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Increasing music therapy referrals in a surgical intensive care unit.

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Increasing Music Therapy Referrals in a Surgical Intensive Care Unit

by

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requirements for the degree of

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Abstract

Medications have been the primary intervention in intensive care unit patients due to the fact that the patients are often unconscious, critically medically ill, or unable to actively participate in nonpharmacological treatment. Researchers have found the integration of music therapy in patient care has helped ease pain, anxiety, and stress, and has been useful in vital control, such as decreasing heart rate and respiration count. A study was conducted in a surgical intensive care unit (SICU) to examine the benefits of increasing music therapy consults. Critical care nurses were educated on the advantages of utilizing interdisciplinary care by consulting music therapy as a resource to provide quality patient-centered care. The results of this study show an upward trend in music therapy referrals after staff education as well as positive nurse views towards music therapy, suggesting with a longer intervention period, this project could lay the groundwork for future projects surrounding music therapy in intensive care unit settings. The purpose of increasing music therapy referrals in critical care is to provide one-on-one care without the requirement of nurses' presence by utilizing a low-cost, low risk, nonpharmacological intervention, with the consequent perk of alleviating nurse overwhelm and stress.

Keywords: music therapy, consults, intensive care unit, mental health, burnout, stress, anxiety, nonpharmacologic care, quality improvement

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Background

Critical care units tend to be one of the most stressful and anxiety-producing medical environments for patients, caregivers, and nurses. Patients entering intensive care units often experience life-altering events, with at least 15% of them developing post-traumatic stress disorder following discharge (Golino et al., 2019). Due to the high acuity of patients staying in the Intensive Care Unit (ICU), it is common for nurses to focus their assessments and interventions on survival rather than patient and family experience and mental health. This drives ICU nurses to choose medication as their primary intervention to treat pain, blood pressure, infection, and other critical health needs. While medication treats important physical concerns it often isn't the best way to promote well-being, decrease stress, and help reduce poor mental health outcomes post-discharge. Furthermore, studies have shown that some sedating medications may be masking psychological distress, such as anxiety, or could produce adverse effects associated with medications such as addiction/overuse concerns or allergic reactions. (Golino et al., 2019). Research shows that music therapy has a positive effect on well-being and mental health in both patients in the surgical ICU and their family members. The addition of music therapy to patients' treatment plans provides a nonpharmacologic treatment that is low cost and low risk. The Mayo Clinic (2021) notes that music therapy can help ease psychological issues such as depression and anxiety, while also having positive physical effects such as decreasing blood pressure and reducing pain thus helping to improve overall quality of life (Mayo Clinic Health System, 2021). Similarly, Chlan et al., (2013) found that music therapy is an effective alternative to sedative medication in critical care settings, helping to reduce anxiety and sedative exposure (Chlan et al., 2013).

Burnout is a psychological phenomenon that emerges due to prolonged and chronic stressors on the job (Maslach & Leiter, 2016). Engaging in interdisciplinary care of very sick patients allows patients and family to access quality care while alleviating nurse workload as well as feelings of overwhelm and burnout. According to World Health Organization (WHO), interprofessional collaboration is defined as health care workers of different disciplines who combine their professional knowledge and backgrounds to reach the common goal of patient health (WHO, 2010). Increasing use of music therapy and engaging in interdisciplinary care may allow patients to receive individualized care while relieving the prevalence of high emotional exhaustion nurses can experience and caregiver fatigue families are subject to.

Data collected by the QI projects' Midwestern Hospital Clinical Informatics Team showed that between January and March 2023, there were only three consults to music therapy from the SICU. The project team for this QI project, including the SICU manager and charge nurse, determined that education about the availability and benefits of music therapy may be beneficial to the nurses and patients in the SICU.

Literature Review

A review of the literature supports music therapy as an evidenced-based nonpharmacological intervention helpful to ease pain, reduce blood pressure and heart rate, lower respiratory rate, calm anxiety, and reduce the need for prolonged periods of medications that could cause dependency such as benzodiazepines and narcotics. The literature also demonstrates that, although music therapy is a low-cost, low-risk intervention, it is still not widely used in intensive care units. Educational interventions with nurses have been shown to improve uptake of this highly effective intervention.

A CDC paper on Ventilator-associated Events [VAE] estimates that more than 300,000 patients in the United States receive mechanical ventilation each year (CDC, 2023). Critically ventilated patients experience high anxiety and discomfort, which is often treated with intravenous sedative and analgesic medication. Although these medications are helpful, Chlan et al., (2013) notes that these medications put patients at risk for adverse effects such as bradycardia, hypotension, immobility, weakness, and delirium while under-treating the primary anxiety (Chlan et al., 2013). Additionally, significant anxiety in ventilated patients can cause elevated cortisol and adrenaline in the bloodstream which can cause increased heart rate and blood pressure, putting patients at risk for cardiovascular events (Selle & Silverman, 2019). According to Hunter et al., (2010) and Scrine (2021) trauma and anxiety in ventilated patients can impact the sympathetic nervous system causing rapid heart rate, increased respiratory rate, increased blood pressure, and airway constriction often leading to extended time on the ventilator and increased risk of VAE. Hunter et al., (2010) suggested that a music therapy intervention can reduce anxiety during common ICU procedures, such as ventilator weaning sessions, by providing a distraction and positive outlet for expression of emotions.

Ramírez-Elvira et al., (2021) suggest that nurses in the ICU experience burnout from work overload and lack of time for patient care. Maslach & Leiter (2016) describe burnout as having three dimensions; overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment (Maslach & Leiter, 2016). Furthermore, literature endorses that burnout has a negative impact on mental health causing symptoms of depression and anxiety, increased alcohol consumption, insomnia, and suicidal ideation (Ramírez-Elvira et al., 2021). Research suggests that music therapy improves mental health in clinicians as well as patients. Hunter et al., (2010) surveyed nurses following the

observation of music therapy interventions during mechanical ventilation weaning which showed that nurses benefited from music therapy interventions for their patients during difficult procedures. Nurses noted, although they were passive participants, they felt more relaxed while observing their patients' respiratory rate and perceived anxiety during the procedure (Hunter et al., 2010). Zamanifer et al., (2020) demonstrated that music therapy and aromatherapy can be used independently or combined to improve nurses' performance and anxiety when compared to the control group. Gallego-Gómez et al., (2020) showed that music therapy, especially in combination with progressive muscle relaxation, allowed nurses to control and decrease their stress own levels.

