Development of a Resource to Help Nurses with Self-Care and Coping During the COVID-19 Pandemic

A practicum report submitted to the School of Graduate Studies in partial fulfillment of the requirements for the degree of

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Abstract

Background: Public Health Nurses continue to provide care for communities through the course of the COVID19 pandemic. With the increases in workload and uncertainty resulting from pandemic nursing, burnout becomes a serious concern and may require resources and intervention to ensure the continued wellbeing of nurses. **Purpose**: The purpose of this project was to assess the impacts of pandemic nursing on public health nurses' perception of burnout and to subsequently develop an e-resource to help support nurses through education, self-care, and peer support. **Methods**: An integrative literature review and consultation with front-line public health nurses and management were completed. The literature review and consultation findings were then employed in developing an evidence-informed resource to help prevent and mitigate the impacts of burnout. **Results**: The existing literature strongly supports that nursing is a profession whose members can be adversely impacted by burnout and this is exasperated in pandemic working conditions. Consultations supported these findings and noted that nurses were open to the prospect of being provided with a resource to help them better manage burnout in themselves and their peers. An e-learning module was developed that is meant to educate nurses on causes of burnout and the strategies which can be employed to mitigate it. The module meant to be used in conjunction with a daily virtual peer support meeting which will strive to assist nurses in caring for themselves and one another. **Conclusion**: Burnout is a real and present concern for nurses working through the COVID19 pandemic. The evidence supported the development of a resource, comprised of an e-learning module and peer support strategy.

Key words: burnout, self-care, COVID19, pandemic, nursing

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Development of a Resource to Help Nurses with Self-Care and Coping During the COVID-19 Pandemic

As the world remains in the grip of the COVID19 global health pandemic nurses face increased pressures and new challenges as they continue to strive to deliver care. This practicum project sought to explore whether these new challenges were leading to an increased risk of burnout for nurses with Niagara Region Public Health., and subsequently offer them a tool to build resilience and coping. In seeking to better support nurses as they continued their crucial work with clients and communities it was apparent that nurses were at increased risk for burnout and in need of support. This practicum project culminated in the development of an evidence-based resource that would help nurses to cope with stressors, build resilience, and mitigate the effects of burnout.

Objectives

The key practicum objectives used in the development of this practicum project were as follows:

1. To assess the need for support and presently available resources for Public Health Nurses (PHNs) working in epidemic/pandemic situations. This will be achieved through both assessment of the available literature for current and past pandemic/epidemic situations and through discussion with frontline nursing staff.
2. To collaborate with my practicum supervisor, staff, and NRPH leadership in in the development of a resource based on a literature review and data collected through consultation with key informants.
3. To propose an implementation plan for the resource for PHNs.
4. To fulfill the following ANP competencies: research; consultation; and clinical and

professional leadership.

Methods

In seeking to understand the complex implications of a global health pandemic on the wellbeing of nurses a great deal of research and exploration was required. An integrative literature review (as seen in Appendix A) and consultations with key stakeholders (seen in appendix B) were deemed to be crucial components in this process. Through turning to the literature, a better understanding of the nature of burnout, risk and protective factors, and possible avenues to treat nurses and build resilience could all be explored. Furthermore, an exploration of the impacts of past health epidemics and pandemics and their impacts on nurse burnout could be used to lend credence to arguments supporting the need for further intervention during COVID19.

Consultation with frontline nurses and organizational leadership was an equally crucial next step. Through connecting with these individuals, a better understanding of the perceptions of the nurses within the organization could be gleaned. Furthermore, they could offer key insights into what would (and conversely) would not be amenable treatment options in mitigating burnout and building resilience.

Integrative Literature Review

A broad search of multiple academic databases was carried out which included: the Cumulative Index of Nursing and Allied Health Literature (CINAHL), PsychInfo, the Nursing and Allied Health Database, and Google Scholar. In searching the databases combinations of the following search terms were used: “pandemic or epidemic,” “burnout or burn-out or burn out or stress or compassion fatigue,” “intervention or treatment,” and ‘nurse or nurses or nursing.” Additional searches were also completed that substituted the pandemic/epidemic terms with

more specific health crises as they were identified in the literature, including “HIV and AIDS,” “MERS”, “SARS”, “H1N1”, COVID19 or COVID-19,” and “Ebola.”

Articles were screened by reading titles and abstracts in order to determine which would warrant further review. At the end of the literature review, discounting duplicate search results, a total of 57 articles were examined and included in the literature review. The Public Health Agency of Canada’s (PHAC) critical appraisal tool kit for quantitative research studies (2014) and the Joanna Briggs Institute checklist for qualitative research (2017) were used in order to critically appraise the content of the research examined.

Understanding Burnout

Burnout was articulated and defined, utilizing the definition provided by the World Health Organization (2020), which notes that it occurs due to “chronic workplace stress that has not been successfully managed.” Burnout has three main characteristics: emotional exhaustion or depletion, increased mental distance or cynicism towards one’s job, and reduced professional efficacy according to the International Classification of Diseases (ICD-11) (World Health Organization, 2018).

There are a number of factors that must be considered when exploring what may contribute to burnout. Excessive workload (Aiken et al. 2009), perceived lack of control over one’s job, exposure to trauma, and the intensity of the psychological demands (Adriaenssens, De Gucht, & Maes, 2015) are all associated with increased risk of burnout. The implications of nursing through a global health pandemic on these risk factors are clear; the risks of burnout in nurses will be clearly exasperated.

The protective factors against burnout were also identified in the literature. Focus on maintaining general health and wellness is important; this consists of physical, mental, and

spiritual wellbeing (Center for Addiction and Mental Health, 2020). A higher baseline level of physical fitness is also reported to be protective against burnout (Naczenski, Vries, Hooff, & Kompier, 2017).

Pandemics and Burnout

There is compelling evidence that supports epidemic and pandemic scenarios exasperating the risk of burnout in nurses. The early evidence being conducted during COVID19 indicates an increased risk (Nadler, Barry, Murphy, Prince, & Elliott, 2020; Wu, Styra, & Gold, 2020). While more research is certainly forthcoming, the preliminary evidence is indicative that COVID19 is associated with increased risk of burnout. Given the intense levels of personal and professional isolation that has occurred with this pandemic, one might even speculate that this pandemic will see even greater rates of burnout than past pandemics.

Past health crises have been examined in greater detail and the evidence is clear; when nurses face these challenges in healthcare the risk of burnout is elevated. HIV/AIDs (Hayter, 1999), SARS (Shiao, Koh, Lo, Lim, & Guo, 2007), H1N1 (Wong, Wong, Kung, Cheung, Tao & Griffiths, 2010), MERS-CoV (Kin & Choi, 2016), and Ebola (Kerfoot, 2019) have all been examined with nurses reporting high instances of burnout. Epidemic and pandemic situations clearly put added pressure on nurses and contribute to burnout.

Burnout Interventions

The implementation of strategies to mitigate burnout and care for oneself during these times of elevated stress is crucial. There are numerous approaches to intervention that have identified in the literature. Of particular note was mindfulness-based interventions. Whether through training in mindfulness-based stress reduction (Suleiman, Gomez, Aguayo, Cañadas, De La Fuente, & Albendín, 2020) or participation in an activity like yoga(Alexander, Rollins,

Walker, Wong, & Pennings, 2015), nurses have found significantly decreased assessments of burnout.

Peer support interventions where also highlighted in the literature as effective means of mitigating the impacts of burnout in nurses. In person peer support groups (Grossman & Silverstein, 1993) and virtual support groups (Nadler, Barry, Murphy, Prince, & Elliott, 2020) are both proven methods that allow nurses to provide essential support to one another to cope through the stresses of pandemic nursing. The evidence supports nurses helping one another through stressful times being an important facet of coping.

Literature review summary

An exhaustive review of the available literature led to some very clear conclusions. Burnout is a very real and concerning phenomenon for nurses due to the inherent stresses and challenges of their work. These risks are increased and made more prevalent when there are additional strains placed on them due to pandemic illnesses. Luckily, these risks can be mitigated through the implementation of effective self-care strategies. Whether through adopting some sort of mindfulness practice, making better lifestyle choices, engaging in peer support, or some combination thereof nurses can help to ensure their own health and wellness.

Consultation

Consultation with both frontline nursing staff and leadership within Niagara Region Public Health was deemed an essential component to understanding the issue of burnout within that population and how to best approach building resilience. The consultation process consisted of seven semi-structured interviews, employing open-ended questions. Six of the interviews were with frontline nursing staff and the seventh was with a clinical team manager (in order to get insight into organizational leadership's perspectives).

When sampling frontline nurses an eclectic sample was purposefully sought out. This meant representation from mental health, school health, infections diseases, and the vaccine preventable diseases programs. Furthermore, several of these nurses were redeployed from their regular positions to roles directly pertaining to COVID19 at the time of the interviews.

Perception of Burnout

Every full-time frontline nurse interviewed reported feeling risk of burnout was exasperated for themselves and their peers since the pandemic started. There was significant variation noted in the descriptions of what burnout presented like in each nurse. However, two main themes were noted: adverse impacts on mental health and decreased job satisfaction.

Nurses' perception of what was causing the increased risk of and prevalence of burnout was also explored. Feeling that one lacked control over one's professional life was an emergent theme. This was particularly apparent in the nurses who had been redeployed from other roles to help in the COVID19 response. Workload was another theme that was nearly universal in the interviews; with many nurses feeling overwhelmed at times. Increased work, missed breaks, operating short-staffed, and less clerical support all were noted to increase feels of frustration and burnout.

Safety was noted to be a major concern for nurses when discussing what they believe could attribute to burnout. Early in the pandemic there was great uncertainty around proper personal-protective equipment and safety protocols. This led to nurses voicing concerns over their own safety, how to ensure the wellbeing of their own families (and not putting them at risk when they get home from work), and the safety of their clients.

Consultation Around Existing Self-Care

The means of engaging in self-care reported in consultation were congruent with the broad spectrum of approaches identified in the literature: mental, physical, and relational (or some combination thereof). Mental self-care was comprised of engaging in distraction (such as watching TV and hobbies). Physical self-care included structured fitness regiments and (more commonly) just going out for a brief walk sometime during the workday. Relational self-care involved debriefing with peers and talking about one's feelings with family and friends. The importance of pets was also highlighted as being even more important than usual as social distancing and limited social interaction were taking a toll on many nurses.

Although, one must note that not all the existing forms of self-care with positive or congruent with what we might hope for. Some of the nurses interviewed reported that they were becoming isolated and withdrawn. Furthermore, alcohol consumption was noted to be increased in several of the nurses, both in volume and frequency.

Consultation Around Resource Development

In discussing what would make a resource more accessible to nurses a couple of points quickly became apparent. First and foremost, any resource suggested would need to be endorsed and supported by the organization. Mandatory learning would have time allotted for it. Lacking designated time would lead to the resource being perceived as potentially burdensome.

The preferred formatting for the resource was an online delivery. This was suggested for a number of reasons, it permits for social distancing and could be competed in a manner and time that would be most appropriate for each individual nurse. The preferred structure of an online resource was something that nurses were divided on. Half of those interviewed suggested that an e-learning module would be the most agreeable for them, while the other half of nurses suggested that a live instructor would be preferable in a webinar format.

Resource Summary

The resource developed for this practicum project is an evidence-based e-learning module designed with an aim of helping nurses build resilience and mitigate burnout. The content of the e-learning module can be see attached in Appendix C. The resource is built upon a framework based on Watson's (2008) Theory of Human Caring. It is designed to take a twofold approach to addressing burnout, through educating nurses and implementing a peer-support intervention.

Theoretical Framework

Watson's Theory of Human Caring was recognized at the most appropriate framework in the development of this practicum project. From an intuitive level Watson offers a strong counterweight to the isolation and lack of connectedness that has followed in the wake of social distancing and COVID19, through a focus on relationships and interpersonal connection.

Watson (2008) emphasizes that the therapeutic relationship is the core of nursing practice. Understanding the implications of burnout on a nurse's ability to engage and provide quality care for their clients leads to a clear need to adopt interventions that encourage nurses to be more present and understand themselves (Cohen-Katz, Wiley, Capuano, Baker & Shapiro, 2004).

Watson (2008) understands that self-care is not an inherently selfish act. She emphasized the need for nurses to develop living-kindness towards themselves as well as their clients; that not caring for oneself takes away from the ability to care for others. Through the implementation of Watson's framework we can be assured that nurses are working care for themselves, in order to be the most effective and compassionate versions of themselves in interactions with their clients and communities.

The consequences of trying to work though burnout robs the nurse of the ability to fully live and utilize Watson's (2008) Caritas processes. Therefore, commitment to compassion for the self and effective self-care strategies is evidence of the creation of a centered, optimal healing environment (Townsend, 2020).

Education

Through having nurses complete an e-learning module they would be provided education around what burnout is, the signs and symptoms, and risk factors. Furthermore, it was explained how working through pandemic conditions may further exasperate risks. Nurses are encouraged to utilize the Professional Quality of Life Scale (PROQOL5) (Hudnall Stamm, 2012) as a means of assessing their current level of burnout. The PROQOL5 can be an important tool, promoting nurses to reflect more on their current emotional state and how their work has been impacting them.

It is not enough to merely help nurses understand what burnout is. It is imperative that the resource go further and try to foster improved self-care. This is the means by which we might help nurses to foster resilience and mitigate the risks of burnout. Nurses are encouraged to focus on improving their general health and wellbeing, noting the importance of physical health, fitness, and good nutrition in mitigating burnout. The efficacy of mindfulness is stressed; noting that mindfulness strategies are versatile in their implementation and offer powerful, evidence-based strategies to improve the wellbeing of nurses.

Peer-Support

The second aspect of the resource is centered on the notion that peer-support is an instrumental component of continued wellness for nurses. The e-module presents the information

pertaining to the importance of peer-support in nursing and noted how the social constraints of COVID19 had strained this ability in a way that is unprecedented for nurses.

As a way of providing peer-support to nurses an intervention was developed based loosely on a study completed by Nadler, Murphy, Prince, and Elliot (2020). Nurses are to participate in daily Virtual Coffee Breaks, a brief socially distanced meeting (whether in person or via Zoom) with a small team of other nurses. These meetings would allow nurses time to check in with one another; focusing not on their day-to-day work and clients, but instead on one another.

In order to try and make these daily meetings as effective as possible, nurses are encouraged to complete a brief report which outlines what burnout looks like for them specifically, as well as some of their preferred means of coping (seen at the end of Appendix C). Should nurses be willing to share this document with their teams as suggested it would further empower the group to effectively support its members. Through a more nuanced understanding of what burnout looks like for each of the individuals involved the teams are better able to recognize and offer support.

Additional Support in the Resource

The resource is intended to address several other issues that would be important for nurses. Information and direction are provided for any nurse who is struggling to the point that resilience building and self–care is insufficient; suggesting that that they avail of the Employee Assistance Program in place for them. Finally, some resources are provided to try and help nurses better support their client's in the community. While the crux of this project is the health and well-being of nurses, one must recognize that caring for our clients and communities is our

purpose. Lacking the tools to do that effectively could be a source of stress and dissatisfaction in its own right.

Advanced Nursing Competences

The Canadian Nurses Association (CNA) (2019) Advanced Practice Nursing definitions were used to define and articulate Advanced Nursing Competencies (ANCs). Many of these ANPs were displayed over the course of this practicum project. Education, research, leadership, and consultation and collaboration were the ANPs that were the most clearly demonstrable over the over of developing this practicum project.

Education

The CNA (2019) notes that an educational ANC involves being "committed to professional growth and leaning for all health-care providers" (p. 33). This is demonstrated by contributing to the knowledge of team members and identifying and developing programs that meet the learning needs of other team members. The development of this this project has met these criteria, working to develop a learning resource and educate nurses about consequences and treatments for burnout.

Research

The CNA (2019) outline an ANC pertaining to research as "generating, synthesizing, critiquing, and applying research evidence" (p. 34). The integrative literature review that was completed as a part of this practicum project embodies this competency. Literature was examined in a systematic way with the aim of developing a resource of based upon and applying evidence practice.

Leadership

The CNA (2019) notes that advanced practice nurses are agents of change and actively seek to find new ways to practice and improve on the quality of care delivered. Furthermore, they note that advanced practice nurses seek to apply theory in change management, while seeking to develop innovative approaches in the management of complex issues. This project is aligned with a leadership competency, as is it is demonstrable that caring for nurses in an integral part of insuring quality care for our clients.

Consultation and Collaboration

The use of effective consultation with other healthcare practitioners and stakeholders is an important ANP (2019). This can consist of using consultation to develop quality improvement strategies, while working with others to address concerns at both individual and organizational levels. Through the consultation process with frontline nurses and leadership within Niagara Region Public Health this competency was successfully demonstrated. Furthermore, through adopting an open and collaborative approach with the practicum supervisor for this project support was obtained in gathering and synthesizing data.

Moving Forward

At the time this report was drafted steps have already begun to be taken to move towards potentially having the resource developed implemented within NRPH. The strategies are focused on an initially implementing the resource within Niagara Region Public Health before advocating for a wider distribution with adjacent public health units.

Niagara Region Public Health

The e-learning module has been shared with organizational leadership for Niagara Region Mental Health. It has been shared with the Director of Clinical Services, the Director of Family Services, and the Chief Nursing Officer. An offer has also been extended to present on

the topic, in order to provide clarification anywhere warranted and to further advocate to the use of this resource.

Evaluation Within Niagara Region

Evaluation of the resource within the Niagara Region will be multifaceted, as both the e-learning module and the virtual coffee breaks would need to be evaluated for effectiveness. At the end of the e-module there are evaluation questions to be completed. This information would be collected electronically and would offer insight into whether nurses found the resource effective in its aims and in meeting their needs with respect to burnout. Nurses are also provided with an email address so that they could voice any more complex concerns and open a dialogue should they wish to do so.

E-module feedback questions will employ a five-point Likert scale. Questions will explore whether nurses felt the information presented to them was relevant to their practice, whether suggested interventions were deemed useful, and the likelihood of nurses implementing some or all of the proposed self-care strategies.

Once virtual coffee breaks have been implemented there would need to obtain feedback and evaluation of this component of the resource as well. This feedback will be obtained by connecting with some of the groups of nurses, making inquiries about how the process is going and whether there are benefits (and if the benefits are sustained) from involvement in the group.

Other Public Health Units

The implementation and evaluation of this resource within Niagara Region Public Health will provide invaluable insights and lessons on how to effectively further implement this resource in other public health locations. The intention will be to reach out to other local Public Health agencies, with Hamilton and the Greater Toronto Area being the most likely areas to

focus on. The rational here is twofold, given the close proximity to the Niagara Region it is reasonable to posit that nurse experiences are similar in these areas. Furthermore, at the time of this report's creation these areas are facing increasing numbers of COVID19 cases and subsequent lockdowns. Based on the increased workload placed on Public Health nurses in these areas the risk of burnout is exasperated, and they are more in need than ever for support and intervention.

The process of getting this resource to these other public health agencies would consist of approaching the leadership of these organizations and offering them the resource. This offer would also include an offer for a presentation on the resource, in order to explain why this is such an important issue, and how the implementation of the resource could be an important step in preventing nurse burnout. Honest dialogue about any successes and barriers within NRMH would aid in this process as well.

Evaluation of Wider Distribution

Evaluation of a wider distribution of this resource would be considerably more challenging as the amount of control relinquished for distribution and implementation is much greater. However, there would be opportunity for obtaining feedback and information through this process.

If other public health agencies are receptive to a presentation on the resource for their staff a questionnaire could be provided at the end. The content of this questionnaire would be derived from the questions at the end of e-learning module. The leadership within these organizations would be provided with contact information and encouraged to reach out with issues or concerns. Open dialogue here would be essential in learning more about the successes and challenges of implementing this resource in other locations.

Conclusion

Burnout is a real threat to the health and wellbeing of nurses working to navigate the challenges of the COVID19 pandemic. Through a review of the available literature and consultation with public health nurses a resource was developed with an aim of mitigating burnout and fostering resilience. The resulting resources is a multifaceted, evidence-based tool that would aim not only to educate and empower nurses in their person approaches to burnout, but to provide an opportunity and framework for crucial nursing peer support. The evidence in favor of the implementation of educational and supportive interventions in combating the risk of burnout in nurses during pandemic situations is simply overwhelming. Moving forward, the resource outlined here has the opportunity to be a big part in helping nurses maintain and improve their wellbeing as they continue to navigate the challenging new normal of pandemic nursing.

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Appendix A

The Prevention and Mitigation of Burnout in Pandemic and Epidemic Nursing:

Integrative Literature Review

Abstract

Pandemics and epidemics create unique challenges for nurses, with added pressures and strains, increased fears, demanding schedules, and increased uncertainty all contribute to increased stress and anxiety. A consequence of these adverse working conditions can be increased risk of burnout. Through an integrative review of the available literature it is demonstrable that nurses have suffered from adverse consequences related to burnout through the major health crises in living memory. As we continue to try and support nurses through the current COVID19 pandemic it is imperative that we explore the means of aiding nurses identified in the literature. Both individual and organizational strategies to mitigate burnout were explored in the literature, this includes mindfulness-based strategies and employee assistance programs. Understanding the risks that nurses face, and how to help support them is critical in ensuring the continued wellbeing of both nurses and the clients that they provide care for. This literature review supports the notion that further resources, tailored to support nurses in practicing self-care in this unique situation is warranted.

The Prevention and Mitigation of Burnout in Pandemic and Epidemic Nursing

On the 11th of March 2020 the World Health Organization (2020) recognized that COVID19, the illness associated with escalating spread of a novel coronavirus, had reached a point where it constituted a threat that warranted labelling it a pandemic. In the face of uncertain risk and often overwhelming demands on medical services nurses in all areas of practice have risen to meet the challenges associated with delivering effective care. These unprecedented challenges in healthcare have led to widespread recognition from the public (Carreiro, 2020) for the work being done. However, this has in turn led to stressors and challenges for those working in healthcare that are unlike anything in living memory for most of those experiencing it.

COVID19 has dominated the headlines in popular media and effectively changed that way the world was operating, seemingly overnight. As the world has struggled to understand and respond to the economic (Government of Canada, 2020), environmental (Henriques, 2020), and cultural (Wu & Solly, 2020) impacts; one must work to reframe and understand the implications of this illness from a trauma lens (Horesh & Brown, 2020).

The World Health Organization's Chief Nursing Officer, Elizabeth Iro, has publicly stated that nurses working through this pandemic are placed at high risk of contracting the virus, suffering from exhaustion, and face isolation as they try to protect their own families (Pidgeon & Hughes, 2020). Thus, the heighted risks to nurses working in these times are significant and must be acknowledged. We must ensure that nurses are supported, not only with physical health issues and personal protective equipment, but emotionally and mentally.

New challenges, uncertainty, secondary traumas, and the increased workload imposed on nurses may all contribute to an increased risk for nurses burning out (Kelly, 2020). One might initially question how self-care during a pandemic would be any different than care during

routine operations. However, pandemic conditions are truly unique, exposure-related PTSD, psychological distress, challenging working conditions, and limited resources all become protracted problems (Rissmiller & Steer, 2007). The consequences of widespread closures of businesses and unprecedented social distancing guidelines present novel challenges that must be addressed. So many of the ways that nurses might have previously cared for themselves and managed stress are unavailable, while as previously noted the pressures are mounting. This leaves us with a unique need to protect nurses from burning out in this trying time.

In seeking to strategize and develop the means to support nurses working in epidemic and pandemic situations an integrative review of the existing literature was completed. This review would allow one to glean insights into the degree of risk for burnout, and the consequences thereof. Means of mitigating and treating burnout must be explored. This is how we may ensure that the lessons from past health crises can be carried forward and applied, and the tools to protect nurses are made readily available. If we accept the that nurses are the backbone of the healthcare system, we must acknowledge that their health and wellness is critical to ensuring that client care is uncompromised in even the most challenging of situations.

To ensure that the review was succinct, and the data were pertinent to the purpose of the review, a series of questions was formulated to guide the retrieval of information:

1) What is burnout? What does burnout mean for nurses and the organization?
2) How can one assess for the presence of burnout, and conversely the efficacy of treatment modalities?
3) Are nurses working in pandemic and epidemic conditions at heightened risk for compassion fatigue or burnout? What evidence identifies and supports the elevated risks to nurses in pandemic/epidemics, and if so, why?

4) What institutional and personal interventions have been trialed in combatting compassion fatigue and burnout in nurses? If so, what was the therapeutic efficacy for the nurses involved in treatments?
5) What evidence is there to support the use of Watson's Theory of Human Caring in guiding the type of strategies and interventions that prevent or support nurses experiencing burnout?

Methods

In order to ensure an effective and meaningful review of pertinent literature, care was taken to utilize search terms and criteria were appropriate. Multiple academic databases were employed to be sure that the resulting literature review would successfully and accurately capture the current state of literature pertaining to the central thesis.

Search Strategies

In searching for literature four academic databases were employed: the Cumulative Index of Nursing and Allied Health Literature (CINAHL), PsychInfo, the Nursing and Allied Health Database, and Google Scholar. The choice to search these databases was deliberate, seeking to find a wide variety of results that would ensure that mental health, occupational health, and nursing specific literature would be available for further review.

In searing the databases combinations of the following search terms were used: "pandemic or epidemic," "burnout or burn-out or burn out or stress or compassion fatigue," "intervention or treatment," and 'nurse or nurses or nursing." Additional searches were also completed that substituted the pandemic/epidemic terms with more specific health crises as they were identified in the literature, including "HIV and AIDS," "MERS", "SARS", "H1N1", COVID19 or COVID-19," and "Ebola."

Each of the articles was individually examined by reading titles and abstracts in order to suss out those that would be appropriate for further investigation and review. After the completion of all the searches and preliminary review, discounting any duplicates in the search results, 57 articles were examined that warranted inclusion in the literature review. Only articles containing information pertaining to information retrieval questions were included. For the appropriate literature, the he Public Health Agency of Canada (PHAC) critical appraisal tool kit for quantitative research studies (2014) and the Joanna Briggs Institute checklist for qualitative research (2017) were employed to critically apprise the content. Literature summary tables can be seen in Appendix A, all articles featured there will appear bolded in this review.

Inclusion and Exclusion Criteria

Given the global nature of pandemics and the relative infrequency of their occurrences, broad search criteria were applied. Literature reviewed was written in English and had the full text available. The literature searches were restricted to articles published from 1985 to present. While the bulk of research assessed was much more recent than the 1980s it was deemed important to look back far enough to be able to include research that was written in the midst of the HIV/AIDS crisis, and not just authors who reflected on that crisis later. This was done in the hopes of gaining better insight into how the events were perceived at the time, rather than how they appear in hindsight.

Results

The results of the literature review offered insight into what burnout is, how it can present, and many of the factors associated with its onset. How to assess for burnout and some of the personal and organizational factors that can be protective against burnout were also examined. An exploration of the impacts of the current and past health impacts on burnout is

presented. Finally, evidence from the literature pertaining to the prevention and treatment of burnout provides insight into how this problem can be addressed in practice.

Burnout and Compassion Fatigue

According to the World Health Organization (2020) burnout occurs as a result of "chronic workplace stress that has not been successfully managed." It presents as feelings of energy depletion or exhaustion, pervasive negativity or cynicism (particularly about one's work) and reduced professional efficiency. These symptoms can also include disengagement from the workplace and even depression (McAbee, 1991). The effects of burnout can adversely impact nurses and the work that they do.

There is a great deal of overlap between burnout and compassion fatigue and the labels are often employed simultaneously or interchangeably. However, compassion fatigue is different in that it specifically denotes situations wherein a nurse's compassionate energy has been expended beyond the point it can restore unaided; leading to physical, emotional, cognitive, and even spiritual challenges (**Zhang, Zhang, Han, Li, & Wang, 2018**). For the purpose of brevity in this review burnout will be the term used, although causative agents and interventions are largely applicable to both burnout and compassion fatigue.

Burnout can be understood as having three main defining characteristics: emotional exhaustion or depletion, increased mental distance or cynicism towards one's job, and reduced professional efficacy according to the International Classification of Diseases (ICD-11) (World Health Organization, 2018). When one considers these features in a nursing context it is rapidly apparent that allowing this to happen can have potentially dire consequences for client care. Furthermore, the impacts on the nurse him or herself cannot be understated; to lose out on the

connection to the nursing profession that is so much a part of our identity must be immensely painful.

It is important to acknowledge that burnout does not only impact the nurse suffering from it. The burnout is more insidious in that in adverse impacts the clients that the affected nurse is caring. Meta-data exploring the impacts of burnout in healthcare workers on client safety was clear, with burnout being associated with clients having decreased perception of quality of care as well as reduced safety (**Salyers et al. 2017**).

Burnout can often be a function of excessive workload, **Aiken et al. (2009)** reported that measures of burnout increased by 23% with every additional client the nurse-to-client ratio was increased by. The perception of control over one's job, exposure to trauma, and the intensity of the psychological demands placed on the nurse were all associated increased risk of burning out (**Adriaenssens, De Gucht, & Maes, 2015**). Clearly, the quality of the working environment has implications insofar as burnout is concerned, however, there are also implications for the amount of time nurses are working. Meta-analysis of nursing hours of work and overtime saw significant correlations between increasing the number of hours in a shift and increasing the total number of hours worked per week and increased instances of burnout (**Bae & Fabry, 2014**).

