OPEN

[It] Does Harden a Person Working in Such a Stressful Environment: U.S. Correctional Nurses Share Spillover Effects of Their Work

Elizabeth Keller, PhD, RN^{1,2}, Samantha Boch, PhD, RN^{2,3}, Kermit G. Davis, PhD, CPE, FHFES, FAHIA⁴, Gordon L. Gillespie, PhD, DNP, RN, CEN, CNE, CPEN, PHCNS-BC, FAEN, FAAN², and Beverly M. Hittle, PhD, RN, FAAOHN²

Background: The United States makes up 4.4% of the world's population but nearly a quarter of the world's incarcerated population. Despite caring for nearly 2 million incarcerated persons and managing their unique needs, little is known about how this work spills over and affects the nurses who work in correctional settings. Study Objective: This descriptive study aimed to (a) examine write-in answers regarding correctional nurse perceptions of how their work impacts their health and their home lives and (b) explore correctional nurse responses for how to improve the work environment to better support their well-being.

Method: The researchers compiled and analyzed qualitative data from a cross-sectional study where U.S. correctional nurses (N = 270) completed an online survey. Manifest content analysis was used to analyze optional write-in data. **Results:** Approximately 41% (n = 111) of participants answered qualitative questions. Participants were primarily White (77.3%) and non-Hispanic or Latino (88.7%), working in prisons (65.8%), and employed by the state (63.8%) as registered nurses (70%). Three major themes emerged: (a) "personal impact": increased stress and burnout, overwhelming work hours, and emotional and physical effects; (b) "social relationships and family impacts": withdrawn, strained homelife, and uncertainty; and (c) "need for change": improved staffing, reduced mandatory overtime, and better support from management.

Conclusions: Correctional organizations may consider ways to support the well-being of their nurses through adequate staffing, flexible scheduling, decreased mandatory overtime, and hiring effective nurse managers as key members of the correctional team.

KEY WORDS:

Correctional nursing; family life; forensic nursing; physical health; spillover effect; work stress

Author Affiliations: ¹University of California Los Angeles Fielding School of Public Health; ²College of Nursing, University of Cincinnati; ³James M. Anderson Center for Health Systems Excellence, Cincinnati Children's Hospital Medical Center; ⁴College of Medicine, University of Cincinnati.

The authors declare no conflict of interest.

Correspondence: Elizabeth Keller, PhD, RN, University of California Los Angeles Fielding School of Public Health, 650 Charles E. Young Dr. S, Los Angeles, CA 90095. E-mail: kellere4@g.ucla.edu.

Funding for this research was primarily awarded from the National Institute for Occupational Safety and Health through the Pilot Research Project Training Program of the University of Cincinnati Education and Research Center Grant #T42OH008432 and the International Association of Forensic Nurses Grant #1018248. Dr. Keller was also partially supported by the Targeted Research Training Program of the Southern California National Institute for Occupational Safety and Health Education and Research Center,

with Grant Agreement Number T42 OH008412, from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official view of the Centers for Disease Control and Prevention.

Received October 26, 2023; Accepted January 11, 2024.

Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's Web site (www.journalforensicnursing.com).

Copyright © 2024 The Authors. Published by Wolters Kluwer Health, Inc. This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

DOI: 10.1097/JFN.00000000000000479

he United States has maintained the highest incarceration rates in the world for nearly a century. Approximately 3,116 jails and 1,664 prisons (both state and federal) exist in the United States, holding almost two million incarcerated persons (Sawyer & Wagner, 2023). Previous reports indicate that at least one in every nine state government employees works in corrections nationwide (The Pew Center on the States, 2008). Within these systems, 363,250 individuals work as correctional officers or jailers (U.S. Bureau of Labor Statistics, 2023), and 27,743 work as nurses (Smiley et al., 2021). Despite how only 0.8% of all U.S. nurses work in corrections (Smiley et al., 2021), correctional nurses make up most of the health providers working in this setting (American Association of Nurse Practitioners, 2020).

In their roles, correctional nurses care for the diverse needs of individuals who are incarcerated (Almost et al., 2013; Flanagan & Flanagan, 2001; E. Keller et al., 2022; Newman et al., 2021; Oates et al., 2021). The incarcerated population experiences numerous health disparities where they are more likely than the general population to experience acute and chronic physical and mental health comorbidities, infectious diseases, substance use disorders, and trauma (Cuddeback et al., 2010; Davis et al., 2018; Healthy People 2030, n.d.). Thus, caring for this population is medically demanding and ethically challenging, as patients are housed in overcrowded facilities where security concerns may override healthcare administration.

Correctional nurses have shared their work experiences in previous literature, revealing the importance of providing quality unbiased care, effectively working on teams with good communication, and maintaining personal boundaries to ensure relationships are therapeutic (Dhaliwal et al., 2021). Additional correctional nurse literature has provided evidence for the positive aspects of working in corrections, where nurses find their work meaningful, they find stability and variety in their roles, and they feel supported by their peers (Stephenson & Bell, 2019). However, other correctional nursing studies have revealed occupational stressors arising from inadequate staffing, negative organizational climate, poor working conditions, conflicting values (custody vs. caring), low supervisor or organizational support, strained workplace relationships, and bullying from both patients and colleagues (Almost et al., 2013; El Ghaziri et al., 2019; Flanagan & Flanagan, 2001; Forman-Dolan et al., 2022; Penal Reform International, 2020). Such occupational stressors may lead to low retention rates among correctional nurses (Chafin & Biddle, 2013) and negatively affect their health and well-being. Consequences of occupational stress include an increased risk for cardiovascular disease, anxiety and depression, impaired immune functioning, musculoskeletal injuries, and burnout (McNeely, 2005; McVicar, 2003; Sonnentag & Frese, 2003).