Despite its efficacy in reducing anxiety and managing stress, music therapy is not widely used in ICU settings. Music therapy may be refused by a patient or family due to the perceived risk of overstimulation or the belief that it isn't evidence-based. Indeed, music therapists are highly trained professionals who use music as a vital contributor to a therapeutic plan of care (Bulay, 2020). Music therapy offers more than passive listening, allowing patients in all stages of healing to engage the therapy. The Cleveland Clinic notes that a music therapist uses a variety of techniques including playing an instrument, engaging patients in rhythm which can regulate breathing and heart rate, singing which can promote deep breathing and help clear secretions, and collaboration with the patient discussing or creating lyrics which can serve as a powerful therapeutic modality to explore past traumas and promote motivation for ongoing healing (Cleveland Clinic, 2023). Educating nursing staff on the potential benefits of music therapy as well as the variety of modalities available may help them recognize when a patient would benefit from music therapy and thereby increase referrals.

Rationale

An interview was completed with the hospital's music therapist and clinical informatics team confirmed that referrals from the surgical ICU (SICU) are very low, resulting in only three consults over a three-month period. When the PI approached the unit manager and charge nurse in the SICU with the proposed project to improve referrals to music therapy, they expressed interest and excitement to create a more therapeutic work environment for the staff, patients, and family members. Subsequent interviews with the unit nursing staff demonstrated that education regarding music therapy benefits and services was an essential first step to increasing referrals. Many staff nurses did not understand the potential value of music therapy particularly because many of their patients are sedated. Education that focuses on the various modalities and the benefits associated with music therapy for sedated and ventilated patients, their family members, and the nursing staff was determined to be an intervention that would help give the SICU nurses the confidence to initiate referrals for these patients.

Conceptual Model

The Donabedian Model (see Appendix A) has been utilized as a framework to impact both structure and process changes to create quality improvement since 1966. This model is composed of three elements (structure, processes, and outcomes), each of which depends on the other, and when combined enhances the overall results. Applying this quality improvement (QI) project to each element of The Donabedian Model translates as follows; the structure is staff's awareness of the availability of music therapy at their hospital, how to consult music therapy, and its benefits; the process: is education for the staff, provided by the music therapy department; and the outcome is increased referrals to music therapy by nurses in the SICU. The Donabedian Model proved to be an excellent and effective resource to refer to during the implementation and final evaluation of this project. Observing the structure and processes throughout the execution

of this project helped to determine if results were trending in the right direction or if there were educational gaps or procedures that needed to be clarified in order to produce the desired outcome.

Purpose

The purpose of this quality improvement project was to increase nurse referrals to music therapy on a surgical intensive care unit (SICU) in an urban level 1 trauma Medical Center by educating the nursing staff on the advantages of adding music therapy to patients' treatment plans. With the consequent benefit of adding a resource for nurses to help alleviate burnout experiences. The project lead, music therapist, unit manager, staff charge nurse, and nursing staff were the primary persons to implement this project. The overarching goal of the education implementation was to support the nursing staff's well-being by utilizing interdisciplinary care to meet the needs of the patient and family by increasing music therapy referrals and nurse satisfaction while creating a holistic care environment.

Logic Model for Quality Improvement

The logic model provides a visual of how the quality improvement project is expected to work in order to reach the desired outcomes. According to the Office of Strategic Partnerships (2020), "a logic model is useful for planning, implementing and evaluating an initiative" (Office of Strategic Partnership, 2020). The components of the model include situation, inputs, outputs, assumptions, and external factors related to the project (see Appendix B). The situation refers to the problem that the QI project addressed. The inputs refer to those who are invested in the project and help fuel the progress, such as key stakeholders, staff, project lead, and educators. Outputs refer to the activities such as education templates, and referral handouts. The outcome section includes increased knowledge about music therapy, increased number of referrals, and

increased self-reported satisfaction. This model provides a visual framework showing how the project will progress and its intended outcomes.

Methods

Design

This project was implemented in the adult Surgical Intensive Care Unit (SICU) in an urban level 1 trauma designated medical center in the Midwest. The project lead and the music therapist collaborated to create an educational module about music therapy and an education pamphlet explaining how to consult music therapy was provided to each staff RN. This education session was planned to be presented in a mandatory staff meeting to maximize staff outreach. However, due to unforeseen events and staff turnover, the staff meeting was cancelled. Due to time constraints, the education had to be delivered via email and the staff Facebook page. Staff was provided contact information for the PI and music therapist to allow for the opportunity to ask questions. This quality improvement project was intended to be a single group, pre- and post-test model that would assess the effectiveness of education provided to SICU nurses regarding the access and benefits of music therapy with the secondary outcome of increased nurse-initiated referrals to music therapy. The project lead stayed in close contact with the charge nurse to ensure staff is able to implement this into their current workflow or if any barriers arise. Due to staff turnover and other unit events outside the control of the project team, the primary outcome became the increase in music therapy consults on the unit during the project period and nurse perception of music therapy intervention provided their patients.

Setting

This medical facility is a regional academic health system which consists of seven hospitals, four medical centers, over 200 physicians with multiple practice centers, and over

12,000 team members. This hospital promotes and values a culture of education and learning, stating they “strive[s] to provide a culture of exceptional care and to educate the next generation of health care professionals.” The mission and values of this facility align with the purpose of the proposed QI project. Since this facility is a teaching hospital the culture is primed for education, new ideas, and change, which are qualities necessary for successful implementation.

The Surgical Intensive Care Unit (SICU) served as the setting for this quality improvement project. As identified by the hospital’s music therapy and education departments, the SICU staff, patients, and family would benefit from increased referrals to music therapy. The SICU is housed on the west wing of the 9th floor in a level one medical trauma center caring for the adult population of Kentucky and southern Indiana. The SICU provides 10 private patient beds and cares for approximately 4,122 patients per year with an average stay of 10 days. Common diagnoses on the unit include polytrauma, head injuries, and substance abuse. A needs assessment showed that the SICU staff consists of 40 registered nurses in addition to support staff such as nursing aids, heart monitor technicians, receptionists, and a unit manager. In addition, the hospital always has a house manager in the building that is able to provide support for each unit as needed.