Seeing the characteristics that can contribute to burnout it is easy to perceive how they would all be exasperated in a pandemic situation. Redeployments to other roles, struggled to meet the increased demands and workloads, constantly shifting practice guidelines, and caring for unprecedented numbers of ill individuals and struggling families all place immense burdens on nurses. While risk of burnout is always a concern to be managed in healthcare, pandemics pose a unique situation wherein all the pressures and risks are elevated while supports and self-care practices are limited. Thus, it is crucial that we develop interventions and strategies to

ensure the continued health and wellness of nursing staff who are continuing to try and provide care in the midst of uncertain and challenging times.

Assessing Burnout

When contemplating the psychiatric and emotional underpinnings one might initially question how to assess burnout accurately. However, given the acknowledged need for research in this area there are validated and reliable tools to assess burnout, the most commonly employed being the Maslach Burnout Inventory (MBI) (Mind Garden, 2019). A meta-analysis of research pertaining to burnout in nurses working in emergency departments saw 15 of 17 reviewed articles use the MBI in their research (**Adriaenssens, De Gucht, & Maes, 2015**). Other measures for burnout (or aspects of burnout) can include: the Intrinsic Job Satisfaction Subscale (**Smith, 2014**), the Hospital Anxiety and Depression Scale (**Westphal et al., 2015**), the Nursing Stress Scale, Symptoms of Distress, Coping with Stress, the Work Limitations Questionnaire, Use of Substances for Stress Relief, Understanding Depression and Anxiety, and Nursing Job Satisfaction Scale (**Hersch et al., 2016**).

It is important to be able to utilize a reliable means of assessing burnout that is congruent with the existing literature. This ensures veracity of any reported changes made as a result of the implementation of a resource or intervention. Furthermore, it allows one to begin to compare contrast any data collected with the larger body of existing literature.

Protective factors against burnout

In trying to understand how to bolster one's defenses against the potential onset of burnout the answer is simultaneously strikingly simple and immensely complicated. To avoid burnout one ought to seek to improve their overall health in all the areas of their life. This would involve physical, emotional, mental, and spiritual wellbeing, while avoiding excessive alcohol

and caffeine use (Center for Addiction and Mental Health, 2020). The notion of improving overall health and wellness in all domains is a straightforward statement, however, the achievement of that aim is likely multifaceted and complex. Therefore, interventions to aid in mitigating burn are, by necessity, more pointed in design and focus on one or more facet of wellness, rather than them all.

Meta-analysis of data exploring the link between physical activity and burnout is clear; individuals engaging in strenuous physical activity on the regular basis are significantly less likely to suffer from burnout (particularly with respect to feeling exhausted) than more sedentary peers (Naczenski, Vries, Hooff, & Kompier, 2017). Although the evidence is limited, it is interesting to note that the data does not support starting a new exercise program as a form of therapy to treat burnout (Ochentel, Humphrey, & Pfeifer, 2018). One might reasonably posit that a pre-exercise routine and improved physical health is protective, while adding in another new demand on the already depleted resources of someone with burnout is not helpful. Therefore, nurses ought to be encouraged to maintain a higher base-line level of physical fitness in order to be able to cope with stressors better when the do come up.

Fostering mindfulness is discussed in this review as being a means of mitigating and treating existing burnout. However, its utility is even greater than this; the development of a mindfulness practice can be viewed as a tool to protect against burnout in a healthy individual. In a study with emergency room staff the acquisition of higher mindfulness led to less anxiety (r=−.55, p <.001), depression (r=−.49, p <.001), burnout-related depersonalization (r=−.37, p <.001), and emotional exhaustion (r=−.52, p <.001) (Westphal et al., 2015). One's dispositional mindfulness level is negatively correlated with emotional exhaustion and reduced perception of personal accomplishment (Salvarani et al., 2019). Mindfulness based interventions

are powerful and quite utilitarian in nature. Providing nurses with the tools to develop increased mindfulness is protective against burnout.

The impact of the cultivation of mindfulness and self-compassion is noted to help improve sleep, resilience and reduce burnout rates in health practitioners (Kemper, Mo, & Khayat, 2015). Meanwhile, it is understood that higher levels of self-criticism is associated with higher levels of burnout (Beaumont, & Sisson-Curbishley, 2020). This allows one to begin to grasp the nuanced and complex interplay of a multitude of factors when it comes to burnout; negative self-talk, sleep, deprivation, pre-existing levels of anxiety and depression, support, and resilience are all interwoven, impacting one another and the possibility of reaching burnout. Maintaining a mindfulness practice and fostering self-compassion may be a big part of maintaining wellness and staving off burnout in crisis situations for many nurses.

These protective factors are important to remain cognizant of. Most nurses are not yet burnt out, despite being at elevated risk. Therefore, providing them with the means, education, and encouragement to make the healthy choices and partake in self-care regiments can potentially help to keep them safe and optimally functioning.

Quality of Burnout Data

The quality of the evidence pertaining to burnout is strong overall. Meta-analysis (Salyers et al., 2017; Zhang, Zhang, Han, Li, & Wang, 2018) and systematic literature reviews (Adriaenssens, De Gucht, & Maes, 2015; Bae & Fabry, 2013; Smith, 2014) provided exceptional insight into the topic; informed by dozens of individual studies and thousands of participants. Salyers et al. (2017) was noted to have analyzed 82 studies, effectively drawing data from a staggering 210,669 participants; making this a powerful tool for understanding the topic.

Symptom descriptions are obtained from the World Health Organization (2018), an internationally recognized authority in health matters. Findings from pertinent individual studies were also reported on. This included Aiken et al.'s (2002) and Westphal et al.'s (2015) cross-sectional studies. While cross-sectional studies have inherently weak designs it is an appropriate and logical choice to make when attempting to study the impact a real-world phenomenon like a pandemic on nursing.

Given the wealth of data available describing the experience and treatment of burnout in nurses it is clear that this is an area of interest in the academic community. Strong meta-data serves as the foundation for this literature review.

COVID19

At the time this review was written the world remains in the grip of the COVID19 pandemic and the body of research pertaining to it is still in its infancy. However, early evidence suggests that nurses working in this pandemic are at heightened risk of burnout (Nadler, Barry, Murphy, Prince, & Elliott, 2020). There is evidence which suggests that healthcare works may experience increased distress when they are placed under quarantine self-isolating; with fear, stigmatization, depression, and symptoms of post-traumatic stress disorder being reported (Wu, Styra, & Gold, 2020).

The scope of this issue is not one that can be easily dismissed or downplayed. One American assessment of the fiscal impacts of nurse burnout related to COVID19 was estimated to be 137 billion dollars, largely due to nurses leaving the field rather than continue to endure the stresses they have been under (PR Newswire, 2020). Even more importantly that the fiscal impact is the personal one, client care will inevitably suffer, as will the nurses who question their choice to enter (and ability to continue) in their chosen vocation.

Past Health Crises

In seeking to develop means of helping nurses to cope with health crises it is critically important that one look back to the past. We, as nurses, have been present and provided care through untold regional outbreaks, epidemics, and even other global pandemics. The lessons learned from these instances were often hard won and it would behove us to try and apply as much of that knowledge as possible in moving forward.

HIV/AIDS

Grossman and Silverstein (1993) noted that with healthcare workers providing care for individuals with AIDS burnout was a frequently noted occurrence; with feelings of despair and difficulty coping becoming commonplace. This was driven, in large part by the pressures of trying to help as clients die, while fearing that a misstep in providing care could lead to contracting the virus.

A study of community nurse specialists caring for clients living with AIDS reported 66% of nurses as having moderate to high burnout (Hayter, 1999); they were noted to score particularly high on the emotional exhaustion subscales. Interviews with the nurses involved contained reports about the struggle coping with the deaths of their clients and seeming inevitability of adverse outcomes.

The literature pertaining to burnout during the height of the HIV/AIDS crisis shows how the increased burned was associated with watching clients suffer, causing substantial increased in reported emotional exhaustion. While there is, unfortunately, little that can be done about the increased mortality rates and workload during a pandemic remaining cognizant of the impact and toll that it can take on nursing staff is essential in helping to maintain health and morale.

SARS

Research pertaining to severe acute respiratory syndrome (SARS), which caused global concerns in the early 2000s, is particularly interesting and pertinent to the current health crisis, as both are caused by coronaviruses. One can easily begin to draw parallels to the pressures that are placed on nurses.

Shiao, Koh, Lo, Lim, and Guo, (2007) noted that for nurses working through the SARS outbreak in Taiwan the pressures were such that 25.9% of assessed nurses considered looking for other jobs, while 7.6% reported seriously considering leaving nursing altogether. This is indicative of a clear problem, if one in four nurses wished they were elsewhere. This data helps to illustrate the true magnitude of the problem; burnout in not merely an inconvenience or minor problem if it is contributing to a proportion of nurses leaving the profession that would hamstring the healthcare system.

H1N1

H1N1, also known as the Human Swine Influenzas virus, that was declared a pandemic in 2009. This virus placed increased burdens on healthcare systems and was associated with greater risk for burnout in nurses (Usher et al., 2009). **Wong, Wong, Kung, Cheung, Tao and Griffiths (2010)** noted that community nurses in Hong Kong facing this pandemic were fall less likely than their hospital-based peers to continue working; 76.9% compared to only 16% reported a willingness to refuse to see clients. There were multiple contributing factors for the nurses who refused to work, however, psychological stress and increased fear were major components. The differential between community and hospital-based nurses' willingness to continue working is possibly a function of inadequacies in infection control training and access to personal protective equipment in the community.

Interestingly, when trying to ascertain why one pandemic may be worse than another, with respect to burnout, there appears to be a correlation between understanding the disease and the presence of viable treatments with lowered psychological distress (Wong, Wong, Lee, Cheung, & Griffiths, 2012). This is a reasonable notion, as we intuitively know that the unknown is often more disturbing and distressing than a known process or outcome. One can reasonably posit that the lack of viable treatment options, coupled with the uncertainty over transmission will contribute to an elevated risk of burnout. In the present situation we saw great confusion over mechanisms of spread in the early months (with debates raging over whether the virus could be airborne versus spread via droplets). Furthermore, despite intense and ongoing research there are no specific treatments available for the treatment of COVID19 at present. These factors allow one to draw parallels between present circumstances and H1N1 with respect to the increased stress and risk of burnout for nurses.

MERS-CoV

The Middle East respiratory syndrome coronavirus (MERS-CoV) is yet another emerging viral threat in the coronavirus family with implications concerning burnout and compassion fatigue for nurses providing care amid outbreaks. In a study of Korean nurses in an emergency department it was determined that nurses working through an outbreak were at a higher than normal risk of burnout; this was exasperated when poor social supports, lack of material resources, and increased job stress occurred (**Kim & Choi, 2016**).

Perhaps unsurprisingly, concerns around safety and becoming themselves infected was noted to the be primary concern for most healthcare workers (Khalid, Khalid, & Qabajah, 2016). The means of addressing these concerns by staff was a logical extension of this, with adherence to safety protocols and increased vigilance being prioritized just ahead of practicing effective

self-care, such as relaxation and debriefing after challenging situations (Khalid, Khalid, & Qabajah, 2016).

The data pertaining to MERS-CoV is interesting in that it highlights how protecting nurses will ultimately require a collaborative effort between the both the individual nurses and healthcare leadership. It is clear that in the absence of adequate safety protocols and equipment the stresses associated with working in an epidemic or pandemic situation would likely become untenable and lead to burnout and other adverse outcomes.

Ebola

The research connecting Ebola with burnout was noted to be limited. A probable explanation for this could be that despite the existential threat it seemed to pose, and the alarmist medial coverage Ebola never really had a foothold in North America, Asia, or Europe. Therefore, the research conducted may be scanter. However, we do know that the fear and stress associated with the disease was highly contagious and impacted healthcare workers dramatically. Interestingly, it was suggested that having nurses work shorter days may be a part of the solution to managing elevated stress (Lehmann et al., 2015). It was also noted during this crisis that it was important for nurses to try and find meaning in the work they were doing and to debrief with their team as a means of combating compassion fatigue (Kerfoot, 2019).

For too many nurses working in pandemic situations there is a glut of overtime made available (both mandated by leadership and voluntarily taken by nurses) in order to meet the rising needs and stay abreast of the situation. However, the lessons from Ebola can help to demonstrate that perhaps more shifts and longer hours is not always the answer. Ensuring a more balanced work life schedule affords one the time to debrief and recharge, regardless of how meaningful their work may be.

Interventions to Prevent and Treat Burnout

There are multitudes of methodologies that can be employed to treat the emotional, physical, and spiritual challenges associated with compassion fatigue and burnout. However, these strategies are largely divisible into to two broad categories: individualized self-care strategies and institutional/organizational strategies (Hockaday, 2017). Immaterial of which approach is taken, there exists meta-data which supports the notion that the implementation of coping strategies will have a significant and lasting positive on nurses at risk of or experiencing burnout (**Lee, Kuo, Chien, & Wang, 2016**).

There is some overlap with respect to the content, but self-care strategies can be learned and implemented by the at-risk nurse alone, while institutional/organizational strategies are mandated or provided by the leadership structure, most often in group settings. There are benefits and barriers to both which warrant further exploration, however, there is evidence to support both strategies as being effective as interventions for burnout (Henry, 2014). Ultimately, all interventions for burnout can be categorized as being problem-focused, emotion-focused, seeking social support, reappraisal of the situation, acceptance based, or religious/spiritual in nature (or some combination thereof) (**Shin, Park, Ying, Kim, Noh, & Min, 2014**). These broad categories are applicable regardless of whether the intervention is individually or organizationally implemented.

Self care strategies

Personal coping and self-care strategies are essential to allow nurses to deal with the strong emotional reactions to pressures encountered in their work (McAbee, 1991). This is important as we know that the nature of nursing often does not allow one to avoid intensely

evocative situations, but there are tools to manage them more effectively. While seemingly straightforward, many of these strategies are difficult for nurses to adopt in practice.

A commonly used analogy when thinking of overall wellness is a battery, with work, stress, and life's demands drawing on the energy reserves. Meanwhile, attending to our needs for relaxation, rest, recovery, nutrition, and physical fitness serves to charge the battery. Without a willingness to appropriately prioritize recharging the battery work and life demands become more difficult and our tolerances are reduced; we must prioritize and schedule respite and recovery (Waddill-Goad, 2016). Failure to make time for these necessities will often see self-care left to the wayside.

In seeking to alleviate the emotional stress associated with caring for client's with AIDS nurses identified that achieving a semblance of balance in one's life is critical; ensuring that there is space left in your life for music, family, and human connection with family and friends **(Sherman, 2000).** While it seems simple the evidence suggests that we must be diligent to ensure that, even in a crisis situation, we do not allow our work and the stresses associated with it to consume the whole of our lives.

Mindfulness-based intervention

Promoting mindfulness in nursing staff has been deemed an effective means of mitigating burnout. Nurses provided with training in mindfulness reportedly experienced at 8.2% reduction in burnout scores, with improvements remaining stable even a year after receiving their training (**Suleiman, Gomez, Aguayo, Cañadas, De La Fuente, & Albendín, 2020**). **Smith's (2014)** review of research pertaining to mindfulness-based stress reduction (MBSR) classes on nurses' coping with stress noted significant decreases in burnout and improvements in reported job satisfaction.

MBSR education has been noted to lead to statistical improvements in all the hallmarks of burnout in nursing, particularly emotional exhaustion (Cohen-Katz, Wiley, Capuano, Baker & Shapiro, 2005a). The benefits of MBSR have been noted to improve job satisfaction, job retention, and help nurses to be less reactive to stressors in their lives (Kelly, & Tyson, 2016). There are a multitude of approaches to fostering mindfulness, in addition to the formal classes and workshops outlined above the efficacy of nurses participating in yoga has been explored. Despite being only a pilot study, there is compelling evidence that yoga can decrease risk of burnout, foster mindfulness, and mitigate emotional exhaustion (**Alexander, Rollins, Walker, Wong, & Pennings, 2015**).

Providing nurses with accurate information, helping them to be empowered and reminding them to make the best decisions for their own health can be achieved in a wide variety of ways. Blake, Bermingham, Johnson, and Tabner (2020) developed a digital learning package for nurses working through COVID19. This package was noted to include some of the basic tenants of mindfulness outlined above and guidance to help nurses to check in and recognize the signs and symptoms of burnout in themselves and others. Digital MBSR platforms have been noted to be effective in reducing nurses' stress and through helping them to better perceive and address their own needs in more adaptive ways (**Hersch et al., 2016**).

Waddill-Goad (2019) stated "nurses can be leaders for themselves, their teams, and for patients" (p. 46) when writing about the need for nurses to learn to manage stress and prevent burnout. This is a powerful statement, particularly in the midst of a global pandemic. When the healthcare system is burdened to its limits due to a viral pandemic the onus will fall to individual nurses to care for themselves and to care for one another to ensure that they are able to keep doing the essential work that is required.

Institutional/organizational care strategies

It is interesting to note how often those who care for people in the midst of health crises report feeling isolated and alone. In the past this has been addressed effectively using structured peer support groups (Grossman & Silverstein, 1993). This can help to foster feelings of connectedness and improved satisfaction with one's job.

Organizations can support their nurses through workshops and training sessions. Significant reductions in indicators of burnout have been found with having nurses participate in workshops teaching cognitive restructuring, medications, and self-regulation techniques (Randolph, Price, & Collins, 1986).

Other strategies can be employed that are considerably less formal. Low-dose interventions such as virtual coffee mornings have been suggested as a means of allowing nurses to maintain and build relationships with coworkers, connect, and debrief about concerns (Nadler, Barry, Murphy, Prince, & Elliott, 2020). These types of interventions would see the institution working to create and encourage the types of supportive relationships that are so often an essential part of nurses' working lives.

Support teams

The lions share of organizational research pertaining to managing and mitigating burnout was via having an individual or individuals tasked to provide formal support to staff when it is required. This can be accomplished in a variety of ways, one such approach is to have multidisciplinary teams, comprised of psychologists, psychiatrists, and mental health nurses provide support and assessments around staff burnout (Frias, Cuzco, Carmen, Pérez-Ortega, Triviño López, & Lombraña, 2020). The obvious advantage of this type of strategy is the ability

to provide fulsome assessments and the organization is able to take more initiative in trying to protect their staff.

Employee Assistance Programs (EAPs) can be another organizational approach that is often employed to provide support for staff. The programs can be invaluable, providing peer-based support on an as-needed basis, with support being easily adaptable to the situation (providing group or one-on-one meetings as appropriate) (Canady, 2018). EAPs are a versatile option and can be tailored to best meet the needs of the staff they are serving. Some of the treatment modalities that they have been noted to use include cognitive behavioural therapy sessions, coaching, and problem-solving (Avis, 2016). It is interesting that while there are barriers to accessing EAPs (such as time, stigma, and confidentiality) that make some wary of accessing them, in one study of the staff that did avail of services 100% indicated that an EAP should be continued for future use (Chung, Tabatabai, & Paetow, 2019).

Advocacy

Sherman (2000) reported that a nurse's ability to ask for help, from colleagues and leadership, is essential to keeping emotional stress at a manageable level. The absence of managerial support is a readily identifiable facet of workplaces wherein burnout is a concern, for example, one study found 42% of nurses in an emergency room felt unsupported by leadership; it is critical that nurses advocate for team building and group-reflection to build comradery (**Wilkinson, 2014**).

Nurses are a group who have in the past demonstrated a willingness to step up and be advocates for their own health and wellbeing. For instance, the nurses studied by Sherman (2000) recognized that their team's morale was suffering to the point that it was impacting the team and the nurses on it. They arranged meetings with the organization's administration in

order to advocate for explore how to increase support for them; despite noting that organization changes are often viewed as difficult to make.

As a self-regulated profession nurses must be accountable for their practice. This includes being an advocate for the health and wellness of nurses. Support and training to mitigate and prevent burnout is something that must be fought for by both front-line nurses and nurse leaders, to ensure our own wellness, the wellness of our peers, and the care of our clients.

Barriers to Implementation

The barriers to implementing strategies to avoid burnout are important to address; we must plan for them and develop countermeasures as providing nurses with these tools is of critical importance. Many of the studies identified in a meta-analysis of mindfulness-based approached to mitigating burnout were taught via structured groups or classes (**Suleiman et al., 2020**). The need to teach and practice skills leaves mindfulness a powerful too when implemented proactively. However, it is more difficult to employ when being reactive; in present circumstances with healthcare workers burdened by COVID19 it would be challenging to organize and attend classes in addition to already heavy burdens. This tendency towards reactivity is not ideal as it is always preferable to prevent burnout rather than treat it (Dolan, 1987).

Nurses have often been socialized to provide care and concern for everyone but themselves (Cohen-Katz, Wiley, Capuano, Baker & Shapiro, 2005b). It is a common occurrence to hear nurses speak of their self-sacrifice with pride, noting how many hours they have been without a bathroom break or a meal in the pursuit of caring for their clients. We must shift this culture, helping nurses to see the necessity of caring for themselves in the pursuit of caring for those around them.

Some of the other barriers that have been reported to accessing supports to prevent burnout have included stigma, lack of time, and concerns around the confidentiality (Chung, Tabatabai, & Paetow 2019). Stigma remains a constant barrier in accessing any services pertaining to mental health, this is unfortunately further compounded when there are concerns that information will not be kept confidential (particularly when services are peer-led like EAPs). The perceived lack of time is a multifaceted concern, as workload is likely a contributing factor in approaching burnout. However, it is understood that a part of effective self-care is learning to prioritize one's own well-being appropriately, indicating that interventions are likely more necessary than many nurses may wish to admit.

It is critically important to understand these barriers so as to be able to mitigate their impacts on the implementation of future resources to aid in treating and preventing burnout. It is particularly noteworthy how many of the identified barriers pertain to organizational demands and structures. This serves as evidence that advocacy for time and resources will be crucial in the effective implementation of resources to support nurses, especially in challenging times.

Quality of Care-Strategy Data

Like the date pertaining to burnout in general, the literature exploring treatment and prevention was noted to be robust and strong. Again, meta-analyses were available; both Lee, Kuo, Chien, & Wang (2016) and Shin, Park, Ying, Kim, Noh, & Min (2014) explored the impacts of a variety of coping mechanisms on burnout, with seven and 36 studies used respectively for analysis. Suleiman et al. (2020) completed a more focused meta-analysis of 17 studies looking at mindfulness training as a means of mitigating nurse burnout. While Smith (2014) conducted a systematic literature review of 13 studies using mindfulness-based stress reduction interventions and their impact on nurses' stress levels.

Individual studies were also explored. Alexander et al.'s (2015) randomized control trial explored the efficacy of yoga in the prevention of burnout in nurses with significant findings in a variety of stress and burnout metrics. A similar methodology was employed by Hersch et al. (2016) who examined the effectiveness of web-based stress management for nurses, finding significant improvement in stress with their resource ($t = -2.95$; $p = .001$). These studies were of medium quality and lend strong support to the notion that targeted interventions can have significant, positive improvements in the lives of nurses.

Surprisingly, searches yielded little qualitative data, with only one study noted in the search results completed by Sherman (2000). This leads one to posit that there may be gaps in the literature when considering the lived experiences of nurses engaged in the reduction or prevention of burnout.

Summary of Literature Review

The insights gleaned from this literature are straightforward and with massive implications for present-day nursing practice. One can say, quite definitively, that nurses are at risk of burnout by virtue of the work that they do. Furthermore, the pressures associated with providing care in the midst of the uncertainty and strains that accompany regional and global health crises only serves to compound that risk.

However, despite the immense pressures and challenges facing nurses working through a pandemic there is evidence that hope is warranted. Through proactive action and empathetic responses we can provide nurses with the tools they need to maintain their own health and wellness. These tools come in a wide variety of forms and may be implemented as part of an organizational strategy or by individual nurses taking initiative.

The message from the literature is clear: nurses are at risk and we must be taking action ensure their wellbeing. There is historical precedent and emerging data that all suggests that now is the time to act, as preventing burnout will be better than treating it. Protecting nurses from burning out is an essential step to protect nurses, their families, their clients, and our communities at large.

Theoretical Framework

In ascribing a theoretical framework to this project, it seemed crucial that the theory reflect what is truly great about nursing, despite the limitations on interaction we see in the combating of COVID19. Therefore, Watson's (2008) theory of human caring was quickly identified as the mean to ensure that human connection and genuine caring remain at the forefront of nursing.

Watson's Theory of Human Caring

Watson's theory of human caring offers a strong framework for a nursing practice that is appropriate in seeking to mitigate burnout and compassion fatigue. Watson advocates that nurses need to be able to express both positive and negative emotions openly with their peers, engaging in a form of peer counselling (Kennedy & Barloon 1997). This emphasis on relationship building extends beyond peers and includes leadership as well. Fostering these supportive relationships between management, other nurses, and working to remain attuned and responsive to one's own emotional state is all part of adopting an approach to nursing based on human caring (Kennedy & Barloon 1997).

The heart of nursing is the therapeutic relationship (Watson, 2008). Therefore, interventions that mitigate burnout must encourage nurses to be more present; better understanding of what is happening both within themselves and with the clients that they care for is required(Cohen-Katz, Wiley, Capuano, Baker & Shapiro, 2004).

It is fascinating that compassion fatigue and burnout often arise in compassionate nurses, who have been giving too much of themselves while struggling to separate from the suffering of their clients. This desire to care for the client's body, mind, and spirit (Watson, 2008) can make separation and boundaries challenging at times, and this can only be exasperated in pandemics wherein the number and complexity of the needs can suddenly explode. However, "stress that is continued without social or spiritual intervention can lead to adverse psychological effects" (Henson, 2014, p. 140).

Caring for oneself effectively is not a selfish act, contrary to the guilt that many nurses may experience at some point in their careers. Effective self-care is an essential step in allowing nurses to meet their own needs and subsequently better able to meet the needs of their clients with genuine, empathetic relationships (Lombardo & Eyre, 2011). Watson (2008) stated that in order to practice caritas nursing we must develop equanimity and loving-kindness towards ourselves and others. Through mindfulness and the cultivation of sensitivity to oneself and others we can strive to accept, love, and care for the self in order to healthy and the most present version of ourselves.

The analogy of a life jacket is powerfully applicable in this instance. In seeking to care for our clients and focus on their needs to our own detriment we are like the person trying to help the passenger next to him or herself put on a lifejacket while forgetting our own. Immaterial of the altruistic nature of the effort, the reality is both parties are more likely to have adverse outcomes in this scenario. However, but putting on our own lifejacket, by assuring our ability to continue to function in crisis in a sustainable and effective manner, we can continue to help those around us in need. If we posit that the heart of nursing is the therapeutic relationship, we must then accept that nurses must be capable of engaging in that relationship in a genuine and

complete manner. Therefore, the self-care required to prevent or treat burnout is a crucial step in being able to nurse more effectively and meaningfully.

According to Horton-Deutsch and Sherwood (2017) being be "present, authentic and intentional in what we do, we can provide the highest form of care: care for the body-mind-spirit through the formation of 'transpersonal caring relationships'" (p. 12). Thus, it is imperative that nurses attend to their own needs and practice self-care. The consequences of burnout rob both nurse and client of the transpersonal client relationship that makes nursing so unique and effective. Self-compassion is a prerequisite to the provision of best care and the creation of a centered, optimal healing environment (Townsend, 2020).

Implications for Nursing Practice

Nurses working today, caring for clients in the midst of the COVID19 pandemic are unquestionably at greater risk of the adverse consequences of burnout. However, the data supporting interventions to treat these nurses is compelling and offers us great hope that we can provide the support that is needed. This literature review offers strong evidence that there is great benefit in developing and implementing a self-care resource that is tailored to meet the needs of nursing in the midst of this crisis.

The evidence is clear that interventions can be developed and tailored to meet the needs of nurses in this crisis and beyond. We owe it to our clients, our profession, and to ourselves to ensure that nurses are protected and capable of providing the compassionate and effective care that is so desperately needed in the midst of a health crisis.

Conclusion

Nurses have demonstrably shouldered the burdens of providing care through every pandemic and epidemic in modern history, often suffering personally as a result of their work

and efforts. However, what is equally apparent is that burnout and compassion fatigue can be combated through proactive and reactive use of self-care strategies. Management and leadership can also take initiative to implement policies and procedures to help ensure the continued wellbeing of their nursing staff as they care for the public. Despite the plethora of evidence that can allow one to confidently state that pandemic nursing can exasperate risk of burnout, we can prevent it. History seems to continue to repeat itself with nurses burning out and even leaving the profession in the wake of crisis situation. With COVID19 an ongoing threat and projections of two years until healthcare can return to normalcy we are at an impasse. We must develop and implement the strategies to protect and care for our caregivers, or we needlessly allow them to suffer and fail to learn from our past successes and failures. Burnout and compassion fatigue are preventable, we can and must protect nurses as they carry out their essential work

In adhering to Watson's (2008) theory of human caring we must acknowledge that an instrumental component of our desire to care for our clients, families, and communities must be to first care for ourselves and one another. It is my aspiration that we may develop and cultivate the care and compassion needed to ensure that nurses remain engaged and ready to continue their essential work through this pandemic, and any others that may follow in its wake. The evidence is clear, there is no ambiguity concerning the need. We must, as nurses, take accountability for our own mental health and wellness, and as leaders, for the wellbeing of our teams and institutions. Burnout can be avoided. Nurses need not leave the profession, tired and feeling angry and ashamed. This is an issue that we are uniquely equipped to face, empathy, compassion, and building relationships are the tools of our trade, with them we can protect our own and ensure their work continues.