Despite what is known about correctional nurses, the spillover effects of working inside carceral facilities are rarely

investigated. Spillover effects can be understood as events or situations from one's work life that affect their personal life, as thoughts of occupational stressors (i.e., job security, upcoming deadlines) may penetrate thoughts while at home (Tsukerman et al., 2020). How the stressful work of correctional nursing extends beyond the workplace and spills onto the individual and their homelife is a Total Worker Health concern (The National Institute for Occupational Safety and Health, 2020). The Total Worker Health approach underscores work as a social determinant of health, where work affects not only the well-being of the worker but also their families and communities.

The purpose of this descriptive study was to (a) examine how correctional nurses perceive how their work impacts their health and their home lives and (b) explore responses for how to improve the work environment. Understanding the work and spillover stress incurred from such systems would be important to determine how to mitigate lasting negative impacts of stress on the nurses and better protect those who were hired to ultimately protect the public.

Methods Parent Study

The parent study was cross-sectional in design, using an online REDCap (Research Electronic Data Capture) survey (Harris et al., 2019) to establish how organizational characteristics impact correctional nurse job stress and well-being levels. A recruitment flyer was shared with U.S. correctional nurses, who completed the survey at a time of their choosing. Using a convenience sampling method, the researchers recruited correctional nurses in the summer of 2022 from the American Correctional Nurses Association and the National Commission on Correctional Health Care. The survey was also shared via snowball sampling.

To participate in the survey, participants needed to be 18 years old or older, with work experience for at least 3 months in a U.S. correctional facility, and have a nurse licensure as an advanced practice nurse, licensed vocational nurse/licensed practical nurse, or registered nurse (RN). The University of Cincinnati Institutional Review Board approved this study. After the online recruitment flyer was shared, participants could answer screening questions and read the information sheet, because the signing of an informed consent document was waived. Those who submitted a completed survey received a \$25 Amazon electronic gift card as a thank you for their time. Quantitative results from this survey can be found in the *International Journal of Nursing Studies* (E. G. Keller et al., 2023).

Instrumentation

The parent survey, informed by the Total Worker Health approach, included 58 questions that took approximately 20 minutes to complete. The survey was composed of valid

and reliable tools (see parent study: E. G. Keller et al., 2023) and three optional write-in questions. Informed in collaboration with nurses experienced in correctional work, the following were asked:

- 1. How has working in prison/jail affected your health and well-being (including mental and physical health)?
- 2. How has working in prison/jail affected your relationships with others (such as friendships, family, and/or household)?
- 3. What do you recommend should change inside prison/jail to better support nurse well-being?

Primary Data Analysis

All data were collected and stored on the REDCap software at the university of the researchers. Once recruitment was complete, the researchers examined the sociodemographic data and compiled results into a table. The qualitative data were transformed into a concise and organized summary of key results (Erlingsson & Brysiewicz, 2017). Using manifest content analysis, two researchers read and reread the qualitative data for each of the three questions. They divided up the text into meaning units, condensed the meaning units into codes after discussion, and created categories, and then themes emerged in an iterative process.

Results

The initial survey was completed and submitted by 270 U.S. correctional nurses. Of these, 111 participants (41.1%) opted to answer the optional open-ended write-in questions regarding the spillover effects of correctional work on their health and home lives and offer potential workplace recommendations to improve their well-being.

Demographics

Participants who answered the qualitative questions mainly identified as female (n = 90, 81%). Most were non-Hispanic or Latino (n = 94, 88.7%) and White (n = 85, 77.3%). On average, they were 47.6 years old, ranging from 25 to 75 years old. Most worked in corrections for 10.9 years (from 8 months to 26 years). Participants were RNs (n = 77, 70%), advanced practice nurses (n = 18, 16.7%), and licensed practical nurses/licensed vocational nurses (n = 15, 13.6%), employed in prisons (n = 73, 65.8%), jails (n = 36, 32.4%), and other (n = 2, 1.8%). Most were employed through the state (n = 67, 63.8%), and some were employed through a private agency (n = 38, 36.2%), working from all regions of the United States. See Supplemental Digital Content 1, http://links.lww.com/JFN/A138, for a display comparing sociodemographics of the parent study and the current study.

Themes

Three major themes emerged: (a) "personal impact": increased stress and burnout, overwhelming work hours, and emotional and physical effects; (b) "social relationships

and family impacts": withdrawn, strained homelife, and uncertainty; and (c) "need for change": improved staffing, reduced mandatory overtime, and better support from management. A summarization of the primary themes and meaning units is presented in Table 1.

Personal Impact

Work stressors of correctional nurses were primarily noted as spilling over through personal impacts on their worklife balance. Participants noted, "Long hours, and a schedule that is not consistent with a balanced home-work life" (Participant 43), and "The hours I am required to work here are so much that I feel like I don't...have time to do things for myself" (Participant 55). The personal impact is composed of increased stress and burnout, overwhelming work hours, and emotional and physical effects.

