Promoting Resiliency in ICU Healthcare Professionals at the QEII

REPORT FROM THE ICU BURNOUT & MORAL DISTRESS FOCUS GROUPS

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Prepared by the ICU Resiliency Working Group
JENNIFER HANCOCK, TOBIAS WITTER, STEWART CANDOW, PATRICIA DALEY, KIM THOMPSON, WALTER SOMERS, JANET WHITE, GISELE FOLLETT, SCOTT COMBER, CORRY COLLINS, OLGA KITS |

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Acknowledgements

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Executive Summary

Purpose

Burnout syndrome is one of the largest health crises that healthcare providers have faced this century. In 2018, the Canadian Medical Association National Physician Health Survey that showed approximately one third of respondents are burnt out or depressed. Burnout is defined as a combination of emotional exhaustion, depersonalization and a low sense of personal accomplishment, while moral distress is believed to occur when individuals are placed in situations that are at odds with their core values and beliefs. In January 2018 the physicians, nurses and respiratory therapists working in the Nova Scotia Health Authority (NSHA) Department of Critical Care participated in an online survey which showed that moderate to high burnout rates ranged from 47.2-66.7% depending on the domain and moral distress was reported at least once a week by 29.9% of participants. The survey included the Maslach Burnout Inventory, a validated burnout measurement tool, however it lacked in depth exploration of specific factors contributing to burnout in participants.

The purpose of this study was to:

1. Identify and describe factors, both at an individual and organizational level, that contribute to burnout and moral distress in the healthcare team at the NSHA- Queen Elizabeth II Health Sciences Centre (QEII HSC) Intensive Care Unit.
2. Explore current coping strategies and recommendations identified by participants to help build resiliency in the QEII HSC ICU.
3. Provide recommendations for implementation strategies to build resilience within the ICU team.

Findings

Burnout and Moral Distress

35 healthcare workers participated in total (6 MDs, 21 RNs and 8 RTs), representing 43% of the MDs, 18.8% of the RNs and 15.0% of the RTs. Through the process of data analysis, similar themes emerged from all groups from both the burnout and moral distress questions. Responses were categorized into three main themes: organizational issues, exposure to high intensity situations, and poor team experiences. Each of these themes were further subdivided into subthemes, some of which were unique to the specific health professions (Figure 1).

Figure 1: Themes causing burnout and moral distress
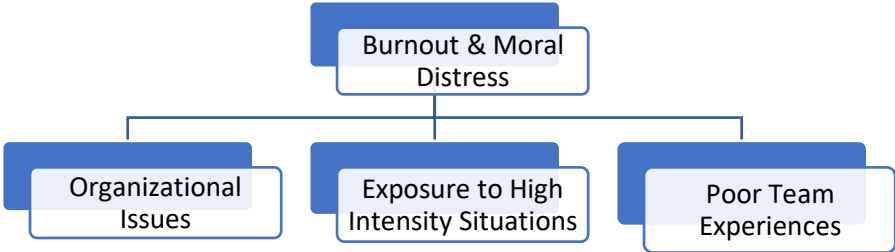
Quotes supporting each of the themes can be found in Table 1.

Table 1: Sample quotes supporting theme development

Organizational

"The bottom line is money, not your personnel, not the people who are working for you, not how well healthcare is delivered, it's money…"

Exposure to High Intensity Situations

"And then you feel bad because the patient is 95 and they are at the end of their life, yet someone feels that I'll just do a little surgery and…torture them."

"In a whole career I think of how many people we've watched die which is not normal. It's not a normal thing."

Poor Team Experiences

"…there is a lot of talking but there's no communication."

"There is a large degree of bullying going on at every level. Every level."

Organizational subthemes include a lack of adequate physical resources, lack of adequate staffing, problems with organizational policies, problems with existing infrastructure and disengaged administration. Decisions made by the health organization were often viewed to be at the expense of quality patient care or the physical and/or mental health of its employees.

While futile care, end of life care and advocating for patient care were common to all professions, in this study, the complexity of patient and family relationships as well as workplace violence were unique to the nursing profession. Provision of futile care was the most frequently described situation causing burnout and moral distress. Perceived futility of care was described as stemming from either the medical team and/or family who aren't prepared to stop treatment. When the interdisciplinary team have different beliefs on what ought to be done, it was also reported to have a negative impact on individuals as well as the team dynamics. The frequency with which end of life care is provided in the ICU was another common subtheme causing burnout and moral distress.

Poor team experience subthemes include a lack of control in the workplace, lack of appreciation, fragmented patient care and negative team dynamics which included things like poor communication, lack of trust in professional training, lack of inclusion, and bullying. Lack of inclusion in the team and lack of respect were unique to the respiratory therapists.

Personal and ICU Workplace Coping Strategies

Participants reported that the toll of working in the ICU has a significant impact on their emotional and physical health, their family as well as the care their patient's receive. Described workplace and personal coping strategies were both constructive and destructive (Table 2).

Table 2: Personal and Workplace Coping Strategies

Personal Coping Strategies

Constructive	Destructive
Leaving work at work	Alcohol/Substance use
Exercise	Excessive spending
Family and pets	Eating
Maintaining a work-life balance	Shutting down
Hobbies	

ICU Workplace Coping Strategies

Constructive	Destructive
Humor	Negative chatter about colleagues
Socializing outside of work	Bullying
Communication with families	Shaming
Talking with peers	Eating
Foster a supportive work environment	Detaching from patients
	Withdrawing from coworkers

Building Resilience

Participants were asked to provide suggestions of interventions they feel would help build resilience. These suggestions are shown below and are organized by themes identified as causing burnout and moral distress.

- **Organizational:** Improved staffing, investment in healthcare provider education, improve existing and additional infrastructure.
- **Exposure to high intensity situations:** debriefing, destigmatizing the need for supports, mental health wellness days, long-term follow-up on chronic patients that have left the ICU, addressing workplace violence.
- **Poor Team Experiences:** Inter and intra-professional relationship building, teaching respectful communication and behaviours, acknowledgement of hard work and a job well done, supporting a just-culture, hospital leadership engagement and management support.

Recommendations

Burnout syndrome and moral distress continues to be a significant problem for members of the interprofessional ICU team. Working in the intensive care unit takes a toll on the physical and

mental health of healthcare providers, impacts the relationships with friends and families, as well as the relationship with the patients that they care for.

As many of the issues identified in the focus groups are integral components to care of ICU patients, it is unrealistic to think we can ever eliminate burnout and moral distress. Instead we should be hoping to build resilience in our team members.   As shown in the 3 major themes and corresponding subthemes, although overlapping, the issues are multi-dimensional and there is not one unifying intervention to build resilience that would address all issues. Improvements in workplace burnout and moral distress will require a multi-pronged multi-modal series of interventions. Recommendations corresponding to each of the themes are listed below.

Organizational:
1. Support and infrastructure from NSHA for the development of an NSHA (and Central Zone) Resiliency Working Group with an appropriate budget to fund training and initiatives for this group (e.g. training for debriefing instructors of different levels).
2. Support and infrastructure from the Department of Critical Care for the ICU Resiliency Working Group to become a standing committee with a well-developed strategic plan to champion and oversee projects to grow resiliency in the team.
3. Representatives from the ICU Resiliency Working group to share study findings with hospital leadership and hospital employees in the form of presentations, grand rounds, peer reviewed publications/meetings.
4. Foster positive engagement of hospital leadership and ICU management with front-line healthcare workers.
5. Further role out and refine the Just Culture implementation within NSHA, with a structured implementation program including practical sessions (the current online module is not enough).
6. ICU management to work with already identified team members on building a safe and supportive no blame culture that celebrates positive actions and achievements.
7. Revision of bed management policies by NSHA to facilitate appropriate care for the appropriate patient at the appropriate time.
8. Approach the new hospital build with consideration to design features that are wellness centered (access to gym, proper nutrition, sleeping rooms, quiet rooms, on-site daycare). Local examples of such design could be found in many Halifax businesses, including Purdy's Warf.
9. Appropriate staffing for all healthcare teams. This may include reassessing an appropriate staffing model, including the number of shifts per month for full-time front-line workers. This would first require an economic assessment of the impact of burnout and moral distress.
10. Implement acknowledgements of a difficult job well done. Examples of this could include for things such as allowing a pause after a patients' death and development of resiliency days (added to current sick time).

Exposure to High Intensity Situations

1. Implement effective communication strategies between healthcare team members, particularly around end of life care plans.
2. Implement patient care rounds in which a long-term ICU patient who has survived returns to the ICU to meet with the team and discuss their experiences as a patient. Ideally these patients will be identified in a post-ICU clinic.
3. Implement the Serious Illness Conversation Guide through NSHA leadership in all high stakes areas within the organization. This could include but not limited to pre-op surgical cancer clinics, hematology, medical oncology, radiation oncology, internal medicine, heart failure clinic, nephrology outpatient clinical and the intensive care units.
4. Develop sustainable, regular debriefing sessions supported through the NSHA Resiliency infrastructure. This would include development of a hot debrief session after critical incidents, a more informal debriefing session monthly, a new peer-support program, continued use of external professionals when severity warrants, and regular, informal touchpoints with a trusted and skilled individual to debrief any more indolent, chronic concerns.
5. Implement opportunities for healthcare professionals to decompress in a variety of ways. Examples of this could include ensuring all staff are provided with a time to reset themselves after the death of a patient before accepting responsibility for the care of another, exploring the interest for the team to receive mindfulness training.

Team Dysfunction

1. Offer in depth training for managerial positions on how to detect and deal with toxic personnel.
2. Develop respectful workplace pathways and team behavior guidelines.
3. Create a common space for all health care professionals to interact, communicate or relax within the ICU environment.
4. Establish ground rules amongst the interdisciplinary team members that are accepted by all groups and that allow team members to hold each other accountable. This will also allow members to share the impact certain actions or statements have on individuals (often unintended). Further specific actions could be, to allow shadowing of another professional group to better understand their daily routine and problems.
5. Explore opportunities to allow team members to work to the full scope of their practice. This is particularly relevant for the respiratory therapy group.

Research Introduction & Objectives

Introduction

Burnout syndrome (BOS) is one of the largest health crises that healthcare providers have faced this century. In 2016, the American Association of Critical Care Nurses, the American College of Chest Physicians, the American Thoracic Society and the Society of Critical Care Medicine published a Call to Action in an effort to bring attention to the issue.[1] More recently the 2018 Canadian Medical Association National Physician Health Survey that showed approximately one third of respondents are burnt out or depressed.[2]

Burnout is defined as a combination of emotional exhaustion, depersonalization and a low sense of personal accomplishment, while moral distress is believed to occur when individuals are placed in situations that are at odds with their core values and beliefs. Burnout has significant implications for the healthcare providers, the patients and the organization. Literature shows that healthcare professionals with BOS have higher rates of substance abuse, broken relationships, depression, post-traumatic stress disorder and suicide[3,4,5]. In the workplace burnout syndrome has been tied to a decrease in the quality of patient care, increased patient dissatisfaction and an increase in medical errors[6,7]. Also, BOS can result in decreased productivity and increased healthcare provider turnover[8,9]. Aside from the negative impact on individuals, BOS can result in poor morale among team members, decreased patient care due to understaffing and significant increased costs to the healthcare system incurred through recruitment and training of replacement workers[10]. A recent Canadian study has estimated that physician burnout has cost the healthcare system more then 213 million dollars[11]. In the US, the cost of replacing a critical care nurse is estimated at 65 thousand USD per lost worker[12].

In January 2018 the physicians, nurses and respiratory therapists working in the Nova Scotia Health Authority (NSHA) Department of Critical Care participated in an online survey which included the Maslach Burnout Inventory (MBI) -Human Services Survey for Medical Personnel[13], the Areas of Worklife Survey[14] and a question on moral distress. As mentioned above, moral distress can occur when an individual isn't able to act in a manner consistent with his/her core values due to either internal or external constraints.[15] Results from this survey showed burnout and moral distress to be a significant problem for all members of the healthcare team. Symptoms of burnout were demonstrated in all of the MBI domains. High and moderate levels of emotional exhaustion were 27.3% and 39.4% respectively. Depersonalization was high in 13.9% and moderate in 33.3%. Low personal accomplishment was experienced by 27.9%, with a further 37.0% experiencing moderate personal accomplishment. 55.2% of participants reported moral distress at least a few times a month and 29.9% reported it at least once a week.[16]

Although the MBI is a well validated measurement tool, it lacks in depth exploration of factors contributing to burnout. It is also not designed to study moral distress. Two recently published meta-analyses have shown multiple interventions, targeting personal and organizational change will, help build resiliency in healthcare teams[17,18]. Interventions included self-care workshops, stress reduction measures, mindfulness interventions, workload or schedule changes, exercise,

and meditation. These interventions are not a "one size fits all" but rather customized to the challenges unique to each environment. Choosing the best fit for the NSHA- Queen Elizabeth II Health Sciences Centre (QEII HSC) Intensive Care Unit required a better understanding of the issues specific to this environment.

Study Objectives

The purpose of this study was to explore in greater detail the factors, both at the individual and organizational level, that are contributing to burnout and moral distress in the healthcare team at the NSHA- Queen Elizabeth II Health Sciences Centre (QEII HSC) Intensive Care Unit, Halifax, Nova Scotia.

Based on identified themes, and previously published literature about building resiliency, recommendations to mitigate burnout and moral distress at the QEII HSC ICU were made.

Study Design and Research Methodology

Design
We used focus groups to elicit a qualitative stream of data to complement and augment the already collected quantitative data (REB File Number: 1023013, A Survey of Burnout in Nurses and Physicians at the Nova Scotia Health Authority Central Zone and the IWK ICUs) to better understand issues related to BOS from a stakeholder centered perspective. Focus groups are essentially "collective conversations" and are able to explore how people think about specific topics[19]. We also justified using focus groups over other qualitative data collection methods, in that we could gain a deeper understanding from the dynamics between the participants as they react to and build on each other's observations, perceptions, and thought processes. The advantage of this is that it can offer more of a naturalistic interaction, perhaps, to some extent mirroring the social world we are trying to capture and understand.

Participant Selection
Participation was open to all registered nurses, respiratory therapists and physicians in the NSHA- Queen Elizabeth II Health Sciences Centre (QEII HSC) Intensive Care Unit. This ICU is composed of 2 units; a 12-bed neuro-medical-surgical-trauma ICU in QE II HSC (5.2), and a 10-bed medical-surgical ICU in QE II HSC (3A). Focus group participation was by voluntary sign up on a first come, first serve basis.

Focus Group Methodology
Study design consisted of six focus groups with 4-8 participants per focus group (Groups were determined by professional designation to better identify like issues within specific members of our intradisciplinary team: one physician group, 1 respiratory therapist group, and 4 nursing groups– 2 from the MNSICU located at the Halifax Infirmary [5.2] site, and 2 from the MSICU located at the Victoria General [3A] site). We targeted participants who have specific knowledge and/or experience ranging from seasoned veterans to junior staff. The goal was to recruit approximately 30-35 participants (6 focus groups * 4-8 participants). As this is research that built upon the results of our quantitative survey, we anticipated that 6 focus groups would lead to saturation (i.e. no new significant themes will emerge). If we had determined that new core themes were still emerging after the second focus group (per stakeholder group) we planned to recruit additional participants[20]. This however was not necessary. Overall, we had representation from 43% of the MDs, 18.8% of the RNs and 15.0% of the RTs.

Focus Group Script Preparation
The focus group scripts underwent iterative review by content experts, qualitative researchers and the ICU resiliency committee (composed of nursing, respiratory therapy and physician representatives). Focus group questions explored the daily work environment including what was working well, situations that providers feel contribute to burnout and moral distress, team dynamics, strategies currently used to cope with work stress and interventions the participants think would be helpful to build resilience. See Facilitation Guide found in Appendix A.

Focus Group Sessions

Research Ethics Board approval was received prior to commencement of the focus group sessions (REB File #1024175 Building Resiliency in the Halifax Infirmary and Victoria General Intensive Care Unit Healthcare Team – Phase 1.)

