Spring 2021

Supervisor Knowledge, Attitudes, and Interventions Methods of Burnout among Healthcare Providers

Wendy Deal

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SUPervisor Knowledge, Attitudes, and Intervention Methods of Burnout Among Healthcare Providers

by

Wendy Deal

(Under the Direction of Jessica Mutchler)

ABSTRACT

Context: Burnout is prevalent among healthcare providers. Research has identified evidence-based intervention and preventative methods for use against burnout. There is limited research surrounding perceptions of burnout among those that supervise healthcare providers. Purpose: To explore supervisors’ knowledge, attitudes, and interventions related to burnout of healthcare providers within a hospital or clinic setting. Design: Consensual qualitative research with emergent design Methods: Eight supervisors were interviewed using a semi-structured interview approach via virtual platform. Participants were asked questions that aimed to capture supervisor perceptions of burnout. Interview transcripts were coded based on categories and themes developed through a consensus process with the research team. Member checking was used to confirm participant responses. Results: Ten categories formed from supervisor responses including communication, education, prevention, specific interventions or resources, presence of burnout, characteristics of burnout, contributions or causes, impact of burnout, definition of burnout, and impact of COVID-19. Themes that reached saturation included importance of communication, qualities and skills a provider should possess to reduce risk of burnout, strategies and resources implored by supervisors and/or the workplace to mitigate burnout, knowledge of characteristics of burnout but not definition, and the negative impact of COVID-19 on healthcare providers. Conclusions: Supervisors in a hospital or immediate care clinic setting had a strong knowledge of characteristics of burnout and agreed it exists in the healthcare setting but lacked knowledge of the definition of burnout and evidence-based interventions. Supervisors agreed that COVID-19 caused additional challenges for healthcare providers that could affect burnout. Future studies should focus on supervisors continued education regarding the definition of burnout and supported interventions.
INDEX WORDS: Burnout, Supervisor, Healthcare providers, Attitude, Knowledge, Intervention
SUPERVISOR KNOWLEDGE, ATTITUDES, AND INTERVENTION METHODS OF BURNOUT AMONG HEALTHCARE PROVIDERS

by

WENDY DEAL

B.S., University of Connecticut, 2019

M.S., Georgia Southern University, 2021

A Thesis Submitted to the Graduate Faculty of Georgia Southern University in Partial Fulfillment of the Requirements for the Degree

MASTER OF SCIENCE
SUPERVISOR KNOWLEDGE, ATTITUDES, AND INTERVENTION METHODS OF BURNOUT AMONG HEALTHCARE PROVIDERS

by

WENDY DEAL

Major Professor: Jessica Mutchler
Committee:
  Brandonn Harris
  Tamerah Hunt

Electronic Version Approved:
May 2021
ACKNOWLEDGMENTS

I would like to thank my major professor, Dr. Jessica Mutchler, and committee members, Dr. Brandonn Harris and Dr. Tamerah Hunt, for their endless support and guidance throughout this process.
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CHAPTER I
INTRODUCTION

In recent years, researchers’ interest in burnout has increased and many have looked at the issue of burnout within the workplace environment and among its employees, specifically among healthcare providers. Many researchers have used the definition of burnout by Christina Maslach to study and show that burnout is a problem among individuals that are healthcare providers. Maslach defines burnout as “a syndrome of emotional exhaustion, depersonalization, and a reduced personal accomplishment that occur among individuals who do ‘people work’ of some kind” (Maslach, 1982, p. 3). She goes on to say, “It is a response to the chronic emotional strain of dealing extensively with other human beings, particularly when they are troubled or having problems” (Maslach, 1982, p. 3). This type of emotional response described by Maslach is reflective of the environment healthcare providers work in (Maslach, 1982).

Recent literature supports that burnout is prevalent among healthcare providers. In 2016, Dyrbye and Shanafelt found that burnout and work-related stress were prevalent among medical students and residents (Dyrbye & Shanafelt, 2016). More specifically, 35-45% experienced emotional exhaustion, 26-38% experienced depersonalization, and 45-56% experienced burnout (Dyrbye & Shanafelt, 2016). Competition and rigorous assessments were noted to be only some of the factors that may have led to burnout among medical students and residents (Dyrbye & Shanafelt, 2016). A separate study reported in 2018 used questionnaires to determine prevalence of burnout among medical residents (Joaquim et al., 2018). Based on 118 questionnaires, researchers found that 45.2% of medical residents experienced burnout that was related to being overworked (Joaquim et al., 2018).

Although the aforementioned research demonstrates some data regarding prevalence among medical students and residents, it is important to note that these individuals are not the only healthcare professionals that can develop and experience burnout due to their job setting. Literature shows that physicians, physical therapists, nurses, and psychology students are at risk of developing burnout (de Vibe et al., 2013; Olkinura, 1990; Pérula-de Torres et al., 2019; Wilski et al., 2015). Among physicians, burnout was more prevalent in those who specifically worked in oncology, pulmonary disease, or
psychiatry units when compared to other units (Olkinura, 1990). Research has shown that healthcare providers are more vulnerable to developing burnout because of excessive bureaucratic duties, like paperwork, and too many hours (Reith, 2018). Additionally, the nature of a high demand job, increasing responsibility, and lack of positive feedback are other things that put healthcare providers more at risk for developing burnout (De Hert, 2020).

It is important to look at burnout among healthcare providers because they provide essential care to individuals who need help. Healthcare providers that develop burnout may decrease the quality of patient care, increase their number of medical errors, and risk possible involvement in malpractice lawsuits (Reith, 2018; Ghannam et al., 2020). Providers that suffer from burnout are also at an elevated risk of physical and psychological symptoms (Ghannam et al., 2020). In order to further understand how the symptoms of burnout among healthcare providers can be a detriment to those they work with and or care for, it is important to look closely at the physical and psychological consequences one might experience from suffering burnout. Some more obvious and common symptoms of burnout are feeling overtired, feeling rundown, and fatigue (Maslach, 1982; WHO, 2019). Individuals can also begin to experience more serious symptoms related to burnout, such as insomnia, gastrointestinal distress, nightmares, higher susceptibility to illness, inability to get up in the morning, and headaches (Maslach, 1982; WHO, 2019).

Interventions that actively manage burnout among healthcare providers who develop and experience burnout show promising results. Some interventions supported by current literature include mindfulness training, mentorship, yoga, coping and communication training, interpersonal skill training, and relaxation techniques (Aryankhesal, et al., 2019; Bronson, 2017; Goelz et al., 2020; Vishwakarma et al., 2018; Wiederhold et al., 2018). The implementation of mindfulness training programs has been shown to improve scores on stress and burnout assessments (Bronson, 2017; Ireland et al., 2017). Using an interactive mentoring guide for burnout, participant’s ability to mentor those identified with burnout increased greatly following intervention (Goelz et al., 2020). When using yoga to mitigate burnout one study found that integration of regular yoga practice improved physical and mental health of participants,
which in turn, helped manage participant stress (Vishwakarma et al., 2018). Trainings related to coping and communication have been reported to be helpful in managing burnout (Aryankhesal, et al., 2019). Similarly, interpersonal skill training and relaxation technique training have been supported as strategies to manage burnout among healthcare providers (Wiederhold et al., 2018). While intervention and management methods are crucial for individuals experiencing burnout, literature has also indicated that burnout can be prevented.

Mindfulness programs, although commonly used as an intervention, can also be utilized as a preventative strategy among healthcare providers (de Vibe et al., 2013; Pérula-de Torres et al., 2019). Furthermore, Kumar (2016), discussed that developing resiliency as an individual can help prevent burnout among healthcare providers. Within this research, resilience was defined as, “‘ability to bounce back or recover from stress’ or ‘the adoption of positive coping strategies, in times of change or adversity, to enable people to carry on in their jobs and lives’” (Kumar, 2016). Self-awareness, balance, and good communication were some of the recommendations noted as ways to promote resilience among oneself (Kumar, 2016).