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Appendix A

Literature Summary Table

Table 1

Literature Summary Tables

Author/Date/ Study Design	**Participants/Methods/Outcome Measures**	**Results/Conclusions**	**Comments**
Adriaenssens, De Gucht, & Maes, (2015). Systemic Literature Review Purpose: to review the prevalence and determinants of burnout in nurses working in emergency departments.	**Literature Screening** • 17 studies were included in the review. • Data were collected from NCBI Pubmed, Embase, ISI Web of Knowledge, Informal Health Care, Picarta,CINAHL, and Sceilo **Review Methodology and Assessment** • Excellent summary tables of all the reviewed articles provided. • Strongly oriented towards quantitative data only. • Effectively summarized the determining factors for prevalence and made it clear the proportion of studies whose research supported each notion.	• Determining factors for burnout was related to lacking in effective coping strategies, exposure to traumatic events, and lack of job control. • Weighted average percentages for emotional exhaustion, depersonalization, and low personal accomplishment was calculated at25.9%, 34.8%, and 27.2%, respectively. • The review indicated that, overall, 26% of responding ER nurses are suffering from burnout.	Overall rating: High • Omitted 289 qualitative research papers.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Aiken et al. (2002) Cross sectional study. Purpose: to examine the connection between nurse to patient ratios on patient mortality, and failure to rescue amongst surgical patients, along with the impacts on nurse retention.	**Participants** • Data was collected from 168 adult general hospitals in Pennsylvania, USA with researchers seeking patient discharge abstracts. Data pertaining to the outcomes for 232342 patients was examined. • Nurse recruitment was done by mailing a random sample of nurses registered to work in the state, the response rate was 50% with only the responses of nurses working in hospitals used in the study (n =10184 **Methods** • 30-day mortality was assessed for patients; as was failure to rescue and complications. • Logistical regression was used to examine effects of hospital staffing on nurse satisfaction and burnout, in addition to patient mortality and failure to rescue.	• Higher levels of emotional exhaustion and job dissatisfaction was noted to have a strong, significant correlation with patient to nurse ratios. • Each additional patient added to a nurse's workload was found to increase burnout by a factor of 1.23 (95% CI, 1.13-1.34). • Patient mortality was noted to increase by a factor of 1.07 (95% CI, 1.03-1.12) with each addition to the nurse's workload.	Overall rating: medium • Cross-sectional study is inherently a weak design. • Huge samples were used for statistical analysis.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Alexander, Rollins, Walker, Wong, & Pennings (2015) Randomized controlled trial (pilot level study) Purpose: to explore the efficacy of yoga to improve self-care and reduce burnout in nurses.	**Participants** • 40 nurses were involved and divided into the experimental group (n = 40) and control (n = 40). • Minimum number of participants was calculated as being 40 to find significance with a moderate effect size (Cohen's f = .25), alpha = .05, power = .80, and an estimated correlation among repeated measures of .40. **Methods** • The experimental group participated in eight weekly sessions and homework sessions. The control group carried on as usual. • Data was collected at the outset of the study and at eight weeks, when completing the intervention. Data collection was done via a self-reported questionnaires including: Health Promoting Lifestyle Profile II, the Freiburg Mindfulness Inventory, and the Maslach Burnout Inventory. • MANOVA and univariate ANOVAs were sued to analyze the data.	• Self-care and mindfulness showed a significant improvement from pre- to post-intervention • Experimental group showed significant improvement in scores from pre to post intervention for self-care ($p < .001$), mindfulness ($p = .028$), emotional exhaustion ($p = .008$), and depersonalization ($p = .007$). • No significant improvements were noted in the control group.	Overall quality: Medium • Low sample size is concerning when considering ability to generalize findings. • The time of day that nurses were practicing yoga was not specified. If during the workday one could question if the efficacy is (partially) attributable to yoga or a break for regular duties.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Bae & Fabry (2013) Systematic Literature Review Purpose: To evaluate the effects of nurses working overtime and long hours on both nurse and client outcomes.	**Literature Screening** • 24 studies were included in the review. Of those studies 17 were rated to be of moderate quality while seven were rated as weak. • Data were collected from CINAHL, Cochrane Database of Systemic Reviews, PubMed, PsychINFO, JSTOR, OVID, and Web of Science. • Inclusion and exclusion criteria were logical and ensured that only relevant articles were included in the review. **Review Methodology and Assessment** • Excellent tables to summarize the design and significance of all the articles examined. • The Quality Assessment and Validity Tool for Correlation Studies was used to appraise the quality of the articles reviewed. • Each of the studies examined was provided a numerical quality score and rating.	• With increasing shift lengths there were corresponding increases in needlestick injuries, musculoskeletal disorders, health complaints, auto accidents, fatigue, and obesity. • A multitude of client outcomes and issues were noted to be adversely impacted by increased working hours. • Increasing weekly hours is associated with higher rates of burnout.	Overall rating: High • Meta-analysis of these studies could offer more insight into the degree that increased work is correlated with adverse outcomes for nurses and clients.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Hersch et al. (2016) Randomized controlled trial Purpose: to evaluate the effectiveness of a web-based stress-management program for nurses.	**Participants** • Subjects were hospital-based nurses in southern Virginia, USA (n = 104). They were randomly assigned to either a control (n = 52) or experimental group (n = 52). **Methods** • Experimental group participated in a web-based program called BREATHE: Stress Management. The control group was placed on a waitlist and offered the same program after the completion of the experiment. • The experimental group was allowed access to the web-based service as often as desired over a three-month period, with the system logging the time and duration of access. • Subjects completed the following assessments: The Nursing Stress Scale, Symptoms of Distress, Coping with Stress, the Work Limitations Questionnaire, Use of Substances for Stress Relief, Understanding Depression and Anxiety, and Nursing Job Satisfaction Scale. • Assessments were completed pre and post-test with an overall attrition rate of 13.4% (with 13 of 14 dropouts in the experimental group).	• Experimental group was significantly different on the Nursing Stress Scale (t =-2.95; p = .001). • Other scales saw significant differences with respect to stress related to issues of death and dying (t = -2.24, p = .03), and workload (t = -2.30, p = .02). • Subjects who utilized the resource more appeared to have greater benefits from it (p = 0.76), although changes were not reported to be significant.	Overall rating: medium • Researchers chose to employ a mix of assessment scales, some of which they developed themselves in lieu of established tools. • Some of the nurses in the experimental group did not access the service, leading to possibly diluted results.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Kim & Choi (2016) Cross sectional study. Purpose: to assess the levels of burnout in emergency department nurses during an outbreak of MERS-CoV.	**Participants** • ED nurses working in 15 hospitals that were designated to treat MERS-CoV patients in Seoul, Korea. Convenience sampling was used. • Sample size was calculated to be 183 people. 240 nurses were contacted, and response rate was 92.9% therefore, n = 215. **Methods** • Assessments were completed using the following tools: the Oldenburg Burnout Inventory, and a variety of tools developed by the researchers in Korea to assess job stress, fear of infection, and perception of hospital resources.	• Mean score for MERS-CoV related burnout was 3.05 out of 5, job stress was 3.25 out of 5 • MERS-CoV job stress was the strongest influencing factor with respect to burnout ($\beta = 0.59$, $p < .001$). • Other influencing factors for burnout were poor hospital resources ($\beta = -0.19$, $p < .001$) and poor support from family and friends ($\beta = -0.14$, $p < .05$).	Overall rating: medium • Cross-sectional study is inherently a weak design • Researchers could have assessed using more well-known and established tools.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Lee, Kuo, Chien, & Wang (2016). Meta-analysis Purpose: to explore the impacts of coping strategies in reducing nurse burnout.	**Literature Screening** • Seven studies were included. The following databases were searched for appropriate literature: PubMed, CINAHL, The Cochrane, PsyARTICLES, Airiti Library, and the Index of the Taiwan Periodical Literature System. • Clear and logical inclusion criteria was provided, with two researchers independently searching through the literature using the same key words to ensure articles were appropriately included or excluded. **Review Methodology and Assessment** • The authors were able to evaluate burnout across the literature thanks to the prevalence of use for the Maslach Burnout Inventory. • Meta-analysis provided an experimental group (n = 872) and a control group (n = 649).	• For emotion exhaustion mean difference between experimental and control groups was 2.43 ($p < .0001$). • For depersonalization mean difference between experimental and control groups was 0.96 ($p = .0001$). • For personal accomplishment mean difference between experimental and control groups was 1.86 ($p = .0001$). • Evidence from the literature supported that these changes were significant and lasting, noting that may of the trials included six-month follow-ups.	Overall rating: High • The researchers are open about limitations in their own work and the work included in their meta-analysis. • Selection bias is a concern for most of the studies drawn upon.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Salyers et al. (2017) Meta-Analysis Purpose: to explore the relationships between the level of burnout in healthcare providers and the quality and safety of care that is provided to clients.	**Literature Screening** • 82 Studies were included. Literature was drawn from the following databases: Ovid MEDLINE, PsycINFO, Web of Science, CINAHL, and ProQuest Dissertations & Theses **Review Methodology and Assessment** • The articles studied allowed the meta-analysis a population of 210,669 subjects. • Effect sizes for level of burnout and quality/safety relationship were calculated.	• Meta-analysis of relationship between burnout and perceived quality of care was a significant negative relationship (r=−0.26), • Meta-analysis of relationship between burnout and safety had a significant negative relationship (r=−0.23). • Amongst healthcare workers, the strongest relationship between burnout and perceived safety was with nurses (r=-0.27). • Emotional exhaustion was the component of burnout that was most associated with lower perception of quality of care.	Overall rating: High • Lacking a chart summarizing the articles reviewed. • Nurses were the most frequent population assessed in the literature but other professions where included in the analysis.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Sherman (2000) Phenomenological study Purpose: to explore the lived expeirneces of AIDS dedicated nurses in managing the stresses in their lives.	**Participants** • 12 nurses that were all employed at a 25 bed AIDS dedicated unit in New York City, USA. **Methods** • Participants were observed on the unit once a week for five hours, over a span of four months. Interviews with the participants were conducted that were one to two hours in duration. • In processing the data peer debriefing, member checking, and establishment of an audit trail were employed. • From the data themes were emergent.	• Some of the themes indicated that nurses learned to "take the risk in stride" when it comes to fear of infection and learn to "reframe the risk" placing blame on undersupplied hospitals rather than patients for risks. • Some of the identified stress management strategies included establishing and maintaining a balance between work and home life, learning to let go of pain, respecting ones feelings (while not allowing them to completely control you), managing the demands on your time, and finally, asking for help when needed from both colleagues and in your personal life. • Spiritual connection and growth was important.	According to the JBI Critical Appraisal Checklist for Qualitative Research the article is appropriate for inclusion. • Mention is made of needing interventions to support team morale. However, it is unclear what (if any) interventions the organizational leadership have made available to nursing staff.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Shiao, Koh, Lo, Lim & Guo (2007). Cross-sectional study. Purpose: to explore factors that contributed to nurses considering leaving their jobs during a SARS outbreak.	**Participants** • Nurses working in four hospitals in Taiwan were surveyed. 907 surveyes were distributed with (n = 753) responses. • Response rate was calculated to be 83%. **Methods** • Self-administered anonymous questionnaire was used to collect data using a seven-point Likert scale for questions. • Multiple logistic regression was used to determine whether a factor was significant with respect to nurses considering leaving their jobs.	• Those nurses who felt that they were more likely to die of SARS than cancer were associated with a stronger desire to consider looking for another job. • 25.9% of nurses reported actively looking for other jobs do to perceived risk. • 49.9% of nurses reported an increased workload • 32.4% of nurses reported that people were avoiding them because of their job.	Overall rating: medium • Cross-sectional study is inherently a weak design • Only 14.7% of subjects worked with SARS patients. This leaves the possibility that nurses who did not work with these clients did not receive additional information or trainings that would have potentially altered their responses.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Shin, Park, Ying, Kim, Noh, & Min (2014) Meta-analysis Purpose: to explore the relationship between various coping strategies and burnout symptoms.	**Literature Screening** • 36 Studies were included in the review. All of which addressed burnout and coping, reported on correlation coefficients and collected data using the Maslach Burnout Inventory. **Review Methodology and Assessment** • Excellent tables included, outlining the target population, burnout, and coping information contained in each study. • 9,729 total subjects were included in the meta-analysis. • Studies were subdivided by occupation • Weighted correlation coefficients were calculated.	• Significant weighted mean correlation between emotional exhaustion and emotion-focused coping ($r = .33$, $p < .001$) was • Weighted mean correlations between emotional exhaustion and problem-focused coping ($r = -.05$, $p < .01$), reappraisal ($r = -.15$, $p < .05$), and acceptance ($r = .14$, $p < .01$) were small/medium but statistically significant • Significant weighted mean correlation between depersonalization and problem-focused coping was ($r = -.10$, $p < .01$) • Significant weighted mean correlations between reduced personal accomplishment and problem-focused coping ($r = -.19$, $p < .001$) and emotion-focused coping ($r = .11$, $p < .05$)	Overall rating: High • Notes that burnout occurs disproportionately high in nurses. However, this analysis was not restricted to nurses, or even to healthcare workers. • The authors of individual studies were contacted by email to obtain correlation coefficients.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Smith (2014) Systematic Literature Review Purpose: to review the current state of literature pertaining to mindfulness-based stress reduction (MBSR) as an intervention to help with nurses' stress.	**Literature Screening** • Clearly articulated focus, looking only at MBSR techniques based on Kabat-Zinn's protocols being employed with nurses. • Used a wide variety academic databases for search, including: EBSCOhost, Gale PowerSearch, ProQuest, PubMed Medline, Google Scholar, Online Journal of Issues in Nursing, and reference lists from relevant articles • 13 articles were reviewed and included. **Review Methodology and Assessment** • Succinct tables provide overview of the articles reviewed. • The body of research reviewed demonstrated that MBSR can significantly decrease burnout, improve mood, decrease stress, and decrease anxiety.	• No meta-analysis of the data was completed. However, the summarization of the findings does offer compelling evidence supporting MBSR for decreasing stress in nurses. • The efficacious impacts of MBSR suggests that it could be a powerful tool for nurses and warrants further research.	Overall rating: High • Sampling from other articles refences lists may lead to community biases being present. • Much of the literature does not pertain to practicing nurses, instead discussing students, nurse leaders, and non-practicing nurses.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Suleiman et al. (2020) Meta-analysis Purpose: To analyze the effects of mindfulness training on nurses' levels of burnout.	**Literature Screening** • 17 studies were included in the analysis, literature was drawn from search of CINAHL, LILACS, Medline, ProQuest, PsycINFO, Scielo and Scopus. **Review Methodology and Assessment** • Excellent tables summarizing the studies included in the analysis. • Meta-analysis was conducted with only two of the reviewed studies; yielding experimental (n = 46) and control groups (n = 44).	• Every study included saw decreased emotional exhaustion with the implementation of mindfulness-based stress reduction techniques. • Intervention times ranged from three weeks to 16 weeks. Significant improvements were noted regardless of intervention length. • Findings of meta-analysis indicated a difference in means between experimental and control group of 1.32 (95% CI: −9.41– 6.78) for emotional exhaustion, 1.91 (95% CI: −4.50–0.68) for depersonalization, and 2.12 (95% CI: −9.91–14.14) for personal accomplishment. All values favored the experimental group.	Overall rating: medium • Only two of the 17 studies were included in the meta-analysis. • Compelling evidence provided by all the sources to support mindfulness-based approaches in the management of burnout.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Westphal, et al. (2015) Cross sectional study. Purpose: to explore whether mindfulness protects against work-related stress and burnout.	**Participants** • ER nurses (n = 50) working in Switzerland. **Methods** • Subjects completed the following scales: Hospital Anxiety and Depression Scale, the Maslach Burnout Inventory, and the Mindful Attention Awareness Scale • All tools used have been previously assessed for validity and reliability.	Mindfulness is associated with less anxiety ($r = -.55$, $p < .001$), depression ($r = -.49$, $p < 001$), burnout-related depersonalization ($r = -.37$, $p < 001$), and emotional exhaustion ($r = -.52$, $p < .001$). • This study adds to the larger body of literature that suggests that increased mindfulness is protective against burnout in nurses	Overall rating: medium • Cross-sectional study is inherently a weak design. • All data is self-reported and would greatly benefit from the addition of independent clinical assessment of the participants. • Response rate was low for the survey at only 49%.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Wilkinson (2014) Systematic Literature Review Purpose: to explore the literature pertaining to causative factors for burnout.	**Literature Screening** • Six Studies were identified in searches of EBSCOhost and Ovid databases. The author notes she does refer to 23 other articles as well (that were not included in the main six, due to inclusion of data pertaining to professions other than nurses). **Review Methodology and Assessment** • Authors of the six studies discussed all employed self-report questionnaires, • The similar methodology in all the articles reported on allowed for succinct and effective comparisons to be drawn. • From the literature the main stressors impacting nurses could be extrapolated, as were the main consequences of this stress.	• Major stressors that can contribute to burnout in nurses includes work demands and perceived lack of time, a perceived lack of support from management and leadership, exposure to traumatic events, and client aggression/violence • Consensus from the literature is nurses are at increased risk for burnout and this often adversely impacts client care. • Consequences of burnout and challenging working conditions can also lead to somatic and mental health challenges, as well as difficulty coping and managing personal problems outside of the work environment.	Overall rating: medium • Lacking tables to summarize studies. • No meta-analysis conducted. • Choice of academic databases searches is questionable, given that there is more research on this topic than the article presents.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Wong, Wong, Kung, Cheung, Gao, & Griffiths. (2010) Cross-sectional study. Purpose: to assess the willingness of community-based nurses to continue to work in the midst of a H1N1 pandemic.	**Participants** • 401 Community health nurses working in Hong Kong were sent questionnaires, (n = 270) completed responses were analyzed. **Methods** • Questionnaire was 44 questions long and based on a pre-existing framework that the researchers adapted for this study. • Stress levels and job satisfaction, and their willingness to work could be assessed via independent t-tests.	• 36% of nurses reported increased workload during H1N1. • When it came to working with infected clients 33.3% reported they are unwilling to work with them, while 43.6% stated they were unsure. • 74.5% reported that they wanted more training in how to manage clients with H1N1. • Multivariate analysis suggests that unwillingness to work is significantly associated with requests for further training in infection control measures (OR: 0.51; CI: 0.25-1.02).	Overall rating: medium • Cross-sectional study is inherently a weak design. • Could greatly benefit from follow-up study to assess whether actualy getting the additional training changed stress levels or willingness to work.

Author/Date/ Study Design	Participants/Methods/Outcome Measures	Results/Conclusions	Comments
Zhang, Zhang, Han, Li, & Wang, (2018) Meta-analysis Purpose: to explore the factors affecting compassion satisfaction, compassion fatigue, and burnout in nursing.	**Literature Screening** • 11 Studies included in the analysis. Initially 4287 non-duplicate citations were screened, drawn from google scholar, Ovid SP, PubMed, and Science Direct. **Review Methodology and Assessment** • Meta analyses were conducted under random effects model with Stata software. • Effect sizes were calculated for each of the pooled analysis; these could then be back-transformed to obtain the correlation coefficients. • Between studies inconsistency was calculated by the authors by testing I^2 index.	• Overall response rate of 64.34%. • A strong positive association was reported between compassion fatigue and burnout (z-score 0.68 [0.59, 0.77]; P<.00001). • Stress and negative affect has a positive relationship with burnout (z-score: 0.12 [0.06, 0.19]; P<.00001) • Compassion satisfactions is moderately associated with burnout (z-score: 0.48 [-0.21, -0.78]; P<.00001).	Overall rating: high • Literature search strategy not included, noted to be a separate document published elsewhere by the authors.

Appendix B

Consultation Report: Exploring Burnout in Public Health Nurses During COVID19

Consultation Report: Exploring Burnout in Public Health Nurses During COVID19

As nurses continue to provide care for clients in the midst of the COVID19 pandemic the risk of burnout is exasperated and often a constant fixture. In recognizing a need to provide care for nursing staff to prevent burnout, one must question how to best proceed. In keeping with a larger aim of developing a self-care resource for nurses working at a public health unit in southern Ontario, Canada, a series of consultations took place. This process was seeking to obtain insight from both front-line nursing staff and organizational leadership, as this was deemed essential in better understanding the issue and how to approach it. Any solutions designed are best implemented within the existing structure of the organization, for ease of access and support. Furthermore, ensuring an accurate understanding of the nature and presentation of burnout in the population one hopes to serve is crucially important. Consultation is critical in developing a tool that will be valid and appropriate for the needs and circumstances of the population it is meant for. This process helped to highlight nurses' perception of burnout, the steps they are already taking to mitigate it, and mostly importantly, how to potentially better support them.

Background

Burnout has long been considered a hazard in nursing with a potential for adverse impacts on by nurses (Zhang, Zhang, Han, Li, & Wang, 2018) and their clients (Salyers et al. 2017). These risks are further exasperated by the stressors of working through the current global health pandemic, COVID19 (Nadler, Barry, Murphy, Prince, & Elliott, 2020; Wu, Styra, & Gold, 2020).

As public health nurses (PHNs) working with Niagara Region Public Health (NRPH) continue to navigate these unique and trying times it has quickly become apparent that there were nurses who were struggling with the quantity and intensity of the work. Ample anecdotal evidence was noted, with nurses discussing their concerns, including the long hours worked and (perhaps) an overabundance of overtime in trying to meet the needs of clients. This led to concerns about the long-term sustainability of their herculean efforts and inspired this project as a means of potentially offsetting risk of burnout for some of these nurses.

An extensive literature review that explored burnout in nursing, particularly during epidemic and pandemic conditions was completed. Research on supporting wellness and the prevention and treatment of burnout was discussed. The results of this research really served to highlight the risk placed on nurses and how nursing during COVID19 presents unprecedented challenges that may require new and innovative approaches to manage.

When one begins to consider what burnout looks like for an individual or group, and how to best go about prevention or treatment, there is a great deal of potential for variation. Emotional exhaustion, cynicism towards one's job, and reduced professional efficacy are all associated with burnout (World Health Organization, 2018). However, which of these symptoms is most prevalent and how it impacts a nurse's personal or professional life is something that can be best explored with individual consultation.

The evidence supporting the implementation of coping strategies as a means of preventing burnout is clear (Lee, Kuo, Chien, & Wang, 2016). When considering the

efficacy of various treatment and prevention modalities there is a plethora of evidence supporting a variety of interventions. Achieving a healthy work-life balance (Sherman, 2000**),** practicing mindfulness (Smith, 2014), doing yoga (Alexander, Rollins, Walker, Wong, & Pennings, 2015), being physically fit (Naczenski, Vries, Hooff, & Kompier, 2017), and empowering nurses with education pertaining to burnout (Blake, Bermingham, Johnson, & Tabner, 2020) are just some of the many ways that are demonstrably associated with lower burnout. With evidence supporting such a wide variety of interventions it would then behoove one to ensure that any new resource be tailored in such a way that best aligns with the preferred strategies and needs of the target population.

Consultations

Consultation was deemed an essential to more accurately gauge the need for a self-care resource for PHNs. This process would allow for a more intimate understanding of the pressures and challenges specific to the organization that the resource is being tailored towards.

Sample

There were two groups targeted for consultation within NRPH. These groups were individuals in the organization's leadership and frontline public health nurses (PHNs). Consultation with leadership was restricted to an interview with a clinical team manager who oversees some of NRPH's mental health services. Originally, more extensive leadership consultations were envisioned. Unfortunately, despite initial interest in participation being expressed by other members of NRPH's leadership structure, it was

not feasible during the period in which interviews were conducted. This interest, but lack of opportunity, for engagement in the interview process is a testament to the more widespread impacts of working thorough COVID19. While the scope of this project is limited to frontline nursing staff, it is clear that organizational leadership is also under additional pressures.

Amongst the frontline nurses there was a concerted effort made to connect with nurses with a wide range of backgrounds within public health, some of whom have been redeployed from their regular roles to be a part of outbreak and case management in response to COVID19. An effort was made to connect nurses who worked with infectious diseases program prior to the outset of COVID19. These were the nurses who were suddenly elevated to trainers and team leaders when the pandemic started, who where notably impacted with a sudden and dramatic increase in the quantity and complexity of their work. Three nurses from this team were approached and emailed a project description. All three verbally expressed interested in being involved in the project and noted the value of its aim. However, given the intensity of their workload and subsequent challenges with scheduling, the interviews were all cancelled or deferred repeatedly until it was clear that data would not be collected in time allotted.

The final sample of frontline PHNs consisted of six participants, with backgrounds including mental health, the vaccine preventable diseases, and school health. Of these six participants four them have been redeployed from their normal roles to work in contact and case management for COVID19.

Data Collection

PHNs and organizational leadership were contacted via email in order to request their participation in the consultation process (the content of the emailed request can be seen in Appendix A). Flexibility was offered with respect to the formatting of how data would be collected, with in-person, over the phone, and even email being offered as means of conducting the questioning. In-person was suggested as the preferred method, particularly given the potentially evocative nature of discussing burnout. An in-person interview would best allow for participants who had any strong emotional responses to be recognized and subsequently supported, as necessary. Subsequently all interviews were completed in-person at NRPH offices. The interview questions for both leadership and frontline nurses can be found in Appendix B.

Data Management and Analysis

Detailed notes were taken during the interview process for later analysis. The process of analyzing the data consisted of reviewing notes for each interview, making notes on the responses for each question so as to be able to identify and report on emergent themes.

Leadership Response

When interviewing a clinical team manager with NRPH it was reported that burnout is a potential concern for nursing staff, potentially exasperated by less downtime, increased stress, and missed breaks due to pandemic working conditions. Being cognisant of this risk to staff there is reportedly a concerted effort being made by leadership in order to ensure staff wellness. Some of the means of aiding staff include managers more

regularly checking in with their subordinates and working to be as flexible with schedules and work environments as possible.

This interview was helpful in identifying some of the other resources available to NRPH staff. It was reported electronic resources on stress management were available through Greenshield, the organization's insurance provider. Additionally, some of the merits of the existing organizational supports, including the employee and family assistance program, and the Help the Helpers counselling were discussed and highlighted.

Frontline Nursing Response

With the nurses interviewed there was a general consensus that the nature of the work nurses do makes them vulnerable to burnout. Furthermore, the challenges imposed on their practice by working through a healthcare pandemic was noted by five nurses to exasperate this risk. The sole dissenting voice in this was one nurse interviewed who was working in a part-time capacity. She reported having concerns over her peers burning out and seeing the risks to other nurses as being elevated; although, she did not feel that she was under the same degree of increased stress. She clarified these thoughts, noting that a part-time work schedule gives her more distance from the increased stresses working; a luxury that many of her peers cannot indulge in.

Burnout descriptions

Descriptions of burnout varied significantly from individual to individual. However, in reviewing the data two main themes were identified. These themes were detrimental impacts on mental wellbeing, and detriments to and impacts on job satisfaction.

When talking about mental wellbeing nurses discussed feeling overwhelmed, increased anxiety, increased feelings of sadness or depression, and poor sleep. Increased anxiety and decreased mood (or depression) were the most frequent descriptors of burnout. These impacts were noted to affect the nurses both professionally and personally.

When nurses talked about burnout in a professional context, they discussed feeling they are not in control or effective in their practice. Some even reported that they would begin to dread the notion of returning to work, with this distaste for their jobs then bleeding into their personal lives. Perhaps the most distressing example of burnout came from a PHN who candidly admitted that she struggled with feeling resentment towards other members of the interdisciplinary team who are working from home while she feels so burdened. Another nurse reported that she felt a dramatic decrease in the interest she once had for the work she does, as well as reduced motivation to continue with it.

Burnout causes

There was a wide range of factors that were reported as being causative with respect to burnout. However, themes did emerge from the data: uncertainly and workload were both clearly associated with feeling burnt out with PHNs. For nurses whose programs have been changed to adapt to COIVD19 and for those who have been redeployed to new areas of work the uncertainty they experience was strongly associated with burnout. One nurse described feeling like she was constantly uncertain about her schedule and role, noting how one “can’t really plan your life.”

Workload was another theme that was apparent in the data. Nurses noted that the amount of work they are doing has increased significantly during the pandemic. For those PHNs still working in their regular roles they noted having to do more with less staff; describing having to act as technical support and clerical staff for physicians and clients during already busy clinics. This was noted to lead to regularly missed breaks and feelings of frustration.

Considering the implications of workload on burnout one would be remiss to not reiterate how many of the nurses who were slated to be involved in with consultation reported an inability to participate because of their work. One may infer that workloads for these nurses are, at the very least, heavier than they normally are based on these nurses believing they could participate in interviews but not being able to find the time.

Related to workload is training and preparedness for roles. Those nurses who have been redeployed from other programs described not always feeling they had been adequately trained for their new roles. One interview subject noted that for her this lack of training led to feeling of guilt that linger after the workday ends, guilt from thinking her efforts had not been enough to support her colleagues and clients.

The final theme in the data when examining factors contributing to burnout was safety. Nurses noted that through the pandemic the best-practice guidelines often seemed to be in a state of flux. Thus, they often felt unsure if they were doing everything correctly in order to ensure their own safety, the safety of their clients, and the safety of their own loved ones at home. While they could acknowledge that the organization was

doing its best as the knowledge around best-practice with a novel virus grew, the process was stressful.

Styles of self-care

When asked about current means of engaging in self-care the responses were quite variable, however there were some themes that emerged: relational self care, physical self-care, and mental-self care. Although, one must note that many of the self-care tools being implemented can be categorized within more that one of the themes.

When it comes to relational self-care nurses described the need to foster and engage in relationships with other people, both personally and professionally. This was especially important in the wake of the social (and sometimes emotional) distance than can be so present in the wake of COVID19. Personally, nurses noted needing to phone family and friends regularly. The importance of sharing time with family and pets at home was also highlighted. While professionally, they noted the importance of trying to connect and lean on peers for support.