As previously mentioned, focus group participation was by sign-up on a first come, first serve basis. Participants were seated around a table with a moderator. A note taker was also present to document non-verbal communication. Each focus group took approximately 90 minutes to complete.

Informed consent was obtained prior to the start of the sessions. The consent form was reviewed with participants by the moderator and participants were provided the opportunity to ask questions about the study prior to signing (See Appendix B). The importance of maintaining confidentiality of the discussion was emphasized at the start of each session. Participants were also informed that all focus group sessions would be audio taped and have field notes taken. Focus group participants were asked to provide some demographic information including age, sex, and time in practice. Identifying information such as name or address was not collected.

It was recognized that the study collected potentially sensitive information about an individual's emotional state and perceptions about his or her work environment. This had the potential to pose a low risk of personal discomfort to participants because they re-visited personal and emotional situations. They may have also been concerned about risks to their employment as questions solicited perceptions on job performance and workplace situations. While some participants did clarify the confidential nature of what was discussed prior to the start of the focus groups, nobody left during the focus group. In fact, many commented at the end that they enjoyed the session and appreciated the opportunity to provide input.

Data Analysis

Audio files from the 6 focus groups were transcribed verbatim and detailed field notes were prepared to capture additional contextual data. We analyzed the data with the assistance of qualitative software, Quirkos (http://www.quirkos.com/) for data management and coding purposes. Only the transcriber and the ICU resiliency working committee who were involved in data analysis had access to the transcripts.

All transcribed data was analyzed using thematic analysis as described by Braun and Clarke[21]. This type of approach fit well with our type of applied health service research as it allowed for both a priori, as well as emergent concepts. Our analysis utilized a 5-stage systematic process of organizing themes in the following steps: 1. Familiarization with the data; 2. Generating initial codes; 3. Searching for themes; 4. Reviewing themes, and 5. Defining and naming themes.

The goal of the analysis was to explore and articulate how the various stakeholders understand, and experience BOS and moral distress. When analyzing the data, the research team independently familiarized themselves with the transcripts, then collaboratively as a research

working group, codes and themes were identified. Themes were reviewed and consolidated, as well as sub-themes identified by the primary investigator and then reviewed by the entire working group. Any differences were resolved through discussion. Themes distilled were compared and contrasted between the key stakeholder groups in order to ascertain whether or not there was congruence and/or discordance of experiences.

Data Dissemination

Study findings presented in this report have been summarized to emphasize key important experiences of the ICU healthcare team that are contributing to moral distress and burnout in the NSHA QEII-HSC intensive care units. We have enriched this document with direct quotes from focus group participants illustrating the issues identified in each of the themes and sub-themes.

Included in this document, in addition to the focus group data, are some suggested mitigation strategies to help build a healthier workplace that will benefit the healthcare providers, the care of our patients and the efficiency of the organization. The findings and recommendations are intended to help guide the development of future resiliency building research protocols. This document will also be disseminated widely to key stakeholders including participants, the larger ICU healthcare team, and hospital leadership. Additionally, it is anticipated that findings will be shared in the form of scholarly presentations and publications in peer reviewed journals.

Study Findings

1. Profile of Focus Group Participants

The six focus groups had between 4 and 8 individuals per group and included 35 participants in total. 6 MDs, 21 RNs and 8 RTs participated. This represents 43% of the MDs, 18.8% of the RNs and 15.0% of the RTs. Overall the focus groups were primarily female (85.7%), with the exception of the physician group, which was predominately male (83.3%). 100% of the RN and RT participants were female.

Participant age ranged from 25 to 67 with a median of 34. All levels of work experience from junior to senior were well represented. 37.1% of participants worked 0-5 years, 31.4% worked 6-15 years and 31.4% worked 16+ years. 82.9% worked full time.

2. What's Working Well

It is important to recognize that despite identified issues with burnout and moral distress[15], there are many things that are working well within the ICU team environment. Each focus group session began by asking participants to provide examples of processes or moments that are working for the team. While the below themes were identified as working well during our sessions, it needs to be highlighted, that components of all categories were also identified as not working for many team members. This is expanded on later in the document.

2.1 Supportive Multi-disciplinary Team

Universally, the first thing highlighted by all participants of the six different focus groups was the high regard and appreciation for a supportive multi-disciplinary team. In particular, themes that emerged included positive communication, prioritization of patient care and trust and respect.

Like I've never, ever felt alone with an unstable, sick patient. We have a really great team, everybody helps everybody for sure. I think we're really great."

"So, I worked the night that we were all together and it was a little chaotic because you had 2 sets of patients and 2 sets of nurses and we weren't all separated, and it was chaotic. However, one of the patients was very sick and people from the other unit helped out wonderfully with a new - relatively new nurse whose patient was unstable. So, what I saw was people all working together in a very chaotic situation."

Nurses

"...but by and large our multi-disciplinary team is tremendous. If you're really sick these are the people you want looking after them."

Physician

This positive sense of community was also highlighted in the value participants, in particular the nursing staff, placed on socializing with one another outside of the work environment.

"We're friends outside of work like it's – we're not just working together and getting along because we have to. It's because we generally like our coworkers."

"…like outside of work we try to do things together as groups to build that bond as well so when we are at the workplace…"

Nurses

"We're each other's everything really…we're a family."

Respiratory Therapist

2.1.1 Communication

Communication with team members and family was highlighted as a strength in the work environment. Communication with family members on rounds was noted to also reduce the daily workload of the team. Of note, team communication was in reference to intra-professional team members. This is noted as intra-professional team communication is later discussed as a source of burnout and moral distress.

"There's a lot of communication with your colleague about this is what's going on and if they say well what about such and such and you know, you bounce things off…"

Physician

"And professionally if there's things that we disagree about we seem to always have the ability to communicate our differences to each other…"

"I do like that the families are present for rounds. We let them be available like to listen to our thoughts while we're talking about the patient, and the care plan for the day and I think that helps solve a lot of the questions that the family has towards us and therefor helps our day."

"like a lot of times they can get the information that they otherwise would have been cornering the nurse for throughout the day to find out all the answers to get….it is actually really efficient."

Nurses

2.1.2 Prioritization of Patient Care

All groups acknowledged that their intra-professional team often went above and beyond, at personal cost, without organizational support to ensure patient's received high quality care.

"No matter what we keep coming back for our patients."

Respiratory Therapist

"…the group functions very well in terms of the delivery of care to a patient at the bedside. Maybe it's coming at a higher cost than it should but at the end of the day people do a really good job at taking care of our patients."

"…You know people are always willing to step up and help each other, but most especially the patients sometimes to the detriment of the group."

<div align="right">*Physicians*</div>

"…In the face of adversity nurses… want to make sure that the patient does not suffer. So that means giving up things and doing extra things, going above and beyond and you see that all the time. We may not necessarily be supported in the things that we do but 5.2 nurses are going to make sure that, that patient gets what they really need."

<div align="right">*Nurse*</div>

2.1.3 Trust and Respect in Team Expertise

Trust and respect in your fellow colleagues are essential for efficient team functioning, especially during a time of crisis. Focus group participants seem to have high trust and respect in team members within their discipline.

"And you look at certain people and you go okay, all right, we're good."

"…when things are really happening, everybody just gets to work, and they're not focused on the insanity of it. They just try and find a way to make it funny, and keep everybody safe, and get through the next hour and that…always makes me feel like I'm part of a really special team."

"I don't feel like anybody on my team is going to let me fall."

<div align="right">*Nurse*</div>

"…the clinicians are very good at what they do. Clinically, different personalities, different approaches, but anyone in the group could take care of me or people I care for."

<div align="right">*Physician*</div>

"We have a good team dynamic. People are always checking on one another, seeing if they need help and very willing to help each other."

<div align="right">*Respiratory Therapist*</div>

Although this study focused on the physicians, respiratory therapists and nurses, the appreciation and respect for other ICU team members was voiced.

"I think physio's role is very helpful, helps us with mobilizations, helps us with repositionings, and I think that, that relationship that we have with the physio staff is wonderful and I think that it helps prevent burnout."

"Some of our CTA staff are fantastic. They give you help with so many small things through the day that make your day run so much more smoothly…"

"And that's our spiritual care person who [Person] I lean on almost every day on there. I'm talking to him about somebody and having him involved with somebody, and he's not just spiritual, he's just a wonderful person and he's had horrific life experiences himself and he's made nothing but the best of it and I think you know to start to be just a little bit like him and take time to be in the moment and all the things he tells you to do. I think that we've all grown a little bit by knowing him."

Nurses

2.2 ICU Programs

The nursing focus groups also highlighted a number of programs and processes that they viewed as a contributing to a positive work environment. These programs were often grassroots quality type initiatives. New ICU programs recognized for improving patient care included the mobility program, delirium management and the 3 Wishes program.

"There are a lot of great things going on too just in terms of like patient care and trying to better patient care, like the mobility project. I couldn't believe how well that runs and how well that is orchestrated when I moved into the unit."

"But another program that we're actually doing quite well I find is identifying delirium and treating delirium. We're better at that now."

"We have the 3 Wishes Program which I think has been really great for families. It offers some care at the end of life and when we do palliation for people…"

Nurses

2.3 Family Meetings and Multi-disciplinary Rounds

Family meetings and multi-disciplinary rounds were also regarded as working well. Similar to above, both of these processes were perceived as positively impacting patient and building multi-disciplinary team bonds by fostering positive communication and inclusivity.

Multi-disciplinary Rounds:

"The nurse, the respiratory therapist, physio and anyone that's involved with the patient can be involved in the rounds and I find it just makes you – it's a continuous cycle of like communicating…"

"I do like that the families are present for rounds. We let them be available like to listen to our thoughts while we're talking about the patient, and the care plan for the day and I think that helps solve a lot of the questions that the family has…"

Nurses

"It's nice to be invited to have your say in multi-disciplinary rounds. At least we're part of the team when we come to discuss the patient's care for the rest of the day, perhaps the rest of the week."

Respiratory Therapist

Family Meetings:

"I think the ICU does a great job for the most part in arranging family meetings which are huge. You walk into a family meeting; you have someone else at your bedside running all your drips whatever, pushing medications, trying to keep that very ill person with a poor prognosis alive. You walk in; you say here are the possible outcomes…. And then you know that everybody's thinking the same way and at least everybody has all the answers…"

"And they appreciate the doctors do include the nurses."

"Even if you had nothing to add in the conversation it's just nice to be present and know what was said and what was offered…"

Nurses

2.4 Workplace Autonomy
Finally, processes which allowed participants to have some autonomy and control over their professional lives were described to be working well. A notable example is the ability to self-schedule. For example, individuals can preferentially select night shifts, swap shifts with relative ease, or individuals who desire limiting the number of consecutive shifts worked are usually able to schedule appropriately. The ability to change work environments was also highlighted in the nursing focus groups. Descriptions of a changing work environment varied substantially and included anything from working in a different ICU for one shift, interacting with new collogues, retiring and returning as a casual employee or expanding one's nursing career beyond clinical work to areas such as teaching or writing.

3. Burnout & Moral Distress
During the introduction, focus group participants were provided a brief overview of burnout, including a review of its 3 pillars; emotional exhaustion, depersonalization and a low sense of personal accomplishment. They were then asked to think back to a recent shift in the ICU and describe a stressful, difficult or complicated situation and how these pillars could be applied.

Moral distress is believed to occur when individuals are placed in situations that are at odds with their core values and beliefs. This may be a result of clinical situations (providing care which is thought to be futile), internal restraints (perceived sense of helplessness) or external constraints (limitations to provide care as a result of organizational decisions). Participants were provided with this definition and then asked to reflect upon workplace situations which met the criteria. With the exception of the theme bed management, which only appeared as cause of moral distress in the physician group, all other burnout and moral distress themes emerged simultaneously amongst all groups. Through the process of thematic analysis, responses were categorized into three main themes (organizational issues, exposure to high intensity situations, and poor team experiences). Each of these were further divided into several sub-themes.

3.1 Organizational

Focus group participants perceived priorities of hospital administration as often being incongruent with their own values and beliefs. The hospital administrator's vision was frequently described in terms of a business in which money was prioritized over patient care.

> *"The bottom line is money, not your personnel, not the people who are working for you, not how well healthcare is delivered, it's money…"*
>
> *Nurse*

> *"At the end of the day if you can look at the decision that was made and it really was the best thing for the patient it's hard to push back too hard, but there's a lot of stuff that gets done here that's not about best patient care."*
>
> *Physician*

As described above, decisions made by the health organization were often viewed to be at the expense of quality patient care or the physical and/or mental health of its employees. These perceptions are also reflected in other organizational themes that emerged as a cause of burnout. Issues varied depending on health profession, but themes include a lack of physical resources, lack of appropriate staffing (both in terms of years of experience and ratios), bed management, and sick time.

3.1.1 Lack of Adequate Resources

The lack of appropriate physical resources to deliver best practice medical care was a theme common across all health professions. It was felt to undermine patient safety as well as the physical health of the employees. Continued use of the deteriorating Victoria General Hospital was a frequently sited example of a hazardous physical resource.

> *"Nurses will give their lunch, whatever's in their lunch bag or something to somebody who's hungry…because you can't get food for the people. Especially in the ICU."*

> *"…most of us have injuries from lifting 400 and some odd pound people…with limited resources."*

"And then there's sometimes where families and patients need pens and you're like I can't give you my pen."

"So for example, we took 3 patients that should never have been moved, and moved them down the street at all 3 of them did very poorly. 1 died, and 2 became sicker over there…"

"…you're talking about burnout what contributes to it, well something's not right? You can fix it or bring your own things from home. Bring your own fan for the workplace."

"…they were running into the unit up the street to try and make sure they didn't miss the opportunity to say goodbye to their loved one which is ridiculous. That should never have happened, and the only reason it happened is because compromising care due to cost-cutting. We're still in a building that's not functional."

<div align="right">

Nurses

</div>

"…there's been an ETAD with a built-in bite block that I've been trying 5 years, I've been trying to get."

"…at the VG site we don't have X-ray or EKG there on nights…"

<div align="right">

Respiratory Therapists

</div>

"We don't have all of the support services that are required at the VG site that you have at the HI site. We all acknowledge to ourselves that we have two levels of care going on in our institution. One at the HI site which basically you can get anything you want, the one at the VG site is you can get anything that works."

"Of the 7 people I had to move I knew 1 or 2 of them were going to have trouble. But I had no choice, and you know I get it if this is the first time this has happened, but this is the 4th time we'd had to move patients from one hospital to the other because of problems at the VG site."

"I feel like you have to fight here to get what's good for the patient…you're always angry or you know, having to be aggressive…"

<div align="right">

Physicians

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3.1.2 Lack of Adequate Staffing (experience & ratios)

The lack of appropriate staffing was a resounding theme that emerged with all groups. Similar to the lack of physical resources, many concerns about staffing are rooted in both the desire to provide quality patient care and staffing safety. Quotes of staffing pertaining to burnout are listed below.

"Yeah, so it's inadequate staffing, but it's also the staffing skill mix…so like [Participant] and I are brand new to that means we don't double, we don't float. Not yet….and yet you've done both of those. But when you are looking at the staff mix, like one night we were on the same end and we

are both on the same break, which means at one point for a couple of hours it was you, me, and one other senior nurse and it was like well, I really hope nothing goes wrong…"

"…so, I have about 4 months experience on this unit I watched a whole end by myself. How is that seen as appropriate? I had 4 patients I was supposed to look after. If anything had happened on one of those patients. I literally was alone…"

"These operational requirements, it's the bare minimum. If you are working like you wind up - those nights when there's 5 people in a room all night. You don't have extra support to be able to take your breaks. Like obviously we're running at the bare minimum and I don't know it's just frustrating…"

"…we don't have enough staff so let's have a new model of care. So the new model of care is we don't have any staff… There's not enough bodies to go around. When you know, 3/5 of our patients are in excess of 350 pounds to turn them, like it takes 4 people and there's just not enough bodies…"

"…but it still contributes to much exhaustion if you're going in knowing that you're short-staffed every single day."