Increased Stress and Burnout. Participants mainly described the impact of their work on their health in the context of increased stress and tiredness, or exhaustion, with no motivation. Nurse participants noted how their stressors have led them to feeling disheartened, hardened, irritable, drained, desensitized, less trusting, more guarded, and more suspicious, which may contribute to negative personal impacts. Absent or disconnected managers also increased nurses' stress. One participant noted that "working with the inmate population is not the source of stress. Poor staffing and mistreatment by security or upper management is what has affected my health greatly" (Participant 99). Another participant noted, "High turnover of nurse managers has led to burnout and new manager fatigue" (Participant 97).

Overwhelming Work Hours. The work hours were also noted to personally impact participants. One remarked, "The mandatory overtime is a burden that is hard to bear" (Participant 23). This sentiment was echoed by another, "Other nurses in other units have had to work multiple 16 hour shifts every week due to staffing issues" (Participant 48). Moreover, the overtime mandates were considered to have negative spillover effects on the family unit and one's health. Specifically, participants mentioned, "Working overtime to cover as staff keeps me away from my family" (Participant 90), and "On the overtime note: I wrecked my car last week after working a 16 hour shift and coming back 7 hours later on 3 hours of sleep for another 16 hour shift. I was so sleep deprived that I backed into someone and never even saw them" (Participant 54).

Emotional and Physical Effects. The spillover effects of correctional work personally impacted not only correctional nurses' mental health (i.e., "very anxious" [Participant 85]) but also their physical health (i.e., "not sleeping well" [Participant 22]). Some participants reported that they gained weight (n = 7) or overate because of stress (n = 3).

	l • • •	
Гһетеѕ	Categories	Meaning units
Personal impact	 Increased stress and burnout Overwhelming work hours Emotional and physical effects 	 "[W]orking with the inmate population is not the source of stress. Poor staffing and mistreatment by security or upper management what has affected my health greatly." "I have worked 24 hours straight several times, and covered shifts for 17 days in a row without time off." "Long hours, and a schedule that is not consistent with a balanced home—work life." "I look at the world in a different way." "The hours I am required to work here are so much that I feel like I don'thave time to do things for myself." "I have unhealthy coping skills." "High turnover of [n]urse [m]anagers has led to burnout and new manager fatigue." "The mandatory overtime is a burden that is hard to bear." "Other nurses in other units have had to work multiple 16 hour shifts every week due to staffing issues." "On the overtime note: I wrecked my car last week after working a 16 hour shift and coming back 7 hours later on 3 hours of sleep for another 16 hour shift. I was so sleep deprived that I backed into someone and never even saw them." "Inability to leave during break times" "Not sleeping well" "Very anxious" "Gained weight" "lack of management support"
Social relationships and family impacts	Withdrawn Strained homelife Uncertainty	 "I am withdrawn all the time. I would rather stay at home alone. Get angry at my family easily, cry several times a week." "I am much less social. I used to be much more of a people person in my free time. Now in my free time I prefer to be by myself." "Sometimes I give so much of myself at work that when I get home I don't want to share my feelings with anyone else." "My family has accepted (as many health care families do) that I miss things. Important things. I have never worked in a place where the mandatory [over time] is this bad—especially for this long. My kids wi cry tears for me to not go to work because they are not sure when I wi be home or what I may miss. It can be heartbreaking. My husband ask me to find a clinic job (meaning set hours) all the time. It makes famil relationships tense." "I feel like I am losing precious time with my fathera LOT of it. I am always so exhausted that I never want to do anything on the days I diget off. My husband has to pick up the slack with our son and house duties and he works as well. It puts extra strain on him. Also I have missed so many precious sporting events, plays, Halloweens, Christmas mornings, Thanksgivings, etc. with my boy who is growing up before my eyes." "You never know if you are going to get mandatory [overtime] so you can't plan anything. Our schedule changes every 3 months and not sure what post you will get." "All the overtime that I have worked due to not enough staff has bee draining. I don't have time to meet up with friends or have a personalife. I have to rely on my husband to not only do his role as dad but du mom duties too and watch the kids all the time when I have to stay extra late at work or get stuck working a shift on the wknd." "High fatigue, long hours, constant uncertainty with how many double shifts going to have to work. Poor sleep and eating habits." "I've missed so many holidays and major life events, family and the

Themes	Categories	Meaning units
Need for change	Improved staffing Reduced mandatory overtime/rid 16-hour shifts Better support from management	 "Staffing should be based on acuity, which fluctuates, and we NEED to have nurses available to respond to emergencies. There needs to be more transparency between security and health care because, ultimately, we are on the same team." "Realizing staffing needs change over the years is imperative. The staffing chart at this facility has been unchanged for almost 20 years even though work demands increase. In a prison setting I would say the main problem with nursing, is not having a minimum of 2 nurses on shift at ALL times. Often times prisons are staffed with one nurse That could mean one nurse to 500 offenders, or one nurse to 800." "A significant increase in staffing levels along with adding more positions to relive the work load that has been added on to staff over the years of removing positions." "I would recommend allotting more support positions for nurses. Med techs, MAs, CNAs, to help manage the simple yet time consuming tasks nurses often are given due to no one else being available." "Do not compare staffing/nursing positions at each facility to other prisons in the US (this is what they do at my job telling us how good we have it) but compare them to local hospitals as that is what we are competing with staffing for." "Better schedule, not working weekends, having a decent area for exercises, being recognized/appreciated by executive staff, having people noticing your worth and values" "I would say allowing staff to self schedule is a huge support and increases moral along with productivity." "Forbid 16 hours shifts and place the limit at 12 hours."

Other participants noted the onset of migraines, headaches, hypertension, depression, severe fatigue, blood clots, hives, diagnosis of systemic lupus, and gastrointestinal issues related to stress.