The physical self-care practices of nurses were predominantly adherence to some sort of fitness routine. This included activities like yoga, walking (with two nurses noting that walking during their breaks on workdays being a huge part of managing stress and emotions) and running. Interestingly, most of the nurses noted upheaval in their usual routines with gym closures and social distancing policies, but every nurse who engaged in fitness-based coping did report having a pre-existing routine of some sort. None were noted to have started a new completely new fitness regiment since COVID19 started.

The mental self-care consisted of a wide variety of relaxation and distraction techniques outside of work. With nurses reporting watching TV and movies (sometimes avoiding the news), reading more, and engaging in crafts and hobbies. One nurse noted that she has been engaged in sewing masks for friends and family members in her spare time as he helps keep her occupied at home but still allows her to feel she is doing something positive. At work, the nurses noted the importance of taking meals and breaks. While most of them admitted to missing breaks occasionally, they all acknowledged the impacts that having breaks during the day has on their wellness.

Unfortunately, there were exampled of maladaptive coping noted in the interview process. Two nurses noted that they have been increasing the amount and frequency of alcohol consumption outside of work hours. They both stated that it aids them in disconnecting from the stresses of the workday. One of these nurses noted feeling like there was a need to emotionally disconnect from the job, as a means of trying not to let the stress and negativity experienced in the workplace seep into one's homelife.

Preferred resource formats

When PHNs were asked about the preferred format for a self-care resource there was a near consensus in some aspects of the responses. Nurses were universally aware of the increased pressures placed on them and their peers while nursing through a pandemic. Thus, no resource designs were preferred if they would add to the nurse's workload. Any type of booklet or print resource was immediately identified as being something that would be perceived as burdensome rather than helpful, regardless of the veracity of the content.

When asked about preferred delivery methods nurses were very aware of the constraints that COVID19 has placed on social gatherings and noted that anything in person might be contraindicated for the foreseeable future. Online resources were noted to be the most recommended. Some of the platforms the nurses reported preferring were online learning modules and daily check ins via zoom or skype with other members of their team. It is noteworthy that when discussing online learning modules several nurses did make it clear that their interest was contingent on the organization being involved. The rational for this being, without organizational involvement the process would not be mandatory and there would be not time allotted for it. Without time provided, an online module would be just as prohibitive as print resources.

Throughout the interviews, nurses were universally receptive to the idea of a virtual coffee break. The idea of having a socially distanced or skype/zoom meeting with their team take place for a short pre-determined period once a day to check in with one another was very well received. All the nurses interviewed reported seeing benefits to this type of resource delivery. Nurses who reported feeling disconnected from their workplaces or resentful towards other members of their teams noted that this could be a good means of strengthening relationships as well as helping everyone to stay well.

When focusing on how to effectively educate nurses about burnout and burnout prevention the interview results were split. Half of the nurses reported feeling that an e-learning module or other self-directed learning would be best. The other half reported that something involving live interaction, whether in person or in the form of a webinar would be best for them. All nurses interviewed noted that this learning would best take place at

work. The difference in preferred resource format seems to be a function of the individual nurses learning styles. As some reported feeling they would learn better with an instructor and the ability to ask questions, while others would be more comfortable self-directed learning taking place at their own pace.

Ethical Considerations

All individuals who participated in interviews provided informed consent, both in the initial email (as seen in Appendix A) and again at the outset of the interview itself. There was no information collected pertaining to any client of the organization, data collection was restricted entirely to the experiences of the nurses themselves. Organizational leadership were aware of this project and the data collection taking place and were supportive.

Consultations did not warrant approval of an ethics review board, as the development of a self-care resource is not conducting research. Furthermore, it was made apparent to all those who participated in interviews that there would be no identifying information collected and their confidentiality would be assured. All hand-written noted from the interviews were kept in a locked filing cabinet and electronic notes and analysis were maintained on a password protected computer.

Summary

The information and insights gained from the consultations process will facilitate the development and help determine the content of a self-care resource aimed at the mitigation of burnout in PHNs. Consultation with frontline PHNs was instrumental in identifying how they perceive burnout as presenting, what they are already doing, and the

current barriers to doing more. This will allow for any new resource to be tailored to meet specific needs, focusing in on building and maintaining relationships, while not adversely impacting an already taxing workload.

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Appendix A

Interview Request Email Template

Hello (name of participant),

As a part of completing a graduate degree in nursing through Memorial University, I am completing a final practicum project. I am looking to develop a self-care resource for nurses to prevent or mitigate burnout while working through pandemic conditions. I would like to describe the project for you and invite you to participate in a short (approximately 15 to 20 minute) interview.

Brief Project Description

As we know, working during the current health pandemic has created new and unique challenges for nurses. I have been concerned about how these additional stressors may be contributing to increased risk of burnout. Therefore, it has been my goal to better understand the risk through assessment of the available literature and interviews with frontline nursing staff and leadership. to develop a resource to prevent or mitigate burnout in nurses working in pandemic situations. The goal of this project will be to create a self-care resources that can meet the needs of public health nurses and help them to prevent or reduce the symptoms of burnout.

Interviews

I would like to invite you to participate in a short interview to discuss your perspectives with respect to nurses' self-care and burnout while nursing during a pandemic. If you choose to participate, please email or call so we can discuss your availability and book a time of your convenience.

Thank you so much,

Stephen Shears, RN

Appendix B

Interview Questions

Questions for Leadership

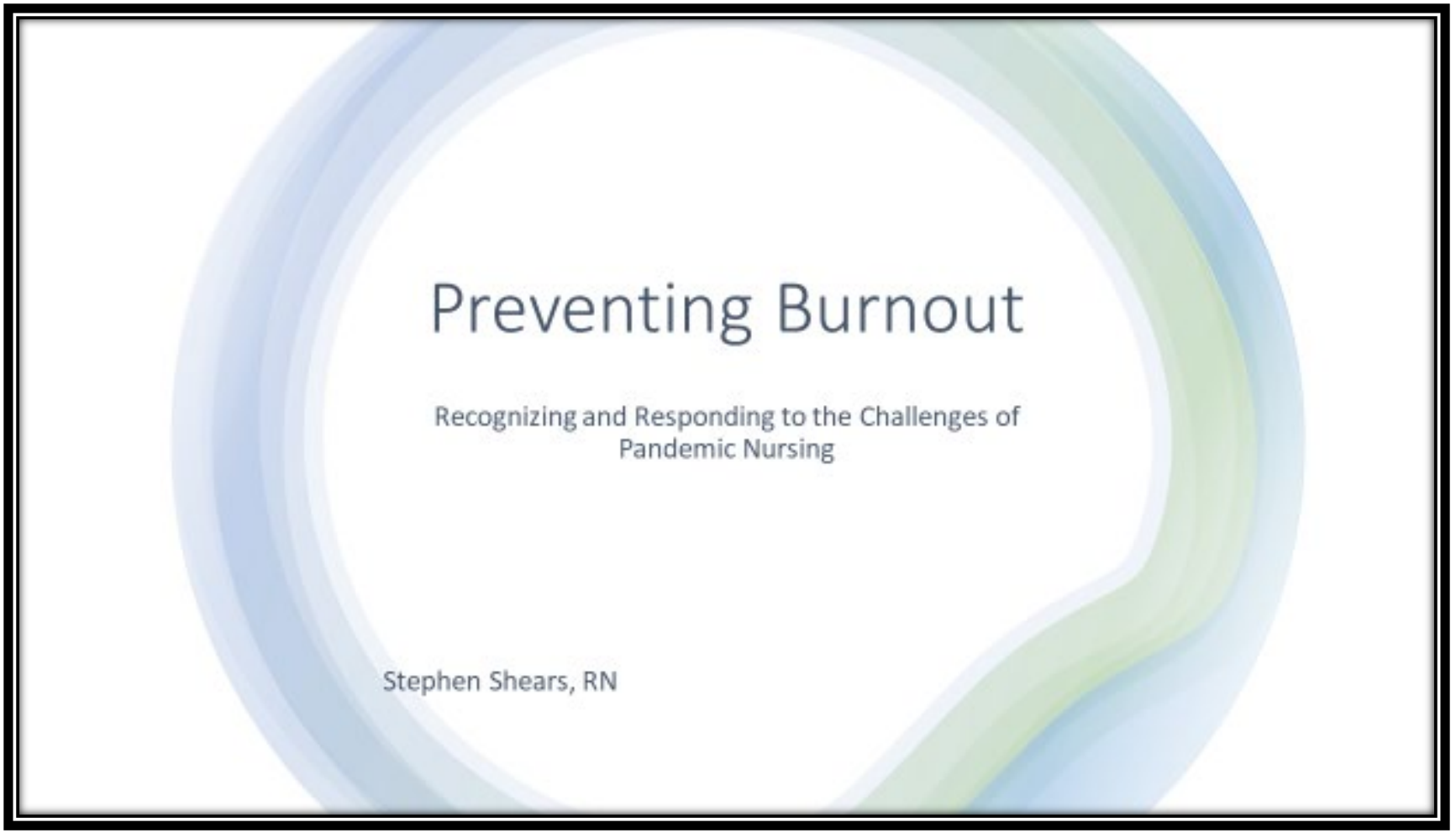
1. Do you feel that nurse burnout is a concern? Why or why not?
2. Do you feel that working in through the current COVID19 pandemic exasperates this risk? Please elaborate on reasons.
3. Could you please describe what the organization is currently doing to ensure the wellbeing of nurses, with respect to burnout.
4. Are there other means of fostering wellness and mitigating burnout that are currently under consideration, or have been previously trialed?
5. Are there resources you would like to see in addition to what already exists?
6. Do you feel that nurses working for NRPH could benefit from an additional self-care resource to prevent burnout?
7. Knowing your staff, are there way of delivering resources to staff that you feel better than others?
8. Thoughts on e-learning tools, print media, zoom/skype presentations, in-person socially distanced workshops.

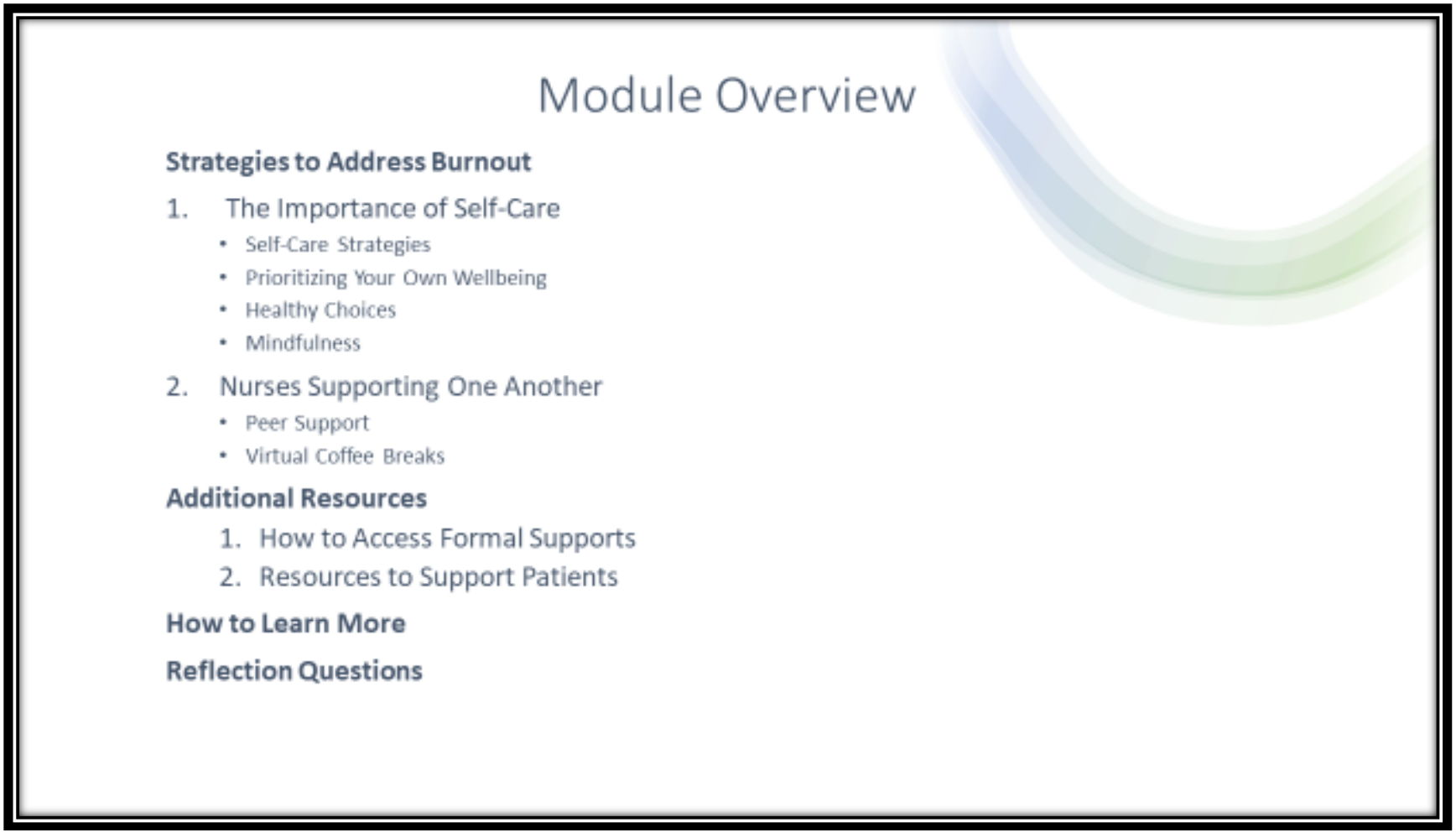
Questions for Frontline Nurses

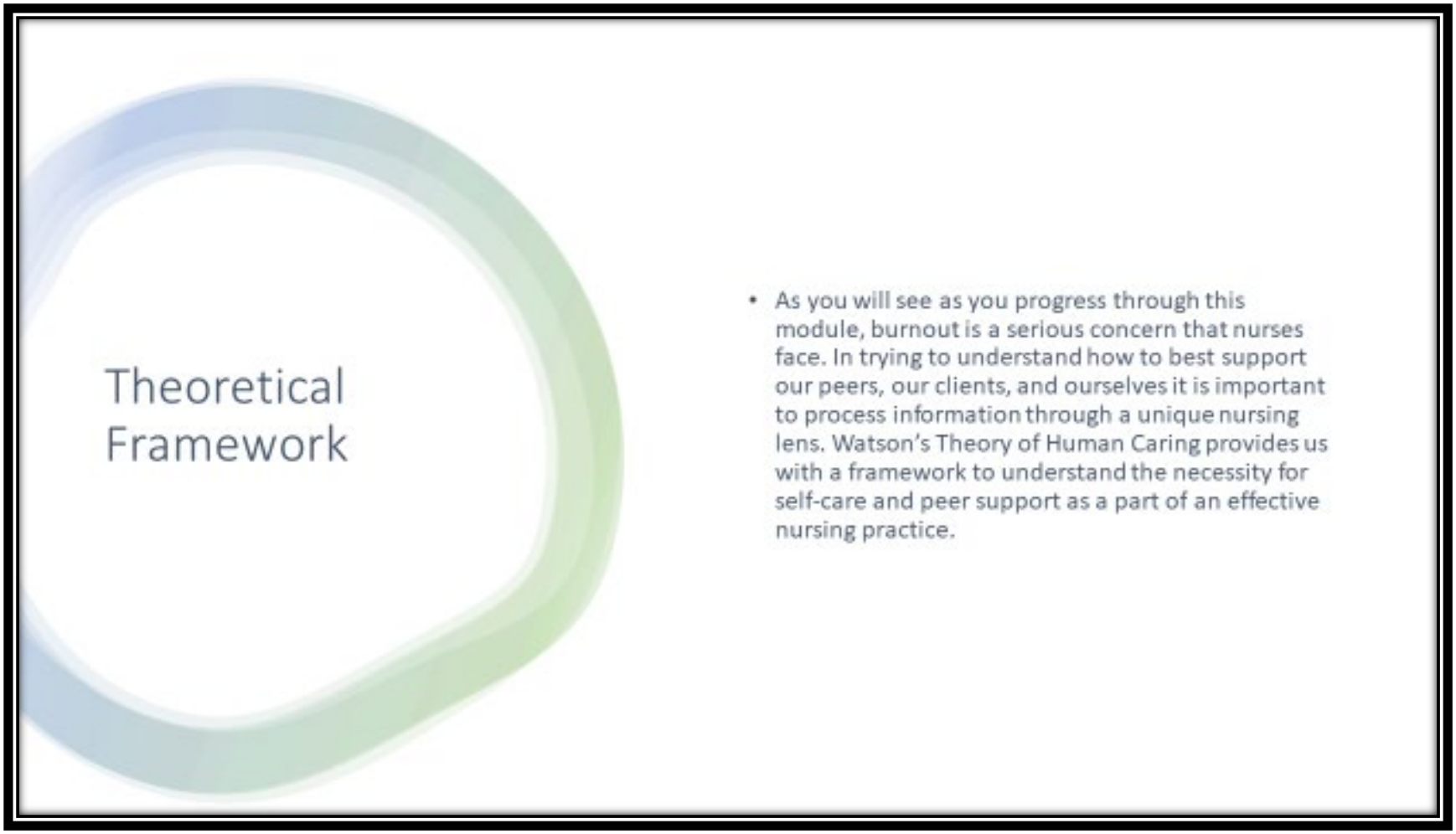
1. What branch of public health do you work in? Have you been redeployed due to COVID?
2. Do you feel that nurses are at risk of burnout due to the nature of the work you do? What about your job do you feel can contribute to burnout?
3. Can you describe what burnout looks like for you?
4. Do you feel that the COVID19 pandemic has increased the pressures on nurses and increased the risk for burning out? Please explain your rationale.
5. Please describe any self-care tools or resources that you currently use to maintain or improve wellness.
6. Could you describe what kind of benefits you get from your self-care regiments?
7. What (if any) barriers prevent you from engaging in more self-care activities?
8. Do you feel that you and/or your coworkers could benefit from an additional resource to help cope with /reduce burnout?
9. Thinking about yourself and your coworkers, can you describe the ways you think that a new self-care resource would be the most accessible?
10. Discuss the pros and cons of zoom/skype workshops, print resources, e-learning module, online videos, and any other delivery systems identified in the previous question.
11. Working in healthcare over these last months has been challenging, are you need of supports right now?

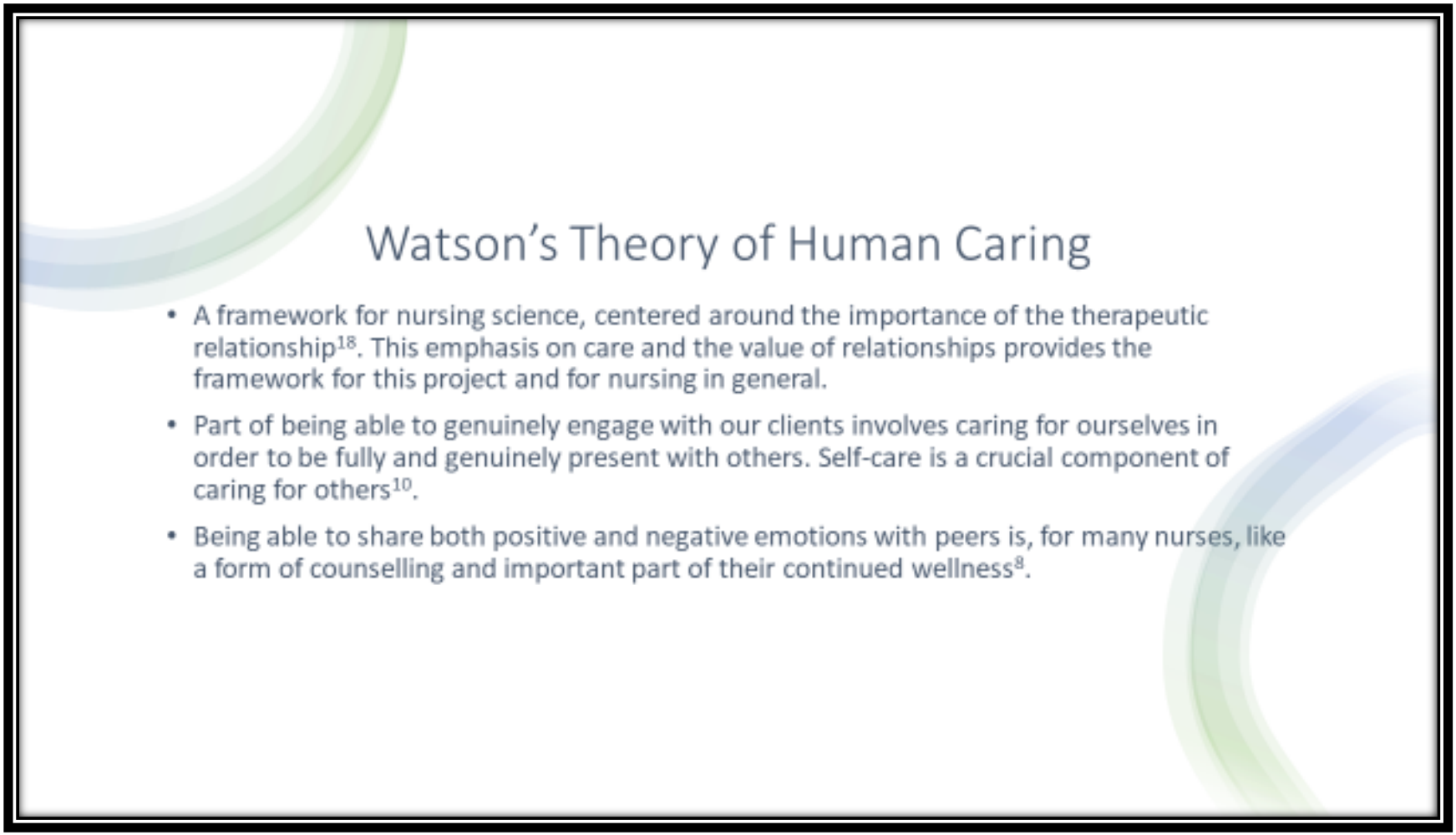
Appendix C

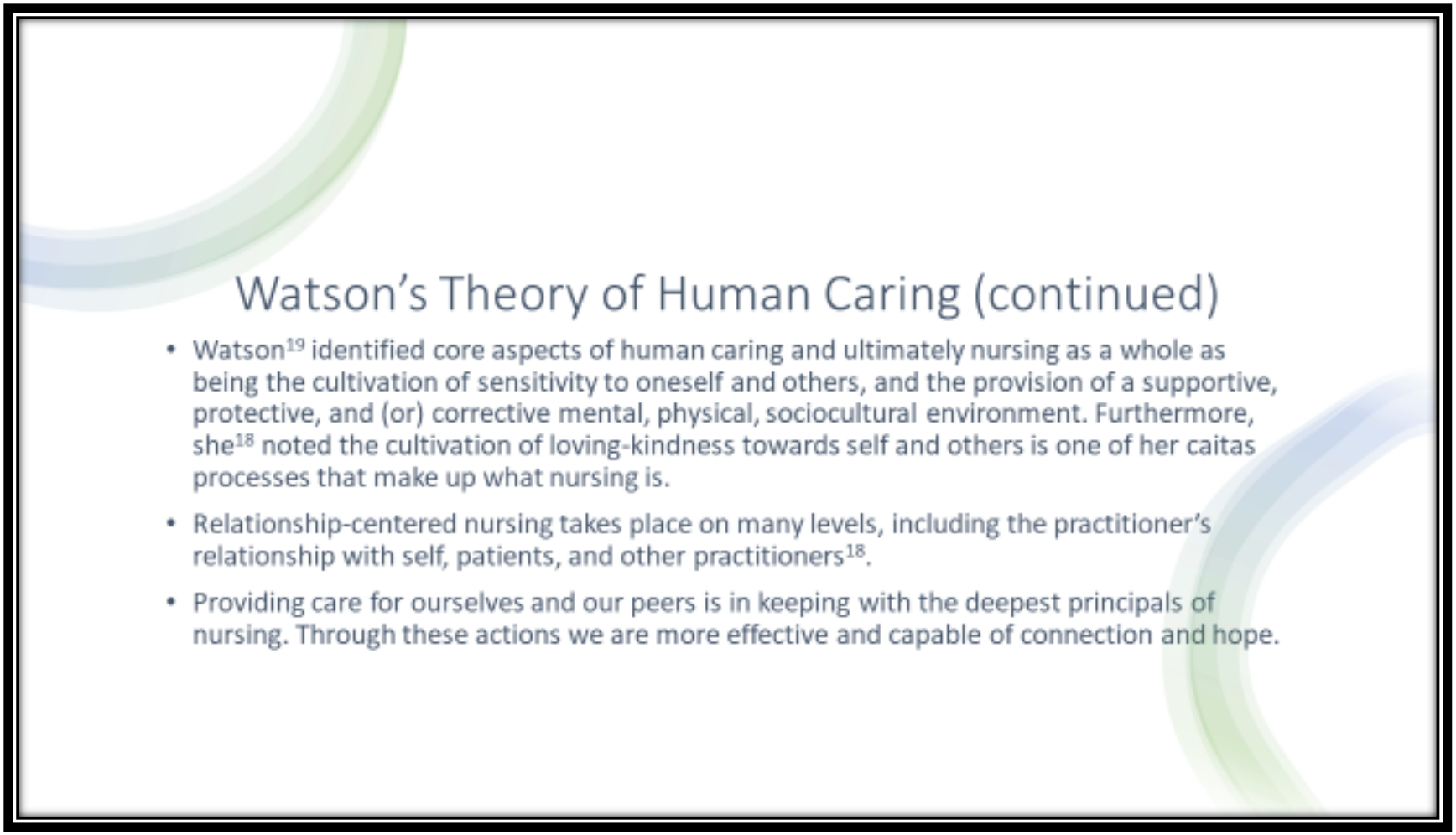
E-Learning Module

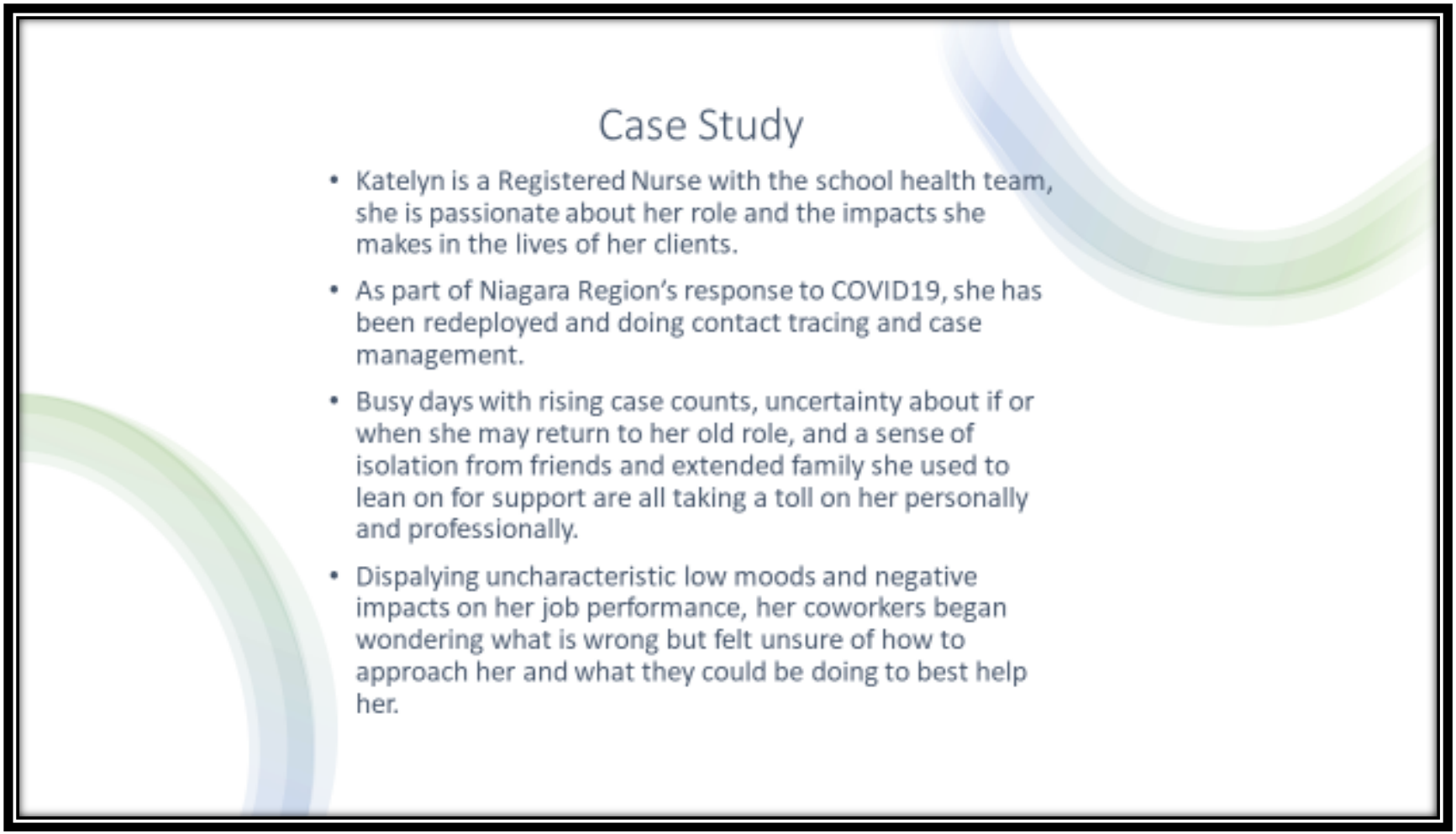

Preventing Burnout
Recognizing and Responding to the Challenges of Pandemic Nursing
Stephen Shears, RN