Often being the gatekeepers to resources and information, it is important for supervisors and employers of healthcare providers to acknowledge and recognize burnout and be aware of what resources are available to support and mitigate burnout. Lack of resources, hierarchy issues, administrative limitations, and lack of organization have been noted as influences that can lead to burnout among healthcare providers (De Hert, 2020). These influences are responsibilities that lie within supervisors, and unfortunately, there is a lack of literature exploring the perceptions of burnout among supervisors of healthcare providers (Ghannam et al., 2020). Therefore, the purpose of this study was to explore supervisors’ knowledge, attitudes, and interventions related to burnout of healthcare providers within a hospital or clinic setting. The goal of the study was to use a qualitative approach to explore and identify common themes and patterns amongst supervisors of healthcare providers to further assist in mitigating burnout in healthcare providers and assess where supervisors could improve to better support the healthcare providers they supervise.
CHAPTER II

METHODS

Participants

Participants were recruited from hospitals or emergency clinic settings in southeast Georgia. Participants worked in a supervisor role, for example, floor or unit managers, coordinators, directors, and/or administrators, for healthcare professionals in their workplace setting. Staff directory websites were the initial source for identifying potential participants. An initial email was sent to explain the purpose of the study and asked for their voluntary participation in the study. A follow-up email was sent if the supervisor did not respond to the initial email within seven days. Upon a supervisor agreeing to voluntary participation in the study, interviews were scheduled via email and Doodle polling. In addition, an informed consent form was sent. Participants were asked to read and review the informed consent. Before the interview began, all participants were asked if they had read, reviewed, and understood the informed consent. They were then asked for verbal consent prior to the interview beginning. To protect participant identity, all participants were given a pseudonym. Snowball sampling was used to further identify potential participants. This was done by asking each participant to pass along the interviewer’s information to any individuals in a supervising role within the same region and similar setting, who may be interested in participating in the study. This study was approved through the University’s Institutional Review Board.

Design

A consensual qualitative research (CQR) approach was taken to complete this study. This approach is a viable qualitative method that is advantageous for studies that aim to conduct in-depth research exploring individuals’ experiences (Hill et al., 2005). A vital component to this approach was the use of consensus amongst a research team during the development of interview questions, data analysis, and reporting of themes and patterns (Hill et al., 2005). The primary research team for this study included three athletic trainers and one sports psychologist. An auditor was also utilized to check the work of the research team and group bias. Additionally, an expert reviewer was utilized for a pilot interview to
practice question clarity. This individual was a practicing healthcare provider and supervisor to medical students. The expert reviewer did not serve as a participant in the study and only provided feedback on question clarity.

The CQR method involved a semi-structured interview with open-ended questions that allowed the interview to capture experiences and multiple viewpoints that led to the discovery of themes and patterns (Hill et al., 2005). The questions asked during the interview were purposely open-ended and conversation based to allow for a more natural flow and participant comfort as the interview progressed. The CQR approach values descriptions and words over sheer number of participants, therefore, the sample size was based on data saturation rather than a set number of required participants (Hill et al., 2005). Data saturation was defined as the repetition of keywords and statements across numerous participants that supported the stability of identified themes and allowed for the discovery of patterns (Hill et al., 2005). We aimed to complete at least 8-15 interviews as recommended when utilizing the consensual qualitative research method (Hill et al., 2005).

**Procedures**

IRB approval was granted prior to the start of recruitment and data collection. Using a semi-structured interview approach, the PI asked six demographic questions, thirteen research questions, and one closing statement used to request participants to pass along the PI’s information to individuals that may fit inclusion criteria. Demographic and research questions were developed by the PI based upon present literature and the information lacking within current research related to supervisor knowledge, attitude(s), and intervention methods for burnout. The research team reviewed and modified the questions until all members agreed that content and construct validity were suitable. The auditor helped to identify if underlying bias was present within the questions. The final revision of the interview questions was completed based on the pilot interview with the expert reviewer. Interview questions can be viewed in Table 1. All interviews were conducted via the virtual platform Zoom. Interviews were scheduled and conducted through the PI’s university account to provide increased security. The PI conducted the virtual interviews while on campus to ensure the wireless connection was secure and reliable.
# Table 1. Demographic & Interview Questions

<table>
<thead>
<tr>
<th>Demographic Questions</th>
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</thead>
<tbody>
<tr>
<td>1. What is the full title of your position? (What do you do?)</td>
<td></td>
</tr>
<tr>
<td>2. How long have you been in this position?</td>
<td></td>
</tr>
<tr>
<td>3. Have you been under the same employer?</td>
<td></td>
</tr>
<tr>
<td>4. Have you worked with the same type of patients?</td>
<td></td>
</tr>
<tr>
<td>5. How many people do oversee?</td>
<td></td>
</tr>
<tr>
<td>6. Can you describe the roles and responsibilities of your position?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Probes</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. How you would define burnout?</td>
<td></td>
</tr>
<tr>
<td>8. Please discuss your understanding of burnout.</td>
<td></td>
</tr>
<tr>
<td>9. Based on how you would define burnout, how common do you think burnout is among healthcare professionals in your workplace?</td>
<td></td>
</tr>
<tr>
<td>10. In general – not specific to your site – what are preventative methods or interventions that you are aware of that can be used for burnout?</td>
<td></td>
</tr>
<tr>
<td>11. Please describe the methods or resources within your workplace that are meant to help prevent work-related burnout.</td>
<td></td>
</tr>
<tr>
<td>12. Please describe the methods or resources within your workplace that support those with identified work-related burnout.</td>
<td></td>
</tr>
<tr>
<td>13. Please describe how accessible you feel these resources are to employees.</td>
<td></td>
</tr>
<tr>
<td>14. What do you believe is your role as it relates to burnout?</td>
<td></td>
</tr>
<tr>
<td>15. What traits do you believe a staff member could possess that would be helpful in preventing or mitigating burnout?</td>
<td></td>
</tr>
<tr>
<td>16. In your opinion, what type of workplace environment would help prevent burnout?</td>
<td></td>
</tr>
<tr>
<td>17. Please describe any aspects of your workplace setting that you would change if you could.</td>
<td></td>
</tr>
<tr>
<td>18. Thinking back to your answers, how much would you say COVID-19 influenced your responses to the questions?</td>
<td></td>
</tr>
<tr>
<td>19. Please describe how COVID-19 has changed your perspectives of burnout. You may discuss and compare pre-pandemic and post-pandemic.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sampling Question</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>20. Thank you for your feedback. Is there anything you would like to add? At this point we are asking for our participants to give us the name and contact information of anyone you think would be beneficial to this study.</td>
<td></td>
</tr>
</tbody>
</table>

Note. Target category for each question is denoted by superscript letters.  
*a* denotes Knowledge, *b* denotes Attitudes, *c* denotes Intervention
Due to the semi-structured construct, the PI and interviewee were not held to only the thirteen questions; there was an ability for a conversation to emerge and be further explored by the PI. Probes were used to assist with clarification and facilitation of the interview. The interviewees were not given the questions beforehand. The interviews were recorded and transcribed via Zoom. The PI made modifications to the transcriptions where it was necessary in case of error. Since the interviews were recorded, the PI was able to note descriptors such as facial expressions and long pauses. Once the transcription was complete and verified, a copy was provided to the participant for member checking. Participants were allowed to provide clarification and comments if desired but were not allowed to remove any parts of their response.

**Data Analysis**

The CQR method was followed to code the interview transcriptions. The coding process began with the identification of core ideas from three transcriptions. Core ideas that were repeated within and across transcriptions were combined to establish categories. Cross analysis of four transcriptions led to the development of themes within each category. A consensus codebook that was developed through the collaborative effort of the PI and research team was used to perform cross analysis of all transcriptions by the PI. Figure 1 provides a step-by-step description of how the CQR method was used in this study (Hill et al., 2005; Phan, 2012). The PI intended to complete interviews in February, 2021 and have data analyzed in March, 2021.
Patterns within the themes were described in terms of frequency of occurrence across participants. “General” was used when 7-8 participants described the same patterns. “Typical” was used when 3-6 participants described the same patterns, and “variant” was used when 1-2 participants described the same patterns. Triangulation was done to support the trustworthiness of the results and included individual views being argued until group consensus was met throughout the coding process, the use of an auditor, and member checking (Phan, 2012).
CHAPTER III

RESULTS

Eight interviews were conducted during February and March of 2021 consisting of five males and three females that were each protected by a pseudonym. Participant demographics can be seen in Table 2.