Social Relationships and Family Impacts

Three quarters of participants shared negative impacts on their social relationships and family members. Participants noted that they have become more withdrawn because of their work while managing the uncertainties of their roles, leading to a strained homelife.

Withdrawn. Some participants noted how they were more withdrawn, avoiding socializing after a stressful work week, feeling "less conversational, more protective, and 'hardened' to emotions" (Participant 27). One participant noted, "I am withdrawn all the time. I would rather stay at home alone. Get angry at my family easily, cry several times a week" (Participant 53). More participants shared their experiences of being inclined to be by themselves, sharing that "sometimes I give so much of myself at work that when I get home I don't want to share my feelings with anyone else" (Participant 86).

Uncertainty. Participants expressed how the uncertainty of their work schedules negatively impacts their friendships, creating difficulty committing to and following through with social plans. One wrote, "This [work schedule]...has created

barriers to existing friendships because I am not able to commit to outings..." (Participant 25). Other participants reiterated, "You never know if you are going to get mandatory so you [can't] plan anything. Our schedule changes every 3 months and [we're] not sure what post you will get" (Participant 52), and "All the overtime that I have worked due to not enough staff has been draining. I don't have time to meet up with friends or have a personal life. I have to rely on my husband to not only do his role as dad but [do] mom duties too and watch the kids all the time when I have to stay extra late at work or get stuck working a shift on the [weekend]" (Participant 90). This uncertainty may have lasting effects not only on personal relationships and home life but also on health. For example, one participant reported "high fatigue, long hours, constant uncertainty with how many double shifts going to have to work. Poor sleep and eating habits" (Participant 97).

Strained Homelife. Some participants highlighted the strain that occupational stress may cause on their homelife and relationships, mentioning the heartbreaking reality of missing milestone life events. One participant shared, "...I have never worked in a place where the mandatory [overtime] is this bad—especially for this long. My kids will cry tears for me to not go to work because they are not sure when I will be home or what I may miss. It can be heartbreaking. My husband asks me to find a clinic job (meaning set hours) all the time. It makes family relationships tense" (Participant

23). Other participants noted, "...I am always so exhausted that I never want to do anything on the days I do get off. My husband has to pick up the slack with our son and house duties and he works as well. It puts extra strain on him..." (Participant 54), and "...I've missed so many holidays and major life events, family and the few friends I have left don't even expect me to be there anymore" (Participant 99).

Need for Change

Participants shared their suggestions regarding their correctional organizations' need for change. Such changes may involve regularly evaluating nurse—patient ratios, increasing staffing, reducing mandated overtime, offering more flexible scheduling, increasing pay, providing more support and guidance from managers, and improving coworking relationships with team-building activities and professional support groups.

Improved Staffing. Participants offered that hiring more security (e.g., correctional officers) and nursing staff for safe nurse-patient ratios may ultimately improve their health and well-being. More security staff would facilitate additional monitoring while they manage movements within the correctional systems, and additional nurses would assist with the healthcare demands. Numerous participants noted that the staffing ratios should be reevaluated continually and updated with institutional changes: "Staffing should be based on acuity, which fluctuates, and we NEED to have nurses available to respond to emergencies" (Participant 23); "Realizing staffing needs change over the years is imperative. The staffing chart at this facility has been unchanged for almost 20 years, even though work demands increase. In a prison setting I would say the main problem with nursing, is not having a minimum of 2 nurses on shift at ALL times. Often times prisons are staffed with one nurse. That could mean one nurse to 500 offenders, or one nurse to 800" (Participant 28); and "A significant increase in staffing levels along with adding more positions to [relieve] the workload that has been added on to staff over the years of removing positions" (Participant 34).

Reduced Mandatory Overtime. Nurse participants shared their desire for more flexible schedules and more time for breaks without being mandated to work overtime. Some noted, "I would say allowing staff to self schedule is a huge support and increases [morale] along with productivity" (Participant 28); "Forbid 16 hours shifts and place the limit at 12 hours" (Participant 30); and "I believe that overtime should never be mandatory. Maybe once in awhile, but driving into work every single day never knowing if you are going home is such a yucky feeling. I feel like I have lost so much time with my family and loved ones" (Participant 54).

Better Support From Management. Participants alluded to how more support from managers and the organization

itself would improve their overall health and well-being as workers. Some participants shared their desire for a cohesive team with "helpful and knowledgeable [managers]" (Participant 28), who provide adequate support, positively influencing their well-being. For example, one noted, "I feel I manage well with the demands of my job and have the support needed" (Participant 93). Another proposed how managers could engage in mentorship activities and give "feedback on our work as nurses" (Participant 8), providing the nurses with a sense of appreciation and value for their work. Participants shared how "it would be nice that supervisors were more supportive of staff and recognize the hard work we do" (Participant 48) and "administrators need to listen to health care providers in matters of health. Often they place more emphasis on the security and corrections aspect versus those in healthcare" (Participant 38).

Others offered that their organizations could provide "better education" (Participant 9) and "training" (Participants 37, 66, and 80) or orientation for new nurses for them to learn organizational guidelines in a straightforward way. Furthermore, organizations could establish professional support groups to enhance team cohesion. One participant shared, "There is increased animosity between correctional and medical staff. Medical staff is expected to perform both duties of medical and correctional staff, but are not mutually respected or appreciated for doing both" (Participant 62). Others suggested organizations to "encourage teamwork with deputies/detention staff; speak highly of nursing staff to inmates" (Participant 76) and that "when a facility embraces providing quality healthcare and respects medical autonomy it makes all the difference. Many officers do not understand deliberate indifference and the responsibilities associated with having a nursing license" (Participant 99).