"I find it stressful to take appointment time. I did a couple weeks ago and it was stressful because I had to leave for 2 hours in the afternoon. I was like oh my God, what if I've got a patient that I can't leave? You know I had to turn that over to my coworkers. There's probably not someone to cover. I probably have to make my co-worker have 2 patients."

"We need more staff, but then everybody's already left because the staffing was so terrible and they felt unsupported and now we're kind of in this downward spiral of well we don't have anybody to staff anybody and everybody's sicker, and now everybody's exhausted."

"I was doubled, actually tripled at one point with this comfort care patient and you know, when you're providing comfort care you want to be 1:1, you want to give them the time, and the patience, and the care that they need in that time because it's not a time to be distracted, and flighty…And I don't think I said more than 5 words to that poor family, or that patient. He definitely did not get the care, and the attention…a goldfish gets better attention than I think the patients got from me last night."

Nurses

"A lot of the nurses not only are they new, they are inexperienced, and they can get overwhelmed by the reality of it…"

Physician

"…a lot of it comes from not being able to spend enough time with each patient. Like we have a lot of patients who are trached and communication is a huge thing so you're at the bedside and they're trying to tell you something and you're like oh, God, I've got 10 other patients to see. I'm

only one person in an ICU on a night shift and I know you want something and I have to just walk away…"

"We're not staff appropriately to actually interact with patients and families. We're just constantly putting out fires, running from patient, to patient, to patient."

"And our ratio of experienced to inexperienced RTs right now is…dangerous."

Respiratory Therapists

A lack of adequate staffing also had an impact on the ability of the respiratory therapists in particular to have a break or downtime during a 12-hour night shift. This significantly contributes to workplace exhaustion for the respiratory team.

"On nights we can't. We don't get a break. We have a pager for the entire time we're here. We do not get a break on nights."

"Last night we had a horrific night, and it was terrible and the nurse that was involved in all this took their break and went for a run. I can't even take my break and leave the hospital. We can't leave the building. We can barely get to the washroom sometimes."

"…when we're at work we can never turn off our job. Like we're constantly at the beck and call of every sick patient in the hospital."

"…when you see the nurses leaving at night especially like some of them especially at this site they live across the street. You see them walk out, they go home for a couple hours at night and then they come back in looking pretty good while we've been here like in the unit like the whole time starving, we haven't eaten."

Respiratory Therapists

3.1.3 Problems with Organizational Policies
Although policies are often meant to help guide best practice and decision making, many participants highlighted both of these items as being a source of burnout. Policies could be broadly categorized as patient care policies and occupational policies. The most prominent occupational policies included education and sick time/holiday time.

Patient Care Policies
Themes pertaining to patient care policies included an absence of policy and/or guidance for particular topics, a lack of pragmatism with existing policies and a lack of support to trouble shoot policy issues when they arise.

"I mean I'm still finding patients with divots in their lips because they have a bite block in for far too long. The policies surrounding some of that are not well-defined and yet we hear oh yeah,

we're going to move the tube every 2 hours. Well you can't move a tube every 2 hours without it coming out."

"Try and find a policy."

<div align="right">

Respiratory therapists
</div>

"Mm-hmm and now it's like it's 3:00 AM and you're there alone and everyone who put these policies in place aren't around."

<div align="right">

Nurse
</div>

"And we're being forced to take a patient who is stepdown level patient, but there's no beds because there's only a surgery bed, this is a medicine patient or whatever and therefor it's our problem? There's a lot of institutional policies that don't make a lot of sense and that end up creating work for us."

<div align="right">

Physician
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Education

A lack of organizational support for ongoing staff education was frequently highlighted by both the nursing and respiratory therapy participants. Healthcare professionals often reported feeling stressed by the complexity of the equipment that is often used when caring for critically ill patients, particularly as these pieces of equipment often have low volume of exposure. The lack of support for ACLS training was also highlighted as a particular issue.

"We're being given a 4-hour training shift on some of these pieces of equipment that take days for other places... and we're managing this equipment, we're troubleshooting the equipment and we're doing it without the support. It's unethical, it's unsafe, and it demonstrates at least to me, it makes me feel like they don't care that I'm equipped to deal with it, and they don't care about patients, and they don't care about me, and the fact that I'm stressed out dealing with something that maybe I haven't seen in a year but now I'm thrown into the room to manage a sick patient, manage a piece of equipment and I'm by myself which thank goodness we have such a team as you say. People come in and they help all the time, but basic education, and following up, and consistency is a massive problem for burnout..."

"...the institution wants to again bare minimum, cut back on this education because it's somewhere they think they can cut and depend on a physician to run everything well hopefully, and it's frustrating to put us in that situation; that we're going to go and give our all to try and get this patient back and that they're not going to give us the proper training to do that but they expect us to do it."

"Sure somebody can take you through the crash cart once and run through the drugs with you and say great you're going to carry a code pager, but when you actually get to the bedside during a code it's not the same as having that training and you're not going to be on top of things like you should, and when a physician shows up to run a code who isn't running a code well- You're not

trained well enough to step up and say okay, this isn't going well. We need to do this instead. And those things matter when a patient is dying."

<div align="right">

Nurses

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"Then we have a section on education, or lack thereof. Oh, there's a big section on ECMO because that is a stressor in itself."

"...so we're not allowed to do stuff within our scope of practice, yet then they throw ECMO at us and they're like well here, You guys can manage ECMO, when we had like very little training, like a voluntary day that you could go to, to sign up once a year..."

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Respiratory Therapists

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Time Off (Sick Time & Holiday Time)

Policies pertaining to time off, be it sick time or holiday time, were frequently highlighted by the nursing group as an organizational source of burnout. Many participants shared that sick days are often used as mental health recovery days after a set of stressful shifts, but felt current practices often leave them feeling shamed for doing so. Recent changes to the nursing contract have further contributed to this situation. One change in particular that was highlighted is the inability to be paid overtime for working an overtime shift if you also use a sick day in the same pay period. This has also contributed to the staffing shortage as current staff are no longer as willing to help out and pick up shifts.

"...something that I really think contributes to burnout is our time off...it drives me wild because we work shift work, we sign up for that, it sucks. It is what it is. We know we're going to miss weekends, we know we're going to miss holidays. It is what it is, but you go and you work all these holidays that people normally get off. Sometimes you get your holiday hours to get time off, sometimes you don't depending on the operational requirements and sure you get paid out for that, but you know, the time off is more what we need. We need that time away from the workplace."

"Or violent, anything, like really like drained you it's not acceptable to just take the next night off, to just take the next shift off, to take a sick day."

"I think that we work such a tough job that it should be acceptable to be like I am done. I have nothing to give. I need the day, I need a break, I need a mental health night."

"...according to statistics it's sick time abuse, but what those statistics don't show is the mental health aspect of nursing taking and abusing sick time you know....you really don't get that sick that often that you can't come to work, but it's the mental health sick that you know, that we're taking advantage of."

"...if I work an overtime shift at the beginning of the 2 week pay period and then become sick a week and a half later I'm getting docked that overtime retroactively. When you pick up overtime

which I did tonight you had to be very conscientious that you're healthy and you're not going to be calling in sick within the next two weeks."

"You're penalized for using your sick day if you're not actually at home like on the brink of death with whatever illness like it's - I've used sick days for mental health days and I'm not ashamed to admit that because like that is just as important as my physical health to me."

"And we don't have mental wellness days? Like with the stress that we do, we withdraw care, like we actively help people die."

Nurses

3.1.4 Problems with Organizational Infrastructure

It was recognized that the organization has developed some infrastructure to help promote safety and efficiencies, however it often doesn't work well. Although the issues seem to be unique to the health professions, the SIMS reporting system was discussed by the nursing profession, while bed management was discussed by the physician group.

SIMS Reporting System

The nursing group acknowledged that the SIMS reporting system has the potential to be an excellent mechanism to improve patient and staff safety if supported by an accepting culture. However, concerns were raised about confidentiality, fear of retribution as well as the time required to complete the submission.

"Can we reinforce confidentiality training around the person who is doing the review?"

"The SIMS is a formal way to report, but SIMS are seen as like you're…You're causing trouble…You're basically throwing people under the bus…"

"…if you do submit it anonymously you're just making the challenge harder for them to figure out who it was, but they will figure it out."

"We also don't have a lot of time to put them in also. Especially if you have 2 patients you have to stay late to put them in"

Nurses

Bed Management

Bed management was only identified as an issue by the physicians, however, it was a significant source of discontent for all participants in the physician group. Much of this frustration comes from the energy required to ensure critically ill patients receive the appropriate care, be it a lack of monitored beds or competing priorities with other medical teams.

"And that's what you're doing now, you're always triaging your best to a place where you know the care is not going to be the same. Let's be honest."

"I mean think about it, you've got to deal with a very, very sick person and you've got nowhere to put them and you're there on the floor trying to make this person stable enough to survive you getting another patient up to PACU."

"…what bothers me more is if I have a patient and it's medically very obvious who needs to go to get a sicker patient in but then comes all the phone calls…"

"Now if you've got somebody who's really, really sick and they need to come, and there's no real estate, and you've got people that need to go and there's no real estate that puts you in a terrible situation."

"I stood behind a surgeon who didn't know I was there who's telling his resident 'just cut, they'll find you a bed. It's actually good advice because we always do."

"…we are all expected to play in the same sandbox, but everyone's playing with a different set of rules…and we can't control what the rules the other people are playing with."

"…whether it's the tension with our colleagues who want to get their case done, tension with the nursing staff who feel like they're already stretched, the patient that you know isn't getting the good care they need because they're either triaging them quicker than we'd really like to. That whole bed management thing is common and there's days you can spend an hour or two doing nothing but phoning…"

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Physicians

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3.1.5 Disengaged Administration

Many participants reported a lack of engagement on the part of the administration with patient care and employee issues. This varied from large scale issues (i.e. the flood of the VG ICU) to more common place issues like lack of resources, staffing shortages, workplace violence and bullying, etc.

"Staff safety seems secondary to patient recovery. If you have to be hurt, or distressed, or injured on this patient's path to recovery well at least we're getting them up, at least you're doing this…"

"I'll go on until it gets to the point where we're not making change, like we're not doing anything, we're just talking about it and then I'll drop off and every time I ended up dropping off before the committee is ever finished, but they all did eventually finish with very little change because of red tape."

"…You know, people would be so much more willing to take personal time outside of the workplace to contribute to change if they had seen an example of what that change can look like…"

"And 100% of them felt stressed you know? They were going home crying, driving after looking after her for a shift and like crying and just felt awful about the situation and I felt like I had mentioned it to the manager at the time and nothing again was done. I said we need to debrief

you know? We have all these young nurses and like this is their introduction to nursing but they're just starting their career and they're dealing with this ethical dilemma what we felt like at the time. It was so heart-wrenching and emotionally stressful for the nurse and nobody even addressed it."

<div align="right">

Nurses

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"I think there should be more engagement of the administration with the frontline troops."

"Here energy is spent on telling you why you can't have it. It's filtered too many layers. The senior leadership table, not the physician group, but a lot of others are tasked with managing a system that is supposed to deliver patient care. They don't know what happens at the bedside so people at the bedside feel like why should I listen to you? You don't understand my world and you don't seem to care about it."

<div align="right">

Physicians

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3.2 Exposure to High Intensity Situations

As evident by its very name, staff of the intensive care unit are continuously experiencing emotional, high intensity situations. Themes identified as a source for burnout include futility of care, end of life care, and patient and family relationships. Futility of care and end of life care were common to all focus group participants. Patient and family relationships was unique to the nursing profession but raised by nursing staff at both the Halifax Infirmary and Victoria General Hospitals. As evident in the comments below, all of the above-mentioned themes contribute to an overwhelming exposure to sadness and grief which in turn contribute to burnout.

"…the population can be very challenging and very sad, and the people are at their worst moments…"

<div align="right">

Nurse

</div>

3.2.1 Futility of Care

Futile care is defined as the continued provision of medical treatment to a patient when there is no reasonable hope of benefit. Perceived futility of care can come from either the medical team and/or family who aren't prepared to stop treatment. When the interdisciplinary team have different beliefs on what ought to be done, it can have a negative impact on individuals as well as the team dynamics. The nursing participants seemed particularly affected. Not only do they feel they are delivering inappropriate care, but in trying to advocate for their patient their perspective appears to not be considered. Interestingly, both nursing and physician participants were aware of the struggles each group might be experiencing with respect to delivering perceived futile care.

"And then you feel bad because the patient is 95 and they are at the end of their life, yet someone feels that I'll just do a little surgery and…torture them."

<div align="right">

Respiratory Therapist

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"...about a certain patient we had in I guess that would've been November, December where nursing was frustrated that this patient was never going to recover and physicians were no, they will. Let's just keep going."

"We've had situations where the blood bank has shut us down because we're dumping blood into somebody and you know, it's not going where it needs to go and the blood bank finally said enough. Because we do this sort of thing. We start up CRRT on dead people, we start up ECMO on people who it's a big-time contraindication to even start it on. Expensive, expensive things that we're doing on dead people for research and like education."

"Every second shift easily, we're doing something that doesn't seem right."

"I think one thing that's been very prominent in our unit lately is code status discrepancies. What the patient wants versus what the family wants, versus what the doctors want, and some patients are choosing to be a do not resuscitate until that's taken away from them and then their substitute decision maker is making those choices for them."

"Sometimes the physicians seem like they are too scared to be the doctor that says okay, we're not going to run this code okay. We aren't going to follow this wish, or they don't want to be the doctor who says we're not going to try everything including ECMO and all of our last ditch efforts, or even though we know it's futile, but they don't want to be the one to act, and they don't want to be the one to not act because that's on their shoulders, they're the physician overseeing the case."

"I mean working full time that's what you see constantly and it's very disheartening."

"And I think though too in in a 3-week flogging which we often do, and I agree we do it and we all say it at the table and even the doctors sometimes say yes, there's no hope here but we're going to carry on. That's what the family wants."
"I think the writing is on the wall, like 99% of the time you know that the end result is going to be death."

Nurses

"...this should have been addressed way ahead of time and by the time we get called in we're being called in during a time of crisis and emergency and having these types of conversations is incredibly challenging when people are acutely getting worse."

"Got a call to palliative care to see a patient who was there with pancreatic cancer, metastatic who was there for palliation but now was hypotensive and palliative care physician wanted to know if I would take that patient to the ICU, put them on pressers because maybe they'll get another couple of months to live. So, you go down and then you spend an inordinate amount of time trying to talk to this lady and her family about why you're not going to do what you've been asked to do and it's emotionally exhausting."

"I actually think that, that whole notion of end of life care is clearly an issue for us when we consult form the floor. I think it's also a big issue within our team. I think that the nurses in general

probably feel that we're being too aggressive way more often than we are. We have sound influence over the path. We're the physicians of record and we decide that we're going to go this way, we may consult a colleague and the primary physician and all, but we have a lot of control over that even if we don't like being put in that position. I think the nurses are spending 12 hours at that bedside feeling like they've inherited something that feels at least or more uncomfortable and they don't even have any influence over that and I think that leads to a lot of problems for them and maybe even between us."

"Sometimes I think maybe they think that we don't see their point. You know, they think that maybe we're trying to push for things, but it's very challenging in our line of work because I don't think we should try to do what is called half-measures you know? If you're going to treat the patient, you treat the patient. You don't say well I'm going to give him half a dose of antibiotics see? Or I'm only going to partially treat, or I'm only going to partially round on them because I think it's futile, because I think that that's a bad thing. So from the perspective maybe from the other side is that you know, we're trying too hard to spend so much time to try to look after them, try to care for this patient who we all think is futile they may think oh, my God like he doesn't get it."

"They die because we tell them we shut things down and they're dying of their physiology, but we - but conversations related to that many of those folks should never, ever have darkened the doors of the ICU. That should have been dealt with long ago."