Sample

The target population for this quality improvement project was the nursing staff on the SICU, which included 29 full time nurses, 2 part time nurses, 7 per-diem (PRN) nurses, and 2 travel nurses, for a total of 40 participants. PRN and travel nurses were included because they each carry a full-time workload. Nursing aides, monitor techs, and unit coordinators received the education but were excluded from the sample because they are unable to place referrals.

Context

This hospital is committed to providing excellent care with the expectation that each team member has a responsibility to resolve patient and families concerns. The facility also serves as an academic teaching and research focused facility that encourages the advancement of knowledge created when implementing an evidenced-based project. It was imperative that the quality-improvement project had the support of the education team, nurse manager, and charge nurse in order to effectively drive change. Informal interviews with the nursing staff suggested that they were interested in the project and in learning about the availability of music therapy for their patients. To aid in the “buy-in” from the nursing staff, the unit manager provided formal support for the project (see Appendix C).

Ethical Considerations/Permissions

Prior to educating the unit staff, the project lead contacted the hospital’s Evidenced-based Practice Coordinator to confirm this project was appropriate for this facility and beneficial for the unit chosen. Once approval was granted, the project lead obtained approval from the unit manager and unit-based leadership. The project was submitted to the IRB for human subjects approval and was granted expedited approval and quality improvement status.

Confidentiality was maintained with all data collected for this project and names and employee identification numbers were not connected with survey results. Additionally, no patient names or identifying data was collected during this project.

Measures

The outcomes measured in this quality improvement project were intended to be nurse education and satisfaction. However, due to real life barriers of immediate staff turnover and low response rate to surveys the pre- and post-test education data comparisons did not prove to be relevant. Therefore, the primary outcome became the change in referrals to music therapy from

the SICU pre- and post-intervention. The secondary outcome was nurse perception of music therapy and was collected using an informal brief survey assessing their satisfaction with any music therapy referrals that were placed. (see Appendix I).

Process Measures

The process measures align with the components of this projects conceptual model, The Donabedian Model. According to this model, process measures reflect if the implementation works in order to deliver the desired outcome (NHS Improvement, 2017). In this case, measures were evaluated by checking the progression of consults to music therapy being placed and ensuring that all nurses are provided access to the educational intervention. The project lead provided pamphlets and education sheets that highlighted step-by-step instructions for placing a consult to music therapy and it has been placed in multiple high-traffic areas around the unit. The student project lead also personally handed out several pamphlets to confirm education was being provided. The music therapist, student project lead, and charge nurse remained in close contact concerning any barriers or problems that arise. The student project lead completed rounds on the unit evaluate progress, check in with unit staff, and assist with any challenges.

Results

Procedure/Intervention Implementation

This quality improvement project focused on the education of all current registered nurses (RN) working on the surgical intensive care unit (SICU). A list of the current nurses and their shift was provided to the project lead by the unit manager. Education regarding music therapy was intended to be provided during two monthly staff meetings which required mandatory attendance according to their unit policy. The unit manager provided the staff members and the student lead with the time, dates, and location of each education session.

However, the staff meeting was abruptly cancelled due to the resignation of the nurse manager and unit charge nurse. Throughout the time of the project implementation there were fluctuations in staff due to high turnover rates.

With the help of the new unit charge nurse, the education was provided to each nurse virtually and was sent via email and posted to the unit Facebook page. The education module consisted of step-by-step instructions for placing a consult to music therapy (appendix D), an information letter to the unit (appendix E), an education question and answer video created by the project lead and hospital music therapist, a handout (appendix F), educational pamphlets (appendix G), and pre- and post-tests. The unforeseen change in education delivery created a challenge because the project lead was not present to provide, collect, and ensure that each nurse completed the education and the pre- and post-tests. The nurse manager provided the information above to each registered nurse on the SICU, asking if they would complete the education and tests to participate in this QI project. The student project lead also made several visits to the unit in order to encourage participation, provide answers to any questions, and collect satisfaction feedback. The project lead provided snacks, left contact information, and provided reminders to complete the education.

Prior to the educational intervention an audit was completed by the student lead, the nurse manager, and the information technology team to obtain baseline data regarding the number of music therapy consults placed from the SICU in the three months prior. Following the intervention timeframe, another audit was completed to determine how many music therapy consults were placed from the SICU during the intervention period. Additionally, nurses were surveyed regarding their experiences with music therapy consults during the intervention period.

Data Collection

Data for this QI project was intended to be collected as pre- and post-test surveys, satisfaction surveys, and consult audits. Due to the real-life barriers of staff turnover, low participation in the pre- and post-tests, and time constraints, the data collected consisted of consult audits from 3 months prior to intervention to 6 weeks post-education intervention. The unit charge nurse and the project lead administered the education and pre- and post-test surveys and continued to encourage participation. Following the 6-week intervention period, the student lead returned to the SICU and interviewed staff. Chart audits were conducted by the project lead and informatics team, and all data was de-identified. Data was stored in a password protected laptop, de-identified, and confidentiality was assured.

Evaluation of Processes

Unit registered nurses served as the primary facilitator for implementation and as predicted, they also presented significant barriers. A brief interview with nurses on the unit prior to implementation uncovered that attitudes surrounding music therapy were ambivalent. Discussion with the unit manager disclosed the hesitation of many seasoned nurses regarding the benefit of nonpharmacological practices and the role of mental health in healing physical trauma. An additional barrier was added when the unit manager, who was on board with the project, left her position leaving the role empty. This caused the cancelation of the monthly staff meeting and then created a new set of challenges for how to deliver education. The unit charge nurse continued to serve as a facilitator alongside the student lead, however, due to astronomical staff turnover, she too, departed from her position.

Furthermore, the critical condition of the patient population presented a challenge. An anticipated outcome for the project was utilization of interdisciplinary collaboration; allowing the patient to receive care while reducing the workload of the primary nurse. Although

interdisciplinary work began to be prevalent with the awareness of music therapy and the slight increase in consults, the change was not significant, suggesting that this project was less effective due to time constraints.