Table 2. Participant Demographics

<table>
<thead>
<tr>
<th>Name (pseudonym)</th>
<th>Occupation (as reported by participants)</th>
<th>Setting</th>
<th>Years (in current position)</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael</td>
<td>Sports Medicine Director</td>
<td>Clinic</td>
<td>17 months</td>
<td>Male</td>
</tr>
<tr>
<td>Jessica</td>
<td>Chief Operating Officer</td>
<td>Clinic</td>
<td>3 years</td>
<td>Female</td>
</tr>
<tr>
<td>Vanessa</td>
<td>Director of Rehabilitation</td>
<td>Hospital</td>
<td>5 years</td>
<td>Female</td>
</tr>
<tr>
<td>Adam</td>
<td>Practice Manager</td>
<td>Clinic</td>
<td>4 months</td>
<td>Male</td>
</tr>
<tr>
<td>Brenda</td>
<td>Practice Manager</td>
<td>Clinic</td>
<td>Two years</td>
<td>Female</td>
</tr>
<tr>
<td>Roger</td>
<td>Medical Director</td>
<td>Clinic</td>
<td>12 years</td>
<td>Male</td>
</tr>
<tr>
<td>Elliot</td>
<td>Optometrist</td>
<td>Clinic</td>
<td>20 years</td>
<td>Male</td>
</tr>
<tr>
<td>Christopher</td>
<td>Orthopedic Surgeon</td>
<td>Hospital</td>
<td>15 years</td>
<td>Male</td>
</tr>
</tbody>
</table>

Upon completion of coding and triangulation within the research team, multiple categories developed within the established domains: communication, education, prevention, specific interventions or resources, presence of burnout, characteristics of burnout, contributions or causes, impact of burnout, definition of burnout, and impact of COVID-19. The categories were further broken down into themes that emerged from the participants’ responses. The domains, categories and themes can be seen in Table 3.
### Table 3. Final Consensus Codebook

<table>
<thead>
<tr>
<th>Domains</th>
<th>Categories</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitude(s) toward intervention(s)</strong></td>
<td>Communication</td>
<td>Verbal</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>Lack of education or training</td>
</tr>
<tr>
<td></td>
<td>Prevention</td>
<td>Personal qualities and skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accessibility</td>
</tr>
<tr>
<td><strong>Knowledge towards intervention(s)</strong></td>
<td>Specific interventions/Resources</td>
<td>Strategies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employer Provided</td>
</tr>
<tr>
<td><strong>Attitudes toward burnout</strong></td>
<td>Presence of burnout</td>
<td>Present</td>
</tr>
<tr>
<td></td>
<td>Characteristics of burnout</td>
<td>Identifying Burnout through common characteristics</td>
</tr>
<tr>
<td></td>
<td>Contributions/Causes</td>
<td>Expectations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Influences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Age, Experience, Time/Hours</td>
</tr>
<tr>
<td></td>
<td>Impact of burnout</td>
<td>Effects of burnout</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personal experience</td>
</tr>
<tr>
<td><strong>Knowledge of burnout</strong></td>
<td>Definition of burnout</td>
<td>Correctly identified components of definition</td>
</tr>
<tr>
<td><strong>Influence of COVID-19</strong></td>
<td>Impact</td>
<td>Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Challenges</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uncertainty/Fear</td>
</tr>
</tbody>
</table>

**Attitude(s) Toward Interventions: Communication.**

Within the domain of attitudes toward interventions, a category of communication emerged. This category included one theme of verbal communication. Participants generally recognized and discussed that check-ins and meetings with their staff members were key ways to monitor for burnout.

“I think having staff meetings helps, just in general, take the temperature of how our staff are doing...touching in individually...communicating with them, checking in with them...” (Michael)

**Attitude(s) Toward Interventions: Education.**

The category of education included one theme of lack of education or training. Typically, participants noted that education or training for their staff members is a component to intervention and prevention, although participants mentioned either lacking or needing to incorporate education.
“I think the biggest thing that we’re probably lacking is teaching resiliency, which is one of the reasons I’m working on that and being able to identify when our co-workers need help and what we can do to help them.” (Vanessa)

“I guess the – if we could change part [of the workplace], I guess the education.” (Michael)

**Attitude(s) Toward Interventions: Prevention.**

The category of prevention was broken into three major themes: personal qualities and skills, environment, and accessibility. Participants generally recognized that staff members needed to possess personal qualities and skills to help prevent burnout within the workplace. Qualities and skills noted by participants included being able to manage stress well, having a positive attitude, and not being a procrastinator.

“Not being a procrastinator...Someone who has good time management skills...someone who recognizes the importance of work-life balance...” (Roger)

In general, participants acknowledged that creating an appropriate workplace environment was an important preventative method for burnout. Participants noted that boundaries, administration support, and open lines of communication were important factors within a workplace environment.

“...well the administrators and supervisors have to be willing to listen to concerns, address concerns, they have to be available, we have to be flexible, willing to change, willing to spend money in some cases, to make things better.” (Elliot)

Generally, participants discussed that any interventions in place within their respective workplace were accessible to employees, and employees are made aware of them.
“We routinely push out reminders or fliers or here’s the number, don’t forget you have this available…”

(Jessica)

Knowledge Toward Interventions: Specific Interventions or Resources.

Within the domain of knowledge toward interventions, the category of specific interventions or resources emerged. This category was broken into two themes: strategies and employer provided. In general, participants discussed strategies either in place or those they were familiar with in regard to burnout intervention or prevention strategies. Some strategies included time-off, appropriate scheduling, and staff appreciation.

“I think our scheduling process for our team members is very effective for this. We don’t routinely schedule our employees for more than 3 days in a row...The other thing is that we have utilized technology to help us better manage our patient volumes.” (Jessica)

“As best you can, trying to leave work at work, people taking off time when they need to take off time is very helpful… I appreciate what they do. I try to make sure that they are fairly compensated and, in general, feel appreciated for the job they perform on behalf of our patients and our practice.”

(Christopher)

Additionally, participants typically discussed resources provided by the employer to staff members. Mental health resources, exercise facilities, employee assisted programs, and employee engagement programs were discussed by participants.

“...we have access to exercise type facilities if we need them...we have access to our mental health resources…” (Michael)

“We have an employee assistance program through our benefits package and we encourage people to use that.” (Jessica)
Attitudes Toward Burnout: Presence of Burnout.

Within the domain of attitudes toward burnout, the category of presence of burnout emerged. This category contained one theme across the responses, which was that burnout is present in healthcare workers. Typically, participants acknowledged that burnout was present within their workplace and among healthcare professionals.

“In the healthcare industry, I would say just because I’ve done some research on it, about 40-50% of healthcare staff are burned out…I’ve noticed it in my staff.” (Vanessa)

Attitudes Toward Burnout: Characteristics of Burnout.

Characteristics of burnout was also identified as a category within this domain and contained one theme of identifying burnout through common characteristics. Participants were generally able to address characteristics of burnout. Some of these included feeling overwhelmed, decreased job performance, and feelings related to stress.

“...where people feel overwhelmed, underappreciated, and it leads to a kind of cascade of issues that can show up in the workplace.” (Christopher)

“Them calling out of work more frequently, a mood change, a productivity change in their work.” (Roger)

Attitudes Toward Burnout: Contributions or Causes.

Contributions and causes emerged as a category within the domain of attitudes toward burnout and included three themes: expectations, external influences, and age, experience, time, and hours. Within the theme of expectations, participant discussion that a lot is asked of their staff within their high-stress, high-stake workplaces was a variant pattern.
“I ask a lot of them, there’s no question. I ask a lot of them. I expect them to do their job, to do their job efficiently, to do their job without making mistakes - because mistakes in our profession are not good.” (Christopher)

Typically, participants noted that external influences can be a contributor or cause of burnout, including limited supplies, insurance company involvement in care, and being understaffed.

“...there are opposing forces that healthcare workers feel caught up in the middle of...evidence-based practices, and then we have insurance companies that are saying we want you to do the most with the least...And so you’re trying to merge all these opposing forces and trying to provide the best care and so that is very difficult to do sometimes.” (Vanessa)

Age, experience, time, and hours were typically mentioned by participants as possible contributors or causes of burnout. Younger workers or those with less years of experience and/or those that worked less hours were thought to have less risk of burnout, with the opposite being identified as causing a higher risk of burnout.

“It [burnout] tends to be a little higher in the medical specialties who have higher work hours and a little bit more stressful jobs - higher demand jobs...” (Christopher)

“...we have a very young staff, okay. So they haven’t been there yet. They haven’t put the hours in, they haven’t, you know - they just haven’t had as many hours and days and experience as to how to really get to a burnout.” (Adam)

**Attitudes Toward Burnout: Impact of Burnout.**

Within the domain of attitudes toward burnout, impact of burnout emerged as a category. This category had two primary themes: effects of burnout and personal experience. Generally, participants were able to recognize some effects that burnout can have on an individual. Unhappiness in the
workplace, losing joy in work, and providing poor patient care were some of the effects noted by participants.

