uses four questions and is one of three sub-groups of burnout. There is a slight difference between the two groups, reflecting differences between high achievers with advanced educational skill sets.

TABLE 5
PERSONAL ACCOMPLISHMENTS

	Nurses and IT Professionals	N	Mean	Std. Deviation	Std. Error Mean
Personal_Accomplishment	Nurses	214	16.5748	3.60119	.24617
	IT Professionals	182	17.5000	4.71597	.34957

Emotional Exhaustion

Emotional exhaustion (Table 6) uses seven questions and is one of three sub-groups of burnout. There is no statistical difference between nurses and IT Professionals in measuring Emotional Exhaustion, and both groups seemed to be stressed by COVID-19 and the nature of their work.

TABLE 6
EMOTIONAL EXHAUSTION

	Nurses and IT Professionals	N	Mean	Std. Deviation	Std. Error Mean
Emotional_Exhaustion	Nurses	214	35.3505	13.57378	.92788
	IT Professionals	182	38.6758	15.64168	1.15944

The Maslach Burnout Scale
Burnout

Burnout (Table 7) reflects the three subgroups, with essentially no difference in emotional exhaustion between the two nursing groups. There is a statistical difference in Burnout between Nursing and IT Professionals, and the difference seems to be the greater degree to which IT professionals depersonalize their customer interactions and value their accomplishments.

TABLE 7
BURNOUT

	Nurses and IT Professionals	N	Mean	Std. Deviation	Std. Error Mean
BURNOUT	Nurses	214	65.1495	17.44626	1.19260
	IT Professionals	182	75.4231	27.27215	2.02155

Nursing and IT Professional Group Statistics

The data shown in Table 8 reflects the summary scores of individual items. The summary score differences between burnout and depersonalism become self-evident because similar relationships exist between individual items and their means compared to their summary scores. Emotional Exhaustion and Intention to Leave may also reflect the mobility of each profession.

TABLE 8

	Nurses and IT Professionals	N	Mean	Std. Deviation
BURNOUT	Nurses	214	65.1495	17.44626
	IT Professionals	182	75.4231	27.27215
Intention_To_Leave	Nurses	214	9.5421	6.16789
	IT Professionals	182	11.5495	6.21220
Emotional_Exhaustion	Nurses	214	35.3505	13.57378
	IT Professionals	182	38.6758	15.64168
Depersonalization	Nurses	214	13.2243	6.90826
	IT Professionals	182	19.2473	9.71923
Personal_Accomplishment	Nurses	214	16.5748	3.60119
	IT Professionals	182	17.5000	4.71597

CONCLUSIONS AND FUTURE RECOMMENDATIONS

Using a Critical Realism lens, we evaluated Information Technology (IT) and Nursing Professionals' intentions to leave their organizations during the COVID pandemic. The critical realism lens allowed us to consider why nurses and IT professionals scored differently across the measured variables. We predicted from prior research (Bagley et al., 2018) that IT professionals would identify into four groups: "The Soldiers" with medium scores on most measures, who bravely "soldier on" in their roles; "Cheerful Professionals," who cope successfully with their roles and a variety of challenges in upwardly mobile careers; "High Achievers," IT professionals with firm profiles of a "hardy personality," and commitment to fundamental nursing values; and "Highly Stressed, Potential Leavers," with indicators of significant psychological distress, and difficulty in coping with IT challenges. Anticipated results suggested that IT personality types are more prone to retention given equal pay and benefits, which was not the case. We believe COVID-19 made the nursing and IT professional groups more homogenous as a survival mechanism. Perhaps the challenges presented by COVID-19 were not something either nurses or IT professionals prepare for as an expectation of their job. 25% of nurses from Bagley et al. (2018) who rated the 6Cs as the highest value did not materialize in the 2020 surveyed group. We believe some nursing optimism reflected in this group readjusted itself when faced with reality. IT professionals reflected the 6Cs of nursing but not at a high level despite needing to serve customers better at remote locations during COVID-19. Perhaps IT professionals treated customers the way they always had but embraced the technological challenges of supporting a work-at-home workforce.

IT professionals supported a work-at-home workforce while nurses cared for COVID-19 victims, suggesting similar perceptions toward job burnout and the 6Cs of nursing. Survey results indicated that both groups suffer from similar levels of emotional exhaustion. However, nurses exhibited lower levels of depersonalization and Personal Accomplishment than IT professionals. IT professionals scored lower across the 6C's of nursing, supporting the stereotype of IT professionals exhibiting lower levels of care and compassion toward customers than we might expect. IT professionals may have higher Personal Accomplishments based on the technical challenges of adopting new technologies and implementing them in a work-at-home workforce. Both groups seemed to keep their options open in seeking new jobs or quitting their current position.

Future research should investigate why IT professionals do not strongly exhibit the characteristics of the 6Cs of nursing. It was surprising that IT professionals showed little caring or compassion for their customers, and it was equally dramatic that their ranking of competence, communication, courage, and commitment was so low. Given the training and expertise to be an IT professional, one would think there would be more pride in their competencies and commitment to supporting their business organization. Perhaps the emotional Exhaustion from COVID-19 impacted more than just intentions to leave and burnout.

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