After completion of the project many of the key stakeholders (nurse manager and unit charge nurse) were no longer in their previous roles, preventing meeting to evaluate the results of the project. Reviewing the nurse's satisfaction interview statements allowed the project lead to see that, although the education did not go as planned, the nurses that did consult shared they noticed the benefit and that they will continue to consult. "I felt more at ease and I saw it in my patient as well. He was able to rest and relax," stated a nurse after experiencing music therapy. Another nurse shared "I was able to catch up on some charting while music therapy provided care to my patient. This was a good way for me to catch up while I felt like my patient was still getting quality care." Satisfaction statements like the ones mentioned prior helped determine the longevity and sustainability of the project, by sharing nurses' positive views on the music therapy post-intervention. Significant barriers included the immediate and contiguous turnover on the SICU including key facilitators which led to low pre- and post-test response rates.

Outcomes

The goal of this QI project was to increase music therapy consults in the SICU in order to encourage interdisciplinary care and relieve nurses from emotional exhaustion and burnout. The participants in this project were primarily BSN prepared day shift and night shift nurses ranging from age 22- 58 years old with varying levels of experience (See Figure 1). The real-life barriers of the monthly staff meeting being cancelled at the last minute caused difficulty in ensuring the distribution of the education module and the high turnover rate of staff lead to lower participation rates.

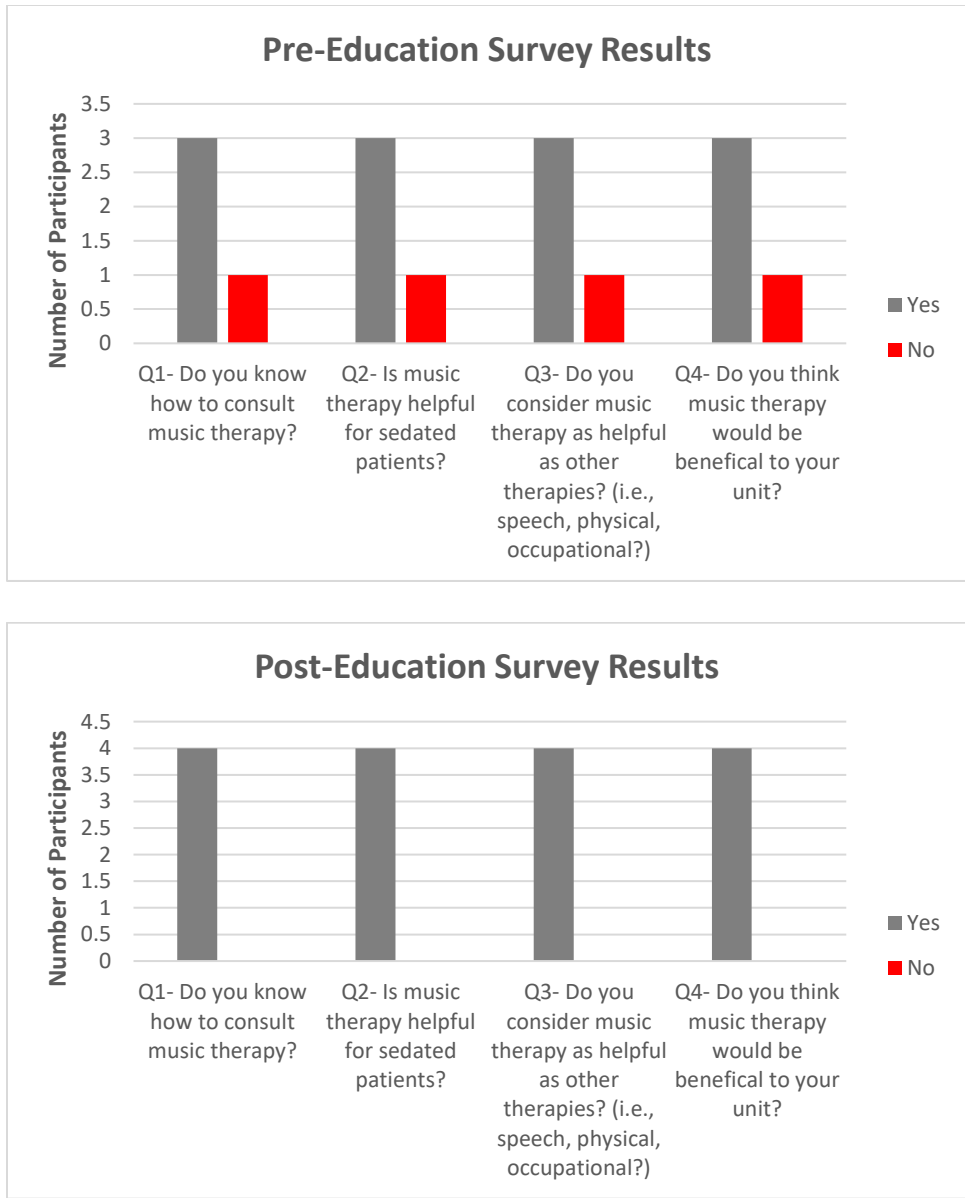
Figure 1 Percentage of Participants' Age, Education, Experience, and Shift Worked (n=29)

Percentage of Participants' Age, Education, Experience, and Shift Worked (n=33)	
Demographic Characteristics	Percent (n)
Age	
22-30 years	36.4% (n = 12)
31-39 years	12.1% (n = 4)
36-40 years	15.1% (n = 15)
50+ years	6% (n = 2)
Education	
Bachelor's	97% (n = 32)
Master's	3% (n = 1)
Doctorate	0% (n = 0)
Other	0% (n = 0)
Experience	
0-2 years	72.7% (n = 24)
3-5 years	15.1% (n = 5)
6-7 years	9.1% (n = 3)
8-10 years	3% (n = 1)
Shift Worked	
Dayshift	42.4% (n = 14)
Nightshift	39.4% (n = 13)
Per Diem (flexible shifts)	18.1% (n = 6)

At the initiation of this QI project a total of forty SICU nurses were eligible to complete the education, however, over the 6-week implementation period the unit experienced considerable staff turnover with a decrease of 17.5% of registered nurses which left the unit with thirty-three registered nurses who were able to participate. Out of the thirty-three eligible participants 12.1% (n=4) completed the pre- and post-test. For those who completed the survey the results showed that education did increase knowledge and understanding of the benefits of music therapy (See Figure 2). While the results of the pre- and post-test were not analyzed statistically due to the low sample size, the unit staff reported that they saw benefit in referring to music therapy. In an informal survey with day and night shift registered nurses, ten SICU nurses

(43.48%) reported they noticed benefits in utilizing music therapy; with shared sentiments such as, personal stress reduction from passively listening to the music, observed ease of discomfort and anxiety in their patients during bedside procedures, as well as reported overall satisfaction from both patients and families.