Discussion

Of 270 U.S. correctional nurses who completed the original online survey, 111 opted to answer optional open-ended questions and write in responses. Results from this study provide evidence that correctional nursing harms both the nurses and their family units by contributing to personal impacts and negative social relationships and family impacts, which underscore correctional organizational need for change. Qualitative responses were primarily received from RNs, those working in prisons, and those employed by the state. Differences in response rates based on organizational characteristics and nursing licensure type should be explored in future efforts in more depth to determine why differences exist and distinguish spillover effects on family and health.

The staffing issues presented in this study align with the global nursing shortage (Oulton, 2006) and reflect how the correctional nursing staffing shortages have continued to persist over the last 10 years (Chafin & Biddle, 2013). Previous correctional research calls for improved staffing ratios,

as the high turnover and consistent shortages place demands on the nurses who must work mandatory overtime (Hancock, 2020). The tension caused by inadequate staffing ratios was highlighted by a participant from this study, sharing that one correctional nurse may be the only nurse present to care for the 500–800 incarcerated patients—a ratio that is much higher than most other types of staff nursing. Although not every patient may need medical attention that day, previous evidence has shown that a correctional nurse may need to pass medications to 100 incarcerated patients four times per day (Strauss, 2015), while balancing the other psychological and physical needs of all incarcerated patients within their organization (Weiskopf, 2005). This is troubling because higher nurse-patient ratios in hospitals have been found to increase medical errors, nurse burnout, and job dissatisfaction (Aiken et al., 2002).

Correctional officer shortages also remain prevalent with high vacancy rates (Russo, 2019). This may further impact nursing care because correctional officers are key members of the correctional team, as nurses and officers must work closely with one another to accomplish treatment and rehabilitation (Lazzaretto-Green et al., 2011). Correctional officers provide surveillance and protection during nurse–patient interactions and also help to carry out treatment by providing security escorts for patients and nurses (Lazzaretto-Green et al., 2011). Nurses rely on officers for their own safety but also must abide by any boundaries correctional officers place on providing care (Weiskopf, 2005).

Stress caused from such nursing and staff shortages may lead to spillover effects, including negative impacts on family and personal lives of correctional nurses. In the broader nursing literature, occupational stress, often stemming from shortages (Adib-Hajbaghery et al., 2012), has been found to negatively affect nurses' family lives (Jensen et al., 2018; Patel et al., 2008; Vitale et al., 2015). Specifically, when job stress increases, work-family conflict increases (Karakurt et al., 2023). Work-family conflict among nurses has been linked to impaired phycological and physical well-being, with disrupted concentration and reduced ability to cope (Golparvar et al., 2014). Additional consequences of workfamily conflict have been found generally to reduce life, marital, and family satisfaction and may cause stress-related outcomes including physical symptoms, depression, substance abuse, and burnout (Allen et al., 2000). As such, when work spills over, it compromises not only family relationships but also one's own health (Heckerson & Laser, 2006).

The mandatory overtime that was mentioned as a stressor from participants is also a cause of burnout and patient dissatisfaction among clinicians who work in hospitals (Dzau et al., 2018; Stimpfel et al., 2012). The researchers urge the opportunity to further explore the causes of staffing issues and mandatory overtime in the context of corrections specifically, as follow-up questions were not possible in this study to further distinguish

the correctional nurse experiences from other nursing specialties.

Implications for Clinical Forensic Nursing Practice

Correctional organizations may want to consider the importance of safe staffing and adequate nurse—patient ratios, hiring and training nurse managers well for their roles on the correctional team, along with offering adequate supports to their nurses. The American Nurses Association and National Nurses United have offered recommendations for safe nurse—patient ratios in various nursing settings. For example, the state of California legally defines safe nurse-to-patient ratios as one nurse to every four patients in the emergency department and one nurse to every two patients in the intensive or critical care units (Wolters Kluwer, 2016). However, correctional environments do not have clear outlined ratios, and the staffing is ultimately determined by the responsible health authority within an organization (American Nurses Association, n.d.; Blair et al., 2014; National Nurses United, n.d.-a, n.d.-b).

Safe staffing needs to be not only considered and determined at the correctional organizational level but also sustained through adequate nurse retention. Correctional-specific nurse training and mentorship, for example, has been shown to improve nurse retention in this environment (Chafin & Biddle, 2013; Flanagan & Flanagan, 2001; Sánchez-Roig & Coll-Cámara, 2016). Moreover, shorter working periods could be considered as more advantageous to reduce personal impacts and spillover effects on nurses' health and families.

Among this sample of correctional nurses, beneficial managers were found to play a particularly vital role in the success of nurses' health at their organization. Conversely, managers could be a source of stress when they were unsupportive. Aligned with the literature, sufficient resources and effective nurse managers were found to play an important role influencing nurse retention in hospitals and leading to favorable patient outcomes (Naud & McCabe, 2005; Twigg & McCullough, 2014). Other previous study findings among correctional nurses have underscored the importance of strong leadership and clinical supervision for personal and professional growth (i.e., increased communication skills; Almost et al., 2020; Newman et al., 2023). Thus, more correctional facilities may consider employing effective leaders and providing them with the appropriate training so that they can remain sources of support to the nurses in this workplace.