“...you don’t like your job anymore, you don’t like the people that you’re doing, if you’re not happy, and if you are a danger...if you start getting slack, if you’re not paying attention to what you’re supposed to be doing...you just don’t care anymore...you become apathetic about your job, don’t care, you are being haphazard about your job duties...” (Adam)

“...makes us less productive, we have less mental clarity, which then affects our ability to make the best judgements for our patients and take the best care of them, which then can lead to a higher rate of medical errors and mistakes.” (Vanessa)

In addition, participant discussion of their own personal experience with burnout varied, with one participant recalling a story of writing a resignation due to burnout.

“...and I said, you know, I don’t want to do this anymore, I just don’t want to do it...when I got back the next morning I wrote my resignation, I’m done.” (Adam)

“Now if you ask me specifically, it has been a significant - yeah. I’ve not felt - I mean, there’s been a few times in my past years here where I would feel like things are getting kind of a crunch time and I would feel a little bit like I was kind of getting to that point, but I could always step back and reset. It’s been a significant challenge for me.” (Roger)

Knowledge of Burnout: Definition of Burnout.

Within the domain of knowledge of burnout, the definition of burnout was the only category developed by the participants’ core ideas. The theme that emerged was the correctly identified components of the definition of burnout. The definition of burnout being utilized within this study was Christina Maslach’s definition: “a psychological syndrome involving emotional exhaustion,
depersonalization, and a diminished sense of personal accomplishment that occurred among various professionals who work with other people in challenging situations” (Maslach, 1982). Participants were typically able to identify the “exhaustion” component of Maslach’s definition. Michael specifically defined burnout as “excessive fatigue”, which was mentioned by most participants. A few provided more detailed descriptions of how they’d define burnout.

“Burnout can be, I think acute and chronic. Acute meaning, I’ve worked five 12-hour shifts in a row and I’m just done, I can’t physically do more or I’m mentally just in a fog or I’m just kind of grumpy because I’m tired, those kinds of things.” (Jessica)

“Probably my definition of burnout would be an inability to perform your job due to excessive stress in the workplace, whether that’s from external forces or internal forces.” (Vanessa)

**Influence of COVID-19: Impact.**

Impact of COVID-19 was identified through the core ideas of the supervisors. Three themes emerged from the category of impact including change, challenges, and uncertainty or fear. Within the theme of change, participants typically reflected on changes they have felt due to the pandemic, including changes to standards of care and added stress.

“But I do think that the chance for burnout this year has been higher just because of the added stress...We have many more steps in all our processes now than we used to that just make it a different experience for people.” (Roger)

“You go to the doctor’s office or go somewhere to get tested, you get treated in your car...we had to adapt.” (Adam)
Although the challenges identified by each supervisor were individualized to their setting, supervisors generally discussed challenges their healthcare workers have had to face due to COVID-19, including normalcy in the workplace being disrupted and adapting to a new virus.

“COVID has really prevented us from being able to come up and take a breath at all. It certainly changed our routine and the things that we kind of know and feel comfortable with, the way we do things. It’s turned everything on its head, and it’s certainly been a challenge for everybody...Even entering a building, the steps we have to take now. The tracing we have to do. The testing, you know, from a financial standpoint. Institutionally, financially it’s a big deal. It affects and has affected hiring and firing of folks.” (Michael)

“I think the only difference with COVID is that we’re navigating something right now that’s never been navigated before. I think that coupled with an increase in volume, supply chain issues, those kinds of things, I think that is the biggest struggle - is that no one has ever walked down this trail before and so we’re all forging a new path.” (Jessica)

Typically, uncertainty and fear felt by healthcare workers was also recognized by supervisors along with the uncertainty felt by the supervisors themselves.

“...people are worried about their jobs, people are worried about catching COVID, people are worried about bringing it home.” (Vanessa)

“...there was a time that we thought, you know, would the practice still be an ongoing concern, you know. How long would we need to be out? ...I think it could fall apart if we have to go another year.” (Elliot)
CHAPTER IV

DISCUSSION

The purpose of this study was to explore supervisors’ knowledge, attitudes, and interventions related to burnout of healthcare workers within a hospital or emergency clinic setting. Based on the research questions posed in this study, interview questions were designed to explore a supervisor’s knowledge and attitudes of burnout as it relates to the healthcare workers they supervise. Additionally, the interview questions were expected to explore a supervisor’s understanding of interventions that could be utilized to prevent or address burnout in the workplace. Knowledge of burnout was based on a predetermined, supported definition and evidence-based interventions. Supervisor’s own ideas, whether supported by literature or not, were expressed as attitudes of burnout.

Attitudes Toward Burnout

Within the domain of attitudes toward burnout, all supervisors were able to correctly identify characteristics of burnout they would recognize within an individual suffering from burnout. In a study done by Kania et al. (2009), researchers found that burnout was reflective in headaches, difficulty sleeping, poor appetite, depression, diminished care, and difficulty in personal relationships. Supervisors were able to recognize some of these characteristics, including depression, poor patient care, and increased absenteeism. In addition, many supervisors were able to acknowledge more severe consequences of burnout like lower quality of patient care and increased medical errors (Ghannam et al., 2020). This data shows supervisors have a general knowledge of characteristics of burnout, which is encouraging for the detection of burnout among healthcare provider. While burnout is not recognized as a mental health illness, burnout can lead to known mental health conditions like depression, anxiety, and chronic fatigue (InformedHealth.org, 2020). According to Ayano et al. (2017, p.2), undiagnosed and untreated mental illness can lead to more harmful long-term effects, including, “disability, a substantial personal burden for affected individuals and their families, poor quality of life, human rights abuses, stigma and discrimination, poverty, decreased productivity, suffering, poor physical health and premature mortality.” Therefore, it is important that supervisors are able to detect characteristics of burnout.
Knowledge of Burnout

Although supervisors are knowledgeable about characteristics of burnout that are supported by research, supervisors were not knowledgeable on the true definition of burnout. Based on Christina Maslach’s definition of burnout, “a psychological syndrome involving emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment that occurred among various professionals who work with other people in challenging situations” (Maslach, 1982), few supervisors were able to accurately identify components of burnout that fit the definition. Based on previous literature, it is not clear how necessary it is for supervisors to know the definition of burnout or if recognition of like characteristics is sufficient. It has been suggested that implementation of mental health training to increase supervisor knowledge of burnout and its true definition would be beneficial (Ayano et al., 2017; Caulfield et al., 2019). The patterns observed in this study support the continued education of supervisors in the definition of burnout.

Attitudes & Knowledge Towards Interventions

Within the domains of attitudes and knowledge toward interventions, a majority of supervisors discussed verbal communication with staff members as a way to monitor workers for signs of burnout, to provide assistance to prevent burnout, and as a way to detect burnout within their workplace. While supervisors were able to describe ways they thought were appropriate to detect and prevent burnout, they did not have a strong knowledge of evidence-based interventions. While evidence-based interventions were not recognized or discussed by participants, research has shown that mindfulness training, yoga, mentorship, coping and communication training, and relaxation technique training are all interventions that could be utilized by supervisors for individuals suffering from work-related burnout (Aryankhesal, et al., 2019; Goelz et al., 2020; Ireland et al., 2017; Vishwakarma et al., 2018; Wiederhold et al., 2018).

In the absence of identifying intervention resources, some supervisors directly suggested that education and/or training in regard to intervention of burnout was missing, and something they would change if they could. In 2017, Ayano et al. found that the integration of mental health training for healthcare providers improved knowledge of mental health illness, attitudes toward mental health illness,
and care provided to patients. Additionally, while mental health training is recommended by the World Health Organization (WHO), it is not required for healthcare providers (Caulfield et al., 2019). A systematic review by Caulfield et al. (2019), found that the WHO’s recommendation for mental health training among healthcare providers was effective when implemented. When implemented, the training improved knowledge, skill, and confidence in healthcare provider’s knowledge of mental health. It also improved clinical practice and patient outcomes (Caulfield et al., 2019). The results of this study support the importance for supervisors to have similar training if not already in place, to support the healthcare workers they supervise.