Figure 2 Pre-Education and Post-Education Test Result Comparisons

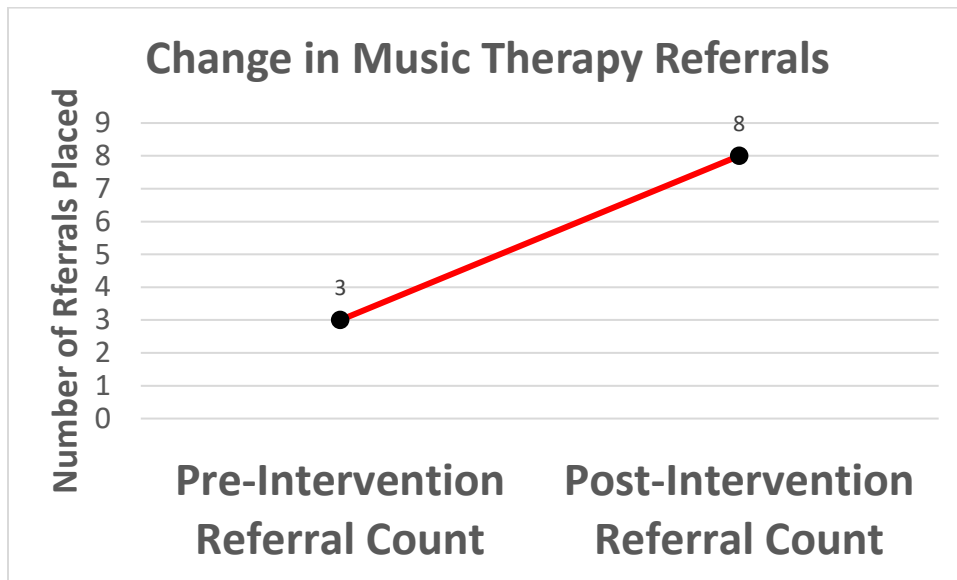


Despite the large number of staff nurses who did not take part in the pre- and post-test (n=29), there was a still a significant increase in referrals to music therapy when comparing pre-

and post-intervention time periods (See Figure 3). The referrals to music therapy from the SICU post-intervention increased by 166% when compared to the pre-intervention referral count.

Despite the small sample size there was a noted positive change in knowledge when comparing pre- and post-education tests results, as well as music therapy referrals, suggesting that a longer intervention time would increase staff participation and prove to be statistically significant.

Figure 3 Change in Pre-Intervention and Post-Intervention Referral Count



Discussion

Increasing referrals to music therapy and utilizing interdisciplinary care allows the patient to receive individualized care while relieving the prevalence of high emotional exhaustion nurses can experience and caregiver fatigue families are subject to. The nursing staff that did not complete the education modules may not be aware of the modalities of music therapy available making it difficult for them recognize the benefits for themselves or their patients. A longer intervention time period could prove to increase the number of participants making the pre- and post-education surveys more meaningful. These outcomes are consistent with the literature

stating that, although music therapy is a low-cost, low-risk intervention that could alleviate anxiety and stress in patient, staff, and family it is still not widely used in intensive care units.

Limitations

Although the education included nurse benefit to consulting music therapy such as alleviating workload by utilizing interdisciplinary care, there were still many limitations to increasing consults. The limitations most prevalent in this QI project were nurse burnout/high turnover rates and time constraints. This project was impacted by high levels of nurse burnout in the ICU as evidenced by the high level of turnover during the 6-week intervention timeframe. Ramírez-Elvira et al., (2021) suggests the phenomenon of burnout syndrome disproportionately affects intensive care unit nurses. Burnout can lead to a high turnover rate creating a constant shift of staff, causing immense nursing shortages and thus leading to more burnout. The lack of consistent staff members also posed a challenge while attempting to implement this project.

After completing this project, it has become clear that increasing nonpharmacologic care, particularly mental health care, is more suitable for a culture change project rather than a time sensitive quality improvement project. Research suggests it is very difficult to address change in workplace culture. Harvard Business School produced an article addressing the complexity of workplace culture change, stating that many will fail when trying to create a culture change because they try to change the culture directly and quickly rather than putting in the work needed to create meaningful change such as rethinking how the companies “manage, lead, and pursue strategic goals (Beer, 2021). Research suggests it can take 3-5 years to create a long-lasting culture change and it requires interest, support, and employee engagement. The inability to deliver education in person removed the personal aspect of this project that may have increased buy in and participation. Heskett (2021) stated that “organizational culture change takes a long

time, longer than the tenure of a leader, longer than the attention span of the organization- so long that other high priorities by necessity will distract the organization from completing the effort”. This exemplifies the limitations of this QI project including loss of the unit manager and high priority issues such as the critical condition of the patients in this QI project.

Conclusion

This QI project examined the benefit of utilizing interdisciplinary care by consulting music therapy to decrease nurse overwhelm and fatigue with the added benefit of increasing patient, family, and nurse satisfaction. At the conclusion of this 6-week intervention the staff appeared to notice benefit of music therapy and reported they will continue adding music therapy to patient’s treatment plans when appropriate. Based on the informal interviews with staff it is probable this project will continue to contribute to an overall culture shift. Positive views reflected in post-intervention satisfaction statements also helped prove the longevity and self-sustainability of this project. Though the time constraints made it difficult to create meaningful change, the hope is that this QI project has created a group of passionate registered nurses who understand the benefits of music therapy and will continue to strive to make cultural changes to impact the wellbeing of patients and staff. The results have been disclosed to key stakeholders and will be shared with U of L School of Nursing faculty and staff using an in-person presentation poster in order to visualize the project and to allow for explanation as needed.