Correctional organizations should ultimately look to the Correctional Nursing: Scope and Standards of Practice (3rd Edition), reviewed and revised by a volunteer group of the American Nurses Association (2021). The description of standards provides a detailed context for the scope and practice of correctional nurses, including education and training requirements for nurses, along with the ethical, legal, and social considerations for this specialty. As nurses in this study mentioned their desire for more education and orientation, organizations can look to these standards to ensure they are offering nurses the appropriate guidance and training. Many participants also mentioned the emotional toll of their work, being "hardened" (Participants 11, 27, 31, 41, 49–51, 60, 70, 84, 100, and 104) and "less trusting" (Participants 50, 54, and 68). Therefore, correctional organizations can further consider offering their nurses counseling resources and personal coping skills to manage the exposure to trauma from patients and coworkers (Munger et al., 2015).

Limitations

There were several limitations of this study to note. First, the researchers were not able to follow up on questions because of the structured survey questions, limiting the in-depth description and opportunity for the researchers to confirm their findings with participants (i.e., member checking), potentially threatening credibility (Cypress, 2017). Second, the design itself was a limitation, because the participants were sampled in a convenience method, and there were only three qualitative questions that were optional to the parent study population. Additional research with more robust qualitative methods is needed to explore the complex aspects influencing correctional nurse health. Third, there is the threat to validity from implicit researcher bias and the influence of their philosophical underpinnings to extrapolate findings (Cypress, 2017; Guba & Lincoln, 1982). However, the researchers were diligent in staying close to the meaning units and words of the participants to minimize inference of results.

As a strength, the researchers established confirmability by having two nurse researchers (one with correctional nursing experiences) review the transcripts, code the data, and discuss themes for agreement (Cypress, 2017; Guba & Lincoln, 1982). They also aimed for transferability by sampling from the population of interest, recruiting from two professional organizations and through colleague connections (Guba & Lincoln, 1982). Next, the questions were informed in collaboration with the research team, a previous literature review (E. Keller et al., 2022), and current correctional nurse professionals. Saturation was met while reviewing participant answers where codes and themes were reinforced by participants, without new data being found during analysis (Saunders et al., 2018). Overall, this exploratory study provides a current and unique snapshot of how occupational stressors spill over onto correctional nurses in the United States.

Conclusions

Working in correctional environments may lead to personal impacts among its nurses, which may spill over causing negative family and social effects, thus highlighting the need for organizational changes. Correctional nurses recommended the environment could be improved by evaluating and

increasing staffing, reducing mandatory overtime, offering the ability for flexible scheduling, and providing nurses with opportunities for support from managers (i.e., better training and mentorship).

References

- Adib-Hajbaghery, M., Khamechian, M., & Alavi, N. M. (2012). Nurses' perception of occupational stress and its influencing factors: A qualitative study. Iranian Journal of Nursing and Midwifery Research, 17(5), 352-359.
- Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. JAMA, 288(16), 1987-1993. https://doi.org/10.1001/jama.288.16.1987
- Allen, T. D., Herst, D. E., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. Journal of Occupational Health Psychology, 5(2), 278-308. https://doi.org/10.1037//1076-8998.5.2.278
- Almost, J., Doran, D., Ogilvie, L., Miller, C., Kennedy, S., Timmings, C., Rose, D. N., Squires, M., Lee, C. T., & Bookey-Bassett, S. (2013). Exploring work-life issues in provincial corrections settings. Journal of Forensic Nursing, 9(1), 3-13. https://doi.org/ 10.1097/JFN.0b013e31827a56f3
- Almost, J., Gifford, W., Ogilvie, L., & Miller, C. (2020). The role of nursing leadership in ensuring a healthy workforce in corrections. Nursing Leadership, 33(1), 59–70. https://www. longwoods.com/product/26191
- American Association of Nurse Practitioners. (2020). AANP member spotlight: Delivering quality health care in correctional settings. https://www.aanp.org/news-feed/aanp-member-spotlightdelivering-quality-health-care-in-correctional-settings
- American Nurses Association. (n.d.). Advocating for safe staffing. https://www.nursingworld.org/practice-policy/nurse-staffing/ nurse-staffing-advocacy/
- American Nurses Association. (2021). Correctional nursing: Scope and standards of practice. American Nurses Association.
- Blair, P., Knox, C., Lee, J., Muse, M., Pinney, B., & Voermans, P. (2014). Nurses' scope of practice and delegation authority. National Commission on Correctional Health Care http://www. ncchc.org/filebin/Resources/Nurses-Scope-2014.pdf
- Chafin, W. S., & Biddle, W. L. (2013). Nurse retention in a correctional facility: A study of the relationship between the nurses' perceived barriers and benefits. Journal of Correctional Health Care, 19(2), 124-134. https://doi.org/10.1177/1078345812474643
- Cuddeback, G. S., Scheyett, A., Pettus-Davis, C., & Morrissey, J. P. (2010). General medical problems of incarcerated persons with severe and persistent mental illness: A population-based study. Psychiatric Services, 61(1), 45-49. https://doi.org/10.1176/appi. ps.61.1.45
- Cypress, B. S. (2017). Rigor or reliability and validity in qualitative research: Perspectives, strategies, reconceptualization, and recommendations. Dimensions of Critical Care Nursing, 36(4), 253-263. https://doi.org/10.1097/dcc.0000000000000253
- Davis, D. M., Bello, J. K., & Rottnek, F. (2018). Care of incarcerated patients. American Family Physician, 98(10), 577-583.
- Dhaliwal, K. K., Hirst, S. P., King-Shier, K. M., & Kent-Wilkinson, A. (2021). The implementation of correctional nursing practice— Caring behind bars: A grounded theory study. Journal of Advanced Nursing, 77(5), 2407–2416. https://doi.org/10. 1111/jan.14772
- Dzau, V. J., Kirch, D. G., & Nasca, T. J. (2018). To care is human— Collectively confronting the clinician-burnout crisis. The New