"Well that's one of the things I had to say to this poor lady...I can maybe give you a little extra time, but what quality of time are you going to have?"

Physicians

3.2.2 End of Life Care

Quality end of life care was recognized by all as an important aspect of caring for this patient population. However, the frequency with which this occurs becomes a burden for many members of the healthcare team. In addition, bedside staff often do not get the needed time to process and adjust to the death of their patient, as they are often quickly needed to care for the next critically ill patient requiring admission. Finally, the manner in which end of life care is provided may not always be viewed as quality patient care. Both of these issues were identified as important contributors to burnout.

"I was frustrated with the end of life care. It seemed like we were the only group in the hospital that dealt with that consistently and regularly...and that is exhausting you know."

"Twice a week every week in the unit somebody dies."

"There's not really any other good place to die up until now other than us, calling us for the like last stage where care is not really needed anymore but just as the common place to actually shift the patient over and get them ready to die."

"And they don't know you, you're the doctor of the day."

<div align="right">*Physicians*</div>

"And then the patient dies on a vent and doesn't actually get to have any last words with their family member because you take them out of the room while you tube them, so they really don't have any moments with their family. Conscious moments."

<div align="right">*Respiratory therapist*</div>

"In a whole career I think of how many people we've watched die which is not normal. It's not a normal thing."

"There's no downtime. It's like I just literally watched someone take their last breath and now I have to continue working?"

"...say call ICU, they're getting sicker and shunt them off to us and then we have to get to know them, learn their history, meet their family, then have a conversation after we've put tubes, and lines in people and really not really giving them the - a nice death."

"...I was coming into this situation with this family in the middle of the night that I didn't know, I didn't get time to get to know and then all of the sudden like I would go do something and they're up like oh, why are you doing that?...they left the breathing tube in because they didn't - the wife didn't want to hear the sounds, and the breathing, and the struggle, and the secretions and didn't want to have to deal with that because that's what she had seen with her mother and she felt it was very distressing for her and she didn't want that case for her husband. And so they left the breathing tube in, he wasn't on the ventilator. He was just T pieced with humidified air for comfort, but in having the breathing tube still in you know, he's now comfort care, he's got a tube hanging out of his mouth so every time he would cough we would have to go in and suction him and that was more uncomfortable and more distressing for the family, and then you'd have to try and explain what was going on and it's kind of like did anyone actually say like this is what it means to do this and you know, we could have had the patient have the breathing tube out, have certain lines or whatever out and we could have moved them to a private palliative care bed..."

"A 35-year-old father of 2 dies after however long being critically ill and it's this sputtering at the end. It's not a moment of peace. It's this everybody has been trying so hard to just eek something out to give them a moment where they could have a conversation and it never happens, and it can be really challenging."

"Some withdrawals can be difficult too. You know, like you know you're doing the right thing, but that doesn't take away you're watching the pain."

<div align="right">*Nurses*</div>

Length of Time to Make End of Life Decisions

In addition to the volume of end of life care experiences, all nursing groups added that the time it took to make end of life decisions played a significant role in moral distress. This left the staff feeling as if they were contributing to patient and family suffering as well as violating the patient's autonomy.

> *"Once we make the decision to let someone go I think we're really good. It's the entire lead up to that conversation that can take a long time and that's where the pain, and the suffering, and all of these emotional exhaustion that's where that comes into it."*

> *"…my frustration is with the situation that families get put in, the situation that happens in ICU when we drag out care, drag out care, drag out care."*

> *"Sorry physicians, I feel like they're there for a week and they don't want to do anything drastic. Like at the beginning they need some time to warm up with the family, warm up to the patient, get a better idea of a patient and then by time they've done that it's turned over, a new doc comes on and then nothing got dealt with. Nobody is ready to just come on and here are the details, hash it out and figure it out on day 1. They need some time and then that time you know, their time is up and it's a new doctor."*

> *"Someone new comes on from the physician group, they switch every week and that's great. They're going to change it all, they're going to figure it out and by the end of the week we're right back where we were and this goes on for months until finally something catastrophic happens, or the family comes to us and says you know, I'm done with this. So inevitably it happens, the patient dies, they suffered a terrible death that I think we all feel could have been prevented, but it never happens because our voice isn't really that loud when we're there."*

> *"We're actively treating the patient even though he was actively dying in front of my eyes. He died like maybe 8 or 10 hours after I questioned [the resident] about that."*
>
> *Nurses*

3.2.3 Patient and Family Relationships

Although all team members get to know the patient and family, the relationship with the bedside nurse is truly unique. Over the course of an illness the role of the nurse can range from grief councillor, social support, medical translator, cheerleader and confidant. These powerful interactions can be as brief as a few minutes but often span multiple twelve-hour shifts. As a result, nurses tend to develop closer relationships with patients and families than other members of the interdisciplinary team. Nurses take great pride to be able to provide this level of support, but it can also lead to heavy emotional burden and care fatigue.

> *"…we're the ones that talk with the family and watch the suffering of the patients and get a real sense that in the big picture we're not really making any steps forward."*

"...we're managing counseling and we're dealing with grief stuff and then here they are, sometimes 22 years old expected to do it."

"The patient populations that I find I experience the most emotional exhaustion with are the ones I can relate to more. So whether it's that I'm caring for a patient that's my age and it's dealing mostly with the mother, or if it's vice versa and like the mother, father is like the same age as my parents and then I'm dealing with the kids. I find those ones are the ones that I take home. It just killed you."

"We talk to them all day, every day. We get to know them in a different way."

"...like ugh, crying with the mother at the bedside..."

"But we are the ones at the bedside that have to deal with those reactions from the families because they're like well I didn't know this was going to happen and, in my experience,, families are much more comfortable approaching the nurse than they are the ICU physician."

"...it can be hard to care for someone who we know has created and caused great suffering to others..."

"But you're also dealing with the loss of the family members too which we witness and comfort..."

"We don't know everything that's going on in these people's lives, we don't know the dynamics, we don't know what kind of homes they come from and to just care for them that intimately all day every day and just get snapshots of their family coming to visit them but we don't get a chance to go and see where they're coming from that makes a huge difference."

"They had a very large family, and the family were lovely, but you know it could be taxing at times just to always have someone there..."

"...we just spend so long with this patient and we wanted to make sure that he was taken care of, and his family were taken care of..."

Nurses

3.2.4 Advocating for Patient Care

Physician and nursing focus groups describe feeling the need to take action and advocate for appropriate goals of care or address actual/perceived violations in patient autonomy. Because of the numerous life sustaining tools at their disposal, ICU clinicians can often maintain a patient long beyond any reasonable chance of recovery to a meaningful quality of life. Sometimes, what a patient would wish for themselves and what the family or healthcare team wish to happen is not aligned. Each case in unique. This could stem from family expectations or the healthcare team's persistence on advancing the level of care. Either way, when there is an obvious difference between the interventions that are provided compared to the patient/family wishes, moral distress becomes an unavoidable result.

"Emotionally you know, because you know it's a difficult conversation and first of all you have to convince the staff guy that [not escalating care] is the appropriate conversation."

Physician

"...somebody said they wanted to be DNR, they never wanted to have a pacemaker, they never wanted a bunch of stuff and now they're a new quadriplegic with a pacemaker and will never be able to move for themselves again. They didn't want to be trached, they have a trach."

"like one gentleman...made it very, very, very clear to his family he never wanted to be on dialysis. They put him on CRRT to hopefully wake him up enough that they could talk to him..."

"...and when people's wishes aren't being honored there's a certain level of moral compromise of this isn't what this person wanted, yet here we are going full fledge ahead despite what we believe to be right because we know what they had written even on paper with a lawyer."

"I think substitute decision makers forget maybe that they're making the choice on behalf of the other person. Not how they feel about what should happen to them."

Nurses

Conflicting Communication with the Patient and Family

Many of the concerns pertaining to communication were related to physicians presenting conflicting views to the patient/family or providing misinformation, often in the form of false hope.

"Or the ICU team has decided and talked about in rounds that this is where this is going and then the surgeon walks in and gives the family a totally different impression."

"... the mentality of the surgeon is once they cut they're going to fix anything. So it's very hard for those surgeons to give in or to be realistic sometimes. So they come in and tell the family one thing and we tell the family another."

"I felt gross about like the way the cardiology person came in and spoke and he couldn't. He had a trach so he couldn't speak. He was with it. he was alert, and oriented, and all that good stuff but he couldn't speak, he couldn't ask questions because it would - like and he could mouth words but that's no way to converse about that sort of thing and it just felt like we railroaded him a little bit and it was just the whole thing felt gross, but that's regular."

"I have very much witnessed an over-simplification of a lot of explanations with physicians..."

Nurses

"...they're really sick and then you can tell the patient doesn't want it and then they get so sick and then the doctor is like oh, I'm just going to chat with them about a short-term intubation and you know that's never going to go well....and then they trach them."

"And they don't tell them how sick they are."

<div align="right">*Respiratory Therapist*</div>

3.2.5 Workplace Violence

When asked to describe things that must change immediately, several nursing focus groups raised the issue of workplace safety and the tolerance of violence. Although it was recognized that many patients are delirious and incompetent during their stay, this should not excuse the violence that is experience on a regular basis.

> *"Another thing that we haven't even talked about is nursing safety and the abuse that we get from patients as well. We get kicked and spit on and slapped and verbally abused."*
>
> *"Concussions, we have healthy nurses that have had a concussion in the last year that have been off work, some of whom have had multiple concussions who are now having memory problems and chronic headaches. Like smoked in the head by the patient's right."*
>
> *"Pregnant women being kicked in the stomach..."*
>
> *"...and our unit is not locked. We've been asking for a locked unit for quite some time and we've been refused each and every time we ask for it."*
>
> *"...but somehow the rules are changed that that's okay for that patient to act in that way and you have to just kind of deal with it and I think that our population specifically brain injuries are very challenging and it's exhausting to watch somebody suffer so greatly in front of you and to just be told this is expected."*
>
> *"...we're nurses, we shouldn't expect to be hurt in our workplace, and I think that there's pretty clear policies that we shouldn't be put in a violent situation..."*
> *"...Staff safety seems secondary to patient recovery. If you have to be hurt, or distressed, or injured on this patient's path to recovery well at least we're getting them up..."*

<div align="right">*Nurses*</div>

3.3 Poor Team Experiences

Although a supportive multi-disciplinary team was the first item identified by focus group participants when asked what's working well, there are many negative interactions that contribute to burnout. This sentiment was humorously summed up by one participant who said, *"We're just one big, happy, dysfunctional family."* Themes that emerged related to poor team experiences and burnout include a lack of control in the workplace, fragmented patient care, shaming and bullying, lack of appreciation and disengaged administration.

3.3.1 Lack of Control in the Workplace

Participants frequently shared experiences in which they felt they had no ability to influence change or patient care in the workplace. These interactions occurred at many levels ranging from government investment in healthcare to the interprofessional team dynamic. It has left many of the participants feeling like "why bother", with no voice to generate change.

"...and there's not a lot you can do about it you know what I mean? We had absolutely no control over this... so we're just going to keep living with the unknown yeah, constantly waiting for the next thing to happen."

"Nothing is going to change. Nothing is going to change."

"It's people who know what we need in one room and people who can make that happen in like a different building. That makes this really challenging, the resilience piece because again you feel like you're coming up against this wall of if nobody who can empower that changes even in the room why am I wasting my breath?"

Nurses

"Of course everything is like money is behind it but sometimes we just want to have some influence or just you know when we can actually meet but all the meetings of committees I attend the most of them it's useless."

Physician

"Yeah, why bother, nothing's going to change."

Respiratory Therapist

3.3.2 Fragmented Patient Care

All groups identify their commitment to high quality patient care as a reason to practice in the demanding environment of critical care. When this ideal cannot be achieved, emotional residue and burnout ensues. Fragmented care, either between the primary medical service and the ICU or the ICU physician coverage model were identified as a problem within the team environment.

"...so many services come so sub-specialized that they forget the big picture, you know? The surgeons are only for the surgery, the surgical not focused on the fact that they have something else going on. Medicine are only focused about this, they focus on such individual issues..."

"It is not uncommon that you feel like you're doing somebody else's job. You're called to the IMCU to see a patient that's not my patient, where's your attending? Or you're going to help a junior resident in a different service and it's like well where's your senior resident or whatever? That kind of a thing, we become the clinical catcher's mitt for the entire hospital and some of that is appropriate because the sick patients all funnel to us, but some of it, it's just because we're around and that's really frustrating you know, there are some clinical services you just know they're not going to come and see the patient tonight."

"You know, it's an abdication of professional responsibility in my humble opinion for someone who has a doctor/patient relationship to defer to the doctor of the day to come in and have these kind of conversations….Stranger face in a crisis, that's not fair to a patient or the family."

Physicians

"It's just like the day staff and the night staff and they don't necessarily agree, so on days you're doing one thing and you know the day nurse could be like what are we doing here? - there's lots of talking but there's no communication and then the same thing happens from the day staff onto the night staff…"

"…so then it's somebody new they're starting with a clean slate and they don't know what we've been dealing with up until that point…and then it just all gets flipped up on the side of its head because a different staff comes in with a different opinion…"

Nurses

3.3.3 Negative Team Dynamics

Although there were many described instances where the team worked very well together, themes emerged from all focus groups that illustrated some very negative team dynamics. These include a culture of shaming and bullying, toxic personalities, feelings of exclusion, lack of inter-professional respects for other's training and expertise and disrespectful communication.

Shaming and Bullying

Shaming and bullying have been described in all focus groups and is a pervasive issue found in relationships between front line staff as well as with ICU management.

"There are some nurses who like to embarrass us."

"There is a large degree of bullying going on at every level. Every level."

Respiratory Therapists

"…then somebody took a picture of it and put it all over email or was it the Facebook sites, so they blatantly shamed everyone for having used this."

"…we got reamed for this bed situation that wasn't even an actual situation. I've been yelled at a few times for things that I wasn't even here for and had nothing to do with."

"There will be public shame."

Nurses

"…the other way you're vilifying them. We have too much of that. It's a stressful place, things go bad."

Physician

Toxic Personalities

In addition to the general culture of shaming and bullying, there was a consistent theme about toxic personalities within the ICU environment. These were described as approximately 5% of the ICU nursing population, but very impactful in that they create a hostile work environment and damage team relationships. There was also a sense of helplessness with respect to these individuals as they are well known with many years of experience. Little action has been taken by management both in terms of dealing with the inciting individuals or supporting the bullied members of the team.

> *"It affects everybody, it affects relationships between the nurses, it affects relationships between the doctors, the doctors and the nurses. Even you know, like I said the supportive staff, the clerks, the aids, everything. It just takes one bad apple no matter where it goes for people to feel that tension, and that stress, and that pushback..."*

> *"Very small, but they are so impactful...on absolutely everyone."*

> *"...but there is one person that is kind of, you know like just adding to the anxiety and the stress of the unit. And we've all talked about it as a team about this and management has been aware of this person, and it has not been addressed on any occasion. Management has not even once acknowledged the fact that this person is causing this..."*

> *"I've had an exact same scenario, interpersonal problem on the unit and then you go to the manager who's supposed to help you and it ends up turning the opposite direction, it ends up being way worse...a screenshot of the email...and then you're the center of the drama."*
>
> *Nurses*

> *"...then you could go in the next day and have a completely different group of nurses and have the worst day ever."*

> *"...even when I went to speak to the manager it was oh, that's just [Nurse] you just have to deal with it...."*

> *"And that same nurse made one of us cry the other day."*

> *"...we were talking about nurses who are like the mean ones like there is one ... unit that I have severe panic attacks before I go in and so I switched my shifts so I don't have to."*
>
> *Respiratory Therapists*

Lack of Inclusion

Although respiratory therapy appear to be accepted as part of the ICU team, the group does not feel included or necessarily welcomed in the environment beyond completing their expected patient care tasks.

"...because of the team dynamics I mean I'm not comfortable staying down in ICU for my shift. I want out of there as soon as I can. Like I don't want to feel awkward and isolated, and not wanted in my workspace so obviously I'm going to go back to my break room..."