References

- Azoulay, E., Chaize, M., & Kentish-Barnes, N. (2013). Music therapy for reducing anxiety in critically ill patients. *JAMA*, *309*(22), 2386. <https://doi.org/10.1001/jama.2013.5657>
- Beer, M. (2021). *To change your company's culture, don't start by trying to change the culture*. HBS Working Knowledge. <https://hbswk.hbs.edu/item/to-change-your-companys-culture-dont-start-by-trying-to-change-the-culture>
- Binder, C., Torres, R. E., & Elwell, D. (2021). Use of the Donabedian model as a framework for COVID-19 response at a hospital in suburban Westchester County, New York: A facility-level case report. *Journal of Emergency Nursing*, *47*(2), 239–255. <https://doi.org/10.1016/j.jen.2020.10.008>
- Bulay, C. J. (2020, November 25). *What is (and isn't) music therapy*. Maine Music & Health. <https://www.mainemusicandhealth.com/blog/2020/11/24/what-is-and-isnt-music-therapy>
- Center for Disease Control and Prevention. (2023, January). *Ventilator-associated event (VAE)*. National Healthcare Safety Network. <https://www.cdc.gov/nhsn/pdfs/pscmanual/6pscvcapcurrent.pdf>
- Chlan, L. L., Weinert, C. R., Heiderscheid, A., Tracy, M. F., Skaar, D. J., Guttormson, J. L., & Savik, K. (2013, June 12). *Effects of patient-directed music intervention on anxiety and sedative exposure in critically ill patients receiving mechanical ventilatory support: A randomized clinical trial*. *JAMA*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3683448/>

Cleveland Clinic. (2023). *Music therapy: What is it, types & treatment*. 2023,

<https://my.clevelandclinic.org/health/treatments/8817-music-therapy>

Donabedian, A. (1966). Evaluating the quality of medical care. *The Milbank Memorial Fund*

Quarterly, 44(3), 166. <https://doi.org/10.2307/3348969>

Gallego-Gómez, J. I., Balanza, S., Leal-Llopis, J., García-Méndez, J. A., Oliva-Pérez, J.,

Doménech-Tortosa, J., Gómez-Gallego, M., Simonelli-Muñoz, A. J., & Rivera-Caravaca,

J. M. (2020). Effectiveness of music therapy and progressive muscle relaxation in reducing stress before exams and improving academic performance in nursing students: A

randomized trial. *Nurse Education Today*, 84, 104217.

<https://doi.org/10.1016/j.nedt.2019.104217>

Golino, A. J., Leone, R., Gollenberg, A., Christopher, C., Stanger, D., Davis, T. M., Meadows,

A., Zhang, Z., & Friesen, M. A. (2019). Impact of an active music therapy intervention on

Intensive Care Patients. *American Journal of Critical Care*, 28(1), 48–55.

<https://doi.org/10.4037/ajcc2019792>

Guetterman, T. C., Feters, M. D., & Creswell, J. W. (2015). Integrating quantitative and

qualitative results in health science mixed methods research through joint displays. *The*

Annals of Family Medicine, 13(6), 554–561. <https://doi.org/10.1370/afm.1865>

Heskett, J. (2021). *How long does it take to improve an organization's culture?* HBS Working

Knowledge. [https://hbswk.hbs.edu/item/how-long-does-it-take-to-improve-an-](https://hbswk.hbs.edu/item/how-long-does-it-take-to-improve-an-organizations-culture)

[organizations-culture](https://hbswk.hbs.edu/item/how-long-does-it-take-to-improve-an-organizations-culture)

Hunter, B. C., Oliva, R., Sahler, O. J., Gaisser, D., Salipante, D. M., & Arezina, C. H. (2010).

Music therapy as an adjunctive treatment in the management of stress for patients being weaned from mechanical ventilation. *Journal of Music Therapy*, 47(3), 198–219.

<https://doi.org/10.1093/jmt/47.3.198>

Maslach, C., & Leiter, M. P. (2016, June). *Understanding the burnout experience: Recent research and its implications for psychiatry*. *World psychiatry: official journal of the World Psychiatric Association (WPA)*.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4911781/>

Mayo Clinic Health System. (2021). *Music therapy*.

<https://www.mayoclinichealthsystem.org/music-therapy>

National center for complementary and integrative health. (2020). *Mental health*. NCCIH.

<https://www.nccih.nih.gov/health/mental-health>

NHS Improvement. (2017). *Layout 1* [PDF]. [https://www.med.unc.edu/ihqi/wp-](https://www.med.unc.edu/ihqi/wp-content/uploads/sites/463/2021/01/A-Model-for-Measuring-Quality-Care-NHS-Improvement-brief.pdf)

[content/uploads/sites/463/2021/01/A-Model-for-Measuring-Quality-Care-NHS-Improvement-brief.pdf](https://www.med.unc.edu/ihqi/wp-content/uploads/sites/463/2021/01/A-Model-for-Measuring-Quality-Care-NHS-Improvement-brief.pdf)

Office of Strategic Partnerships. The School District of Philadelphia. (2020, June 23).

<https://www.philasd.org/strategicpartnerships/logic-model-guidance/what-is-a-logic-model/#1586893342170-eda7c7b0-cec2>

Ramírez-Elvira, S., Romero-Béjar, J. L., Suleiman-Martos, N., Gómez-Urquiza, J. L., Monsalve-Reyes, C., Cañadas-De la Fuente, G. A., & Albendín-García, L. (2021). Prevalence, risk factors and burnout levels in Intensive Care Unit Nurses: A systematic review and meta-

analysis. *International Journal of Environmental Research and Public Health*, 18(21), 11432. <https://doi.org/10.3390/ijerph182111432>

Scrine, E. (2021). The limits of resilience and the need for resistance: Articulating the role of music therapy with young people within a shifting trauma paradigm. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.600245>

Selle, E. W., & Silverman, M. J. (2019). Cardiovascular patients' perceptions of music therapy in the form of patient-preferred live music: Exploring service user experiences. *Nordic Journal of Music Therapy*, 29(1), 57–74. <https://doi.org/10.1080/08098131.2019.1663245>

Stevens, E., England, E. S. O. from, Stevens, E., & England, O. (2022, November 30).

Quantitative vs qualitative data: What's the difference? CareerFoundry.