192

- England Journal of Medicine, 378(4), 312–314. https://doi.org/10.1056/NEJMp1715127
- El Ghaziri, M., Dugan, A. G., Zhang, Y., Gore, R., & Castro, M. E. (2019). Sex and gender role differences in occupational exposures and work outcomes among registered nurses in correctional settings. Ann Work Expo Health, 63(5), 568–582. https:// doi.org/10.1093/annweh/wxz018
- Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African Journal of Emergency Medicine*, 7(3), 93–99. https://doi.org/10.1016/j.afjem.2017.08.001
- Flanagan, N. A., & Flanagan, T. J. (2001). Correctional nurses' perceptions of their role, training requirements, and prisoner health care needs. *Journal of Correctional Health Care*, 8(1), 67–85. https://doi.org/10.1177/107834580100800105
- Forman-Dolan, J., Caggiano, C., Anillo, I., & Kennedy, T. D. (2022). Burnout among professionals working in corrections: A two stage review. *International Journal of Environmental Research* and Public Health, 19(16), 9954. https://doi.org/10.3390/ ijerph19169954
- Golparvar, M., Zeraati, M., & Atashpour, H. (2014). The relationship of work–family conflict and spillover with psychological and physical well-being among female nurses. *Journal of Research* and Health, 4(3), 778–787.
- Guba, E. G., & Lincoln, Y. S. (1982). Epistemological and methodological bases of naturalistic inquiry. Educational Communication and Technology, 30(4), 233–252. http://www.jstor.org/stable/30219846
- Hancock, S. L. (2020). The emotional burden of the correctional health care advanced practice nurse. *Journal of Correctional Health Care*, 26(4), 315–326. https://doi.org/10.1177/1078345820953219
- Harris, P. A., Taylor, R., Minor, B. L., Elliott, V., Fernandez, M., O'Neal, L., McLeod, L., Delacqua, G., Delacqua, F., Kirby, J., & Duda, S. N., REDCap Consortium. (2019). The REDCap Consortium: Building an international community of software platform partners. *Journal of Biomedical Informatics*, 95, 103208. https://doi.org/10.1016/j.jbi.2019.103208
- Healthy People 2030. (n.d.). Incarceration. Office of Disease Prevention and Health Promotion. https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/incarceration
- Heckerson, E. W., & Laser, C. S. (2006). Just breathe! The critical importance of maintaining a work-life balance. *Nurse Leader*, 4(6), 26–28. https://doi.org/10.1016/j.mnl.2006.09.011
- Jensen, H. I., Larsen, J. W., & Thomsen, T. D. (2018). The impact of shift work on intensive care nurses' lives outside work: A cross-sectional study. *Journal of Clinical Nursing*, 27(3–4), e703–e709. https://doi.org/10.1111/jocn.14197
- Karakurt, N., Erden, Y., & Sis Çelik, A. (2023). The relationship between nurses' work stress levels and work-family conflict during the COVID-19 pandemic and the affecting factors: A study from Turkey. Archives of Psychiatric Nursing, 42, 61–67. https://doi.org/10.1016/j.apnu.2022.12.015
- Keller, E., Boch, S., & Hittle, B. M. (2022). Unsafe and unsettling: An integrative review on correctional nursing work environments and stressors. *Journal of Forensic Nursing*, 18, 229–236 https://doi.org/10.1097/jfn.0000000000000368
- Keller, E. G., Hittle, B. M., Boch, S. J., Davis, K. G., & Gillespie, G. L. (2023). Modeling wellbeing for U.S. correctional nurses: A cross sectional survey. *International Journal of Nursing Studies*, 147, 104589. https://doi.org/10.1016/j.ijnurstu.2023.104589
- Lazzaretto-Green, D., Austin, W., Goble, E., Buys, L., Gorman, T., & Rankel, M. (2011). Walking a fine line: Forensic mental health practitioners' experience of working with correctional officers.