"...they stare at you when you're just sitting there...because you may not have had the moment to sit and then they stare at you and that's when they go oh, there's puffers over there to do..."

"They gave us a little table with a light at one point and no one wanted to sit at it because... Well because we were in the back. But you weren't part of the team. You're like you're sitting in the back. You don't get to sit at the communal table..."

<div align="right">

Respiratory Therapists

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Lack of Trust and Respect for Professional Training

Both nursing and respiratory therapy report lack of trust in their professional training as a source of burnout and moral distress. This occurs both between and within the health professions.

"I've felt like I've been like helicopter mommed, like I can't handle my bedside, and I can. So - and if there's a disagreement on how I'm handling a situation with my patient then you know, for them to butt in and try and control things there's been that ... and I think just confrontations with you..."

"It makes you feel incompetent if you're constantly getting the boring patients."

"Specifically remember him being on and saying to him I really don't think he looks good. There is something wrong. I don't have a specific thing to tell you and he just kind of was like pfft. Okay, and then he arrested so suck it."

"...respiratory therapist had some of the highest levels of burnout which was seen as a mockery, but I've seen a level of disrespect towards these professionals that is honestly very challenging to watch because they should be treated with respect and we should be treating our physiotherapists and our social workers, our nutrition everyone..."

"...I'm a newer staff in ICU and I know too like what staff, physicians, some like really listen to me and other times I need backup, I need to go to my senior staff to be like I need some help portraying this message to this physician because they're not really taking me seriously..."

<div align="right">

Nurses

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"...we obviously have a lack of respect from the physicians and the nurses see it and they feel that they can treat us the same way. They just walk all over you."

"...we were doing a trach, I was bagging, assisting with you know, moving the tube out and helping the person who was bronching. Anyways, the one who was actually cutting, she's like yeah thanks for your help. I don't really know what you did but thanks anyways."

"I went into a patient's room one day and introduced myself to the family hi, I'm [Participant], I'm the respiratory therapist. What do you do? And the nurse sitting at her table outside the room interrupted, yelled over me, and said oh, that's just the RT, they write down numbers. And I was like okay, got to go now."

"He should have been tubed within minutes. Instead of that, the long 30 minutes of working on him with compressions he had a pulmonary hemorrhage and he almost died. It was very frustrating. We could work at our scope of practice, we could have done that, and the resident could have not forbade us from trying to intubate."

"...the attending physician wanted the patient extubated. So I put the patient on minimal support, the patient began to fail, had to go up in FIO2s, but she still felt that the patient was agitated because the tube was in and I said you know what, I respectfully disagree but you know, obviously the patient now has increasing O2 requirements. She said oh, just pull it, that's what's going on. So we pulled it against my better judgment of many years. We pulled the tube and of course the patient fails and has to be re-intubated... you're ordered to do something that you know is absolutely the wrong thing to do, that causes distress."

"...on a shift to shift basis we are told to do something, but told to do something at least once, twice a day that's wrong, that we shouldn't do. We shouldn't be told how to manage our ventilators. We know how to manage ventilators...there's no reasoning with some of the physicians anymore. We've basically given up trying."

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Respiratory Therapists

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Poor Communication

On a day to day basis, communication between the ICU team members, or between the team and hospital leadership was reported to be less than satisfactory. Disrespectful talk, not acknowledging ideas or concerns about patient care and highlighting negative instead of positive events were all given as examples.

"...I felt that what I had said was not being heard."

"There is no sense of urgency. So you're walking down there and they literally are coding and you're like well I would have run, you know...it's like okay, everyone's doing my job for me and you walk in and...you feel like you failed that patient at that point because you're not there."

"Like hi, the patient is back from the OR and you're like which patient? Oh, the patient who had their surgery today. They're waiting for you. Oh, the patient nobody told us about. So, you're ill-prepared, you show up at the bedside anaesthesia's annoyed because you're not setup and you're not organized which is something that they knew at 7:00 in the morning because the patient went to the OR..."

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Respiratory Therapists

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"...I think there should be some recognition on either side of what the realities of it are, but right now there's no conversations going on to even try to understand those two different perspectives."

<div align="right">

Physician

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"…there is a lot of talking but there's no communication."

"We're 2 units, 1 team and the channels of communication, sometimes we're taking a patient from the other site…the politics that get in the way of what we're trying to accomplish, like taking care of critically ill patients should be the hardest thing we do. I'm here to tell you it's not…everybody's got a preconceived notion of what each other's resources are, preconceived notion of what the challenges facing their unit, their team, they're trying to advocate for the people that they're physically in the space with, the patients they're taking care of…and you've got one conversation that's happening on the phone and one conversation once you get off the phone call and everybody leaves those interactions feeling the cynicism, loss of empathy, like low sense of personal accomplishment, why am I even trying to have like a polite, professional conversation with this person? Because I can hear their go fuck yourself tone coming through the phone."

"…I've never been spoken to in the most rude, inconsiderate manner before in my entire life."

"…now we're just bickering, and it feels awful and then you've got to go back and work 6 hours of your shift. You can't safely create a space to address things especially when emotions run high."

Nurses

3.3.4 Lack of Appreciation

A global lack of appreciation was voiced by all focus groups with respiratory therapy having an overwhelming prevalence. For nursing the lack of appreciation was most strongly expressed toward executive hospital leadership. For clarity to the reader, "management" refers to the intensive care unit managers and directors. "Executive" refers to the NSHA hospital leadership and administration.

Lack of Appreciation by Team:

"…we needed an airway, so the ENT resident reinserted the trach. We bagged him for a while and then he got to ICU. The physician because he didn't know what was wrong with the patient at the time said well if the RT put the trach in then it must not be in the right spot. Even though the bloodwork came back that the patient was completely oxygenated, the PO2 was 400…but for an hour he was going on well there's got to be a problem with the trach. Then when he found out the ENT resident did it, it was dropped."

"I feel like a lot of times the nurses don't choose to recognize that there's one of us on a night shift for the 8-10 patients and they are 1:1 so you're at their bedside and they're like oh, can you give the puffers? And oh, can you do this? And oh, can you do that? they're asking you all of these things that they are fully capable of doing and if I'm not busy I don't mind doing any of those things but when I still have like 6 or 7 other people to see - or and then they ask you that and then they go sit at the centre table and chat."

"…there's other situations where you will have a busy unit and you'll be in that unit most of your shift, and then you go to probably help someone else at emerge, or do whatever, or maybe even grab a bite to eat, or use the washroom and various occasions we've overheard saying wow,

where's the RT? And the RT hasn't been here all night, you know? Where the RT may have been on the other end of the unit for hours on end."

"… it was a very busy week in the ICU and thank you so much to all the nurses and in the end we are there, we are the only other people, the only other profession that are in the ICU 24/7, but we got a tag along with dieticians, and physio and oh yeah, and thanks so much to the respiratory therapists, dieticians, and physio for all the help that they gave this week."

"that's the thing that we don't get appreciated for is we're there picking up the pieces when things go downhill."

Respiratory Therapists

"…we don't get any credit, we don't get recognition there's no you know, I just think that's just the expectation from our colleagues that's I find kind of frustrating…"

Physician

Lack of Appreciation by Management:

"That's why they take advantage of us, because they know that we won't let that happen and we'll kill ourselves trying to stop it."

"I feel like my God, how much more do you want to suck out of us?"

"…I feel like we work together as a team because we don't get a whole lot of support from the institution. That we have to have each other's backs because when it boils down to it we can say what we want/need to say to management about you know we need extra staff, or this is broken, that's broken, this doesn't work, that doesn't work you know? And nothing."

Nurses

Lack of Appreciation by Executive:

"…there is a lot going on with the organization and they're trying to beat us down that I'm finding causing overwhelming fatigue."

"…so the disrespect as far as I'm concerned being shown to us is overwhelming like I've worked 27.5 years in that ICU, and I have never seen such disrespect by an employer before ever you know? It's like you're not worth it…"

"…It's the parking. So we're not getting a staff parking discount anymore. Now I get it, it's $4 to $2 but still it's the message. It's the you're not worth a discount."

"You're not worth Christmas dinner."

"For years and years, and years it's been Christmas dinner, New Year's dinner for days and for nights. More - like just for a morale boost I feel like, just for the institution to say thank you for being here. I know you have to be, but thank you and then this year, done. Christmas day, that's it. No New Year's."

"It's like take, take, take and if anything can be taken from any specialty it's nursing."

"…it just seems like every new bit of information that comes from the health authority is against nurses, against staff…"

"They take away and they never give."

"No one ever acknowledged that from the institution. Not one person ever said anything."

"Extraordinarily difficult situations with the sickest patients in the Maritimes and nobody got any kind of support or anything and there were nurses that were there that night, like there has to be traumatic effects left on them from that."

<div align="right">

Nurses

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"…I mean a lot of physician categories are the lowest paid in the country so you know, we just can't recruit people to come here and then you add extra administrative burden, and extra academic expectations and no one wants to work here…"

"I don't know that it's true, but I feel like it's true, the job of the administration is to prevent my job as a physician from being successful."

"…It really was destroyed in the last round of negotiations. I - the administration and the VP really antagonized the physician staff."

"…and you've been screwing us for a decade…"

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Physicians

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4. The Toll of Working in the ICU

The impact of working when facing burnout and moral distress is far reaching. Healthcare professionals experience a personal physical and emotional toll, their family and home life are impacted as is patient care.

4.1 The Person Emotional and Physical Toll

As illustrated in some of the quotes already in this document, many of these experiences illicit strong, negative emotional reactions in the healthcare provider. Classification of these emotions are listed below in Table 1. Emotions such as anger & frustration, anxiety & fear, defeat and demoralization were most frequently encountered.

Table 1: Emotional Experiences

Emotion Expressed	Examples
Defeated	"I feel let down by the employer" "Yeah, why bother, nothing's going to change" "Then you feel like I'm not making an impact, I'm seeing what's wrong, but I can't help change this one thing."
Demoralized	"It's demoralizing" "…we felt [she] had such a poor prognosis and poor outcome and it was just an expectation for the nurses to come in day, after day and deal with this situation." "You don't go home saying you know what? I helped someone today."
Guilt	"…you feel like you failed that patient…" "Oh my God, what if I've got a patient that I can't leave? I probably have to make my co-worker have 2 patients…we don't want to leave our coworkers short" "You can feel like you damaged someone."
Devalued & Unappreciated	"I don't even know if it's devalued because it's like you're not even thought of." "…they don't care about patients and they don't care about me…" "…we work such a tough job that it should be acceptable to be like I am done. I have nothing to give, I need the day, I need a break, I need a mental health night…"
Helpless	"I guess helpless. Helpless yeah would be a feeling." "It's just being told almost that you have to deal with being hit, and being bitten, and being kicked at…and there's nothing you can do…" "…there's nobody with the ability to empower change…"
Sadness	"That's not coping, that's depression and a lot of us are feeling that now..." "I just wanted to cry and walk away. You feel like a monster." "I'll have like these little mini breakdowns and cry over these people that I don't even know."
Anger & Frustration	"Oh my God, we're all one shift away from a mental breakdown absolutely, we're all teetering on that edge." "…the frustration wells up probably just about every shift." "…but you're always angry or having to be aggressive and it doesn't feel like that's the way it has to be."
Unsupported	"Not supported. Not even thought of. Like you're just a cog in a wheel, you're not a person"

	"And when there's a bad situation where someone dies, they come back on us…" "…there's not really a support right now for if you make a mistake."
Anxiety & Fear	"…I have severe panic attacks before I go in…" "…our stress level goes up, patient safety goes down, our safety goes down…" "…You're halfway through Day 2, you've got another day shift and you're dreading coming back…"
Embarrassment & Shame	"It's humiliating that we can't really do all the things that [we were trained to do]." "You're basically thrown under the bus if you write one…" "…feel like you've done something wrong by saying you're speaking your mind or sharing your opinions…"
Cynicism & Mistrust	"…there is a lot of mistrust…" "…it would take someone important dying for something to change it, someone with money and influence." "That makes you cynical…"
Isolation	"You're an island…" "…you realize when you start talking about what you do with people who don't do it is that we – our norm is not normal….it freaks people out."

Along with the emotional toll, working in the intensive care unit has a significant physical toll on the provider. Participants shared many stories about work related injuries, physical exhaustion and self-sacrifice. Often these emotionally experiences manifest themselves physically as overwhelming exhaustion.

"A lot of our patients are confused, they can be combative at times and just you know, being on your feet for 12 hours a day on concrete floors just run, run, run sometimes you don't sit down, you don't drink water, you don't drink the amount of water that you're supposed to have. We're talking about how well our patients are hydrated and when was the last time I had a drink? Or when did I pee last kind of thing?"

"It's like you feel terrible for this person but at the end of the shift you're physically exhausted from like repositioning them, doing this, this, this for them but you're emotionally exhausted too…"

"I have an emotional exhaustion just from the it's overwhelming sadness sometimes that happens in our unit"

"One thing too is the noise level. Like I think I'm very, very intolerant."

"…it's a very physical, physical job and you know, when we got that mental aspect along with that there are days we don't have it to give."

"People ask me why I'm always tired and it's like because I'm a nurse and it's oh yeah, all the heavy lifting. I'm like no. It's the emotional.

<div align="right">Nurses</div>

"Overwhelming fatigue, we have nothing left emotionally at the end of a shift."

"…feeling like the anti-steps commercial at the end of it with the elephants on my legs…"

<div align="right">Respiratory Therapy</div>

"It's emotionally exhausting…"

"because the intensity in the unit at the patient's bedside over the course of the week I find very intense so over the course of the week when I get more exhausted I need to take my little breaks whenever possible…"

<div align="right">Physicians</div>

4.2 The Toll on Family of the ICU Team

The inability to leave work behind at the end of the shift was a common theme among the nurses and the respiratory therapists. This often had an impact on family dynamics; sometimes in the form of isolation from loved ones, or sometimes as the need for connection due to fear and anxiety of something bad happening.

"I tend to say to my husband I'm going underground now so I have a rec room in the basement with a pellet stove that's really dark, and really warm. I go down there for 2 days…but I think it's part of my coping, like I just want to shut the world out, I want to go underground."

<div align="right">Respiratory Therapy</div>

"Yeah, thank God my two kids are very respectful of that and like my house can be dead silent at times because the noise level just irritates me beyond sometimes."

"And all of this leads to me going home at the end of the shift feeling overwhelmingly fatigued and then you know, my boyfriend wants to talk to me and I don't want to talk to another single person at all ever again."

"I can't even deal if suppers not cooked when I get home."

"There's a lot of times in the last few months that I've just gone straight to my parents' house and seen my family and I just wanted to see that they were okay and have dinner with them…"

"…you come home and you're tired, and you don't have time and patience for them because you've just given everything you have to somebody else who needs you and then you just feel like you go home and you don't have that left to give that beautiful little innocent, smiling face. Or that stupid, stink fur ball who just wants to go for a walk and you're just like I can't. I've got to go to bed because I've got to go back to work, or I just need some space and you know?"

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Nurses

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4.3 The Toll on Patient Care

Universally these experiences are felt to negatively impact the quality of delivered patient care and in turn guilt experienced by the health care provider.

"Like we have a lot of patients who are trached and communication is a huge thing so you're at the bedside and they're trying to tell you something and you're like oh, God, I've got 10 other patients to see. I'm only one person in an ICU on a night shift and I know you want something and I have to just walk away…otherwise you could spend an hour in that room and then the other 10 people you have to assess and see."

<div align="right">

Respiratory Therapy

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"I've noticed the loss of empathy."

"Yeah, I think too because we do it every day. It's just it is what it is, but I think we forget a lot that like this is the worst time in their lives…and I think we expect people to act a certain way which is probably not really fair. Just like we'll say all the time like oh, that wife's crazy…she asks so many questions…or like no, they can't have a family room. They'll be in here all night."