During interviews, supervisors discussed traits staff members could possess that would be helpful in preventing or mitigating burnout within a workplace. Some of the traits supervisors discussed included managing stress well, being willing to communicate, and having a positive attitude. These traits fell into the theme of personal qualities and skills within the category of prevention. Previous research has shown that personal qualities and skills, like communication, confidence, learning from others, and humility, are some factors that an individual can possess that positively influence a workplace setting (Herbert et al., 2007). While supervisors generally acknowledged and discussed some of these qualities and skills that a staff member could possess, further supervisor education is supported as it could be beneficial for supervisors to explore these qualities and skills during the hiring process.

**Influence of COVID-19**

This study did not originally intend to discuss the COVID-19 pandemic; however, as the research team moved toward data collection, including a domain for the influence of the COVID-19 pandemic seemed appropriate. The format of the interview questions was specifically designed so that all questions aimed to capture participant perceptions of burnout were asked prior to COVID-19 related questions. It should be noted that all but one of the supervisors discussed the influence of the COVID-19 pandemic before it was brought up by the interviewer. Based on the interview transcriptions and data collected, the COVID-19 pandemic had a negative impact on many healthcare professionals.
Due to the COVID-19 pandemic, it was expressed that burnout can happen faster and more often within a staff. Additionally, constant worry of job stability and worry of contracting and spreading the virus due to the unknown of the disease affected supervisors and their staff members in an adverse way. While hospitals have stayed open throughout the pandemic, it was noted that clinics faced furloughs, layoffs, and complete closings. Simple everyday tasks became difficult to navigate, which had a negative impact for supervisors and their staff members.

Limitations

Supervisors included in the current study were all located in southeast Georgia and worked in a hospital or immediate care clinic. Their responses to the interview questions may not be representative of supervisors from other locations or settings. Additionally, the interviews were capped at 30 minutes to respect the heavy schedules of the supervisors. Additional themes and patterns may have emerged if given more time to explore participant responses during the interview. Member checking was used to allow supervisors to expand upon their responses if they deemed it necessary.

Conclusion

Supervisors of healthcare providers are familiar with common characteristics of burnout, but their knowledge does not cover the true definition. Supervisors should improve their knowledge in regard to the definition of burnout, and evidence-based interventions that can be implemented when one of their employees is suffering from burnout. Supervisors had a negative attitude toward burnout, recognizing that it would have a negative effect on the healthcare worker’s job performance and quality of life. Supervisors generally saw the changes, challenges and fear associated with COVID-19 as an added risk factor for increased burnout in healthcare workers. Future research should explore training programs to increase supervisor's knowledge of burnout and intervention methods used for burnout.
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APPENDIX A
EXTENDED INTRODUCTION

Aim of Research (Purpose):

- The purpose of this study is to examine knowledge, attitudes, and interventions regarding burnout among supervisors that work among healthcare professionals.

Research Questions:

- RQ1: What is the knowledge of burnout among individuals in a supervisory role among healthcare providers?
- RQ2: What are the supervisors’ attitude(s) toward burnout within their workplace?
- RQ3: Are interventions for burnout present and utilized within their workplace?

Target Sample:

- Supervisors that work directly with healthcare providers at hospitals or emergency clinic settings in Southeast Georgia.

Delimitations:

- The data presented in this study will only be representative of supervisors working in Southeast Georgia.

Assumptions:

- Participants will be truthful and honest when answering and participating in the interview process.
- The COVID-19 pandemic may have altered the rate of burnout within hospital or emergency clinic settings.

Operational Definitions:
• Supervisor: For the purpose of this study, a supervisor is an individual who works directly with and above healthcare providers.

• Clinic: For the purpose of this study, a clinic will be described as a workplace where healthcare professionals can provide the following to patients: evaluation, diagnosis, treatment plans, rehabilitation, or referral.

• Burnout: For the purpose of this study, Christina Maslach’s definition will be utilized; “…a psychological syndrome involving emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment that occurred among various professionals who work with other people in challenging situations” (Maslach, 1982).
APPENDIX B
LITERATURE REVIEW

Burnout was first introduced into academic literature in 1974 by Herbert Freudenberger and was defined as a “state of fatigue or frustration that resulted from professional relationships that failed to produce the expected rewards.” (Poghosyan et al., 2009). This concept was further advanced and studied by Christina Maslach in 1982, who defined burnout as “a psychological syndrome involving emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment that occurred among various professionals who work with other people in challenging situations.” (Poghosyan et al., 2009) Burnout is recognized by the World Health Organization (WHO), as well as other satellite organizations and associations like the National Athletic Trainers’ Association (Mazerolle et al., 2018).

Within the last few years, burnout has been a popular topic among researchers. The results of current research among this topic has shown that burnout is prevalent among those that work within the healthcare field. The following review of literature investigates the topics of prevalence, management, and prevention among and of burnout in order to further progress research in regards to burnout among healthcare professionals.

Background and Definition of Burnout

During the last few years, burnout has become a well-known phenomenon to affect those in different professional settings. In Burnout - the cost of caring, Maslach goes on to describe “…burnout is that the distress arises from the social interaction between helper and recipient.” (Maslach, 1982) Healthcare professionals in demanding specialties that interact with their patients on a day-to-day basis are more at risk for burnout due to this interaction, described by Maslach as “‘people work’” (Maslach, 1982), as a part of their job. Burnout has become so abundant among work-place professionals that it is recognized by the WHO in the International Classification of Diseases (ICD-11) as an “occupational phenomena” (WHO). Healthcare providers are not an exception to this phenomenon and may experience any of the three dimensions described by the WHO due to workplace stress; these include: “…feelings of energy depletion or exhaustion, increased mental distance from one’s job, or feelings of negativism or
cynicism related to one’s job; and reduced professional efficacy.” (WHO) In addition to the recognition
from the WHO, the NATA published a position statement in 2018 focused on work-life balance among
athletic trainers; this position statement discussed burnout and the negative effects it can have on a
healthcare professional (Mazerolle et al., 2018). This position statement defined burnout as “…a
syndrome characterized by emotional and physical exhaustion and facilitated by prolonged stress,
overload, and intermittent feelings of being undervalued and underappreciated.” (Mazerolle et al., 2018)
While it is crucial for healthcare providers and those who supervise them to understand what burnout is,
they must also be able to recognize observable signs and symptoms and understand the consequences of
burnout within their workplace.

Burnout is recognized as a condition that brings upon physical and psychological symptoms. In
2020, Ghannam et al. published The impact of a Stress Management Intervention on Medical Residents’
Stress and Burnout (Ghannam et al., 2020). This article discusses some of the common physical and
psychological symptoms seen in those suffering from burnout, including: insomnia, changes in appetite,
fatigue, headaches, gastrointestinal distress, irritability, and decreased concentration (Ghannam et al.,
2020). In addition, Maslach discusses the following symptoms in Burnout - the cost of caring: individuals
feeling over tired or rundown, difficulty getting up in the morning, experiencing bad dreams or
nightmares, and being more susceptible to illness (Maslach, 1982). Healthcare providers suffering from
burnout are at risk of multiple consequences within the workplace. Ghannam et al. discuss that healthcare
providers are at risk to produce lower quality of care to their patients, medical errors, longer recovery
time, reduced productivity, and poor self-care (Ghannam et al., 2020). Healthcare providers and those that
supervise them put themselves at an advantage when they can better understand burnout and the
symptoms that affect them and consequences that affect them and their patients.

Detection and Prevalence of Burnout

Although there is not a consensus on how to best measure burnout (Poghosyan et al., 2009), there
are a number of different tools that can be used to measure burnout among an individual. The most
commonly used instrument to analyze burnout is the Maslach Burnout Inventory (Poghosyan et al., 2009).
This non-specific tool is used to capture the three dimensions of burnout that Maslach uses in her definition: emotional exhaustion, depersonalization, and personal accomplishment (Poghosyan et al., 2009). Not only are there general tools and instruments used to assess burnout, but there are more individualized tools. For example, the Athlete Burnout Scale (ABO-S), was developed from the Athlete Burnout Questionnaire (ABQ) to specifically screen athletes for burnout (Isoard-Gautheur et al., 2018). Scored on a 5-point Likert scale (1 = almost never, 5 – almost always), this 28 item questionnaire probes the individual on the topics of exhaustion, sport devaluation, and reduced accomplishment (Isoard-Gautheur et al., 2018). Based on results from a 2017 study done by Isoard-Gautheur et al., it was found that that ABO-S was a promising instrument to measure burnout among athletes (Isoard-Gautheur et al., 2018). It was concluded that improving current instruments and tools could lead to better prevention of burnout (Isoard-Gautheur et al., 2018).