- Journal of Forensic Nursing, 7(3), 109–119. https://doi.org/10.1111/j.1939-3938.2011.01107.x
- McNeely, E. (2005). The consequences of job stress for nurses' health: Time for a check-up. *Nursing Outlook*, 53(6), 291–299. https://doi.org/10.1016/j.outlook.2005.10.001
- McVicar, A. (2003). Workplace stress in nursing: A literature review. Journal of Advanced Nursing, 44(6), 633–642. https://doi.org/10.1046/j.0309-2402.2003.02853.x
- Munger, T., Savage, T., & Panosky, D. M. (2015). When caring for perpetrators becomes a sentence: Recognizing vicarious trauma. *Journal of Correctional Health Care*, 21, 365–374. https://doi.org/ 10.1177/1078345815599976
- National Institute for Occupational Safety and Health. (2020). What is total worker health. Centers for Disease Control and Prevention. https://www.cdc.gov/niosh/twh/totalhealth.html
- National Nurses United. (n.d.-a). Safe staffing ratios. https://www.nationalnursesunited.org/ratios
- National Nurses United. (n.d.-b). *The science of ratios.* https://www.nationalnursesunited.org/science-of-ratios
- Naud, M., & McCabe, R. (2005). Increasing retention of nursing staff at hospitals: Aspects of management and leadership. *Australian Bulletin of Labour*, 31(4), 426–439.
- Newman, C., Eason, M., & Kinghorn, G. (2023). Forensic mental health nurses' experiences of clinical supervision. *Journal of Forensic Nursing*, 19(1), 12–20. https://doi.org/10.1097/JFN. 0000000000000377
- Newman, C., Roche, M., & Elliott, D. (2021). Exposure to workplace trauma for forensic mental health nurses: A scoping review. *International Journal of Nursing Studies*, 117, 103897. https://doi.org/10.1016/j.ijnurstu.2021.103897
- Oates, J., Topping, A., Ezhova, I., Wadey, E., & Rafferty, A. M. (2021). Factors affecting high secure forensic mental health nursing workforce sustainability: Perspectives from frontline nurses and stakeholders. *Journal of Psychiatric and Mental Health Nursing*, 28(6), 1041–1051. https://doi.org/10.1111/jpm.12740
- Oulton, J. A. (2006). The global nursing shortage: An overview of issues and actions. *Policy, Politics, & Nursing Practice, 7*(3_Suppl), 34S–39S. https://doi.org/10.1177/1527154406293968
- Patel, C., Beekhan, A., Paruk, Z., & Ramgoon, S. (2008). Workfamily conflict, job satisfaction and spousal support: An exploratory study of nurses' experience. *Curationis*, 31(1), 38–44. https://doi.org/10.4102/curationis.v31i1.906
- Penal Reform International. (2020). Global prison trends. https://cdn.penalreform.org/wp-content/uploads/2020/05/Global-Prison-Trends-2020-Penal-Reform-International-Second-Edition.pdf
- Russo, J. (2019). Workforce issues in corrections. https://nij.ojp.gov/topics/articles/workforce-issues-corrections
- Sánchez-Roig, M., & Coll-Cámara, A. (2016). Prison nursing and its training. Revista Espanola de Sanidad Penitenciaria, 18(3), 110–118. https://doi.org/10.4321/S1575-06202016000300005
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, *52*, 1893–1907. https://doi.org/10.1007/s11135-017-0574-8
- Sawyer, W., & Wagner, P. (2023). Mass incarceration: The whole pie 2023. Prison Policy Initiative. https://www.prisonpolicy.org/ reports/pie2023.html
- Smiley, R. A., Ruttinger, C., Oliveira, C. M., Hudson, L. R., Allgeyer, R., Reneau, K. A., Silvestre, J. H., & Alexander, M. (2021). The 2020 national nursing workforce survey. *Journal of Nursing*

Original Article

- Regulation, 12(1), S1–S6. https://doi.org/10.1016/S2155-8256 (21)00027-2
- Sonnentag, S., & Frese, M. (2003). Stress in organizations. In W.C. Borman, D.R. Ilgen, & J.R. Klimoski (Eds), *Comprehensive handbook of psychology* (Vol. 12, pp. 453–491).
- Stephenson, A. L., & Bell, N. (2019). Finding meaningful work in difficult circumstances: A study of prison healthcare workers. Health Services Management Research, 32(2), 69–77. https://doi.org/10.1177/0951484818787698
- Stimpfel, A. W., Sloane, D. M., & Aiken, L. H. (2012). The longer the shifts for hospital nurses, the higher the levels of burnout and patient dissatisfaction. *Health Aff (Millwood), 31*(11), 2501–2509. https://doi.org/10.1377/hlthaff.2011.1377
- Strauss, M. (2015). Opinion: New health care staffing model puts prison nurses at risk. Correctionals1. https://www.corrections1.com/correctional-healthcare/articles/opinion-new-health-care-staffing-model-puts-prison-nurses-at-risk-C6DUYxV6VBQ5y6KL/
- The Pew Center on the States. (2008). One in 100: Behind bars in America 2008. The Pew Charitable Trusts. http://www.pewtrusts.org/~/media/legacy/uploadedfiles/wwwpewtrustsorg/reports/sentencing_and_corrections/onein100pdf.pdf

- Tsukerman, D., Leger, K. A., & Charles, S. T. (2020). Work–family spillover stress predicts health outcomes across two decades. *Social Science & Medicine*, *265*, 113516. https://doi.org/10.1016/j.socscimed.2020.113516
- Twigg, D., & McCullough, K. (2014). Nurse retention: A review of strategies to create and enhance positive practice environments in clinical settings. *International Journal of Nursing Studies*, *51*(1), 85–92. https://doi.org/10.1016/j.ijnurstu.2013.05.015
- U.S. Bureau of Labor Statistics. (2023). Occupational employment and wage statistics. https://www.bls.gov/oes/current/oes333012.htm#nat
- Vitale, S. A., Varrone-Ganesh, J., & Vu, M. (2015). Nurses working the night shift: Impact on home, family and social life. *Journal* of Nursing Education and Practice, 5(10), 70. https://doi.org/ 10.5430/jnep.v5n10p70
- Weiskopf, C. S. (2005). Nurses' experience of caring for inmate patients. *Journal of Advanced Nursing*, 49(4), 336–343. https://doi.org/10.1111/j.1365-2648.2004.03297.x
- Wolters Kluwer. (2016). The importance of the optimal nurseto-patient ratio. https://www.wolterskluwer.com/en/expertinsights/the-importance-of-the-optimal-nursetopatient-ratio