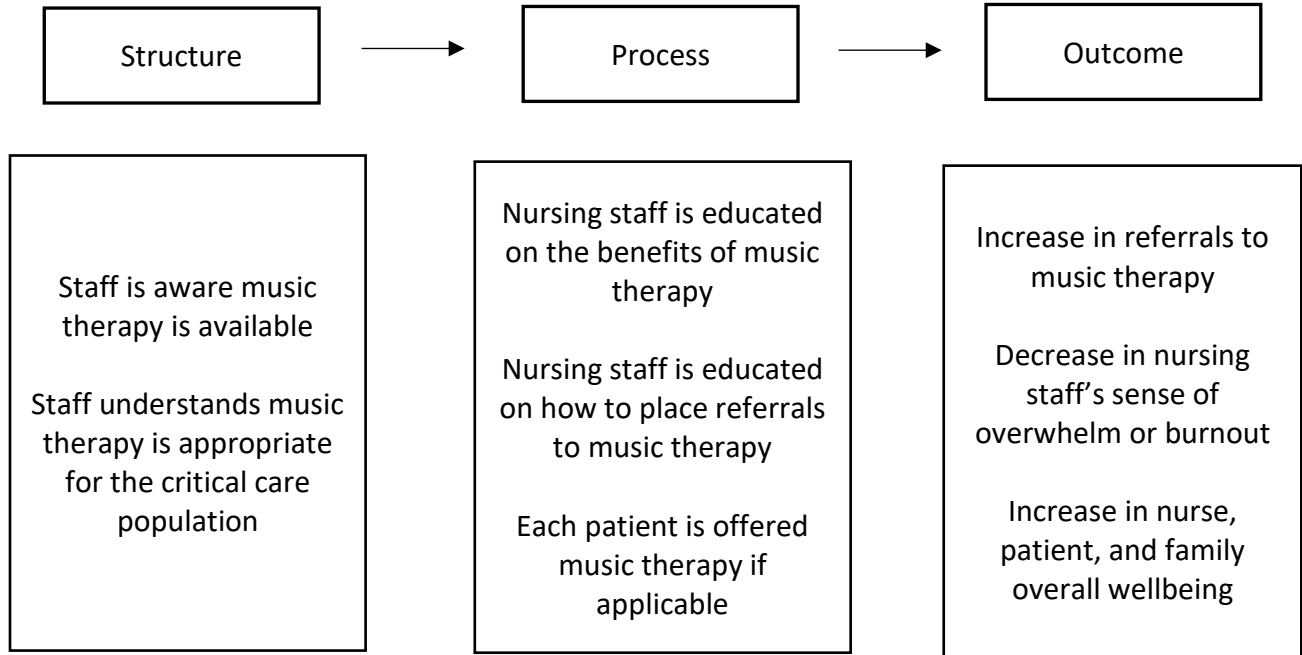
<https://careerfoundry.com/en/blog/data-analytics/difference-between-quantitative-and-qualitative-data/>

World Health Organization. (2010). *Interprofessional collaborative practice/ world health professions alliance*.

Zamanifar, S., Bagheri-Saveh, M. I., Nezakati, A., Mohammadi, R., & Seidi, J. (2020). The effect of music therapy and aromatherapy with chamomile-lavender essential oil on the anxiety of clinical nurses: A randomized and double-blind clinical trial. *Journal of Medicine and Life*, 13(1), 87–93. <https://doi.org/10.25122/jml-2019-0105>

Appendix A

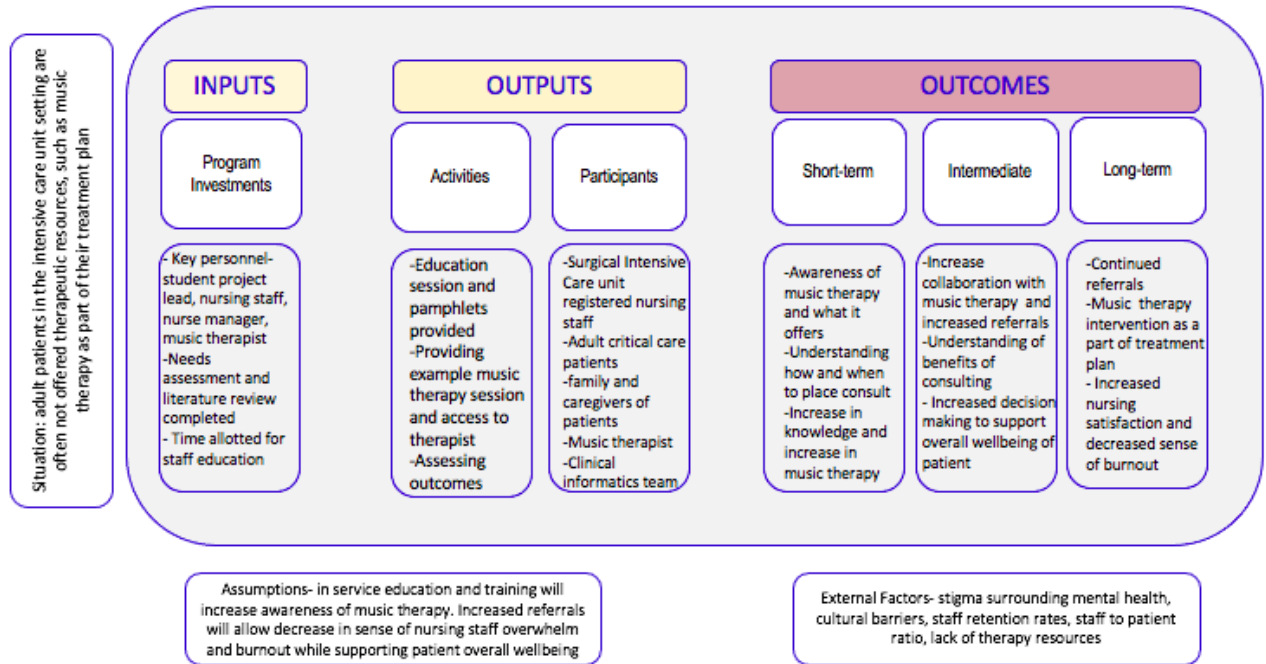
Conceptual Model for Quality Improvement – Donabedian Model



Appendix B

Logic Model for Quality Improvement

Increasing Music Therapy Referrals



Appendix C

Interdisciplinary Oversight Research Committee Approval



Interdisciplinary Research Oversight Committee (IROC)
Leadership Approval for QI, EBP & Research Projects

Project Title:
Increasing Referrals to Music Therapy in a Surgical Intensive Care Unit

Investigator(s):
Brandi Cecil BSN, RN-SANE and Katharine Adelstein PhD, APRN

Project Dates: 4/2023- 6/2023

Unit: 9 West- Surgical Intensive Care Unit

I approve this project to be conducted on the unit I supervise.