Research shows that burnout is prevalent among healthcare professionals. Although not limited to these, current research shows this prevalence is among medical students, medical residents, physicians, and physical therapists. In 2016, Dyrbye and Shanafelt published a narrative review that found that competition, competencies, and more rigorous assessments were some of the factors that may have led to burnout among medical students and residents (Dyrbye & Shanafelt, 2016). Dyrbye and Shanafelt concluded that creating a culture within the workplace that trained wellness and provided prevention strategies were essential in order to avoid this among medical students and residents (Dyrbye & Shanafelt, 2016). Educational strategies, screening tools, and access to care would be available to medical students and residents within this culture (Dyrbye & Shanafelt, 2016). Similarly, Ghannam et al. found that burnout was prevalent among medical residents, stating, “…impact of stress on graduate medical trainees is a major concern for their well-being,…” (Ghannam et al., 2020). In their study, The Impact of a Stress Management Intervention on Medical Residents’ Stress and Burnout, Ghannam et al. concluded that, similarly to the intervention used in their study, a program developed, implemented, and continually evaluated would be useful to these and other healthcare professionals struggling with burnout and decrease prevalence (Ghannam et al., 2020). In 2018, Joaquim et al. published Burnout and occupational
stress in the medical residents of Oncology, Haematology and Radiotherapy: a prevalence and predictors study in Portugal, and found that among 118 medical residents that worked within the oncology field, burnout was prevalent among 45.2% of the individuals (Joaquim et al., 2018). Among these questionnaires, burnout reported was highly related to being overworked (Joaquim et al., 2018). In a similar study done in 2014, Eelen et al. found that among the responses of 923 questionnaires filled out by physicians, social workers, nurses, and specialist-nurses, 51.2% suffered from emotional exhaustion, 31.8% suffered from depersonalization, and 6.8% suffered from lack of personal accomplishment (Eelen et al., 2014); it should be noted that these are characteristics of burnout define by Maslach. In this study, it was concluded that due to the high prevalence of burnout among healthcare providers, “More attention should be paid to early indications of burnout in care givers.” (Eelen et al., 2014) Although burnout is not solely specific to healthcare providers, it should be noted research has shown within recent years, burnout is highly prevalent with those that work within the healthcare field. In 1989, Olkinuora provided 2,671 questionnaires to physicians to measure stress and burnout. Among the responses, the highest burnout scores were found among those physicians who worked in health centers where patient interaction was high (Olkinuora, 1990). In a more specific setting, van Mol et al. found in 2015 that “…working at an ICU correlates with a substantial risk of emotional distress.” (van Mol et al., 2015), which is a characteristic of burnout. Based on research within the last few years, it is very apparent that burnout is significant and prevalent among healthcare professionals (Ramírez et al., 2018).

Management of Burnout

Research that has shown the prevalence of burnout among healthcare professionals brought about an obvious need for management of burnout among researchers within recent years. In 2015, Wilski et al. published Work locus of control and burnout in polish physiotherapists: The mediating effect of coping styles (Wilski et al., 2015). Researchers concluded that incorporating problem-focused training and teaching targeted towards coping styles was an influential preventative strategy for burnout among physiotherapists (Wilski et al., 2015). In 2020, 60% of medical residents that participated in Ghannam et al.’s study “…strongly agreed that they would recommend this workshop for colleagues and that they
would be interested in attending advanced workshops on the same subject.” (Ghannam et al., 2020) Over half of the participants that were involved in the one-day workshop described positive self-reported outcomes (Ghannam et al., 2020). In 2017, Ireland et al. published *A randomized controlled trial of mindfulness to reduce stress and burnout among intern medical practitioners* (Ireland et al., 2017). Forty-four intern doctors, 23 intervention participants and 21 control participants, participated in a 10-week mindfulness training program that measured stress and burnout pre, during, and post management (Ireland et al., 2017). Based on outcomes, researchers concluded that scores of stress and burnout improved among those that participated in the 10-week program when compared to the control group (Ireland et al., 2017). Programs, like a mindfulness intervention, could be an effective way to manage burnout among healthcare professionals (Ireland et al., 2017).

Similarly, in 2017, Bronson studied 20 nurses that worked within high-intensity hospital areas; for example, inpatient psychiatric and intensive care (Bronson, 2017). Upon completing a 4-week mindfulness program, outcomes showed that participants were able to report improved scores of stress and burnout (Bronson, 2017). Mindfulness training was also studied in 2018 by Lui (Lui, 2018). Researchers studied 93 healthcare professionals, 47 intervention participants and 46 control participants, and found that a mindfulness program significantly reduced burnout in intervention participants when compared to the control group (Lui, 2018). Ireland et al, Bronson, and Lui all found promising and influential results for managing burnout after individuals participated in a mindfulness training program (Ireland et al., 2017; Bronson, 2017; Lui, 2018). In addition to management strategies just discussed, yoga has been shown as a promising and influential management strategy for burnout.

In 2014, Vishwakarma et al. found that yoga as a method for burnout management was able to “…promote welfare, disease prevention and physical activity among employees, to make it more personal responsibility for employees to take their overall health and health care decisions.” Vishwakarma et al. also found that yoga was beneficial for reducing stress and anxiety levels (Vishwakarma et al., 2018). It should be noted that burnout does not only affect those that practice within the healthcare field. Non-healthcare employees are still at risk for burnout and can be implicated due to workplace stressors.
In 1997, Malkinson et al. found that “blue-collar workers”, for example, industry factory workers, could develop and feel the effects of burnout due to the workplace (Malkinson et al., 1997). At the end of a six-trial session and 12-month follow-up, researchers found that after using a behavioral training management strategy, measures of burnout were reduced among participants (Malkinson et al., 1997). This study shows effectiveness of different management styles that can be used among non-healthcare providers, and potentially healthcare providers. In addition to research done within recent years that has shown promising management strategies to help those in the healthcare profession manage burnout, research has also provided preventative strategies for burnout.

In a 2019 randomized control trial, Pérula-de Torres et al. studied 132 participants that were composed of physicians and nurses (Pérula-de Torres et al., 2019). The aim of this study was to “…evaluate the effect of a mindfulness and self-compassion training programme on the levels of work stress and burnout in residents and tutors of Family and Community Medicine and Nursing.” (Pérula-de Torres et al., 2019) Researchers evaluated “standard” and “abbreviated” versions of the program; the standard program was an 8-week intervention that was practiced 2.5 hours one time per week with 30 minutes of at home practice, while the abbreviated program was a 4-week intervention that was practiced 2.5 hours one time per week with 15 minutes of at home practice (Pérula-de Torres et al., 2019). Participants were randomly assigned to one of three groups, standard, abbreviated, or control group (Pérula-de Torres et al., 2019). Those that were participating in the standard or abbreviated program had sessions that focused on “…knowledge of mindfulness, the perception of reality, the power of emotions, the reaction to stress and emotional tension, resilience, responding to stress, using mindful communication, taking care of oneself, time management, and integrating mindfulness into everyday life.” (Pérula-de Torres et al., 2019) At the end of this study, Pérula-de Torres et al. found that both standard and abbreviated mindfulness programs were effective among healthcare providers in preventing burnout when compared to the control group (Pérula-de Torres et al., 2019). It was concluded that these preventative programs should be incorporated into the workplace (Pérula-de Torres et al., 2019).
Similarly, de Vibe et al. conducted a randomized control trial among medical and psychology students (de Vibe et al., 2013). Among 288 participants, a General Health Questionnaire, Maslach Burnout Inventory, Perceived Medical School Stress, Subjective Well-Being, and Five Facet Mindfulness Questionnaire were completed (de Vibe et al., 2013). The intervention used on those in the test group was the Mindfulness-Based Stress Reduction (MBSR) (de Vibe et al., 2013). Upon outcomes, researchers found that “medical and psychology students experienced significant positive improvements in mental distress, study stress, subjective well-being and mindfulness after participating in the MBSR programme” (de Vibe et al., 2013) However, it should be noted that 76% of participants were female (de Vibe et al., 2013). de Vibe et al. were able to conclude that teaching these methods could decrease mental distress and improve well-being among healthcare providers (de Vibe et al., 2013).