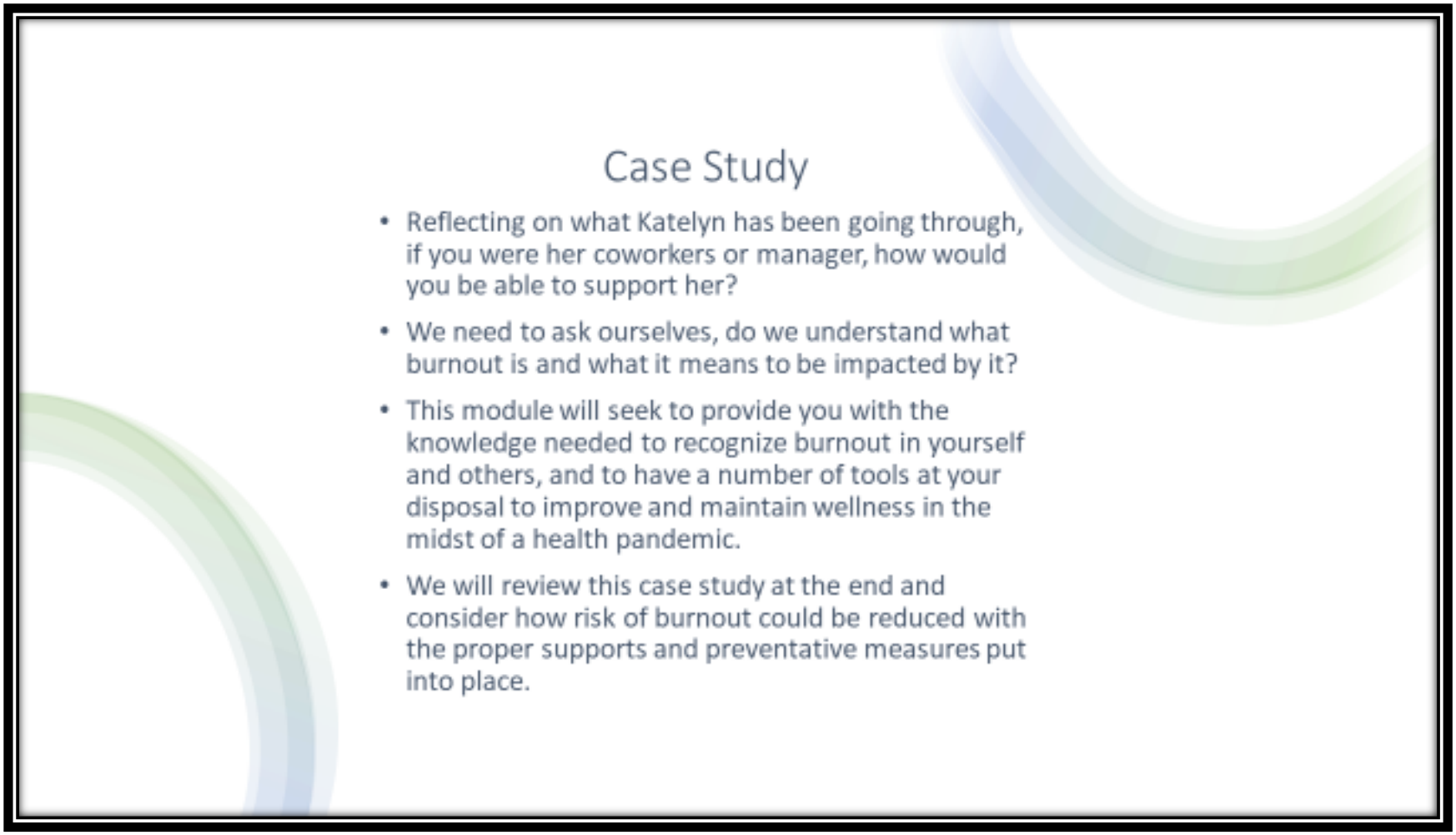

Module Overview
Strategies to Address Burnout
1. The Importance of Self-Care
• Self-Care Strategies
• Prioritizing Your Own Wellbeing
• Healthy Choices
• Mindfulness
2. Nurses Supporting One Another
• Peer Support
• Virtual Coffee Breaks
Additional Resources
1. How to Access Formal Supports
2. Resources to Support Patients
How to Learn More
Reflection Questions

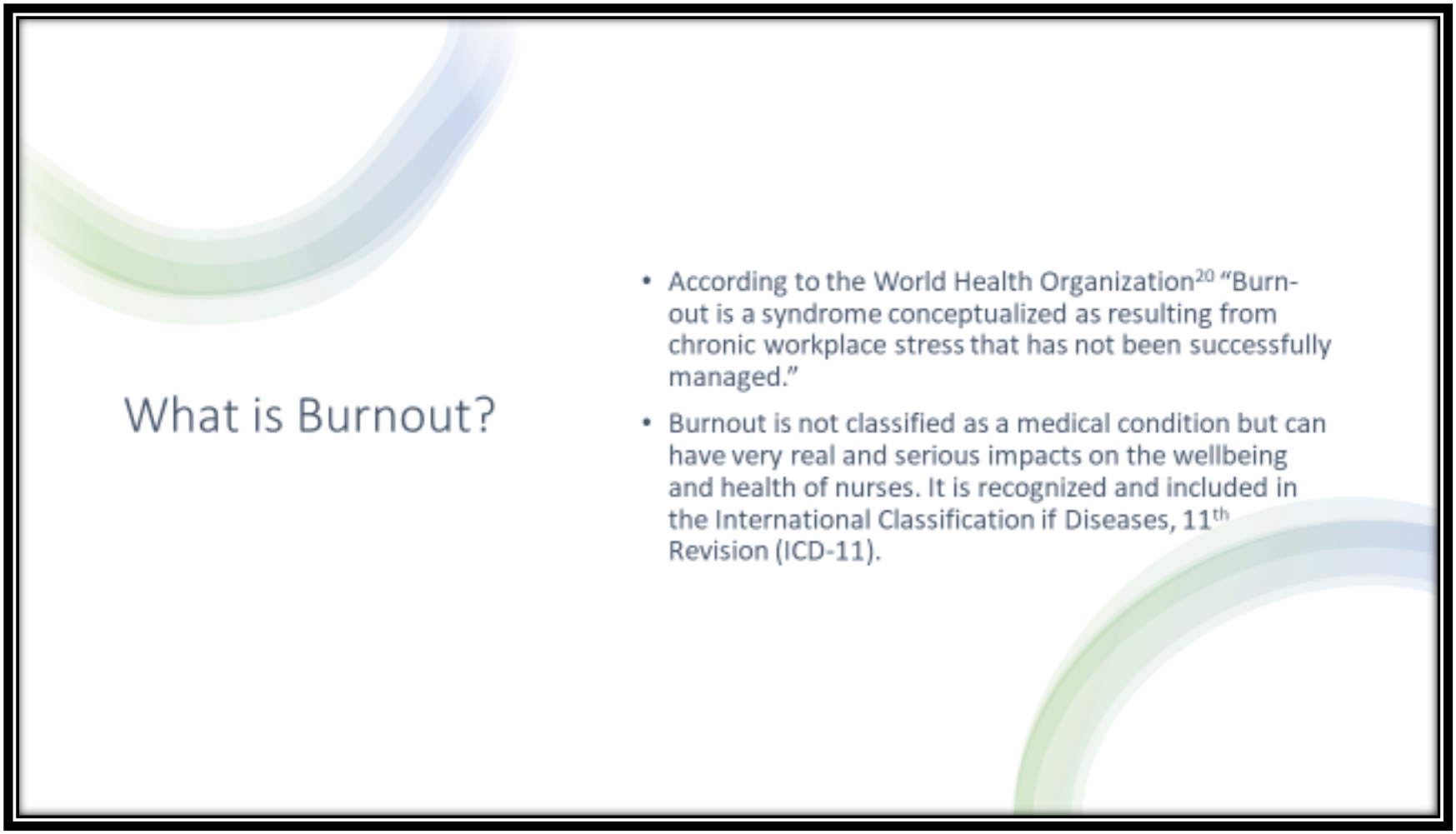

Theoretical Framework
• As you will see as you progress through this module, burnout is a serious concern that nurses face. In trying to understand how to best support our peers, our clients, and ourselves it is important to process information through a unique nursing lens. Watson's Theory of Human Caring provides us with a framework to understand the necessity for self-care and peer support as a part of an effective nursing practice.

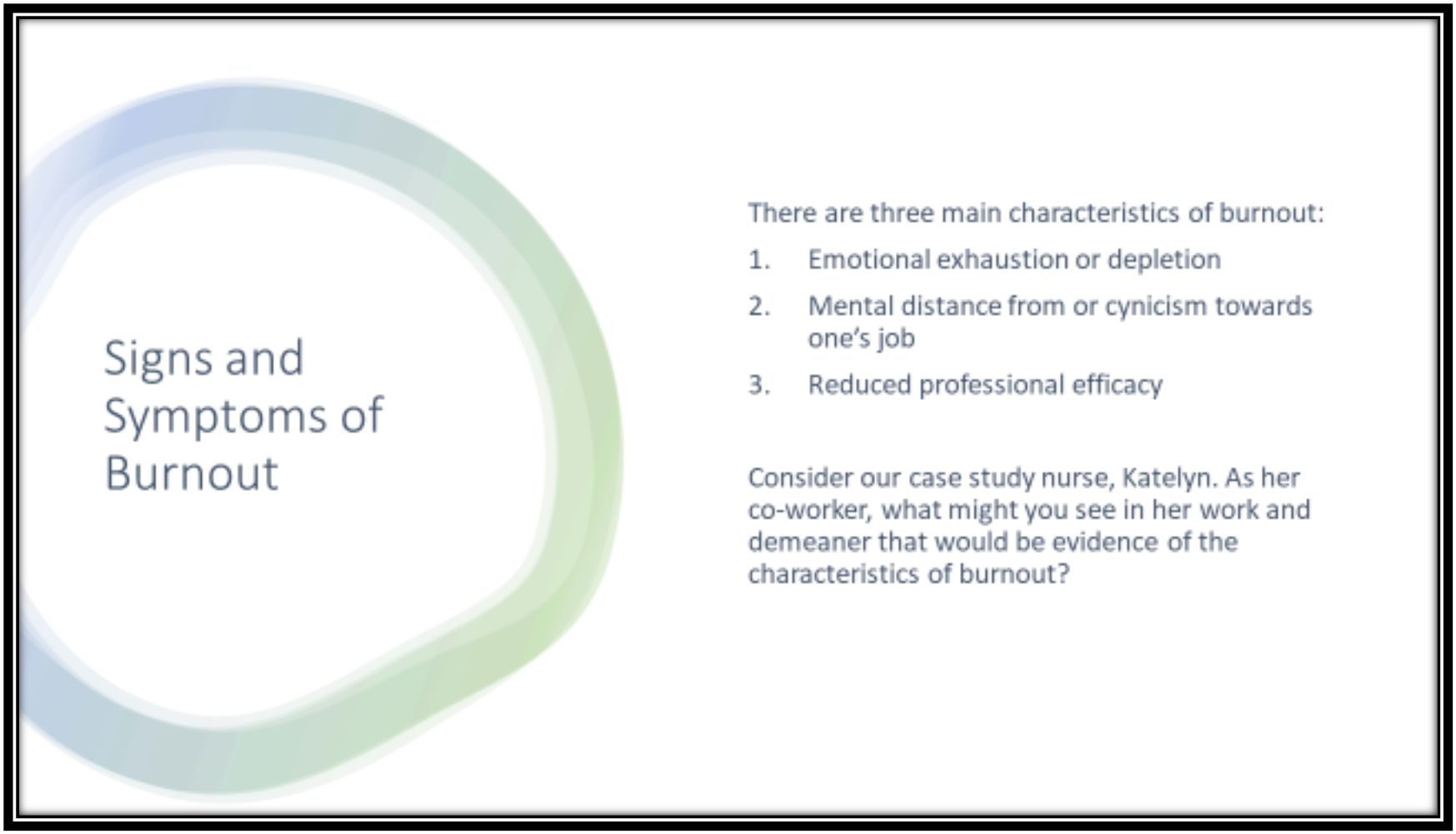

Watson's Theory of Human Caring
• A framework for nursing science, centered around the importance of the therapeutic relationship[18]. This emphasis on care and the value of relationships provides the framework for this project and for nursing in general.
• Part of being able to genuinely engage with our clients involves caring for ourselves in order to be fully and genuinely present with others. Self-care is a crucial component of caring for others[10].
• Being able to share both positive and negative emotions with peers is, for many nurses, like a form of counselling and important part of their continued wellness[8].

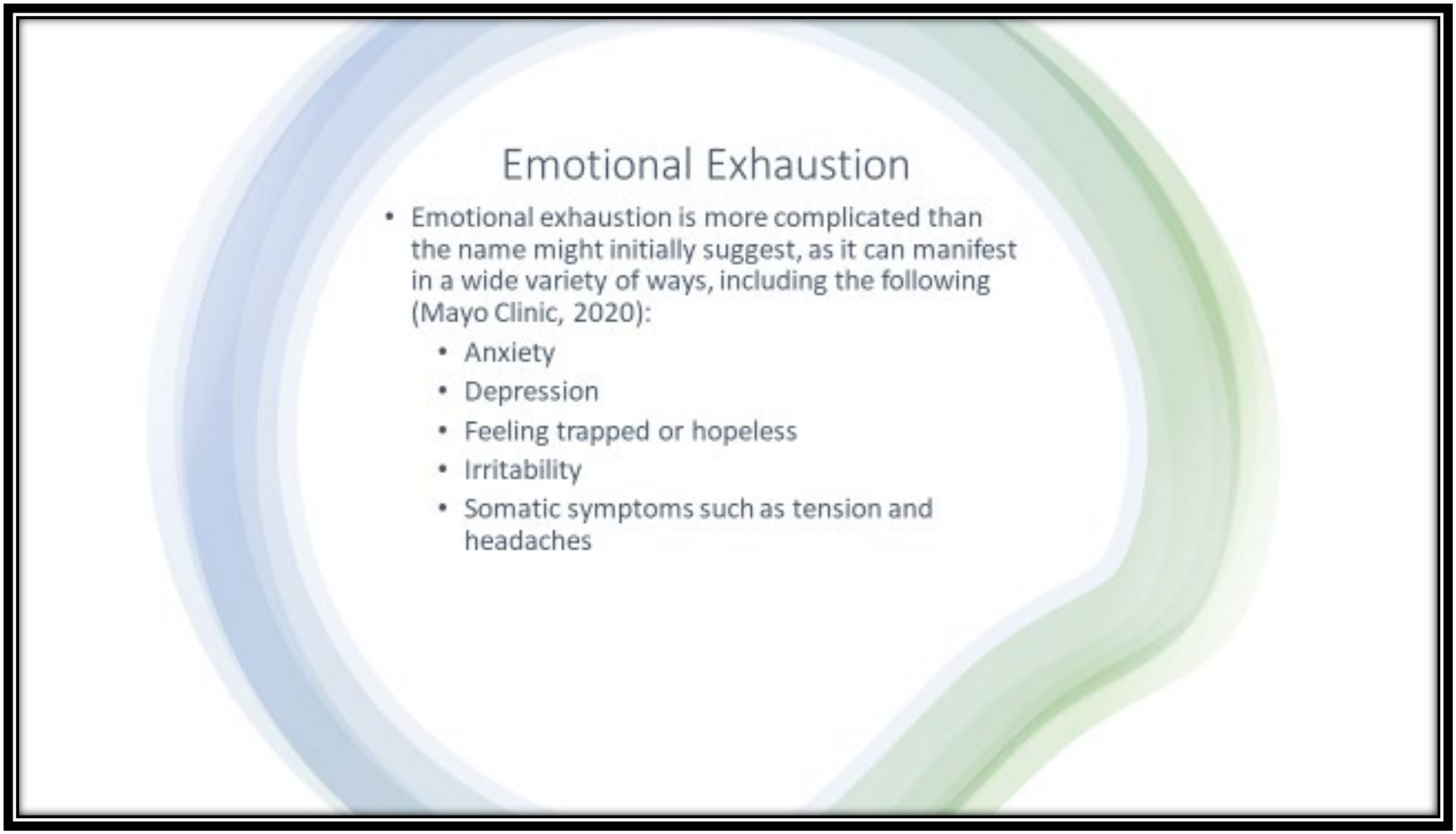

Watson's Theory of Human Caring (continued)
• Watson[19] identified core aspects of human caring and ultimately nursing as a whole as being the cultivation of sensitivity to oneself and others, and the provision of a supportive, protective, and (or) corrective mental, physical, sociocultural environment. Furthermore, she[18] noted the cultivation of loving-kindness towards self and others is one of her caitas processes that make up what nursing is.
• Relationship-centered nursing takes place on many levels, including the practitioner's relationship with self, patients, and other practitioners[18].
• Providing care for ourselves and our peers is in keeping with the deepest principals of nursing. Through these actions we are more effective and capable of connection and hope.

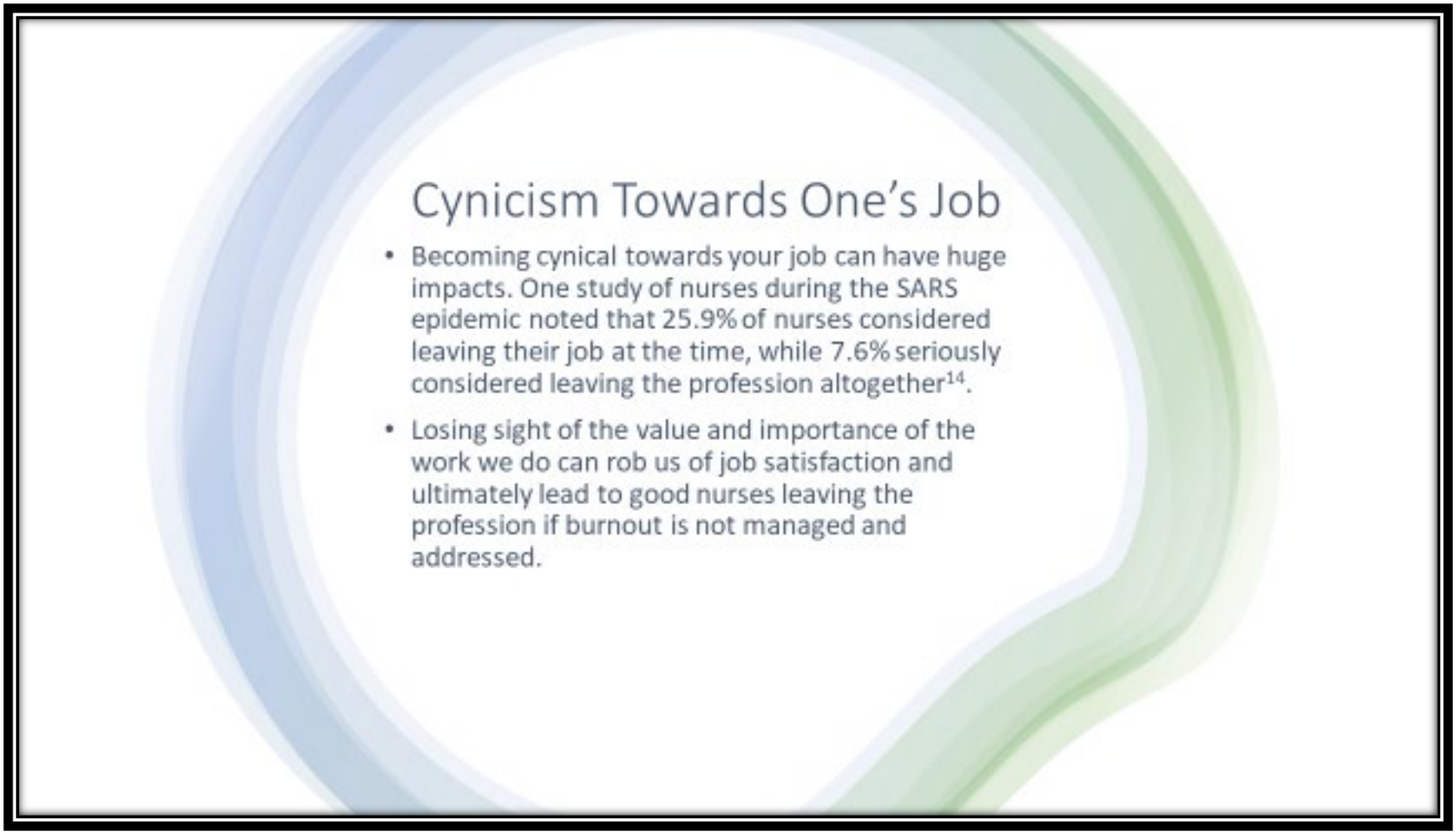

Case Study
• Katelyn is a Registered Nurse with the school health team, she is passionate about her role and the impacts she makes in the lives of her clients.
• As part of Niagara Region's response to COVID19, she has been redeployed and doing contact tracing and case management.
• Busy days with rising case counts, uncertainty about if or when she may return to her old role, and a sense of isolation from friends and extended family she used to lean on for support are all taking a toll on her personally and professionally.
• Dispalying uncharacteristic low moods and negative impacts on her job performance, her coworkers began wondering what is wrong but felt unsure of how to approach her and what they could be doing to best help her.

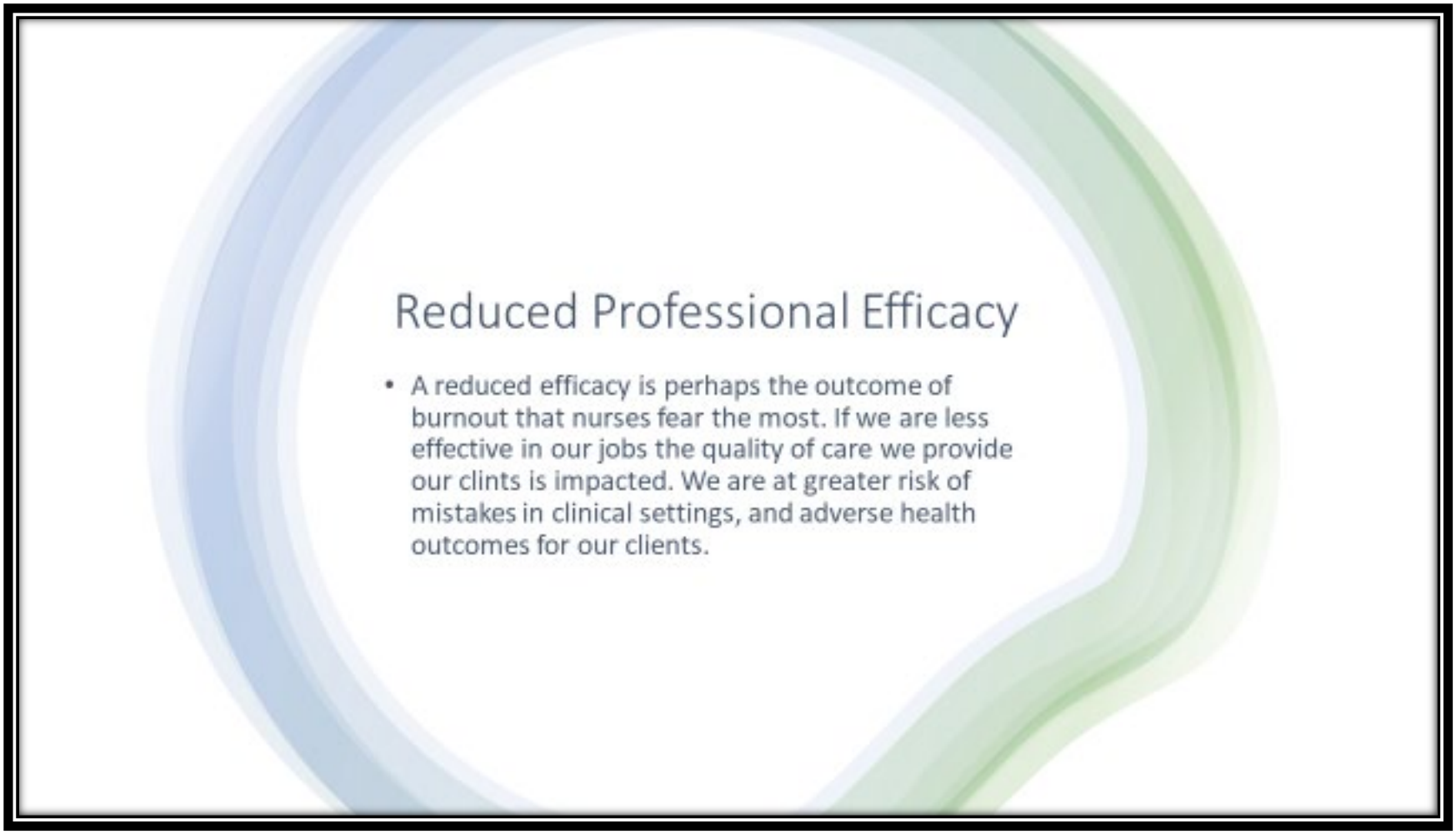

Case Study
• Reflecting on what Katelyn has been going through, if you were her coworkers or manager, how would you be able to support her?
• We need to ask ourselves, do we understand what burnout is and what it means to be impacted by it?
• This module will seek to provide you with the knowledge needed to recognize burnout in yourself and others, and to have a number of tools at your disposal to improve and maintain wellness in the midst of a health pandemic.
• We will review this case study at the end and consider how risk of burnout could be reduced with the proper supports and preventative measures put into place.

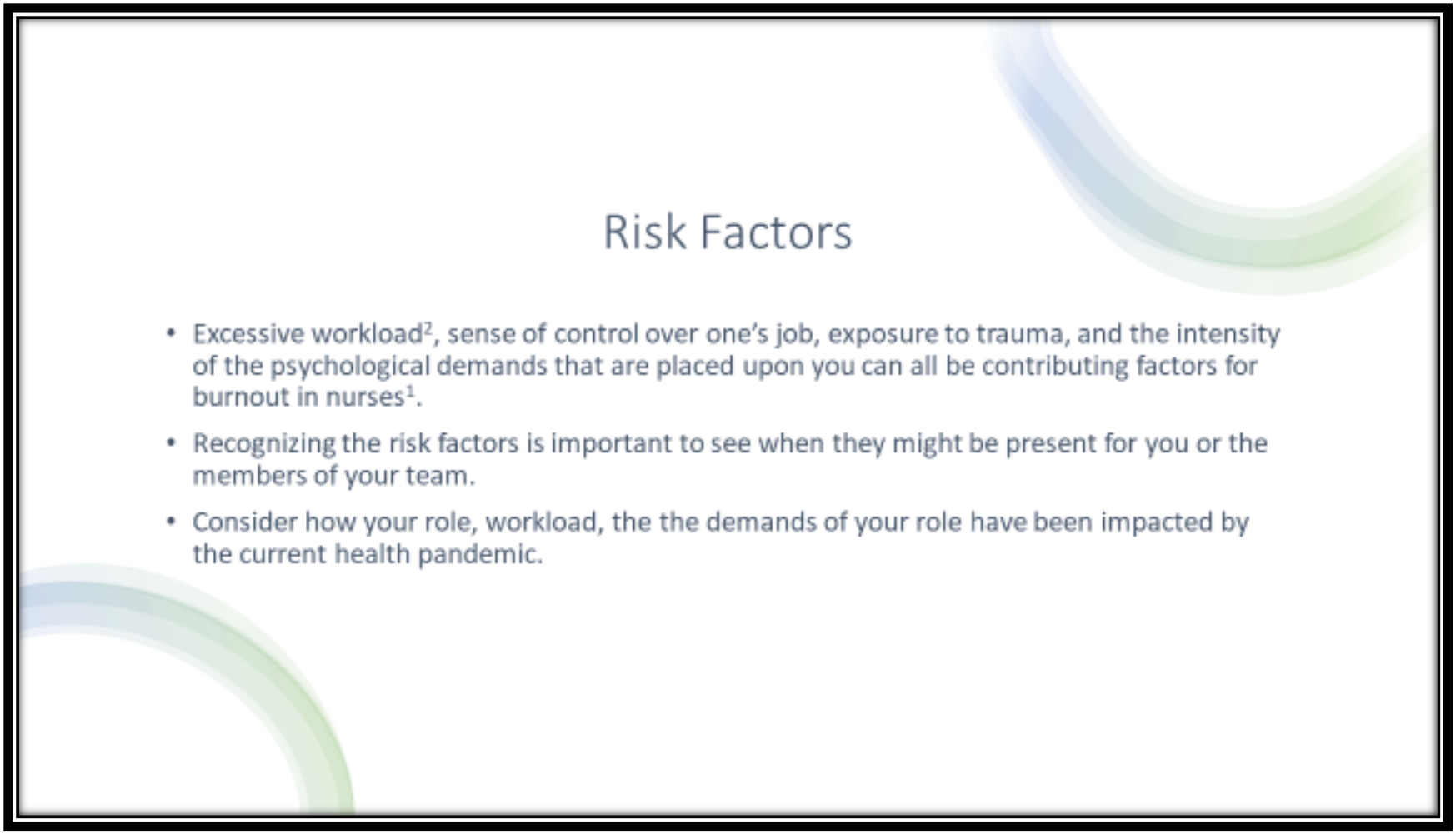

What is Burnout?
• According to the World Health Organization[20] "Burn-out is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed."
• Burnout is not classified as a medical condition but can have very real and serious impacts on the wellbeing and health of nurses. It is recognized and included in the International Classification if Diseases, 11th Revision (ICD-11).