Name of Unit Leader (print): Jane Gustafson

Signature of Unit Leader: Jane A. Gustafson, MSN, Ed., RN, CCRN

Date: 02/17/2023

Comments:
[Blank lines for comments]

Contact Kathryn.Robinson@UofLHealth.org with questions.

Appendix D**Education step by step instructions**

All of this education material has been posted in your unit Facebook page and sent via email

All 9 west nurses please complete before the end of May!

1. Read message to 9 W
2. Complete Pre-test (less than 1 minute to complete)
 - a. <https://www.surveymonkey.com/r/JF9FV63>
3. Watch education video (16 minutes)
 - a. https://cardmailloisville-my.sharepoint.com/:v:/g/personal/bsceci02_louisville_edu/Eabhju6pbVHmpihxTO8EiQBxNAC2-n52GvCHkR74IJzVQ
4. Read handout- 4 Examples of ICU Music Therapy Interventions
5. Complete post-test (less than 1 minute to complete)
 - a. <https://www.surveymonkey.com/r/56HSWXR>

Look forward to finding pamphlets explaining music therapy and snacks in your break room ☺



*I appreciate each of you,
Brandi*

Appendix E

Hello 9 West nursing staff,

My name is Brandi Cecil, and I am a student working towards my Doctorate in Nursing Practice with a specialty in Psychiatric Mental Health. I am working closely with your management team and Jessica Heinz, the music therapist at University of Louisville Hospital, to complete an evidenced based project to increase music therapy referrals in ICU units, and I am implementing on 9W.

I am passionate about this project and I am extremely thankful for each of you taking the time to learn about music therapy and participate in my project.

I think each of you are amazing and you make a big difference.

If you have any questions you have access to both me and Jessica.

Once again, thank you thank you!! I'm excited to work with your team and you have no idea how much your support means to me.

Let's improve patient and staff satisfaction! 😊



Brandi Cecil, BSN, RN, SANE
 Call or text- 502-460-7127
 Email- bsceci02@Louisville.edu



Jessica Heinz, MT-BC
 Email- jessica.heinz@uoflhealth.org

Appendix F

4 Examples of ICU Music Therapy Interventions

Speech Fluency and Gait

--choose songs with a strong beat, encourage singing starting with one word and then adding phrases--

EXAMPLE: I Walk the Line by Johnny Cash

I keep a close watch on this heart of **MINE** I keep my eyes wide open all the **TIME**

I keep the ends out for the tie that **BINDS** Because you're **MINE**, I walk the **LINE**

PPLM: Patient Preferred Live Music and/or Relaxation Scripts and Progressive Muscle Relaxation

Used to:

1. Elevate mood
2. Address irregular vital signs (RR and HR)
3. Cognitive stimulation
4. Decrease pain perception between medications
5. Procedural support (providing distraction)
6. Sleep Aid

Discharge Playlists

1. Motivation for PT and OT exercises and reps: songs with a theme of confidence and empowerment. Strong beats and lyrics.
2. Playlists for sleep: patient preferred music organized for a smooth transition to relaxation and sleep using the isoprinciple.
3. Playlists for emotional regulation: initially exploring the emotion (anxiety, depression, anger, etc) and then leading to emotional baseline.

End of Life Memory Making or Emotional Processing/Support

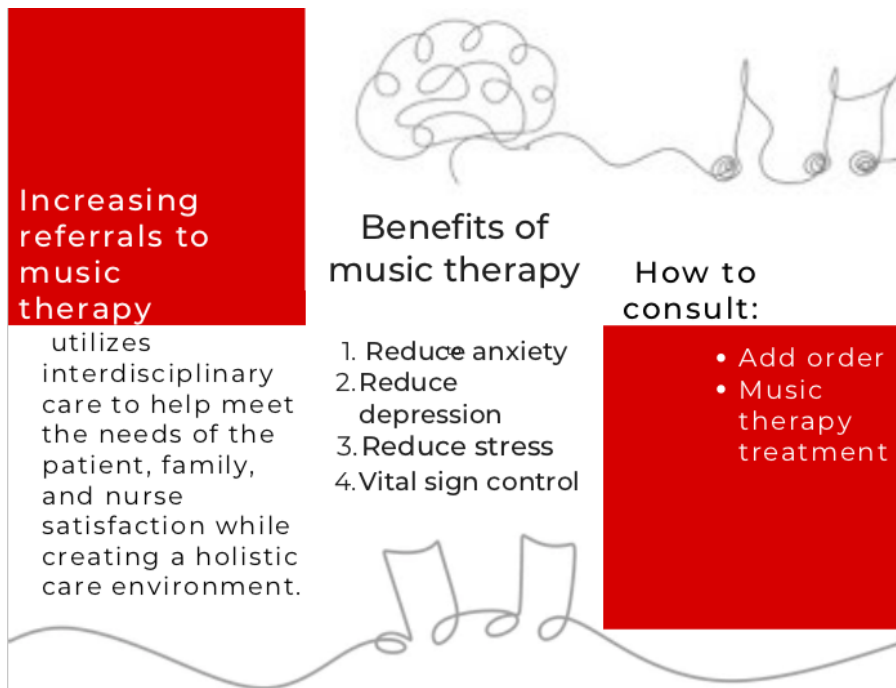
1. Songwriting: allows for storytelling and emotional exploration, creativity
2. Autobiography playlists: stories assigned to songs as a keepsake for patient and family
3. Uniting family members and legacy projects

Music Therapy Education Pamphlet

Front Side



Back Side



Appendix H

Pre-test /Post-test

Please respond with yes (Y) or no (N)

1. Do you know how to consult music therapy?

2. Is music therapy helpful for sedated patients?

3. Do you consider music therapy as helpful as other therapies? (i.e speech, physical, occupational)

4. Do you think this would be beneficial for your unit?

Post Satisfaction Survey

Qualitative Data from Unit Nurses

Please respond with yes (Y) or no (N)

1. Did you consult music therapy?

2. Did you personally find it beneficial?

3. Did you notice benefits in your patients or patient's family?

4. Will you continue to consult?

5. Do you feel like it helped with your overall wellbeing, feeling of overwhelm, and or burnout?

6. Did you enjoy this education?