In a pilot study conducted in 2009 by Scarnera et al., researchers studied 25 individuals in the healthcare field that were employed by organizations that provided psychiatric services or therapeutic and rehabilitative activities (Scarnera et al., 2009). Burnout among participants was primarily evaluated through the Maslach Burnout Inventory and the Occupational Stress Inventory (Scarnera et al., 2009). Participants completed 6 monthly workshops that were 3-5 hours in length; at the end of each workshop, each participant would complete a Maslach Burnout Inventory (Scarnera et al., 2009). Upon completion of this pilot study, researchers found that “…the intervention seemed to have an effect on the burnout index showing the highest level at the beginning of the intervention, namely DP.” (Scarnera et al., 2009) It should be noted that “DP” in this context refers to depersonalization; a main characteristic of burnout defined by Maslach (Poghosyan et al., 2009).

In 2015, Stier-Jarmer et al. developed, implemented, and evaluated a 3-week program to reduce stress and burnout in sample of 88 participants (Stier-Jarmer et al., 2016). Researchers utilized the Maslach Burnout Inventory and Perceived Stress Questionnaire to evaluate participant’s reported burnout and stress levels (Stier-Jarmer et al., 2016). The 3-week prevention program included: “…stress-management interventions, relaxation techniques, physical exercise, and moor baths.” (Stier-Jarmer et al., 2016) Individuals that participated in this study were either in the “immediate” or “wait” group; those in
the immediate group would participate in the program immediately after responses were recorded, while the wait group would participate in the program 6 months after responses were recorded (Stier-Jarmer et al., 2016). Researchers found that individuals in the immediate intervention group had statistically significant improvements in scores after completing the 3-week program (Stier-Jarmer et al., 2016). Researchers also noted that individuals in the wait group did not see changes over time among scores (Stier-Jarmer et al., 2016). Despite researchers not seeing score improvements in the wait group, they concluded that there are positive effects of implementing intervention programs (Stier-Jarmer et al., 2016).

In another randomized control trial conducted in 2015 by Gunasingam et al., researchers studied the influence of debriefing sessions for the purpose of emotional and social support among medical interns and residents (Gunasingam et al., 2015). Among 31 participants, burnout was prevalent among 68% of individuals (Gunasingam et al., 2015). Thirteen individuals were assigned to the test group, while 18 were assigned to the control group. The Maslach Burnout Inventory was used after the final debrief session (Gunasingam et al., 2015). Dissimilarly to studies previously discussed, researchers did not find the debriefing sessions to influence the inventory scores (Gunasingam et al., 2015).

In 2009, Günüsen conducted qualitative semi-structured interviews among 18 nurses who volunteered to be a part of the study focused on a burnout prevention program; 6 nurses were assigned to participate in all intervention programs, 6 nurses were assigned to participate in half of the intervention programs, and 6 nurses were assigned to participate in none of the intervention programs (Günüsen, 2009). It was noted in the interview process that nurses “attributed burnout to their heave workload and lack of recognition for their work.” (Günüsen, 2009) Insufficient staff being misunderstood by administrators were also attributed to burnout among participants (Günüsen, 2009). Attendance for the burnout prevention program was affected by workload, lack of support by their respective organizations, and the fear of being seen as weak by coworkers for their participation (Günüsen, 2009). In addition, “Personal beliefs and values, past experiences and personal difficulties also affected attendance.”
Günüsen concluded that attendance could be facilitated among administrators for programs that could prevent burnout among their healthcare providers (Günüsen, 2009).

Past and recent research presented in this review of literature highlights the prevalence of burnout among healthcare providers, ability and methods to manage burnout, and beneficial preventative strategies to mitigate burnout in the workplace among healthcare providers.
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International classification of diseases.

APPENDIX C

PRACTICE TRANSCRIPTION OF PILOT INTERVIEW

Investigator is in bold font.

Date of Interview: 10/5/2020 @ 2pm

What is the full title of your position? What do you do?
I guess the full title of my position is Attending Physician at Bridgeport Hospital, Associate Clinical Instructor at Yale University School of Medicine.

How long have you been in those positions?
I would say for at least 15 years.

Both of them?
Well I've been an attending physician for 28 years, I think. 26, 26 years. And probably a clinical instructor at Yale for at least 15 years, yeah.

With those positions have you been under the same employer? The same type of patients – (cut out)
So say that again cuz I don't know if it's one of our connections cutting in and out a little bit.

I think that’s mine, sorry. But, within those two positions have you been under the same employer?

I know you’re self-employed as -

Right.

But for the clinical educator, have you been employed by the same person? Are you working with the same type of people?

Yeah that's a - I guess it’s a quasi-employment agreement with, through the Yale New Haven Health System. I’m not technically employed but I do get reimbursed for some of the work I do, not all of it.

How many people do oversee?
Well for the most part as far as the residents are concerned, that's generally speaking about 16 residents that I am one of a number of overseers, so they fall under my purview when I'm there and then probably at any given time 4 to 6 medical students

**How about at your office?**

So in our office we have some residents who are there who rotated in on a regular basis in the office it's only it's one resident at any given time.

**Can you describe the roles and responsibilities of your position?**

Sure. So my primary responsibility is clinical instruction so that means that I am both someone who teaches fundamental clinical skills but I'm also in a supervisory role so I'm there to make sure that nothing untoward happens my supervisor work to make sure things are done properly. But primarily my role is as in it as a clinical instructor as I explained earlier.

**How would you define burnout?**

Well that's certainly a very subjective assessment. I think, and it would be - so there’s not going to be hard, a hard defined definition. For me I think it would be on some level a sense of - it's hard to describe. let me start by saying, I think burnout partly is where you would get a little bit - I think it's a little bit tired of the work that you're doing. I think where you start to lose maybe a little interest in the work that you're doing. You want to change the workload so that's less demanding and these are all subjective things but I think probably a unifying theme has something to do with a general sense of feeling that you don't have necessarily the same passion, the same energy for the work that you do and you start to think a little bit about, you know, time to either cut back hours, change the workload, maybe even thinking about retiring to doing something different. part of it may also extend outside of work where you know you’re less interested in doing other things. Maybe feeling fatigued and not generally well for me anyway my sense of it has to do more with the things that I mentioned earlier about specific issues with work.
I know that's how you defined it. Would you say that's your understanding of burnout?

Yeah. I think that, you know, I've been doing this a long time I think that, you know, everybody gets a sense of that and you will you read about burnout in especially in the healthcare profession and when you get to you have certain experiences certain days of work where you start to realize hey I start to fit into that a little bit here and there and you know I've been doing this a long time start to feel a little bit worn out so to speak yeah I think it's probably that is my perception I think that probably fits into a lot of people's perception a lot of people's definition of burnout.

Based on that, how common do you think it is among healthcare professionals within your workplace?

I think it's pretty common depending on where people are in in in their careers. I don't see it with I don't tend to see if with the residents in training their they're fairly they have you know they have their moments where they're kind of worn out but that's the nature of the training but from what I see it's still an eagerness to continue working and advancing your career and I think it's I think it's I think it's probably very common after 15 to 20 years I don't know why I picked that number but I think that it's clearly going to court but I think it's the commonality or the frequency with which you see burnout is definitely going to correlate with the length of time that anybody's been working so I'd say not very common early in people's career as people's career Advance 15-20 years and Beyond I think it's much more common.

In general, not specific to where you work or your site or anything like that, but what are preventive methods or inventions that you're aware that can be used for burnout?

On a personal level or just that are available?

Any to your knowledge that you know about that you can use. Not specific to necessarily the residents or anything, any that you know about.

Well I don't know of anything specific. You know, I would say I'm not really familiar with anything specific that would necessarily be a well-recognized intervention. I can speak probably more for myself
and it really is more about recognizing the demands of your profession early on and taking some steps ahead of time. I would say for myself, even though I might feel a little bit of that every once in a while, I would say that in general I don't feel burned out after 26 years. I think part of that is setting yourself up for a work lifestyle balance. So in other words, I have always been willing from the very beginning of setting up my career to sacrifice income to make sure that I have more time. And that can be something as simple and straightforward as, since I run my own practice I can make sure that I can afford myself the opportunity to take time off and set my schedule so that I'm not overburdened. I set my schedule a certain way so that I don't overwork myself on any given day I don't overload my schedule I give myself time at the end of the week; a specific example would be always having Friday office hours only be until midday so it's always a half-day. Things like that go a long way to just preventing burnout so I can probably speak more to that sort of thing rather than interventions designed to let's say treat or mitigate burnout once it starts once, you feel burned out.