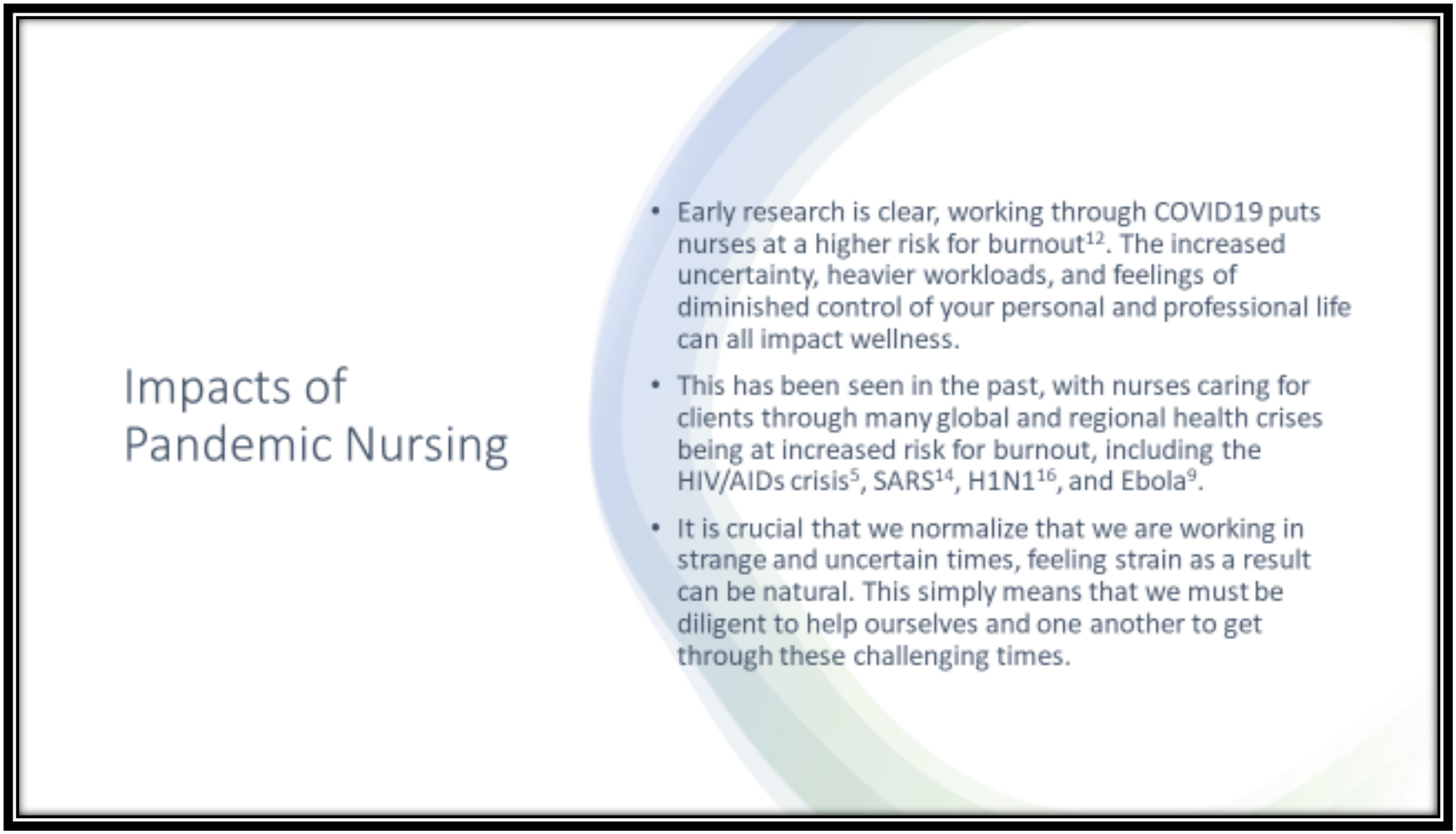

Signs and Symptoms of Burnout
There are three main characteristics of burnout:
1. Emotional exhaustion or depletion
2. Mental distance from or cynicism towards one's job
3. Reduced professional efficacy
Consider our case study nurse, Katelyn. As her co-worker, what might you see in her work and demeaner that would be evidence of the characteristics of burnout?


Emotional Exhaustion
• Emotional exhaustion is more complicated than the name might initially suggest, as it can manifest in a wide variety of ways, including the following (Mayo Clinic, 2020):
• Anxiety
• Depression
• Feeling trapped or hopeless
• Irritability
• Somatic symptoms such as tension and headaches


Cynicism Towards One's Job
• Becoming cynical towards your job can have huge impacts. One study of nurses during the SARS epidemic noted that 25.9% of nurses considered leaving their job at the time, while 7.6% seriously considered leaving the profession altogether[14].
• Losing sight of the value and importance of the work we do can rob us of job satisfaction and ultimately lead to good nurses leaving the profession if burnout is not managed and addressed.

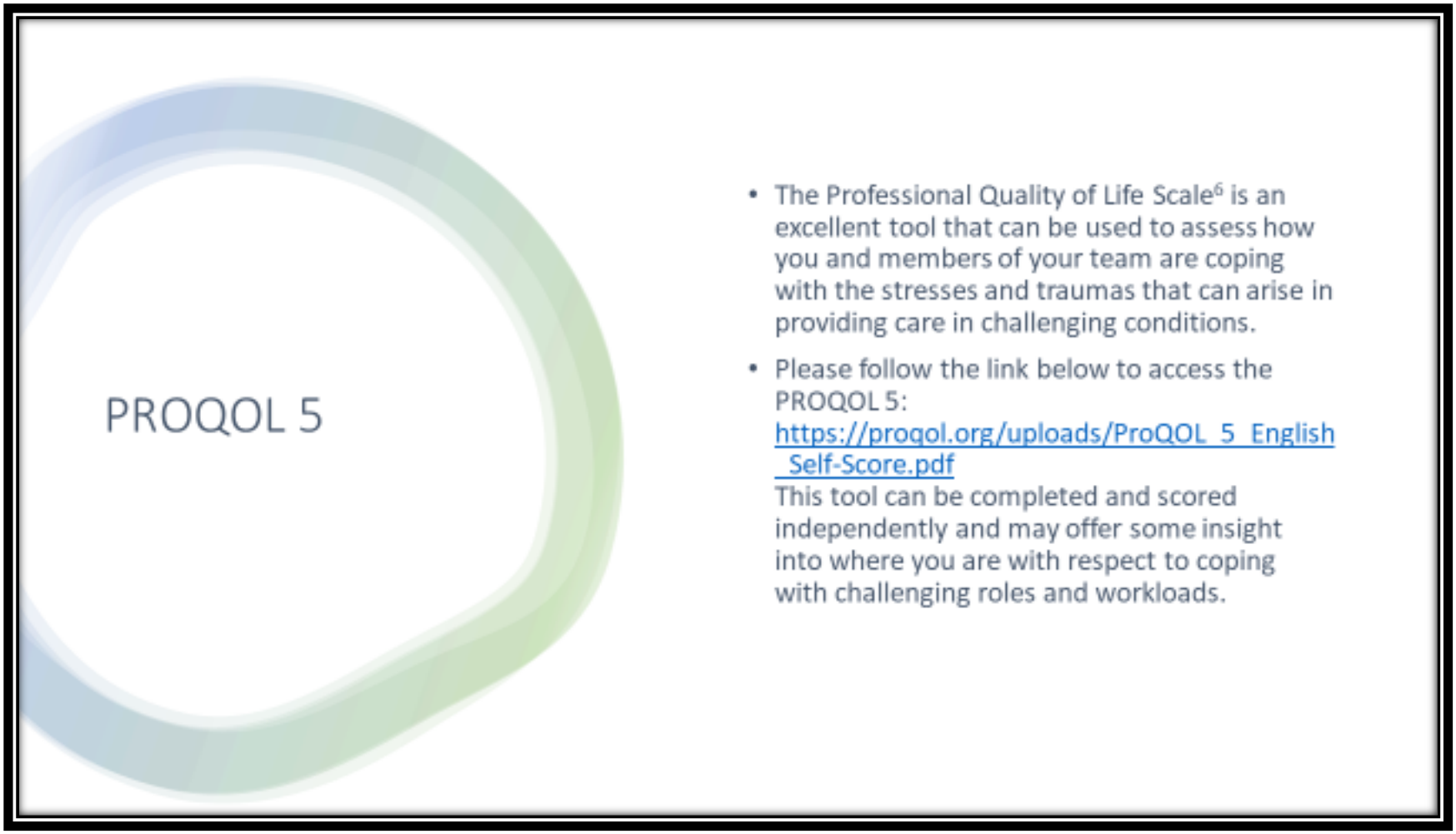

Reduced Professional Efficacy
• A reduced efficacy is perhaps the outcome of burnout that nurses fear the most. If we are less effective in our jobs the quality of care we provide our clints is impacted. We are at greater risk of mistakes in clinical settings, and adverse health outcomes for our clients.

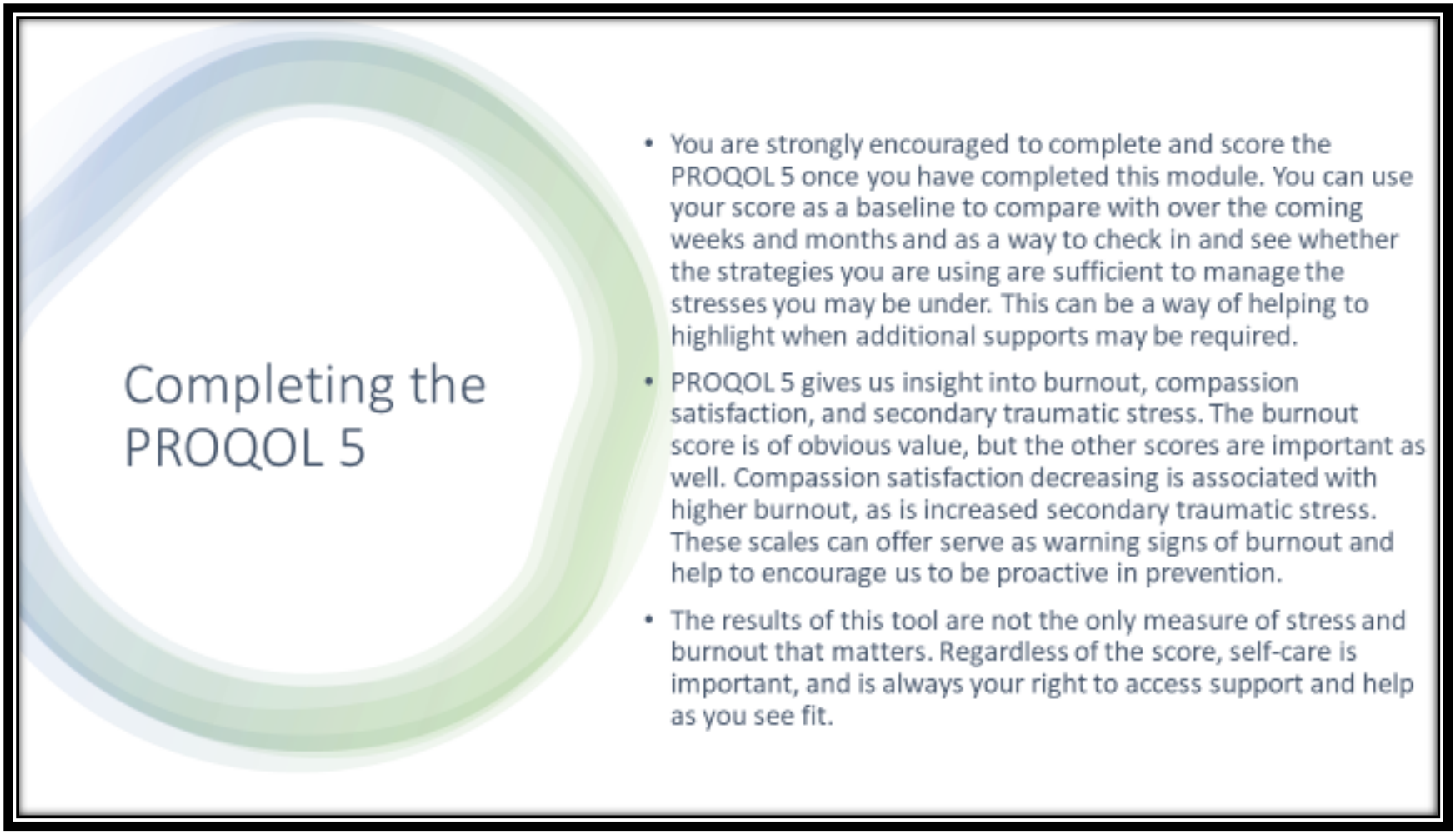

Risk Factors
• Excessive workload[2], sense of control over one's job, exposure to trauma, and the intensity of the psychological demands that are placed upon you can all be contributing factors for burnout in nurses[1].
• Recognizing the risk factors is important to see when they might be present for you or the members of your team.
• Consider how your role, workload, the the demands of your role have been impacted by the current health pandemic.


Impacts of Pandemic Nursing
• Early research is clear, working through COVID19 puts nurses at a higher risk for burnout[12]. The increased uncertainty, heavier workloads, and feelings of diminished control of your personal and professional life can all impact wellness.
• This has been seen in the past, with nurses caring for clients through many global and regional health crises being at increased risk for burnout, including the HIV/AIDs crisis[5], SARS[14], H1N1[16], and Ebola[9].
• It is crucial that we normalize that we are working in strange and uncertain times, feeling strain as a result can be natural. This simply means that we must be diligent to help ourselves and one another to get through these challenging times.


Stop and Think
• Has the pandemic impacted your practice or personal life?
• Have you implemented or considered implementing any strategies to manage increased stress in these unusual times?


Assessing Burnout
There are many tools that you or your healthcare provider can access to formally assess level of burnout
Use of these tools can sometimes allow us to be more objective and recognize when there is need for more support or intervention


PROQOL 5
• The Professional Quality of Life Scale[6] is an excellent tool that can be used to assess how you and members of your team are coping with the stresses and traumas that can arise in providing care in challenging conditions.
• Please follow the link below to access the PROQOL 5:
https://proqol.org/uploads/ProQOL_5_English_Self-Score.pdf
This tool can be completed and scored independently and may offer some insight into where you are with respect to coping with challenging roles and workloads.


Completing the PROQOL 5
• You are strongly encouraged to complete and score the PROQOL 5 once you have completed this module. You can use your score as a baseline to compare with over the coming weeks and months and as a way to check in and see whether the strategies you are using are sufficient to manage the stresses you may be under. This can be a way of helping to highlight when additional supports may be required.
• PROQOL 5 gives us insight into burnout, compassion satisfaction, and secondary traumatic stress. The burnout score is of obvious value, but the other scores are important as well. Compassion satisfaction decreasing is associated with higher burnout, as is increased secondary traumatic stress. These scales can offer serve as warning signs of burnout and help to encourage us to be proactive in prevention.
• The results of this tool are not the only measure of stress and burnout that matters. Regardless of the score, self-care is important, and is always your right to access support and help as you see fit.

Self-Care Strategies

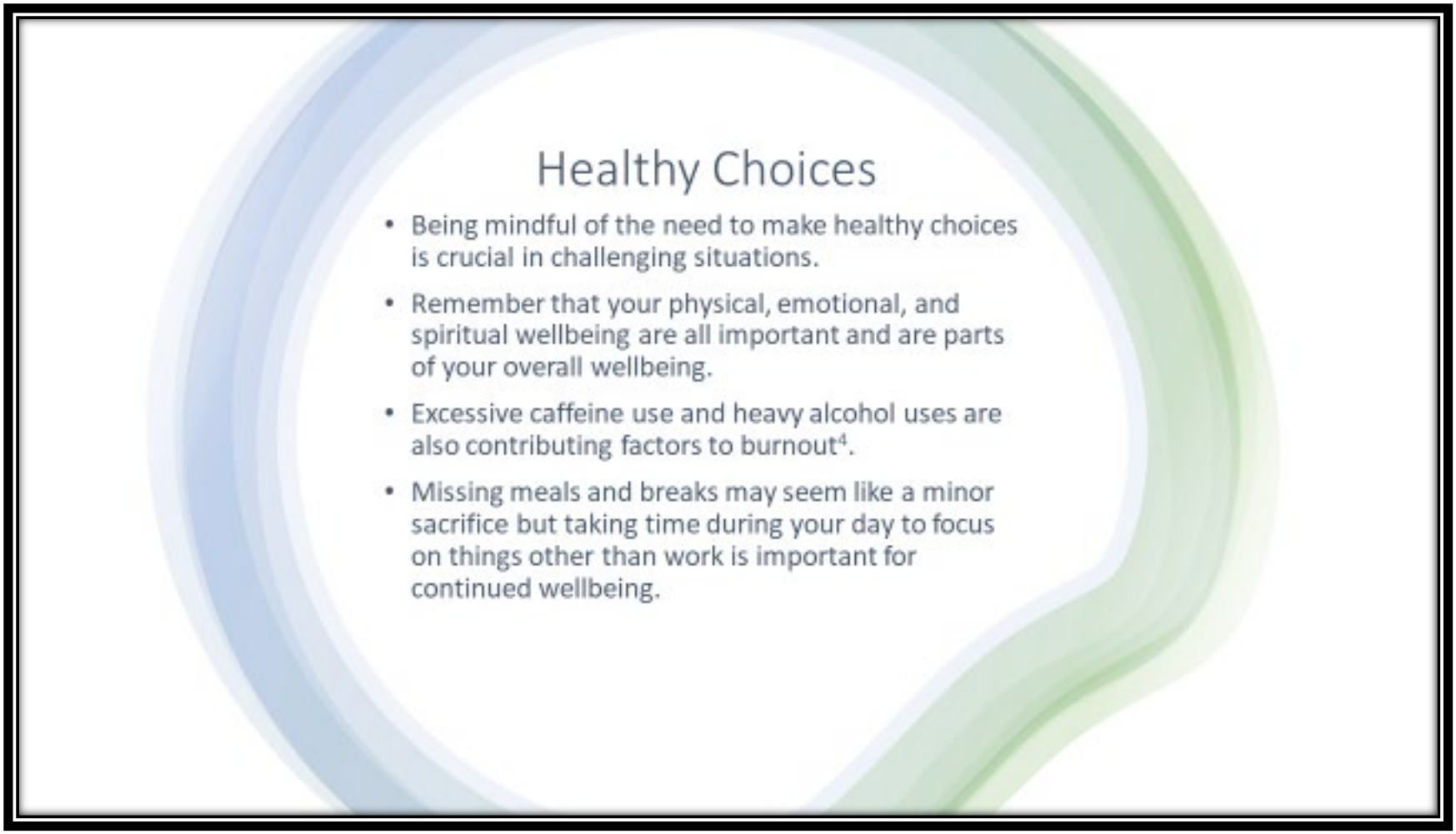
"When we work to heal ourselves, we contribute to healing the whole."

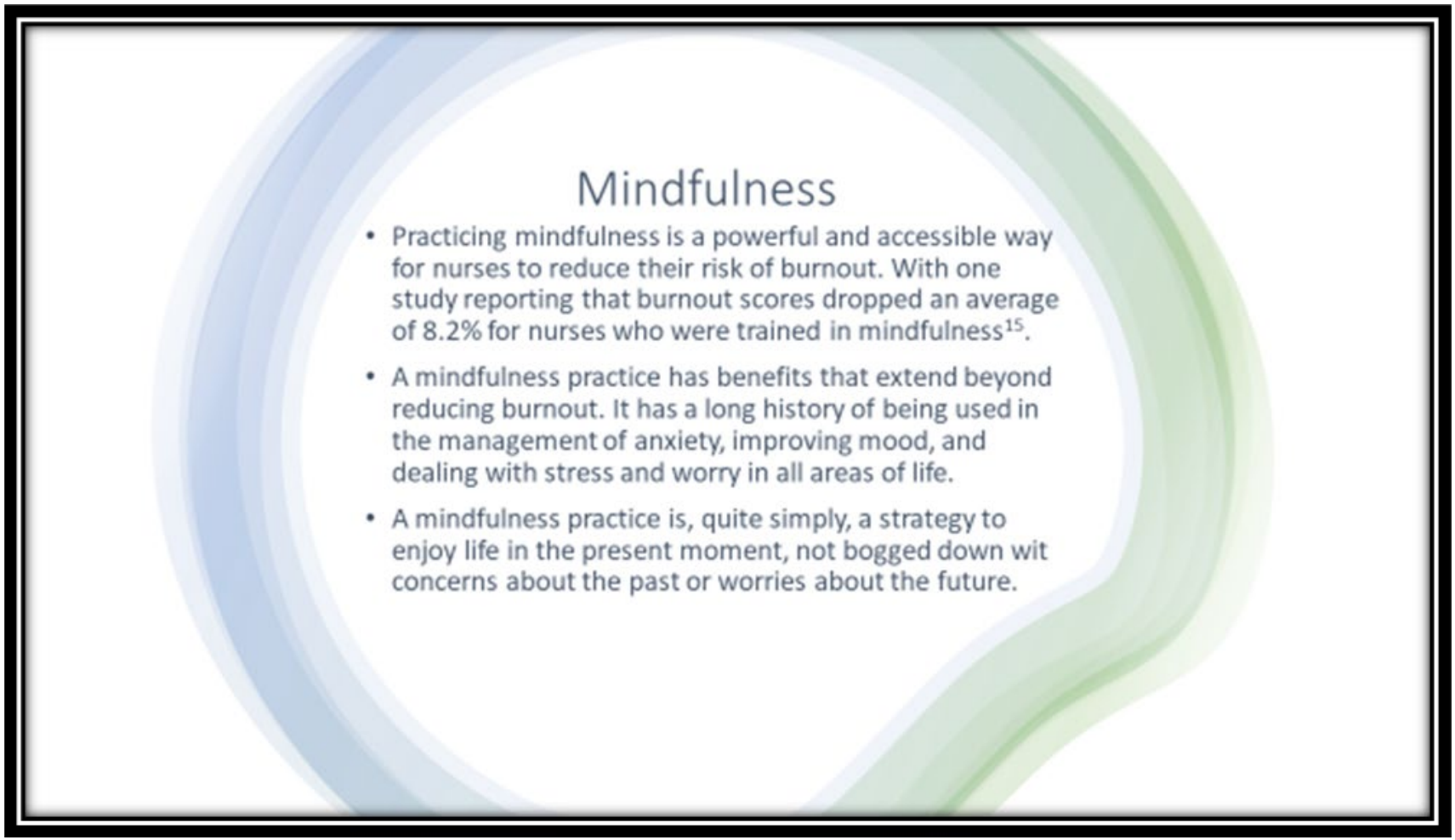
Jean Watson

- Caring for yourself is instrumental in ensuring your continued ability to care for your clients
- This involves ensuring you pay attention and prioritize your physical, emotional, mental, and spiritual wellbeing
- There are many approaches to self-care that are supported by the literature. The important thing is you are prioritizing including what works for you in your life.


Stop and Think
• Are there areas of your life that you neglect when workloads get heavy?
• Are there ways you could try and prioritize the things that make you happy into your schedule a little more?

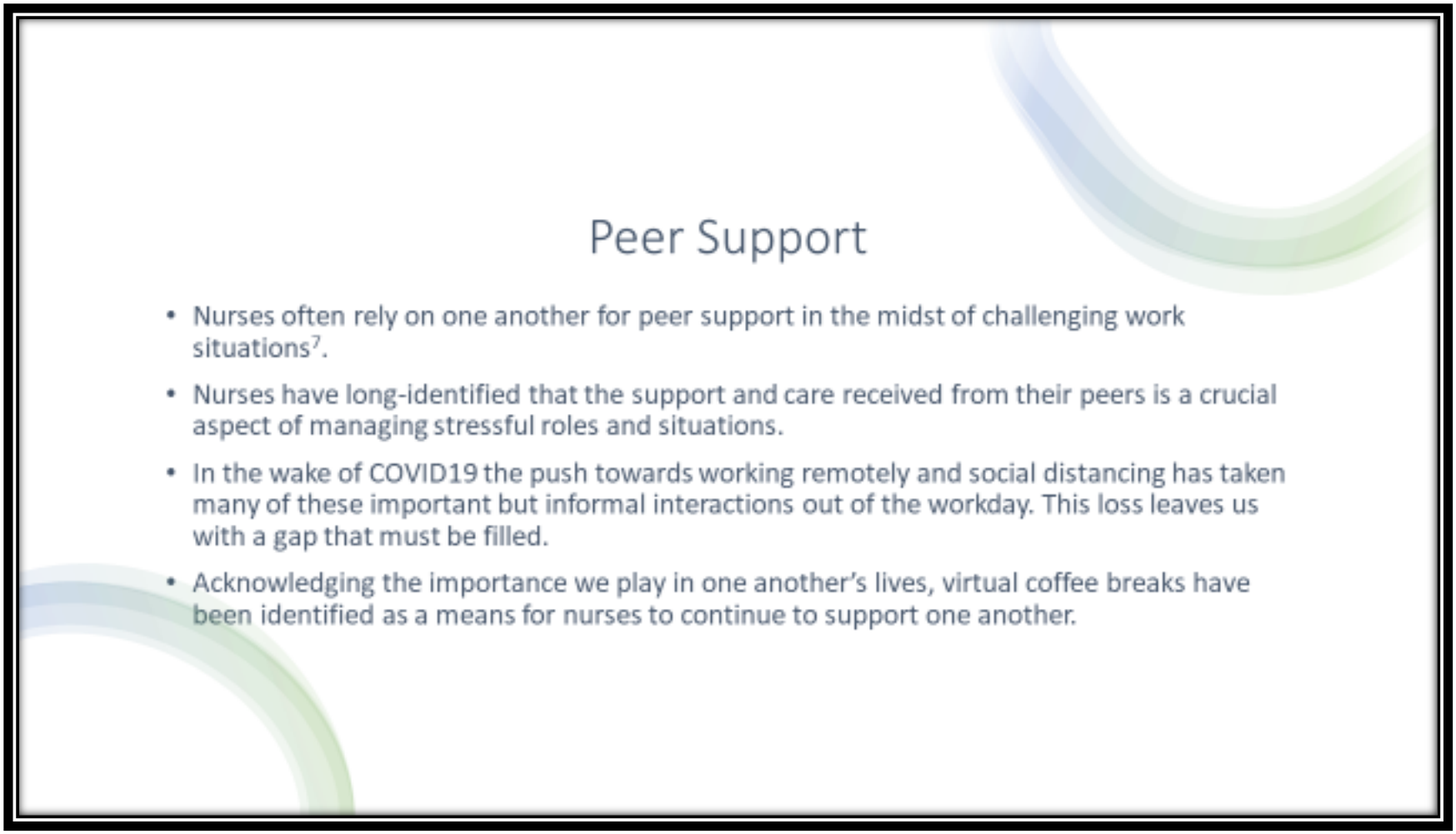

Prioritizing Your Own Wellbeing
• Tolerance and the ability to meet personal and professional challenges is diminished when we disregard our own wellness[17].
• This means that spending time with friends and family and engaging in hobbies are actually important tools to take care of your own well-being[13].
• The analogy of putting on your own oxygen mask before helping others on an airplane applies here. If you don't ensure your own wellness you cannot be as effective for your clients.

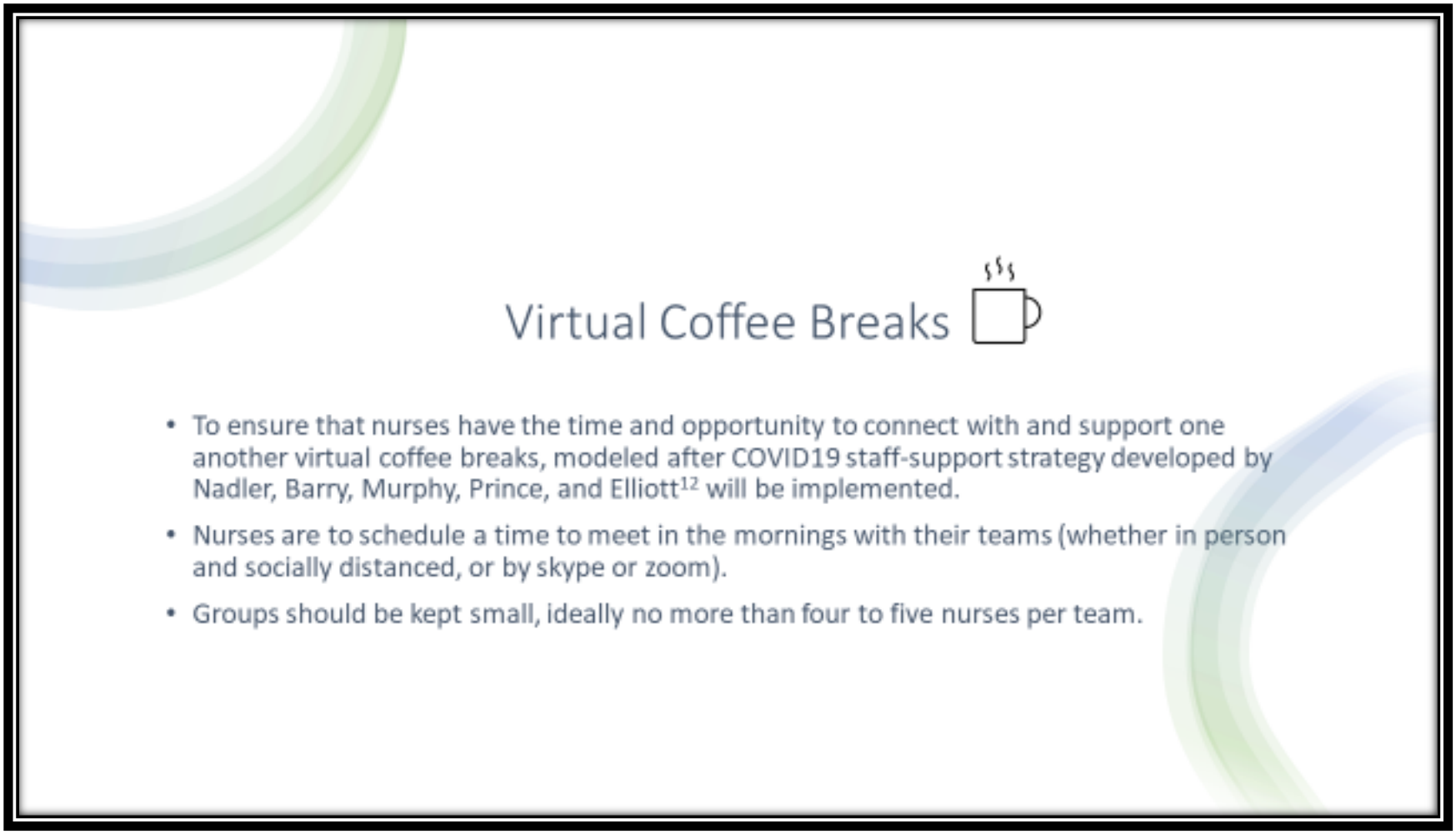

Healthy Choices
• Being mindful of the need to make healthy choices is crucial in challenging situations.
• Remember that your physical, emotional, and spiritual wellbeing are all important and are parts of your overall wellbeing.
• Excessive caffeine use and heavy alcohol uses are also contributing factors to burnout[4].
• Missing meals and breaks may seem like a minor sacrifice but taking time during your day to focus on things other than work is important for continued wellbeing.