"…I lose my ability to be compassionate for my patient, and their family and it's not a great coping mechanism."

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Nurses

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4.4 Coping Strategies

Focus group participants were asked to provide examples of strategies for how they cope with workplace stressors. Table 2, shown below, categorizes these coping strategies into personal and workplace strategies. Although we did not attempt to explore the extent or frequency which these strategies were used, if excessive, some of these strategies would be considered unhealthy or dangerous.

Table 2: Coping Strategies

Personal Coping Strategies	
Constructive	**Destructive**
Leaving work at work	Alcohol/Substance use
Exercise	Excessive spending
Family and pets	Eating
Maintaining a work-life balance	Shutting down
Hobbies	
Crying	
Workplace Coping Strategies	
Constructive	**Destructive**
Humor	Negative chatter about colleagues
Socializing outside of work	Bullying
Communication with families	Shaming
Talking with peers	Eating
Controlling the work environment	Detaching from patients
Foster a supportive work environment	Withdrawing from coworkers
Detachment	

5. Building Resilience

One of the final areas for discussion during the focus group session was the topic of building resiliency in the ICU team. Similar to other topics, themes that emerged were related to how the organization could support better patient care and employee work satisfaction.   These are broadly categorized into strategies that would address perceived deficiencies in the organization, exposure to high intensity situations, as well as poor team experiences.

5.1 Perceived Deficiencies in the Organization

Organizational themes that were voiced by participants to build resilience include improved staffing, investment in education and investment in physical infrastructure.

5.1.1 Improved Staffing

Improved staffing included staffing changes within the same health profession to cover urgent patient care issues or to support needed breaks and opportunities to decompress during the shift. It also included the addition of more support staff to assist other patient care or administrative issues.

> *"I think that we need a social worker that is in 3A from 8:00-4:00, Monday-Friday meets with the families, can do family sessions and talk, and support them…"*

> *"But it's all auxiliary staff that we need right? Or 3A needs. So you need the CTA, you need the ward clerk, you need the social work. You need them every day…that would make a difference…"*
>
> *Nurses*

"And we need the school to step up as well...we're doing the educating, plus they're putting students without ICU experience in with us on nights when our area is doubled already so add an educator role to that and now your workload is tripled for the night..."

"...if I could actually just simply get a break when I'm on my shift. That would be sweet."

Respiratory Therapists

"Once there is a triage done it's difficult enough then I don't want to deal with where's the physical space for the patient."

Physicians

5.1.2 Investment in Education

Investment and support in continuing education was also a significant theme for the nurses and respiratory therapists.

"...if we got regular education on things that we didn't have to pay for, that we didn't have to - that somehow was worked into our schedule that we didn't have to do on our own time people would be willing. I know pretty much everybody would be gung-ho to do it. Everybody wants education but we don't want to come in on our days off."

"I would like to see nursing M&M rounds done in the unit so people could take part in them."

Nurses

"This would be life changing if we could have our educator that is for our respiratory therapy department educating us..."

Respiratory Therapy

5.1.3 Additional Infrastructure

The benefits of exercise in managing workplace stress was voiced by all participants. Having the hospital invest in including an onsite employee gym that was accessible at all hours as well as other structural facilities such as 24-hour access to a cafeteria was thought to be beneficial.

"...a gym if there was one in the facility that I could use that wasn't a fortune."

Respiratory Therapy

"...a gym that everyone can use and by the way we're not going to charge you for it. It's an investment in wellbeing and then you can work, like I love the idea of getting out and doing exercise or something like that in the middle of the day, but I wouldn't leave. If I was able to go to a place that was right there and everyone knew that's where you are...and you'd probably running

into your nursing colleagues, and your RT colleagues and you might actually get to know them on a different level…"

"There's very few things that are as good for morale as things like good food and there's simple things. You talk to the operating room, they took like the little cafeteria, like it's so penny wise and pound foolish. If this place were to invest in a really good staff cafeteria so you don't have to wait in line with everybody else and whatever that would be a practical, morale building thing. You could take $1 million and build a gym, and a nice cafeteria or whatever and I bet you your absenteeism would go down, morale would go higher, productivity would go up and somebody would say wait a second, our investment is $2 million, but we got $4 million worth of work out of these guys and they're not leaving to go wherever."

Physicians

5.1.4 Other

Ideas that weren't directly offered as suggestions by participants but instead were implied throughout the focus group sessions include: improving access to necessary equipment and resources, including expediting the closure of the Victoria General Hospital, and providing support in development of appropriate patient care policies.

5.2 Exposure to High Intensity Situations

Four main themes emerged when discussing how to build resilience to the exposure of high intensity situations; debriefing, mental health recovery days, destigmatizing the need for help and providing long-term follow for chronic patients who have left the intensive care unit.

5.2.1 Debriefing

The need to debrief workplace incidents was recognized to be lacking and important by both the nursing and respiratory therapy focus groups.

"There is no formal debriefing. I may have in my whole career been formally debriefed about 5 times which is not saying much because there's been a lot of horrific incidents that I've seen. My husband works in corrections. If there is a critical incident in corrections they are debriefed within the first 24-48 hours. There's a debriefing team that comes in and actually deals with that situation, with the people that were involved in that situation and sometimes people that weren't directly involved with the situation but that had maybe seen that person before or whatever."

Respiratory Therapy

"but it would be nice if management regardless of if it was effective or not would still provide that formal option maybe in a more consistent basis before it took some massive tragedy..."
"Just something maybe if it was like on a monthly basis offer a couple sessions that the majority of people could go because there's always something right?"

"we should be debriefing way more often, but instead we're just accepting that these things are normal for the ICU when really they're heartbreaking, awful situations so we take that emotional toll home with us and I'm sure all the other professions involved do to so I think we should be debriefing way, way more often."

"Debriefing where we can actually talk as different specialties openly and see constructed and supportive environment…"

<div align="right">Nurses</div>

5.2.2 Mental Health Recovery Days

Nursing focus groups proposed the addition of mental health wellness or recovery days as a means to deal with stress and build resilience.

"…it should be acceptable to be like I am done. I have nothing to give. I need the day, I need a break, I need a mental health night."

"And we don't have mental wellness days? Like with the stress that we do, we withdraw care, like we actively help people die…"

<div align="right">Nurses</div>

5.2.3 Destigmatizing the Need for Help

Although these issues are shared amongst all groups and recognized amongst participants and their peers, it is still felt to be a stigmatized topic that is accompanied by feelings of shame and weakness. It was recognized that to build resilience, investment in changing this culture is needed at all levels.

"…you don't want to have this feeling of weakness to have to go knock on someone's door. And I think that our management although you know, somewhat sympathetic has gone almost the other way in that they are saying you know, well this is it, just cope…"

<div align="right">Respiratory Therapist</div>

"I think that kind of culture would embrace being more vulnerable and when you feel like it's safe for you to be vulnerable where you're working at like that translates to being vulnerable with your partner at home, in your home life, with your friends and then it's not seen as like a bad thing."

"…a structured way to check in with people."

"…so just we need more regular intervals…the world doesn't have to be falling apart for someone to say you okay?"

<div align="right">Nurses</div>

5.2.4 Long Term Follow-up for Chronic Patients That Have Left the ICU

Although not specifically voiced when asked about building resilience, both the nursing and respiratory therapy participants noted that the ability to follow chronic ICU patients who have left the ICU and see their improvements would be a positive step in building resilience. This is a current gap in the ICU care program.

"…we see the patients at their sickest but then we will sometimes because we go to various areas we'll see those patients when they're recovering, when they're getting better and I really think that that's a huge positive for some of us, now not all of us get to see that, but the ones that you have followed kind of the patient's progress right from sometimes Emerge right through the spectrum of care until they go either to rehab and sometimes we'll even see them there and that it for me has been you know, a big positive in that I can actually see those patients sometimes with their recovery and it's huge…"

Respiratory Therapist

"a 10-year snapshot on some of the patient I've taken care of because some patients like I think about them quite regularly and then you wonder how they do, and you never know."

". At the time you have no sense of personal accomplishment but seeing those photos to the end we were like wow."

"…seeing those people come back in, or having the success stories, they do help us with the care that we do so we need to have better ones for us."

"Or if somebody who was with us for a long time and they come back and they walk into the unit. That's always a good day, like whatever went on during that period of time you see somebody improving and they come back and they're like look at me go! It brings everybody together. Everybody gets pumped about it. It doesn't matter how well you got on with the patient, their family like you see that person doing well and you know that you were part of it, and your team was part of it is such a big win."

Nurses

5.2.5 Addressing Workplace Violence

Workplace violence is unfortunately occurring commonly during regular work in the ICU. The range of workplace violence is fairly wide and spans from verbal abuse to physical, from unintentional and/or uncontrolled to deliberate and can originate from co-workers, families and the patients. No matter what drives the abusive action, the consequences for the health care provider can be significant and contributes to burnout syndrome and anxiety. While there are zero-tolerance policies in place to discourage this type of behaviour at least on the intentional level, unintentional outbursts are difficult to predict and prevent. ICU leadership and management are encouraged to explore opportunities to improve the situation.

5.3 Poor Team Experiences

Many opportunities exist to build resilience within the team environment. Some of these opportunities exist with front line ICU staff and, such as relationship building, respectful communication & behaviors, acknowledgement of positive experiences and supporting a just culture. Some of these opportunities involve leadership and management through engagement and support, managing toxic staff, fostering a just culture, role development, and acknowledgement of the hard work of their staff.

5.3.1 Relationship Building

The development of relationships between team members, both inter and intra-professionally, was seen as positive in the past and was encouraged to continue in the future. While it was recognized that team building outside the hospital are often great activities, the ability to take additional time away from one's personal and family life can be a challenge.

> *"When everyone eats in the same room somehow or other that tends to break down barriers… stop being a doctor, or a nurse, or an RT for this half hour you're just the person across the table and that changes things."*
>
> *"as soon as you know a little bit about the history, you know whether they have kids, what they're interested in it makes a difference when it comes to tough decisions or family meetings when they have them with you…"*
>
> *"Honestly I don't think I have time. I'm unwilling to do the round table every Thursday night with like the whole team even though probably it would be fine or good, but I don't think people will show up."*
>
> *Physicians*

> *"…last fall we did the Rum Runners Run and so much enthusiasm we ended up putting in 2 teams, and of 10 people each so that was 20 ICU staff that participated in that. The bond, like the day was just amazing from like 6:30 in the morning until 11:00 at night."*
>
> *"…The other cool thing about that day was it wasn't all nurses. We had like a couple of - at least 2 doctors were there and pharmacy, physio, the infection control nurse… it was cool to also get together with these other members of our team and get to know them a bit outside of work as well."*
>
> *Nurses*

5.3.2 Respectful Communications and Behaviors

The impact of respectful and non-respectful communication and behavior was frequently evident during the focus group sessions.

"Those residents that are on that week, they are learning so much about even just like basic personal interaction skills right? And those residents, they go through their career looking you in the eye because they had that moment where that one week we looked each other in the eye. It was fantastic."

"You need to have intervention with the management and physicians…around how to be respectful for the professions, to value them, to listen to them."

"Communication in terms of respectful communication but also information."

Respiratory Therapists

"I can even just say like you know when you said that the other day like that was really shitty and they'll be like oh, my God I'm so sorry I didn't know. And sometimes that's all it takes. But there's not always the ability to just say like you know like what you said the other day really upset me, or you know when we were working together I think we were being curt with each other and it wasn't very productive for the team dynamics…"

Nurses

5.3.3 Acknowledgement of Hard Work and Positive Experiences

Many participants voiced concern about how the team is frequently called to task on mistakes or bad outcomes, yet little is done to fill the pot with positive affirmations, acknowledgement of hard work or thanks.

"Just acknowledgement of a job well done on a regular basis. Not thank you in an email. Thank you, done."

"…and say you did a good job in there and you should be proud of yourself and how are you feeling? Do you feel comfortable to go back to work?"

"It means so much when your coworkers are just like how are you doing buddy."

"I think that's huge, validating each other's experience."

"…tell somebody that they did a good job. Good thing to do…. And telling somebody also makes you feel good. Like if you go to somebody and say like you rocked today it feels good to make them feel good."

Nurses

"I think a big part of building resilience is acknowledgement of - well acknowledgement is always a big part of remediating burnout, but then I think physicians are looking for financial acknowledgement in this province and I think that you're not going to fix a lot of the burnout until you pay them more."

"I can't remember the last time in this institution someone said thank you for me doing my job. You felt like you were part of the solution up there whereas here you get made to feel like you're part of the problem."

"I think we need to acknowledge when things go right as opposed to right now the system is keyed to acknowledge when things are going wrong. We do a lot of good stuff."

<div align="right">

Physicians

</div>

5.3.4 Supporting a Just Culture

All focus groups acknowledge a change in culture, specifically an acceptance of a no blame work environment would be helpful in building resilience.

"I think there has to be a meeting around the culture around how we address our problems so we all know that SIMS isn't working and I think that it has the potential to work...we just need a meeting together to say we need to change the culture around this very good intervention because we're seeing it as a negative, but really it's a positive. It's going to help us."

"I just think we need more support when there's errors made. Like there's a lot of public shaming."

"...a SIMS or a bad situation like you can take it one way and it'll lead to these burnout symptoms or you can take it another way and use it to strengthen that nurse, that team, the whole unit and far too often we're just - we're going from an error or a negative situation where we need to unpack some burnout instead of helping too..."

<div align="right">

Nurses

</div>

5.3.5 Hospital Leadership Engagement

Throughout all focus group sessions there were often discussions about misaligned hospital leadership and organizational values. When hoping to inspire good work it is often good to lead by example and get your feet wet. There is a need and a desire to see hospital leadership reengage with the front-line healthcare providers so they might develop a better understanding of the realities of clinical care. Example of good leadership witnessed at other institutions were provided.

"...in a flu epidemic, the place was frigging nuts and it looked like they were going to cancel a cardiac case for the first time in 7 years they were going to cancel a case. The VP was in there at 2:00 in the morning to talk to people to figure this out. It sent a message that said we're here to take care of patients. We're going to make this happen."

"As a solution all right? I think there should be more engagement of the administration with the frontline troops."

<div align="right">

Physicians

</div>

"Where's the investment from the institution? these are things that we're talking about, they're very specific things that we can correlate to patient safety, simple changes that can have a really positive outcome…"

<div align="right">*Nurse*</div>

5.3.6 Management Support

A desire for support from management was expressed by the nursing and respiratory therapy participants. Examples included dealing with toxic team personalities, acknowledgement of a tough day or a task well done or help team members develop roles to the fullest potential. It was thought this would bring a sense of understanding and reward to the job and in turn help build resilience and mitigate burnout.

"…we don't feel supported from management if we got more support, we would feel better about that."

"And I agree the 5% someone needs to do something about it and whether it comes from management, or we start to do something about it, it's got to change."

"Management has not even once acknowledged the fact that this is causing this – some anxiety, some strife, some you know, irritability on the unit and it's like how many times does management need to be told that somebody is causing strife you know? Causing this anxiety."

<div align="right">*Nurses*</div>

"I brought a safety issue to her attention and all she said was I'll pass that along but she's our manager so she should be the one dealing with it and she just was like whatever."

"Our manager has not told our educator where to put her time and I don't know who's dictating what she does. It's not her. She's being told where to spend her time, so somehow we need to take back our educator."

"…we have a newly developed charge role which I think has not been developed even close to its potential… if you had a well-defined role for that charge person it could be invaluable to both the staff on days, and the management team."

<div align="right">*Respiratory Therapy*</div>

6.0 Discussion

An essential step in problem solving is to first recognize and evaluate the problem. In January 2018, physicians, nurses and respiratory therapists participated in an online survey which showed a global issue with high rates of burnout and moral distress in participants.[15] Although the survey helped quantify the magnitude of the problem, it did not help identify root causes and as such the ability to recommend interventions for change was limited. Through the use of focus group sessions, we were able to explore in depth issues that are contributing to a negative work environment for the ICU team members. This is the second phase in assessing the issues related to burnout and moral distress in the Nova Scotia Health Authority Department of Critical Care healthcare team. Though we already confirmed the magnitude and ubiquitousness of the problem in our Department with regards to BOS and moral distress in the survey held in 2018, the focus groups sessions put testament to it, confirming the previously anonymous data through real life comments.