Are there any methods or resources like within the workplace maybe more particular to your residence or anything that you know that are in place for them?

So I think in our program I think that I think that these full-time faculty who are in charge of the residents for my residency program director and the general faculty, full-time faculty who work with the residents on a daily basis are definitely great resources and already have that in mind to take steps to mostly prevent burnout. Promoting - there's a program where they promote resident wellness, making sure that just the program structures have changed over time to limit hours so that they're not excessive and those are the steps - the resources are definitely in place in the hospital for the residents.

Are there any different resources for those identified with burnout?

I personally am not familiar with specific resources in the workplace. There's nothing specific in mind cuz I work for myself and at the hospital I think the only resources are the people who avail themselves of the residents, or avail themselves to the residents I should say. There may be something through Human
Resources. Not being a full-time faculty, I don't know what specific resources are available. I mean that's something I could, if I spoke to our Residency Program Coordinator, who’s also the medical director of the labor and delivery unit, she could certainly inform you of any of those things but I don't know them off the top of my head.

How would you describe how accessible these resources are? Do you think they’re accessible to the residents and medical students?

I do cuz I know the medical director there well enough to know that that's definitely an important focus for her. So I would say yes there's no question in my mind, or I don't have any doubts that those resources are available. I don't know the specific resources but they are definitely readily available to the residents.

What do you believe is your role as it relates to burnout? Identifying it, preventing it, providing -

I don’t have a specific assigned role for burnout. My role is self-defined and that is, you know, one of things that I do constantly in addition to just instructing them on the clinical aspects of care I always stress with the residents - it’s more preventative for me - stress the importance of time off taking time for yourself, when it’s time to leave the hospital leave the hospital. Even during work taking moments during work and recognizing when you can, you know, stop, make sure you give yourself some simple things - time for a meal. You don't have to feel like you're so constantly important to what's going on that you can't stop and take a meal. But that's something I try to impress on them. And then even outside you know as far as giving people advice about you know how they’re going to proceed on their career I stress the work-life balance that's an important thing. you’re going to be doing this career for the next 20-30 years in most circumstances so I try to stress that. So that's where I feel my role which is sort-of self-defined is geared more towards an appreciation of that balance and therefore prevention.

What traits do you believe a staff member, like yourself, could possess that would be helpful in preventing or mitigating burnout among your employees?
I would say number one, one trait is just being available, making sure that it's very clear that you're available. I also think that getting back to what I was talking about, probably the trait would be consistency in practicing what you preach. What I tell the residents is kind-of what I do. Make sure that you take time off. When you're there for work that's great you're working, you're focused on that, but you also realize that outside of work or even during work there at times to back off, take breaks. I think it’s consistency in terms of finding that, you know - practicing what you preach in terms of finding the work lifestyle balance.

In your opinion what type of workplace environment would help prevent burnout?

I think a workplace environment that, number one, had the resources and made the resources readily available. Make sure that the people who work there are knowledgeable about the resources. Putting certain programs in place that allow, you know, people who are work during work hours programs may be time to focus on non-work activities which I think they do with the, at our residency program. again I'm not there all the time so I don't know specifically what they do. Giving people a voice in terms of how the workplace is structured to make sure that people have both support during work, outside of work.

Those are the things that I can think of. It’s hard for me to think about that so much because I don't work in the hospital and so I don't see the staff - whether it's nurses, residents, students - working there all the time and I don't know what resources they can put into place but just off the top of my head those are the things that I think of.

Among your workplace, are there any aspects of it that you would change if you could?

My workplace. Well I sort of have two work places. I haven't seen anything at the hospital that I would change necessarily. I think they have good resources in place. We don't have dedicated resources for burnout at my workplace, partly because the staff have plenty of time to - well, let me put it this way. The only thing I would do differently is structure things slightly differently. But I don't know if it would necessarily help with burnout. Just as an example - the workplace has evolved where some of the staff,
the clerical staff etc., kind of eat lunch by themselves just cuz that's how they do it. If I could get back to maybe having kind of a group lunch for example just so there is a bit more comradery. But I don't think that would - I think that just would be more for maintaining office morale rather than burnout per say. I think in my office, the office is structured in a way that you know my work environment becomes their work environment so it's not overburdened. I don't think that - I don't get the sense in talking to the people who work there they’re experiencing a lot of burnout, especially the providers. There’s limited providers and we kind of set our own pace which is I think probably the single most important thing. So I don't know that I would change a whole lot to prevent burnout. The way it’s structured and just the way things are done in general probably goes a long way to, we’ll say, reducing the likelihood of burnout.

In your opinion should the risks of burnout and resources that you have available to health care providers be brought up during the hiring process?

It’s funny, I haven't given that much thought. I think in my office I'm going to say it's probably not terribly important because again, in a small office setting I don't think it's as necessary especially when the provider's kind of define their own way of doing things to proactively mitigate that. I think in a more structured environment like a hospital, absolutely.

Thinking back to all the answers you just provided, how much would you say COVID-19 has influenced any of your responses?

Any of my responses? For me I wouldn't say the current covid-19 situation has affected me too much in terms of my responses. I mean I can honestly sit here and say that in thinking about answering these questions I really haven't figured covid-19 into my way of thinking significantly I’ve thought more in terms of generalities that may just be how I intend to approach things I certainly think that covid-19 has probably had an impact on some people's approach and thinking about burnout I think that's going to be highly correlated to what type of specialty any given person is in whether you know it'll be one level of
stress and sense of burnout in my department versus the emergency department versus medical Intensive Care Unit. But it really hasn’t affected my responses, the covid-19 situation.

**Has covid-19 changed your perspective of burnout at all? When you think back to pre-pandemic and post-pandemic.**

A little bit and maybe in the sense that I think the situation like that could probably accentuate how anybody feels in that sort of processor spectrum of feeling burnout. In other words, I think if you're early in your career, not too much, it could accelerate if somebody has been in in their career for a long time it could potentially exaggerate or magnify that sense of burnout partly because of just the nature of the pandemic itself and partly because at least as far as anybody can tell we don't know really where the end in sight is and, you know, that's sort of uncertainty can certainly have an impact on how people perceive or feel a sense of burnout

**Thank you for your feedback. Is there anything else you want to add?**

I don't think so. I mean I stressed the whole notion for me that, for me anyway, the key to either avoiding or reducing the risk of burnout is setting a realistic sense of things for yourself in terms of expectations, work load, balance. And be willing to sacrifice income for a, you know, a more balanced lifestyle and your careers going to be more fulfilling and probably less burnout. I've been doing this for a long time. I certainly have my moments, probably more so now than in the past where you start to feel like well I’ve been doing this a long time - maybe it's going to be time to - there are certain aspects I won't miss, you know working nights becomes a little harder, but I still I don't feel a sense of burnout I don't feel like it's time for me to get out and I think a large part of that is how I started my career balancing my schedule, making sure I kept time for myself and my family and I think that's gone a long way.

...that’s why I’m only off half a day today cuz I was on call last night and I was supervising the residents so we were trying to figure you know usually by - if it's been a busy night, I'm usually okay in the morning but by midday and afternoon I start to fade. We could either start later, get a break in the
morning - we both agreed: hey, go in, work in the morning for 3 to 4 hours and then kill it. We got a new PA in the office who just started so, always focus on that balance.
APPENDIX D

IRB APPROVAL DOCUMENT

To:      Deal, Wendy; Mutchler, Jessica; Hunt, Tamerah; Harris, Brandon
From:    Eleanor Haynes, Director, Research Integrity
Date:    2/19/2021
Initial Approval Date: 1/13/2021
Subject: Status of Research Study Modification Request – Amendment # 2

Exempt Review

After a review of your Research Study Modification Request on research project numbered H31176, and titled “Supervisor Knowledge, Attitudes, and Intervention Methods of Burnout Among Healthcare Providers,” it appears that your research modification does not change the conditions of your previous exemption. The research involves activities that do not require approval by the Institutional Review Board according to federal guidelines.

Modification Description:
* The addition of using clinics for workplace recruitment has been approved.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that your research is exempt from IRB approval. You may proceed with the proposed research.