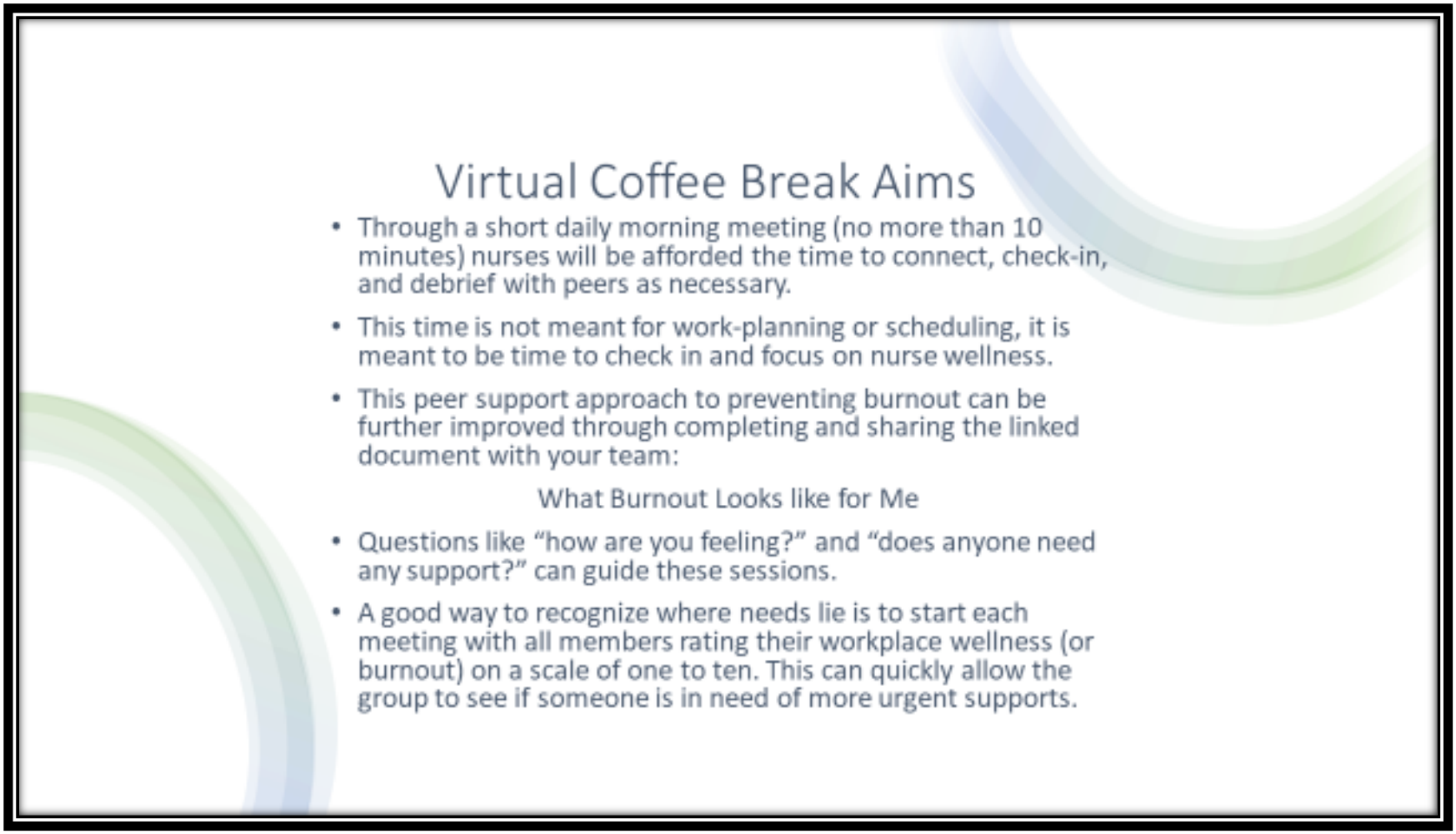

Mindfulness
• Practicing mindfulness is a powerful and accessible way for nurses to reduce their risk of burnout. With one study reporting that burnout scores dropped an average of 8.2% for nurses who were trained in mindfulness[15].
• A mindfulness practice has benefits that extend beyond reducing burnout. It has a long history of being used in the management of anxiety, improving mood, and dealing with stress and worry in all areas of life.
• A mindfulness practice is, quite simply, a strategy to enjoy life in the present moment, not bogged down wit concerns about the past or worries about the future.

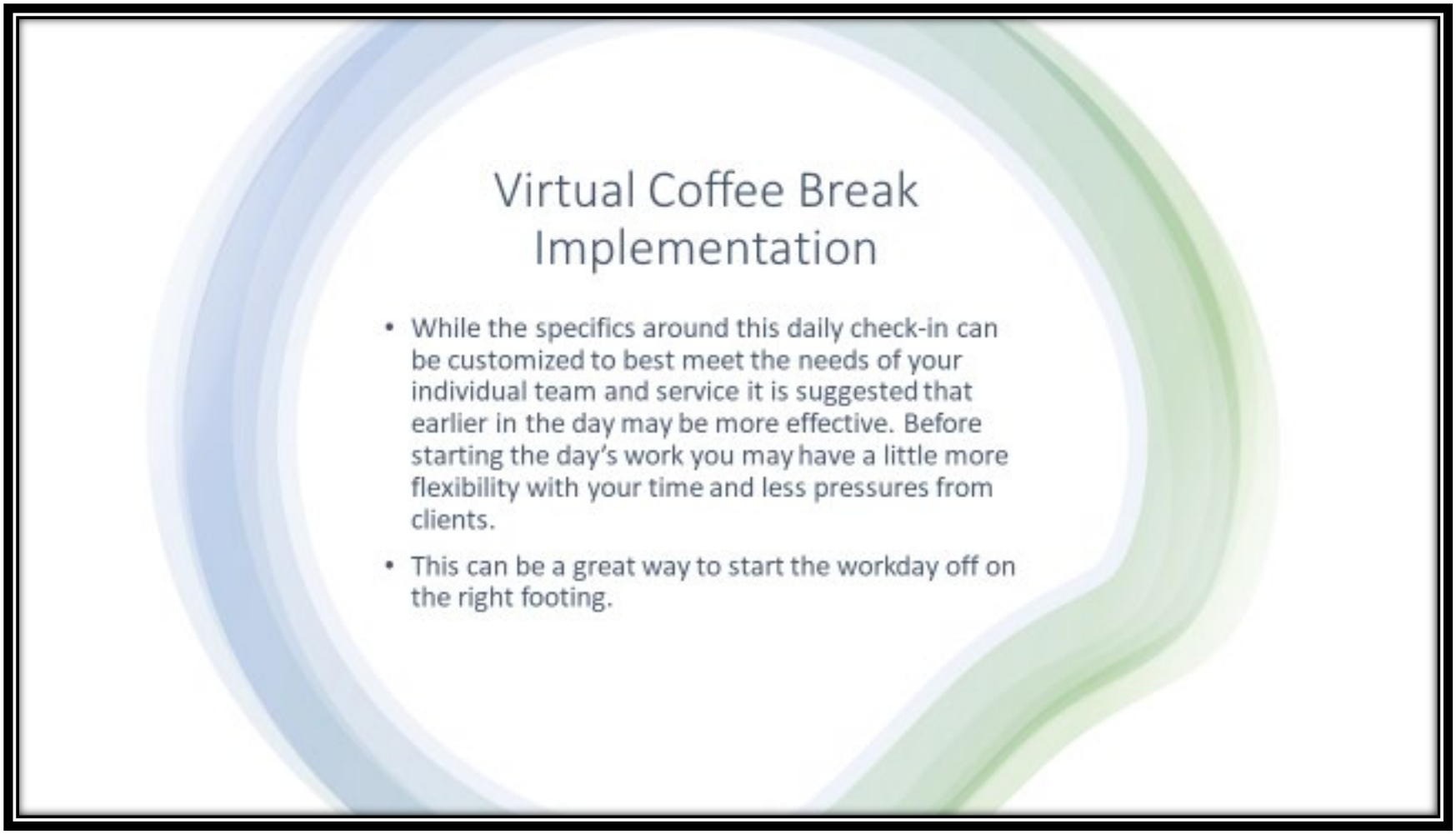

Versatility of Mindfulness
• Mindfulness is incredibly versatile. Meditation, walking-meditations, and yoga are all options that you can consider.
• Guided meditation apps can be downloaded on your phone (Headspace, Calm, and many others are available).
• You can consider exploring formal workshops or classes if this is something that connects with you. Mindfulness based stress reduction programs are taught in-person, online, and there are many great books and resources available to deepen your understanding.


Watson on Self-Care
• Watson[18] advocates that we practice mindfulness, imploring nurses to "be present," noting that a mindful, caring presence improves our practice and allows us to foster equanimity and loving-kindness towards ourselves and others.
• We are cautioned that not being sensitive to our own feelings and wellbeing makes it difficult to be sensitive to another person. Through being open, reflective, and caring for the self, we are best able to care for others.


Peer Support
• Nurses often rely on one another for peer support in the midst of challenging work situations[7].
• Nurses have long-identified that the support and care received from their peers is a crucial aspect of managing stressful roles and situations.
• In the wake of COVID19 the push towards working remotely and social distancing has taken many of these important but informal interactions out of the workday. This loss leaves us with a gap that must be filled.
• Acknowledging the importance we play in one another's lives, virtual coffee breaks have been identified as a means for nurses to continue to support one another.

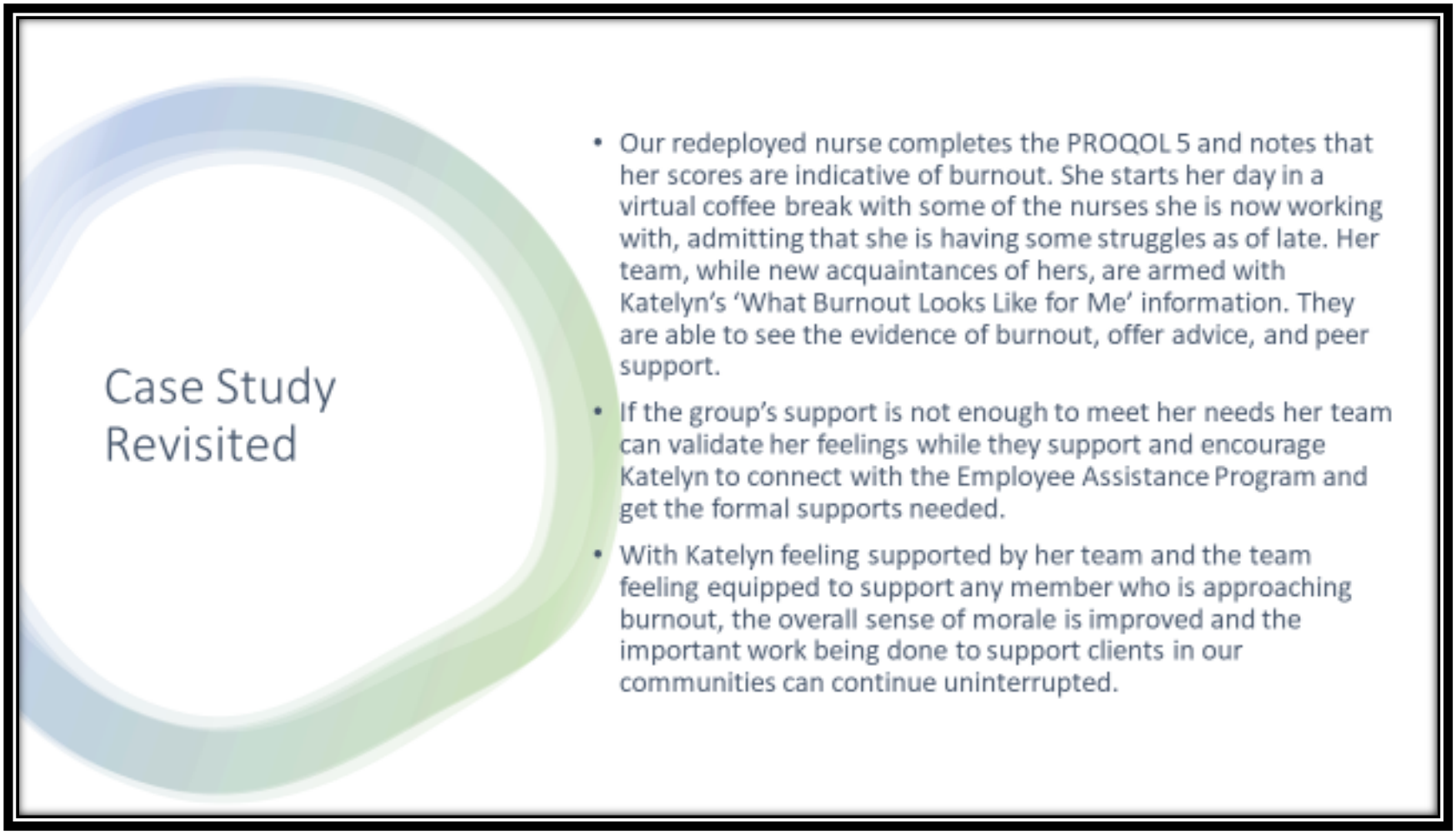

Virtual Coffee Breaks
• To ensure that nurses have the time and opportunity to connect with and support one another virtual coffee breaks, modeled after COVID19 staff-support strategy developed by Nadler, Barry, Murphy, Prince, and Elliott[12] will be implemented.
• Nurses are to schedule a time to meet in the mornings with their teams (whether in person and socially distanced, or by skype or zoom).
• Groups should be kept small, ideally no more than four to five nurses per team.


Virtual Coffee Break Aims
Through a short daily morning meeting (no more than 10 minutes) nurses will be afforded the time to connect, check-in, and debrief with peers as necessary.
This time is not meant for work-planning or scheduling, it is meant to be time to check in and focus on nurse wellness.
This peer support approach to preventing burnout can be further improved through completing and sharing the linked document with your team:
What Burnout Looks like for Me
Questions like "how are you feeling?" and "does anyone need any support?" can guide these sessions.
A good way to recognize where needs lie is to start each meeting with all members rating their workplace wellness (or burnout) on a scale of one to ten. This can quickly allow the group to see if someone is in need of more urgent supports.


Virtual Coffee Break Implementation
While the specifics around this daily check-in can be customized to best meet the needs of your individual team and service it is suggested that earlier in the day may be more effective. Before starting the day's work you may have a little more flexibility with your time and less pressures from clients.
This can be a great way to start the workday off on the right footing.


What Burnout Looks Like For Me
While the components of burnout are universal the presentation can vary substantially from person to person. By reflecting on what burnout looks like for you personally and (if you're willing) sharing that with your team they are empowered to better recognize and support members who may be struggling.
This can be a challenging request, and requires a level of vulnerability with your peers. However, the benefits of having daily check-ins where your peers know how to better recognize things in you and how to best suggest some supports cannot be understated.


Stop and Think
If you are like many of us in the nursing profession it is sometimes easier to care for other people than ourselves.
Have you been the kind of person who misses their breaks or focuses on their clients ahead of your own needs?
If so, you're not alone in this, sharing with your team will allow other people to help hold us accountable in caring for ourselves when we need it.

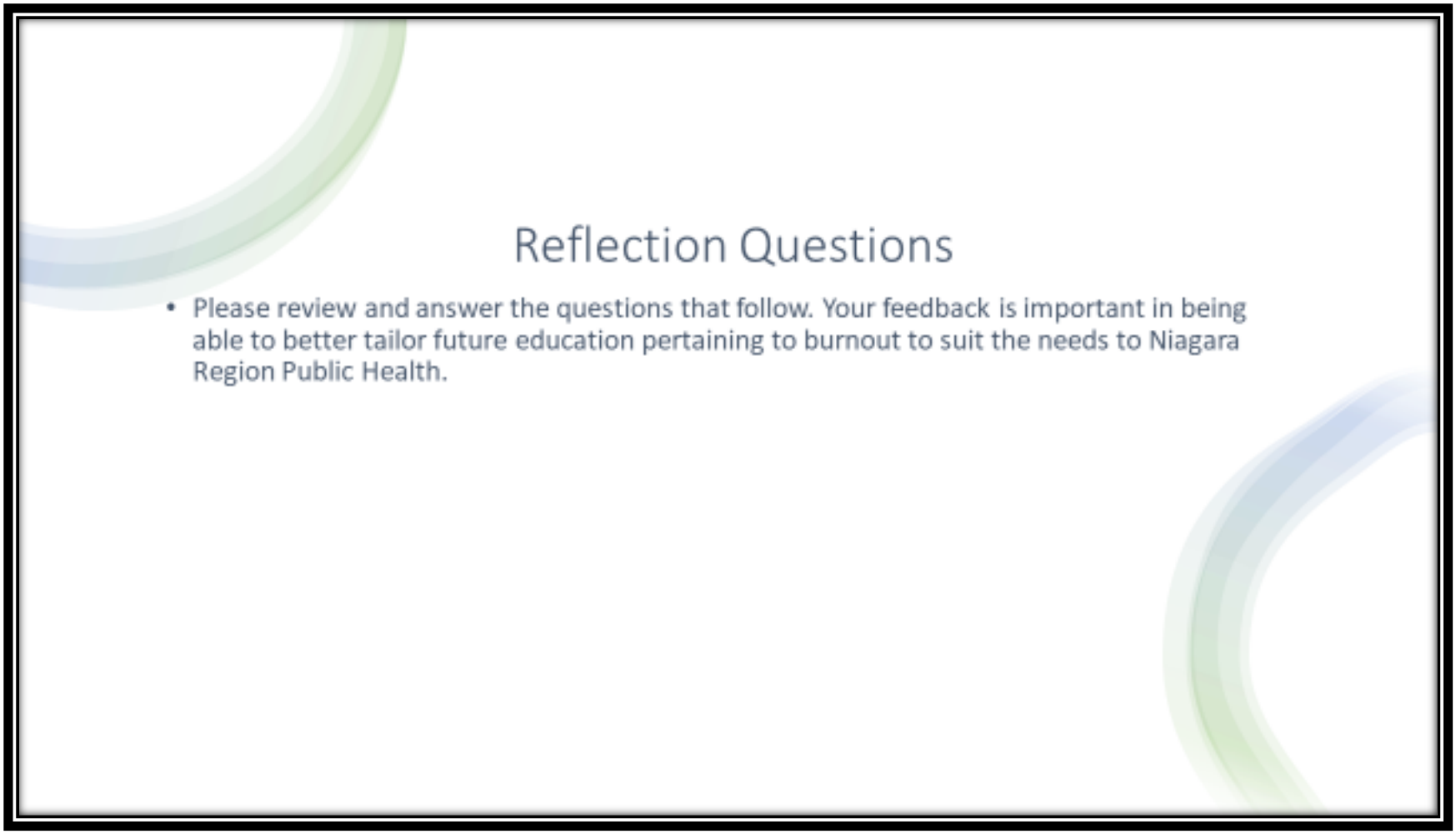

Case Study Revisited
• Our redeployed nurse completes the PROQOL 5 and notes that her scores are indicative of burnout. She starts her day in a virtual coffee break with some of the nurses she is now working with, admitting that she is having some struggles as of late. Her team, while new acquaintances of hers, are armed with Katelyn's 'What Burnout Looks Like for Me' information. They are able to see the evidence of burnout, offer advice, and peer support.
• If the group's support is not enough to meet her needs her team can validate her feelings while they support and encourage Katelyn to connect with the Employee Assistance Program and get the formal supports needed.
• With Katelyn feeling supported by her team and the team feeling equipped to support any member who is approaching burnout, the overall sense of morale is improved and the important work being done to support clients in our communities can continue uninterrupted.

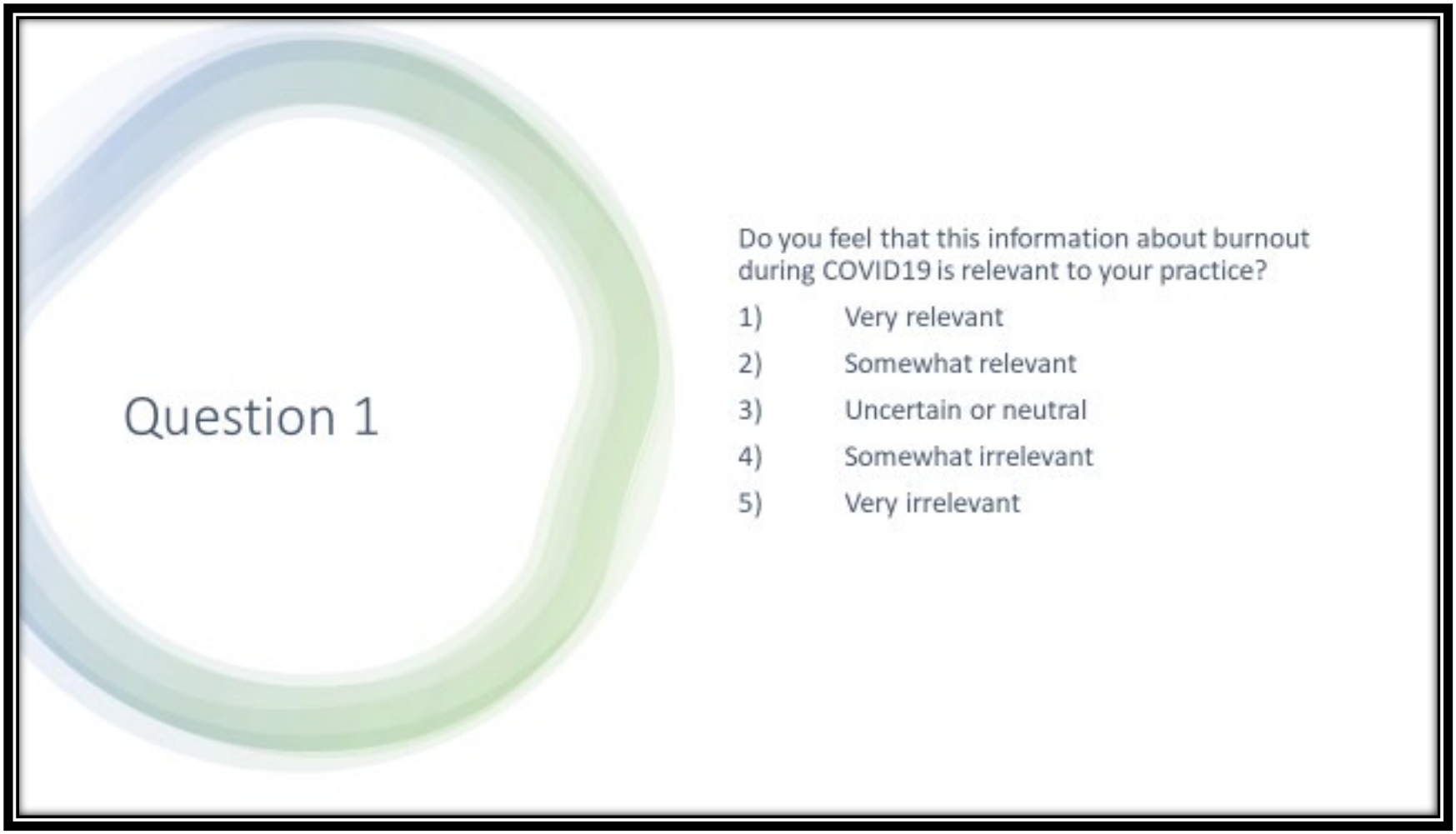
How to Access Formal Supports

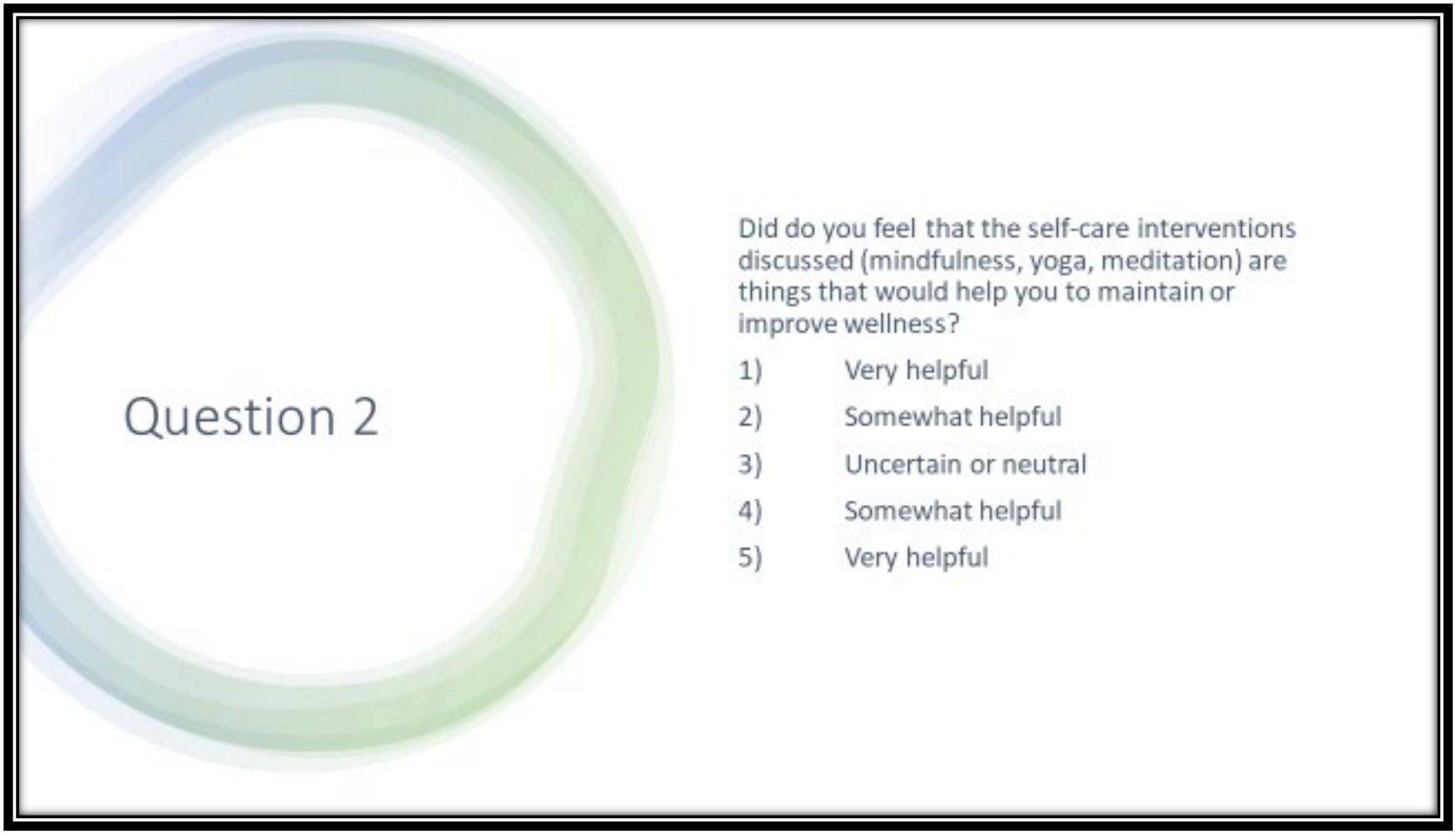
- While a good self-care routine and peer-support can be powerful protective factors against burnout it is important to recognize that this may not be enough for every person. If you are struggling and need more help there are always the following options:
  - Speak to your family doctor or nurse practitioner.
  - Engage with the Employee Assistance Program (a free and confidential service that can provide information and counselling). This can be accessed through the Vine.