6.1 Burnout and Moral Distress

Not surprisingly, themes that emerged from both the burnout and moral distress questions were similar.   Literature has described burnout as being composed of three main pillars – high emotional exhaustion, high depersonalization and a low sense of personal accomplishment in the workplace.[13] Additional work by the same authors have further categorized organizational issues that lead to burnout, including high workload, lack of reward, lack of control over the work environment, lack of community support, lack of perceived fairness and a malalignment of organizational and employee values.[14] Moral distress on the other hand is described to occur when professionals can't carry out what they believe to be ethically appropriate actions because of internal or external constraints[15]. Findings from these focus groups identify the following key themes: lack of organizational resources and support, exposure to high intensity situations and poor team experiences. These three themes as well as their subthemes could fit into both definitions. For example, under organizational, lack of appropriate staffing was a theme. This would be an external constraint imposed by the organization that leads to high workload and emotional exhaustion. Futility of care was a major subtheme for exposure to high intensity situations. This is an example of a situation where clinicians may feel moral conflict in continuing to provide care. It also leads to emotional exhaustion, a low sense of personal accomplishment and often detachment from the patient and families that are being cared for. Finally, participant's team experiences and negative team dynamics were often described as leaving them with a sense of helplessness. It also contributed to erosion of the sense of community and left them experiencing a lack of control over their own work environment.

The overlap between causes of burnout and moral distress is not unique to our study. In 2017, a survey of more than 200 ICU healthcare providers showed that moral distress, in particular due to provision of futile care, is significantly associated with the development of BOS.[22] Similarly, the year previous, a study of burnout and moral distress in a Canadian cardiovascular ICU also found an overlap in contributing factors[23]. Themes from their study also show commonality with

our study. Authors identified issues with end of life care, team communication, provision of non-beneficial therapy, caring for complex patients and dealing with bed capacity strain.

While many of the occurring issues emerged in all professional groups, some were specific to individual groups, but could still be placed under the umbrella of the three major themes described above.

6.1.1 Organizational

Much support for our findings can be found in the literature. With respect to the organization, studies have identified issues like process inefficiencies, unbalanced workloads and unsupportive organizational cultures/climates as a cause of burnout and moral distress. Organizational leadership has also been shown to have a significant impact on healthcare provider burnout, moral distress and job satisfaction.[24-29] Similar to sentiments expressed by our participants, a study of US healthcare professionals showed that much of the distress and dissatisfaction related to organizational issues came from the belief that these issues were negatively impacting quality patient care.[30]

Within organizational subthemes, commonalties between all professions were found with respect to a malalignment with perceived organization values, a lack of adequate resources, problems with organizational policies and infrastructure as well as disengaged administration. Issues with staffing and education were concerns raised by nursing and respiratory therapy but not noted to be a problem with the physician group. They, on the other hand were finding the constant bed management issues (finding beds not only for the critical ill, but also for the patients that no longer require ICU level of care) and significant problem in their daily work. Time off was only raised as an important issue by the nursing staff. It is not known if these issues are common to all groups or unique to the individual professions as they were not specific questions posed by the facilitator.

From our data, there are certainly many opportunities for NSHA administration and the Department of Critical Care leadership to act on identified deficiencies in the work environment. While some of these issues are unique to NSHA and will require a tailored approach, there are high-level documents that offer guidance for how an organization can promote engagement and in turn reduce burnout[26,31].

6.1.2 Exposure to High Intensity Situations

Exposure to high intensity situations like end of life care and the provision of futile care is something that resonated with all focus group members. It is also a topic well reported in the literature to cause both burnout and moral distress[22,23,27, 32-34]. It may be a result of the volume of exposure, but also comes from discrepant expectations of escalation of care. These expectations may come from a patient's family or surrogate decision maker; however, it is frequently reported within the team as well[23,33,34-38].

Discordance within the ICU team on issues like futility of care, the time to make a decision, and what/how end of life decisions are communicated was a clear theme that emerged in the focus groups. Some of the discord may reflect the differences in health professional roles and responsibilities. In collaboration with families, physicians are the ones who ultimately write the order for withdrawal of life sustaining measures and bear emotional burden as well as the legal responsibility for these decisions. Given the irreversibility of this choice, members of the physician group highlighted the importance of ensuring this was the appropriate decision most in keeping, not only with prognosis, but also in keeping with a patient's desire for quality of life. Physicians, unlike nurses and respiratory therapists, however, have limited time with the patient and family during their ICU admission. Nursing and respiratory staff are continuously at the bedside where they witness the patient's suffering and family grief throughout their shift. Many comments were made by nursing and respiratory therapy about having to bear witness to prolonged, unnecessary patient and family suffering.

Work by Hamric et al[34], Papathanassoglou et al[38], and Thomas et al[39] has highlighted differences perceived in collaboration between health professions; physicians believing they are collaborating well even when nursing colleagues report the opposite. With respect to end of life care in particular, nurses are also left having to implement a patient care plan which they had little input in establishing and frequently don't agree with, thus leading to moral distress and burnout[34,38, 39]. Prior work has shown that improved communication between the healthcare team about the rationale for plans of care may mitigate the conflict around these issues[34].

In the nursing focus groups participants reported surprise in seeing a patient whom was expected to do poorly ultimately recover and have a good outcome. Along a similar theme, respiratory therapists highlighted continuity of care and the ability to see a patient's clinical progress outside of the ICU as means to combat the huge volume of sad cases. It is certainly well documented that healthcare professionals are often overly pessimistic and inaccurate in the predictions of prognosis, nurses more inaccurately predicting survival then physicians[40, 41]. Literature supports the positive effect of bringing meaning to the workplace when patient's return to the ICU for a visit[42] and with ICU staff participating in post-ICU care clinics[43].

Some of the distress surrounding end of life care involves concern that by continuing aggressive care we are violating the patient's autonomy and wishes. There is indeed validity in these concerns found in the literature. Despite many public and health professional campaigns to encourage discussions around end of life, research shows that it is often poorly done, if done at all[44-47]. One study of elderly hospitalized patients revealed that 70% of patients wanted comfort measures instead of life prolonging treatment, yet 54% of these patients were admitted to ICU at the end of life[48]. There is clearly room for improvement from both the patient and healthcare providers perspective. One example of an intervention to improve this is the Serious Illness Conversation Guide, a serious of questions that asks the patient about their goals, values and wishes[49]. It's initial study of feasibility and acceptability demonstrated a reduction of anxiety and depression in the patients, patients and clinicians had more, earlier and better serious illness conversations that centered on what mattered most to patients[50]. Although still in early phases, since that time there have been several publications that show the tool to be useful to engage

patient's in conversations about goals and values at the end of life, that patients are open and willing to have these conversations and that it helps clinicians understand the appropriate level of care to provide in the event of a medical decompensation[51-55].

A consistent theme throughout all focus group sessions was that the magnitude of tragedy and grief of the ICU is not something most people, particularly those outside of healthcare, can understand. That has left many of our staff feeling isolated was they try to make sense of their abnormally normal work environment as family and friends are not able to comprehend what they hear. Some health professionals have found talking with peers as a helpful coping strategy but the need for regular formal debriefing sessions was recognized and advocated for by many. Previous experiences with debriefing sessions held in the ICU were considered very valuable.

Interestingly, despite being a relatively intuitive intervention literature on its usefulness is mixed. In 2012, the World Health Organization issued a statement stating that based on a large volume of poor quality studies that showed no difference in outcomes, "psychological debriefing should not be used for people exposed recently to a traumatic event as an intervention to reduce the risk of posttraumatic stress, anxiety or depressive symptoms"[56]. However, in a 2018 meta-analysis[57] of 10 studies exploring the effects of post-disaster psychological interventions 3 studies suggested debriefings can have long term positive effect with respect to depression, anxiety, substance abuse and PTSD, more success obtained when more than one debriefing session is provided[58-60]. The remaining 7 studies showed no difference. Within healthcare, studies are similarly rare and of poor quality. Similar to our results, the request for debriefing sessions and greater psychological support has been identified in other studies of intensive care health professionals[61,62]. Although there were no objective measure of psychological impact, two other studies found that self-reports of attending debriefing sessions and talking with colleagues were independently associated with a reduced risk of burnout and enhanced resilience[63,64]. In 2018, Browning illustrated a decrease in moral distress in ICU nurses when debriefing sessions were provided on a regular basis over a 6 month interval. At the end of the study period 100% of participants requested that sessions continue[65]. These regular sessions may be simple and informal. At the University of Ottawa, emergency residents participate in regular ice cream rounds which offer peer support debriefing[66], in the Kingston Ontario ICU their social worker leads regular discussions over tea, aptly called Tea for the Soul. Perhaps the most consistent message around debriefing is the positive impact collective conversations with peers can have in fostering a culture of support for mental health and developing resilience.

An important topic that was a subtheme of high intensity situations is workplace violence. This was raised by the nursing staff, particularly in reference to patients and families, as a cause of burnout. Workplace violence has been classified into 4 different categories (Table 3)[67]:

Table 3: Types of Workplace Violence

Type	Description	Example
I	Perpetrator has no association with the workplace of employees	Person with criminal intent commits armed robbery

II	Perpetrator is a customer or patient of the workplace of employees	Intoxicated patient punches nurse's aide
III	Perpetrator is a current of former employee of the workplace	Recently fired employee assaults former supervisor
IV	Perpetrator has a personal relationship with employees, none at the workplace	Ex-husband assaults ex-wife at her place of work.

As it was not specifically asked about in the focus groups with other health professionals, it would be naive to assume that meant other professions were unaffected. A recent Canadian Government report by the standing committee on health reported that 61% of Canadian nurses, one third of Family Physicians and 75% of paramedics experience workplace violence annually.[68] Similar rates are reported in US healthcare[67]. In a 2016 review of workplace violence, Phillips reports that long-term effects include missed days of work, burnout, decreased job satisfaction and decreased workplace productivity[67]. Support for tackling this issue is occurring federally[68], provincially[69] and locally[70] and needs to continue. Long term strategies and support for workplace violence are certainly outside the scope of this working group, with the exception of encouraging a zero-tolerance work environment, ensuring the team are aware of organizational supports available to them and encouraging team members to report their experiences to managers and police if severity necessitates.

6.1.3 Poor Team Experiences

Many important subthemes emerged in relation to poor team experiences contributing to burnout and moral distress, however the largest contributor was the experience of negative team dynamics in the form of hostility in the workplace, toxic personalities, lack of inclusion in the team environment, lack of respect for professional training, poor communication, as well as shaming and bullying. As discussed above[67], this type of dynamic is a form of workplace violence and should be dealt with by the organization and management appropriately. The lack of engagement of local management in particular was frequently noted by participants, the lack of dealings with toxic personalities frequently cited as an example.

A recent review by Smith et al nicely summarizes the impact effective healthcare teams have made on the quality and efficiency of healthcare delivery[71]. In it she also expands on the work of Gordon et al[72] in which effective teamwork as described as needing several key features including: 1) psychological safety: the team members' ability to trust one another and feel safe enough within the team to admit a mistake, ask a question, offer new data or try a new skill without fear of embarrassment or punishment and 2) the ability for team members to learn, teach, communicate, reason, think together and achieve shared goals, irrespective of their individual positions or status outside the team[71]. Research into the impact of team dynamics that are lacking these features are less well studied, however what is known suggests negative team dynamics has a significant impact on job satisfaction, burnout and moral distress.[27,73-75].   Equally as important, the reverse also holds true. Positive team interactions can help improve workplace satisfaction, mitigate burnout and build resilience[74,76-79]. This would suggest that investing in

strategies to improve team dynamics and functioning would be a useful endeavor by the organization and the ICU leadership as a strategy to build resilience. Many models for building effective teams are described in the literature. Selecting a specific option is outside the scope of this project, however review papers such as the one by Smith et al[71] or the TIPS project by Bajnok et al[80] are examples leadership teams may want to review.

Smith's reference to the need for a psychologically safe environment was particularly relevant to issues raised within the focus groups[71]. Participants often expressed a wish to adoption of a just culture philosophy adopted by the organization, as a substitute for the shame and fear or retribution that they currently experience.

Lack of appreciation was a theme of all focus groups and was felt at all levels of hospital administration and significantly colored how individuals viewed their workplace. It is difficult to develop a sense of job satisfaction and build resilience when you feel you are being nickeled and dimed instead of appreciated by your employer. The form of appreciation desired was often simple things like an in-person thank-you or celebrations and acknowledgements of positive achievements. Similar experiences are described in the literature as contributing to burnout in the healthcare team, while attending to these deficiencies help alleviate stress and in turn build resilience.[23,26,]

6.2 The Toll of Working in the ICU

As was heard in every transcript, working in the intensive care unit takes a toll on the physical and mental health of healthcare providers, as well as impacts the relationships with friends and families. Negative impacts previously well described in the literature such as depression, anxiety, substance abuse, irritability with and isolation from loved ones[1].

Recommended interventions discussed in this document to date have been focused largely on the organization and how it might participate in change to build a healthier workplace. Certainly, 2 recent reviews of a heterogeneous series of studies to mitigate burnout and build resilience suggest that both organizational interventions and personal interventions can have an impact on burnout, however organizational interventions may be associated with greater success[81,82]. In fact, without a sincere effort to develop organizational changes aligned with a healthier workplace, institutions run the risk of implying the employee is at the root of the problem. Of the individual strategies included in the meta-analysis, mindfulness training was the one most often used and showed some small benefits of success[81,82]. Other more unique, but potentially interesting given the responses in the focus groups include therapy dogs in the workplace[83] and therapeutic pauses after traumatic events[84]. Therapy dogs have been explored as an option for reducing pain, suffering, anxiety and distress in the ICU setting first by John Hopkins hospital in the United States[83]. It is currently being used in several other ICU centers in Canada for both patient and healthcare provider distress. Therapeutic pause is a unique approach to deal with the emotional burden that accompanies end of life care and was first described by Jonathan Bartels of the University Health System[84]. It is meant to be a brief reflection, open to all members of the healthcare team who wish to participate, to honour the individual who just died

and provide a moment for the team to process the event before continuing on with the work of the day. It has been reported by healthcare providers as bringing some closure after the death of a patient.

6.3 Strengths and Weaknesses of the Study

This study presents the logical next step after the initial questionnaire was sent out, showing a significant burnout and moral distress problem. We were able to confirm these findings through the focus groups and learned more about the root causes of the burnout and moral distress rates gathered through the prior survey. Strengthening our thematic analysis, the research group consists of a multidisciplinary team, avoiding bias in the interpretation of results. Our results are also strengthened by numerous other publications which report similar causes for workplace burnout and moral distress.

There is certainly a confirmation bias in the focus group members, which may lead to overestimation of the problem. However, based on the anonymous questionnaire from Jan 2018 with a high percentage of participation, we don't think that this is a relevant problem. Another weakness is that the people participating may not represent the opinion of the majority of the ICU team as the focus group enrollment was self-selected. Since many of the themes were similar across different professional groups, we did not find this to be the case, giving our study internal validity. Finally, it should also be acknowledged that differences between the groups may not reflect true differences, but instead may be a reflection of the organic nature of focus group conversations. The facilitator was provided with a guide of key questions, not questions pertaining to specific interventions or problems. Findings from the study will be presented to all team members to ensure our findings are reflective of the larger ICU team.

7.0 Recommendations

Resilience is defined as the ability to positively adapt in the face of significant tragedy or adversity[85]. As many of the issues identified in these focus groups are integral components to care of ICU patients, it is unrealistic to think we can ever eliminate burnout and moral distress. Instead we should be hoping to build resilience in our team members. Resilience has been shown to be a protective for ICU healthcare team members[64, 86, 87].   In general, literature around strategies to mitigate burnout and build resilience are heterogeneous, small, and fraught with design flaws. However, a lack of good quality studies should not limit the efforts for workplace improvement, so recommendations listed below are based on a combination of best evidence tailored to the issued identified by our focus group participants. The issues identified in the focus groups are inter-related and complex, and as such no single intervention will address them all. Instead a multi-dimensional approach will be required. It should be noted however that many individual interventions have the possibility of impacting several identified issues. Because of the inability to eliminate burnout and moral distress as well as the inter-relationship between issues and interventions, how success is defined will need careful consideration.

It should also be acknowledged that many of the programs recognized for working well were grass roots initiatives that received support and buy-in from front line staff at inception. Any proposed interventions should strive to have similar buy-in from front-line champions in addition to local leadership before attempting implementation.

7.1 Organizational

Addressing many of the organizational issues are outside of the scope of this working group. They are big picture issues that require investment and engagement and willingness to change by hospital leadership and management, the provincial government, the health professional unions and front-line healthcare workers. Some issues may require creative, "outside the box" solutions with compromises provided by all key stakeholders. It should also be acknowledged that these changes will take time and measures of success should be chosen accordingly.

Specific recommendations from this working group with respect to the organization include:
1. Support and infrastructure from NSHA for the development of an NSHA (and Central Zone) Resiliency Working Group with an appropriate budget to fund training and initiatives for this group (e.g. training for debriefing instructors of different levels).
2. Support and infrastructure from the Department of Critical Care for the ICU Resiliency Working Group to become a standing committee with a well-developed strategic plan to champion and oversee projects to grow resiliency in the team funded through the Central Zone Resiliency Working Group.
3. Representatives from the ICU Resiliency Working group to share study findings with hospital leadership and hospital employees in the form of presentations, grand rounds, peer reviewed publications/meetings.
4. Foster positive engagement of hospital leadership and ICU management with front-line healthcare workers.
5. Recommended publications and tools for hospital leadership and the organization include but are not limited to Shanafelt's article on strategies to promote engagement[31], Drybre's discussion paper organizational approaches to measure wellness[88], as well as the resources and tool kits provide on the National Academy of Medicine's Action Collaborative on Clinician Well-being and Resilience[89]. The development of a Magnet[TM] culture is another example of organizational change that has some evidence supporting it's use[90,91].
6. Further role out and refine the Just Culture implementation within NSHA, with a structured implementation program including practical sessions (the current online module is not enough).
7. ICU management to work with already identified team members on building a safe and supportive no blame culture that celebrates positive actions and achievements.
8. Revision of bed management policies by NSHA to facilitate appropriate care for the appropriate patient at the appropriate time.
9. Approach the new hospital build with consideration to design features that are wellness centered (access to gym, proper nutrition, sleeping rooms, quiet rooms, on-site daycare).

Local examples of such design could be found in many Halifax businesses, including Purdy's Warf.

10. Appropriate staffing for all healthcare teams. This may include reassessing an appropriate staffing model, including the number of shifts per month for full-time front-line workers. This first would require an economic assessment of the impact of burnout and moral distress.
11. Discuss and potentially implement acknowledgements of a difficult job well done: Allow a pause after a patients' death and resiliency day (added to current sick time).

7.2 Exposure to High Intensity Situations

As discussed previously, much if not all of our findings with respect to end of life care, communication and futility of care has been supported by prior research. Although high quality studies are lacking, the committee would recommend the implementation of several strategies in an attempt to lower the moral distress and burnout related to these issues. This would include:

1. Implement effective communication between healthcare team members, particularly around end of life care plans.
2. Implement patient care rounds in which a long-term ICU patient who has survived returns to the ICU to meet with the team and discuss their experiences as a patient. Ideally these patients will be identified in a post-ICU clinic.
3. Implement the Serious Illness Conversation Guide through NSHA leadership in all high stakes areas within the organization. This could include but not limited to pre-op surgical cancer clinics, hematology, medical oncology, radiation oncology, internal medicine, heart failure clinic, nephrology outpatient clinical and the intensive care units.
4. Develop sustainable, regular debriefing sessions supported through the NSHA Resiliency infrastructure. This would include development of a hot debrief session after critical incidents, a more informal debriefing session monthly, a new peer-support program, continued use of external professionals when severity warrants, and regular, informal touchpoints with a trusted and skilled individual to debrief any more indolent, chronic concerns.
5. Implement opportunities for healthcare professionals to decompress in a variety of ways should it be needed. This could include ensuring all staff are provided with a time to reset themselves after the death of a patient before accepting responsibility for the care of another, exploring the interest for the team to receive mindfulness training or the development of a therapy dog program for ICU front line staff.

7.3 Team Dysfunction

1. Offer in depth training for managerial positions on how to detect and deal with toxic personnel.
2. Development of respectful workplace pathways and team behavior guidelines.

3. Allowing and creating a common space for all health care professionals to interact, communicate or relax within the ICU environment.
4. Establishing ground rules amongst the interdisciplinary team members that are accepted by all groups and that allow team members to hold each other accountable. This will also allow members to share the impact certain actions or statements have on individuals (often unintended). Further specific actions could be, to allow shadowing of another professional group to better understand their daily routine and problems.
5. Explore opportunities to allow team members to work to the full scope of their practice. This is particularly relevant for the respiratory therapy group.

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Appendix A: Facilitation Guide

Resiliency Building Focus Group Interview Guide

Thank you so much for meeting today and participating in this study. As you might have seen in the news lately burnout is a significant problem for healthcare providers and has serious consequences for the individual, the patient and the organization. Pictures accompanying media stores often shows someone looking stressed and at the end of their rope. While this certainly may be the end result, researchers have defined burnout as being composed of 3 main pillars. **Emotional exhaustion** is the most recognizable – the sense of overwhelming fatigue or having nothing left to give at the end of a shift; **Depersonalization** often expressed by cynicism, detachment and loss of empathy for your patients; and finally a **low sense of personal accomplishment** – the feeling you aren't making an impact at your work or "why bother...nothing is going to change".

The results from the survey in January showed that burnout and moral distress are significant issues in all ICUs in Halifax.   Although nursing and respiratory therapy are the most significantly affected, this is a global issue for the group. Moving forward we would like to implement strategies that may bring about positive change and help build team resiliency. To do this we first need to understand more about the issues within our ICU environment and your day to day work experiences.

We are very grateful that you are willing to be here today. Caring for patients is important, but just as important is caring for our own team and your feedback will help us do that better. Today, we will be asking questions about your personal work experiences, for you to look back on your thoughts and feelings in an effort to understand your experience. Some of these discussions may be difficult and I would like to emphasize the importance we place on confidentiality. All persons involved in carrying out this research will keep everything you say here confidential. Nothing you say will be associated with any individual by name. We also want to emphasize that it is very important that you also maintain the confidentiality of what is said by others during the discussion. You can talk about the focus group with other people in general terms, but you should not reveal any personal information that may come up during tonight's discussion to anyone outside this focus group.

We will be taping this discussion so that I can focus on talking with you today instead of having to take notes. It will also ensure that we can write an accurate report about the issues raised during the discussion, not to identify who said what.

Also, your participation in this group is entirely voluntary. You may stop participating or withdraw at any time. You also do not have to speak about any topic that you do not wish to discuss.

Before we begin, I'd like to review some important guidelines to ensure we maximize the time we have together.

1. Only one person should talk at a time. Please speak in a voice as loud as mine. This is so we can record everything that is said.
2. Avoid side conversations with your neighbours.
3. We would like to hear from everyone during the course of the session, but you don't have to respond to every topic.
4. Feel free to respond to someone directly. You don't have to address your comments to me.
5. All points of view are welcome. We want to hear your personal views whether or not anyone else shares them. We are not looking for everyone to agree.
6. Also, a note on my role. I'm here to ask questions and guide the discussion but not to participate in the discussion. We are here to listen and learn from you. However, we do have a number of topics we need to cover so I may need to interrupt in order to move the discussion to a new topic or keep us on track. If you have specific questions about the study, there will be an opportunity to ask them at the end.

Finally, before starting this discussion can you please read the study consent form (describe, signature, witness signature). Do you have any questions about the interview before we begin?

Questions

1) Please introduce yourself by telling everyone your first name only, and a little about yourself.

2) Before we start discussing some of the more difficult things about working in the ICU, I am hoping you can reflect back to your work in the ICU over time, and:

- Provide examples of processes, moments or events, etc that are working well for the team.

Probe if necessary:
- Please describe what you mean.
- Can you expand?
- How are the achievements of the team celebrated?

3) In the introduction I provided a brief overview of burnout. Now, can you think back to a recent shift at the ICU and describe a stressful/difficult/complicated situation which you think can be related to one or more of the three pillars of burnout.

Probe if necessary:
- Please describe what you mean.
- How did it make you feel?
- What did you do?
- Would you say more?

4) Moral distress has been shown to contribute to burnout and it can result from internal or external limitations. Some examples could include providing futile care, disregarding patient's wishes, providing false hope, inadequate staffing to safely care for a patient, hospital policies that conflict with the needs of a patient or compromising care due to pressures to cut costs. With that in mind can you describe a situation that has resulted in moral distress for you and/or others?

Probe if necessary:
- Please describe what you mean.
- How did that make you feel?
- What did you do?
- Would you say more?

5) Similar to moral distress, team dynamics can have a significant impact on developing and perhaps preventing burnout. Thinking back to some recent shift(s), can you describe the team dynamics? This could be within or between health professions.

Probe if necessary:
- What impacts does this have on you? Patients?
- How did this make you feel?
- What did you do?

6) Today I have heard you describe a lot of challenging issues. Some of you may not relate to burnout, however work stress does exist as a part of burnout or separately. Can you share what strategies do you use to help cope with work stress?

Probe if necessary:
- What does that strategy look like?
- How have they changed over time?
- At home?
- At work?

7) We have talked today about many difficult issues in the ICU. I now want to move our attention to thinking about possibilities for interventions that can help build resilience in the ICU. As you are thinking about your answers, feel free to consider outside of the box ideas. My question is, what are your ideas around what types of interventions may be helpful for the ICU?

Probe if necessary:
- Can you tell us how your intervention may be useful in building resilience? How could it work in the current environment?
- Can you say more?
- Given some of the suggestions, which are most doable in the ICU?
- How should success be defined for these interventions?

8) Before concluding, is there anything else you'd like to discuss or think we should consider?
   - Are there any situations or behaviors that needs to be immediately or red flags that we need to move on urgently?.
   - Probe if necessary: Can you expand on what you mean?

Appendix B: Participant Consent

Consent Form

Project Title: Building Resiliency in the Halifax Infirmary and Victoria General Intensive Care Unit Healthcare Team – Phase 1.

Principal Investigator: Dr. Jennifer Hancock
Associate Professor, Department of Critical Care
Dalhousie University
Halifax, NS, Canada
Email: jennifer.hancock@nshealth.ca

Funding Provided By: NSHA's Translating Research Into Care Program

1. Introduction:
We invite you to take part in a research study being led by Dr. Jennifer Hancock, an adult intensivist at the Nova Scotia Health Authority. Taking part in the research is up to you; it is entirely your choice. Even if you do take part, you may leave the study at any time for any reason. The information below tells you about what is involved in the research, what you will be asked to do and about any benefit, risk, or discomforts that you might experience.

Please ask as many questions as you like. If you have any questions later, please contact the lead researcher.

2. Purpose And Outline Of The Research Project:
By its very nature, the Intensive Care Unit is a workplace environment associated with chronically high levels of stress. This stress can have a significant impact on healthcare providers, the patients whom they care for and the system in which they work. In January 2018, the Department of Critical Care team members participated in an online survey that assessed the incidence of burnout and moral distress. The results showed that burnout is a significant issue for all members of the ICU team and we need to find strategies to build team resiliency.

In order to appropriately select interventions, we first need to explore in greater detail the factors, both personal and organizational, that are contributing to burnout and moral distress in the healthcare team at the NSHA- Queen Elizabeth II Health Sciences Centre (QEII HSC) Intensive Care Unit. Through focus groups we will be collecting qualitative data which will be reviewed for themes and then used to select appropriate interventions for implementation in phase 2 of this research with the hope of building resiliency in the ICU team.

3. Who Can Take Part In This Survey?

You are being asked to participate in this study because you are a key member of the ICU healthcare team at the Nova Scotia Health Authority.   If you are a nurse, respiratory therapist or physician at the Victoria General Med-Surg ICU or Halifax Infirmary Med-Surg-Neuro ICU and are working in the unit we would like your input. It doesn't matter if you work full-time, part-time or casual.

4. How Many People Are Taking Part In This Study?
We are hoping that 48 people will participate in the focus groups. Focus groups are voluntary and sign-up is on a first come, first serve basis. They will also only be composed of your own health profession (ie – respiratory therapists, HI ICU nurses, VG ICU nurses, or physicians).

5. What You Will Be Asked To Do:
To help us understand the work environment we ask that you take part in a focus group session. *It should take approximately 90 minutes to complete.* Questions are designed to explore in greater detail the factors, both personal and organizational, that are contributing to burnout and moral distress in the healthcare team.

Recognizing that conversations in the focus groups may be sensitive, we remind you of the *importance of maintaining confidentiality* about what is discussed and by whom.

Results should be available approximately 6 months after the focus groups finish.

6. Possible Benefits, Risks and Discomforts:
There are minimal anticipated risks associated with participating in this research, however, conceivably you could become upset reflecting on your encounters at work, experiencing emotions such as anxiety, distress, embarrassment, or sadness. Participation in the focus group is completely voluntary and you can stop at any time without giving a reason. You may also be concerned your responses will put you at risk with your employer. All health service managers and the ICU Department Head are very supportive of this study and agree there will be no employment risk for honest workplace feedback. Also, to minimize such risk, the moderator will encourage participants to refrain from using names. All names and identifiers will be deleted during the transcription process.   Transcription is taking the words and dialogue on the audio tape and writing or typing it word for word. Additionally, during the focus group, the moderator will remind participants that the information shared is private and should not be repeated outside the focus group.

In contrast, your participation may have some personal benefits for you. It is an opportunity to reflect on your experiences, and to contribute to greater knowledge about the work environment in the Intensive Care Units at the Nova Scotia Health Authority. This knowledge will be used to inform the organization and engage in activities that may provide solutions to any identified issues or problems.

7. Compensation
There is no financial compensation provided for study participation.

8. How Will My Information Be Protected?

Information that you provide us will be kept private. Only the principal investigator and authorized officials of the team will have access to the study data. We will share our results publicly, however we will be very careful to only talk about group results so that no one will be identified. Thus, statistical data will always be reported in aggregate form (e.g. "25% of respondents"). This means that *you will not be identified in any way in our reports*.

We will be taping the focus group sessions so that the facilitator can focus on talking with you instead of having to take notes. It will also ensure that we can write an accurate report about the issues raised during the discussion, not to identify who said what. Transcripts of the session will be deidentified. All electronic records will be kept secure in a password-protected, encrypted file on a Dalhousie University secure server. All paper records or focus group recordings will be stored in a locked drawer in the principal investigator's locked office.

9. If You Decide To Stop Participating:

If you decide to stop participating you are free to leave the study (i.e., stop participating in the discussion and leave the session) at any time. However, because your responses are anonymous, it will not be possible to remove any of the information that you have contributed up to that point.

10. Questions?

We are happy to talk with you about any questions or concerns you may have about your participation in this research study. Please contact Dr. Jennifer Hancock (at jennifer.hancock@nshealth.ca) at any time with questions, comments, or concerns about the research study. We will also tell you if any new information comes up that could affect your decision to participate.

I consent to participation in this study.

_____   _____   ____ / _____ / ___
Signature of Participant   Name (Printed)   Year   Month   Day

_____   _____   ____ / _____ / ____
Signature of Person Conducting   Name (Printed)   Year   Month   Day
Consent Discussion

_____   _____   ____ / _____ / ___
Signature of Principal Investigator   Name (Printed)   Year   Month   Day