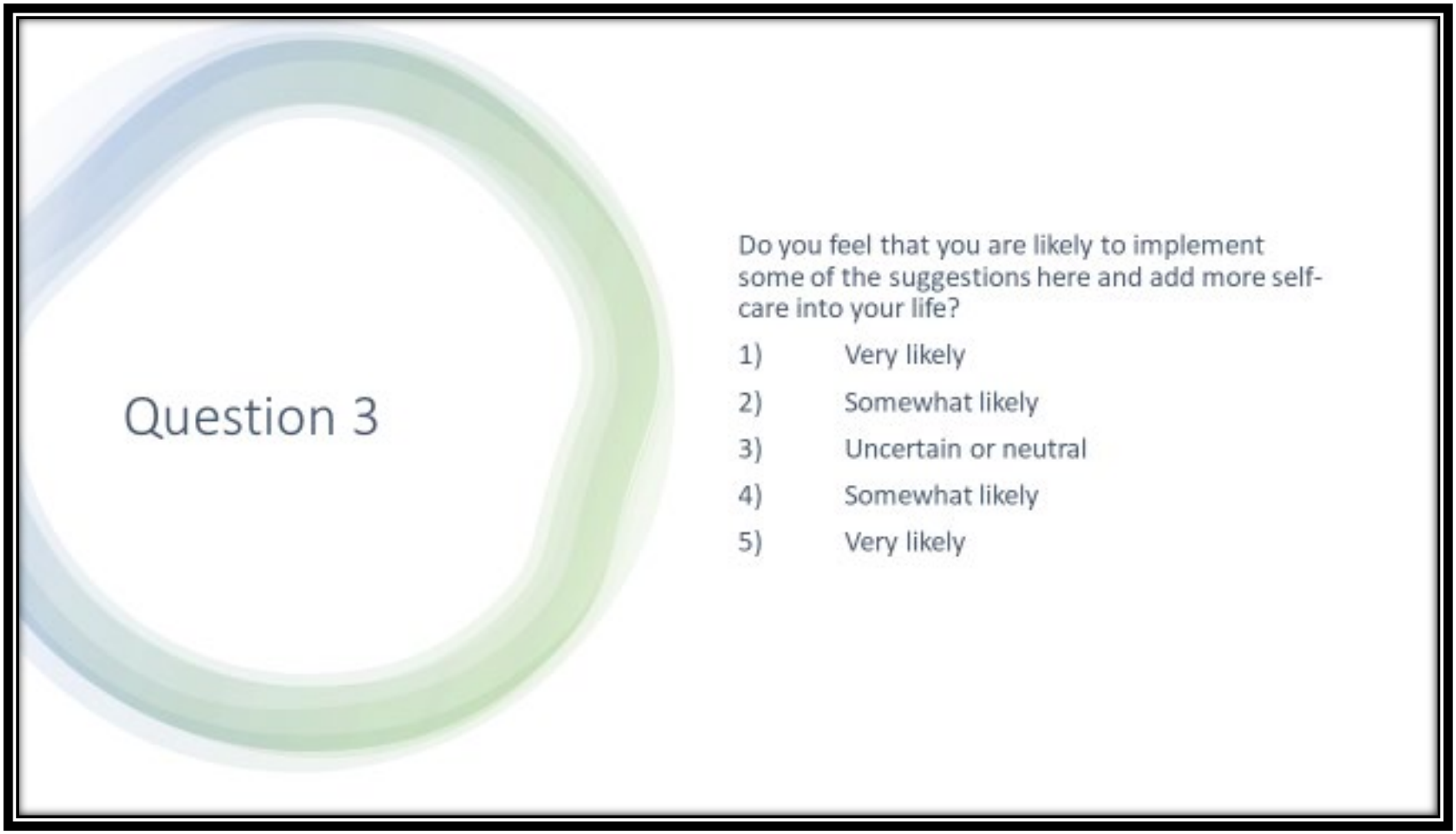

Support for Patients
• While the focus of this module is on helping nurses facing increasing job stress through the current pandemic, the impacts on our patients is undeniable. For many nurses not having the tools to support these clients can be an added source of stress.
• The Canadian Mental Health Association's[3] COVID19 and Mental Health page is a great resource to keep on hand. It offers more information on self-care, coping with parenting, supporting caregivers for the elderly, working from home, and much more.
https://cmha.ca/news/covid-19-and-mental-health
• People are feeling isolated and afraid. Your interactions with them can provide comfort and support. Your commitment to your patients and the therapeutic relationships you build with them can be a means of addressing their anxieties and fears. Continued support for patients over video, by phone, and socially distanced face-to-face interaction has been instrumental in continuing to support some of the most vulnerable members of our communities.

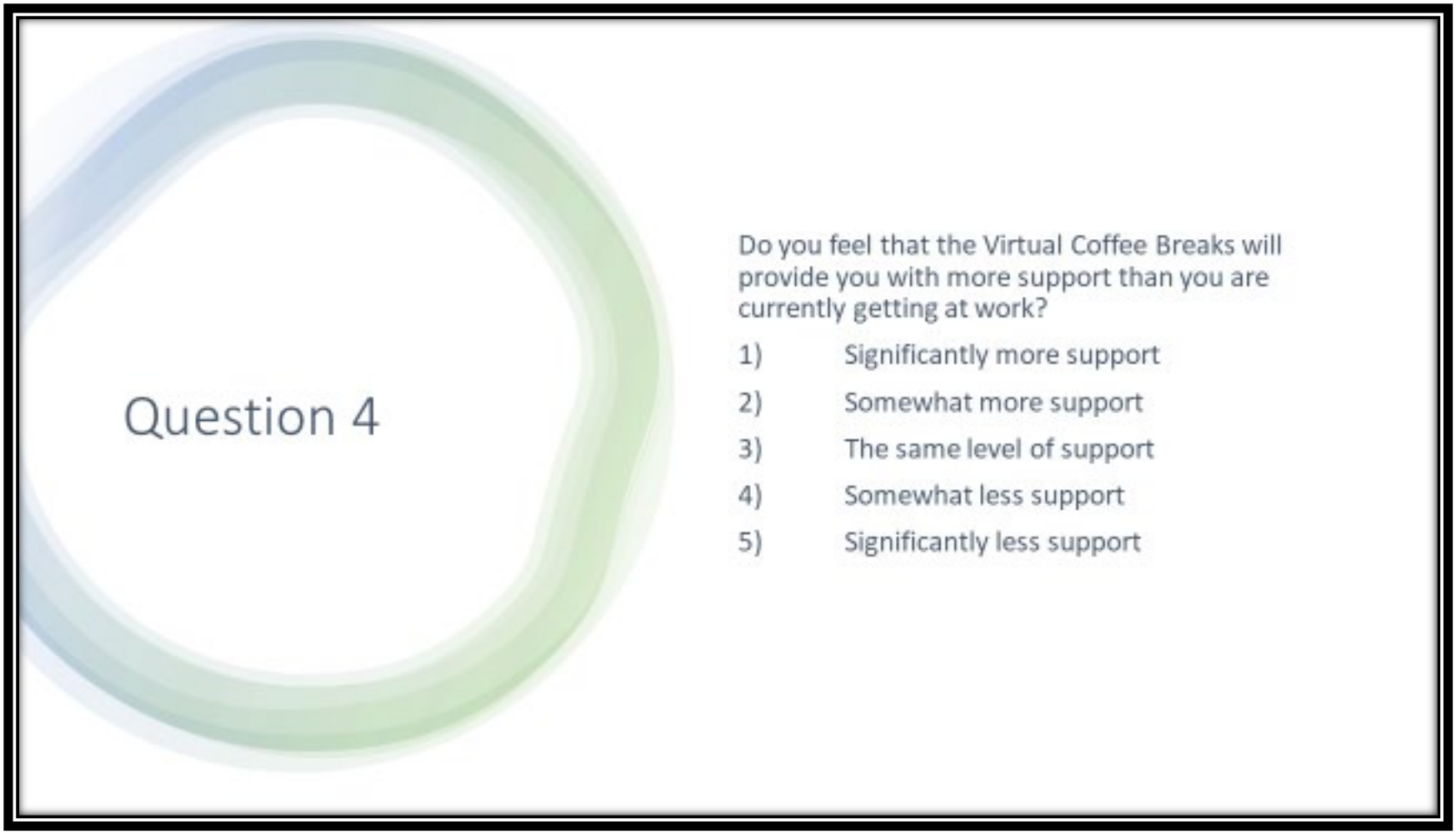

How to Learn More
This project was developed as part of a Masters of Nursing practicum project. The full report and integrative literature review that informs this presentation is available online through Memorial University's Research Repository
A hard-copy of the practicum report has been placed in Niagara Region Mental Health's library in Thorold.
Specific questions can be directed to Stephen.Shears@niagararegion.ca

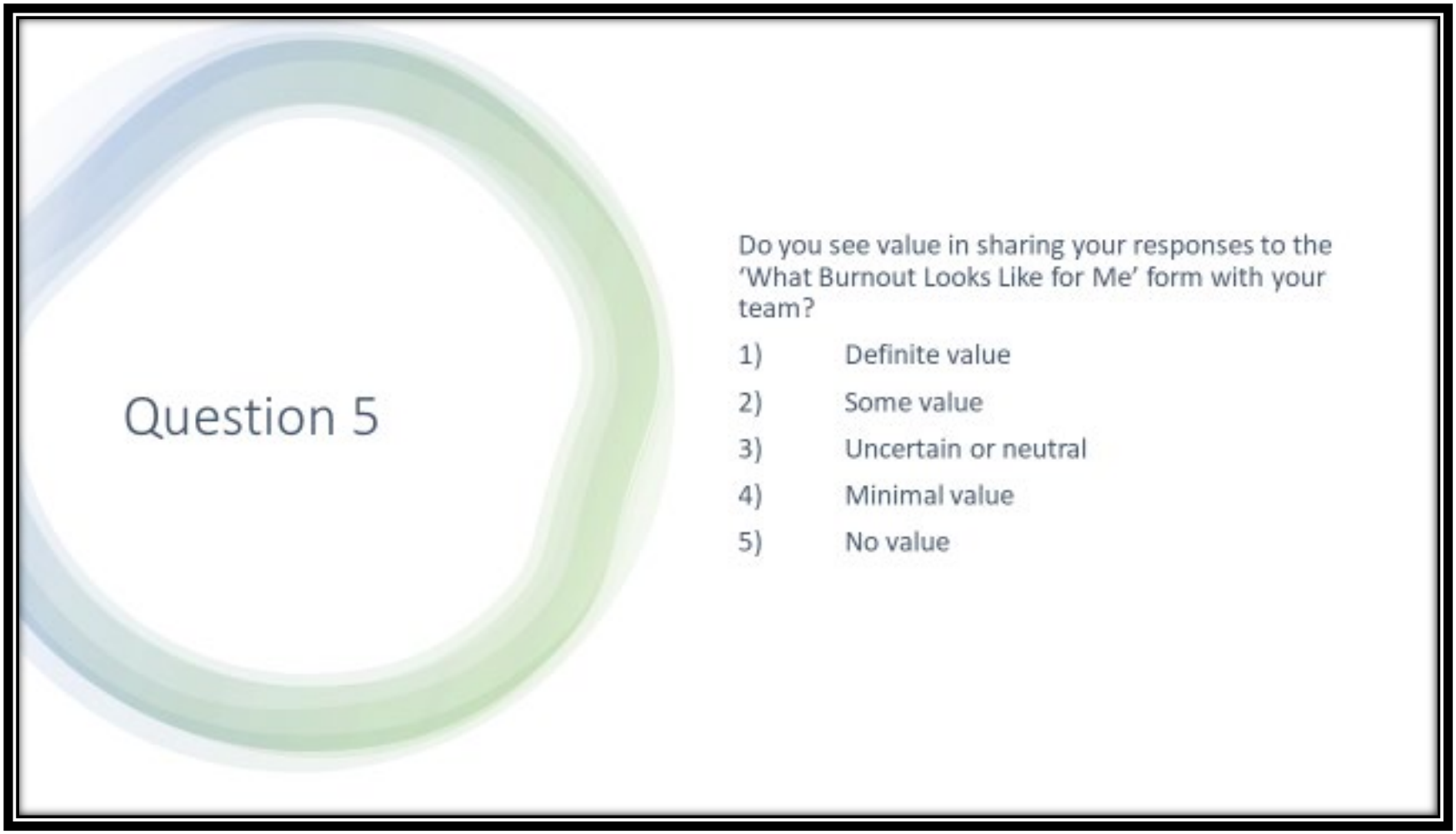

Reflection Questions
• Please review and answer the questions that follow. Your feedback is important in being able to better tailor future education pertaining to burnout to suit the needs to Niagara Region Public Health.

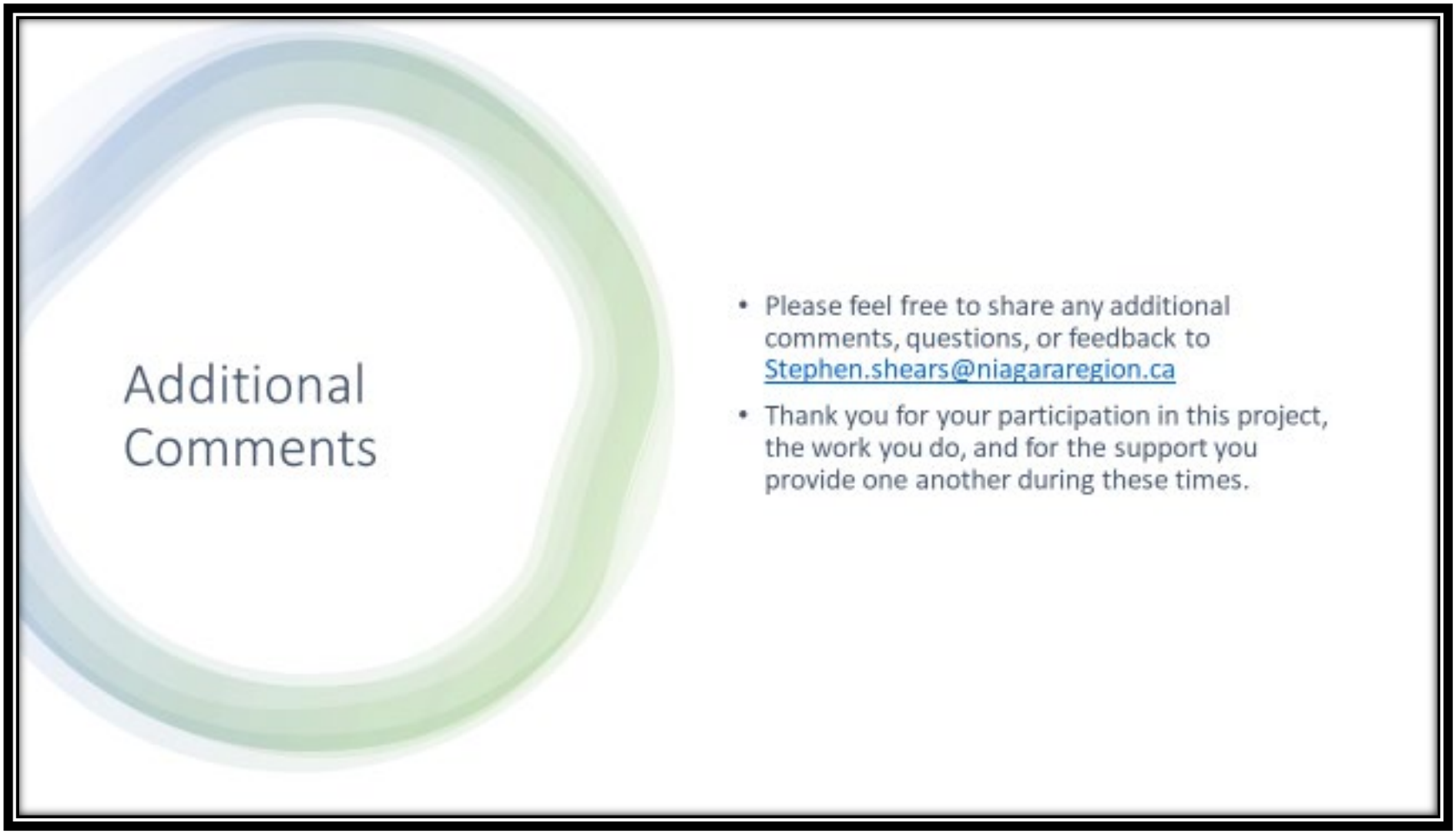

Question 1
Do you feel that this information about burnout during COVID19 is relevant to your practice?
1) Very relevant
2) Somewhat relevant
3) Uncertain or neutral
4) Somewhat irrelevant
5) Very irrelevant

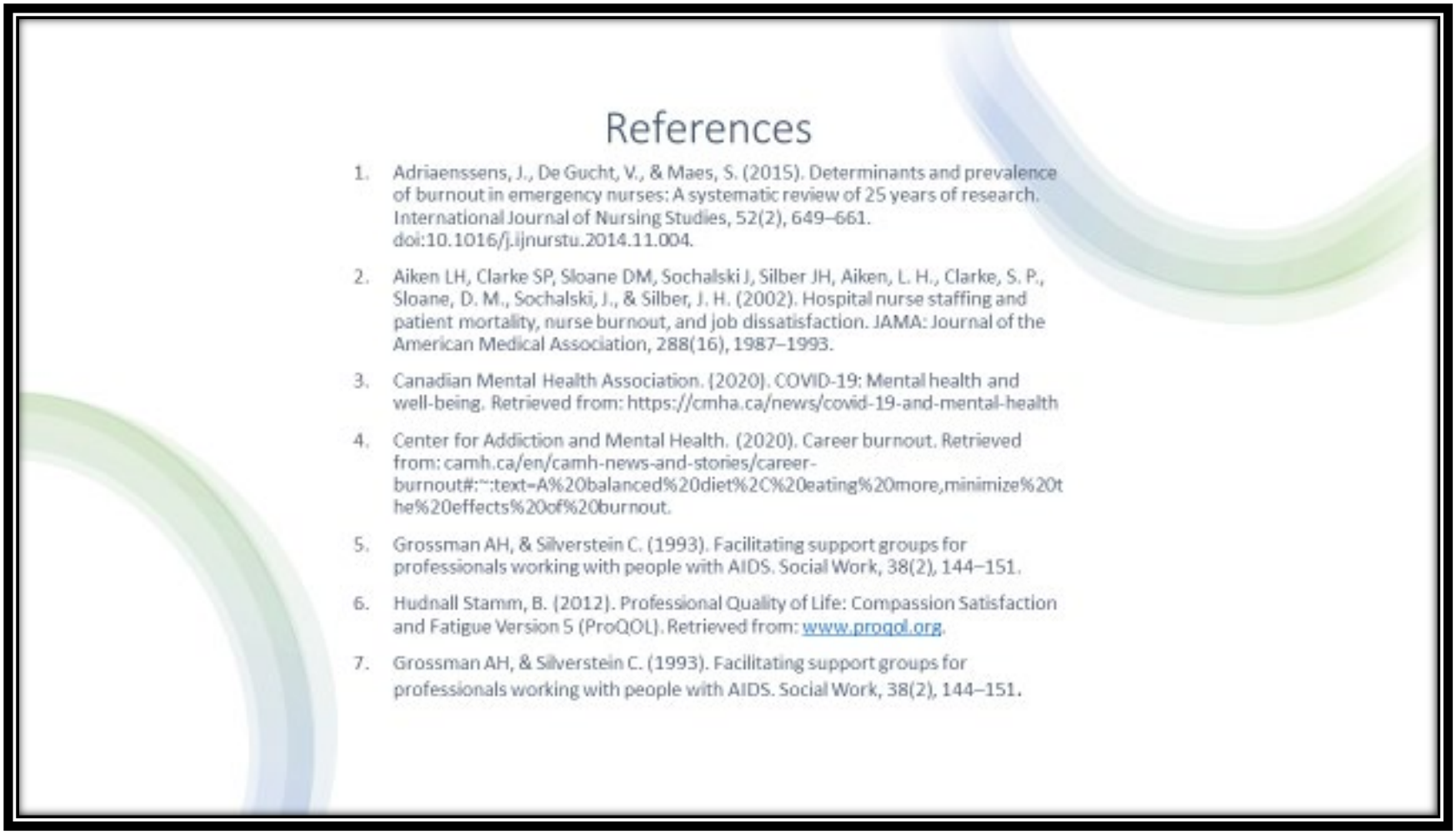

Question 2
Did do you feel that the self-care interventions discussed (mindfulness, yoga, meditation) are things that would help you to maintain or improve wellness?
1) Very helpful
2) Somewhat helpful
3) Uncertain or neutral
4) Somewhat helpful
5) Very helpful


Question 3
Do you feel that you are likely to implement some of the suggestions here and add more self-care into your life?
1) Very likely
2) Somewhat likely
3) Uncertain or neutral
4) Somewhat likely
5) Very likely


Question 4
Do you feel that the Virtual Coffee Breaks will provide you with more support than you are currently getting at work?
1) Significantly more support
2) Somewhat more support
3) The same level of support
4) Somewhat less support
5) Significantly less support


Question 5
Do you see value in sharing your responses to the 'What Burnout Looks Like for Me' form with your team?
1) Definite value
2) Some value
3) Uncertain or neutral
4) Minimal value
5) No value


Additional Comments
• Please feel free to share any additional comments, questions, or feedback to Stephen.shears@niagararegion.ca
• Thank you for your participation in this project, the work you do, and for the support you provide one another during these times.



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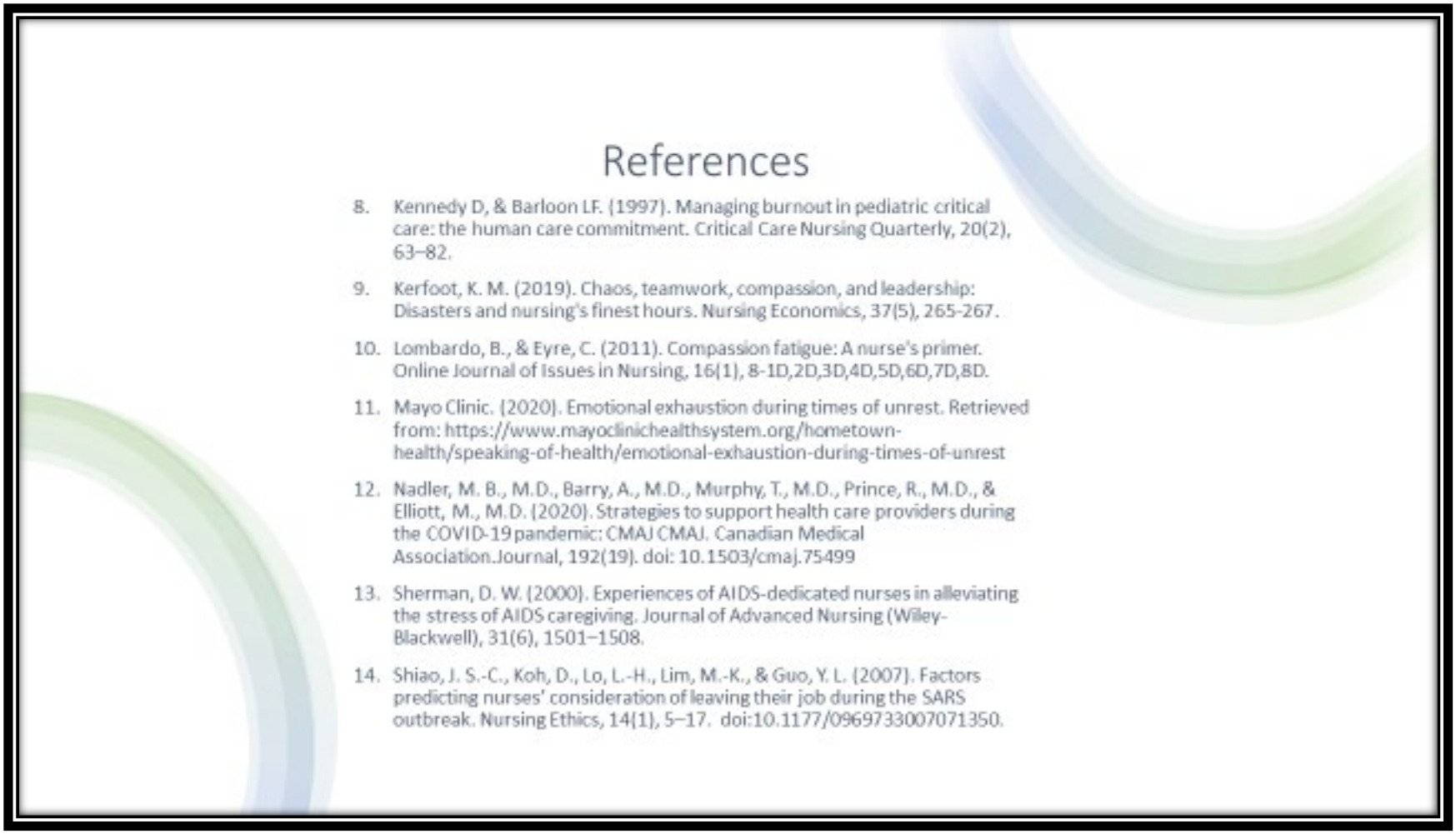

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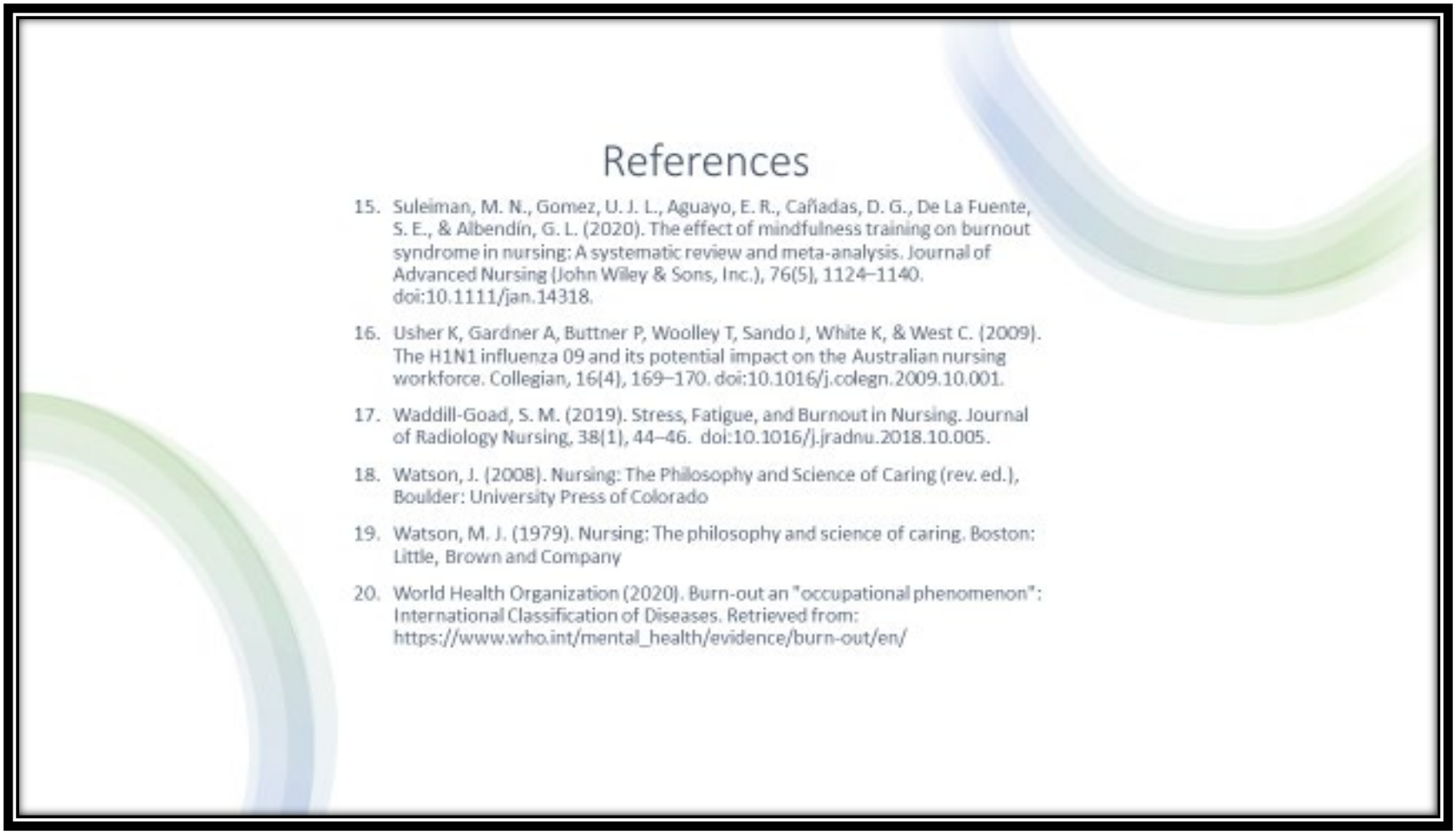

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Name:

What Burnout Looks Like for Me

When feeling stressed or burnt out the following are signs that might be noticeable (some examples include being short-tempered, appearing unusually tired, or uncharacteristically quiet).

i) _____

ii) _____

iii) _____

iv) _____

v) _____

Some things that are helpful when feeling overwhelmed or burnt out that it is good to be reminded of (some examples include petting your dog, going for a run, or doing yoga:

i) _____

ii) _____

iii) _____

iv) _____

v) _____

Things that you find particularly unhelpful for your team members to do or suggest if you are in need of support (for example if you find guided meditation unpleasant, or prefer quiet over soothing music):

i) _____

ii) _____

iii) _____

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