7-2023

Increasing Medical-Surgical Nurses' Palliative Care Self-Efficacy Using the CARES Tool: A Quality Improvement Project

Rebekkah L. Stanko

Increasing Medical-Surgical Nurses' Palliative Care Self-Efficacy Using the CARES Tool: A Quality Improvement Project

Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Nursing Practice at Messiah University

By
Rebekkah L. Stanko
July, 2023

DNP Project Chair: Dr. Kristen Slabaugh, DNP, CRNP, FNP-C, CNE

DNP Project Team Members: Dana Nell, MSN, RN, CCRN; Kimberly Shank, MSN, RN, NPD-BC; Dr. Kristen Slabaugh, DNP, CRNP, FNP-C, CNE; Dr. Nancy Woods, PhD, MPH, RN

Graduation: 2023/August

Acknowledgements

I begin by thanking my better half, Dante Cordelli, for your unconditional love throughout this educational journey. Thank you for putting up with my regular intensive day-long writing sessions, the countless frozen pizzas, going 2 years without a true dining room table, and all the tears along the way. Thank you for getting me a dog to lessen my stress, and then taking care of my dog. Scott and Lisa Stanko, my parents, thank for you for instilling in me the drive to conquer my challenges, and for always knowing when to invite me over for dinner. To my siblings, brothers-in-law, nieces, and nephews, who insisted I maintain a social life throughout this process, thank you for keeping me grounded. Thank you, Dr. Nancy Woods, and Marti Derr, for being a phone call away whenever I needed encouragement. Becky Upperque and Kelly McKee, thank you for helping me find strength in my challenges and cheering me on. Thank you, Dr. Kim Fenstermacher, and Dr. Kristen Slabaugh, for reviewing hundreds of pages of rough drafts to facilitate the development of a concise final project I am proud of. Dr. Anna Gale, thank you for guiding me through my struggles and answering my endless questions. Kristin Shaub, my classmate and confidant, thank you for your feedback, for editing my drafts, and for being my lifeline in this undertaking. We made it! Thank you, Dr. Louann Zinsmeister, for preparing me academically during my MSN program and convincing me to pursue my love of education and my DNP. Thank you, Dana Nell, Kim Shank, and nurses on B1 at Gettysburg hospital; without your assistance and willingness to embrace my project during the waves of COVID-19, I would have no final product. Finally, Scott Stanko, Jr., no more bets on how long until I return to school, it’s time for a break. To everyone who supported me, guided me, prayed for me, or picked up the pieces along the way, thank you. You were an integral part of bringing my dreams and goals to fruition. To God be the glory!

Table of Contents

Abstract

Background: Over 35% of all deaths in the United States occur in the acute care hospital setting, and 75% of end-of-life (EOL) patients require palliative care. Registered nurses (RNs) with strong palliative care self-efficacy (PCSE) promote positive death experiences for patients and families by minimizing patient suffering and maintaining clinical and ethical standards. Employers can enhance RNs' PCSE through educational interventions and resources. **Problem**: Inpatient acute care hospital RNs lack PCSE because acute care is traditionally curative, and RNs receive limited EOL care education. **Methods**: A quality improvement project was conducted. Participants were a convenience sample of RNs working on a medical-surgical (M-S) unit at rural hospital in Southern Pennsylvania. Participants' baseline PCSE levels were obtained using the Palliative Care Self-Efficacy (PCSE) Scale. Postintervention, PCSE Scale scores were repeated. **Intervention**: After a one-time education session, participants used the Comfort, Airway, Restlessness and delirium, Emotional and spiritual support, and Self-care (CARES) Tool, an evidence-based tangible EOL reference resource, when providing EOL care to patients under the services of palliative care or hospice during a 9-week implementation period. **Results:** The difference between participants' pre- and postintervention PCSE Scale scores had a moderate effect size (d = 0.6) but was not statistically significant (p = .164). However, when participants who did not care for EOL patients during implementation were withheld from analysis, the increase in PCSE Scale scores from pre- to postintervention was statistically significant (p = .029) with a large effect size (d = 1.5). **Conclusion:** Clinically significant findings support the CARES Tool being an effective intervention to increases RN PCSE.

Keywords: CARES Tool, PCSE Scale, nurse, end-of-life, hospice, palliative care, competence, confidence, self-efficacy, knowledge, education, and resources

Increasing Medical-Surgical Nurses' Palliative Care Self-Efficacy Using the CARES Tool: A Quality Improvement Project

Background

Regardless of how one defines the point when life ends, death is inevitable (Puente-Fernandez et al., 2020; Zheng et al., 2018). Historically, nurses have borne witness to more deaths than members of any other profession (Arnetz et al., 2020; Shah et al., 2021). Approximately 39.2% of US deaths occur in the acute care hospital setting (Centers for Disease Control and Prevention [CDC], 2023), with 75% of those approaching end-of-life (EOL) requiring palliative care (Etkind et al., 2017). One in every 18 hospitalized patients receive a palliative care consult (Rogers, 2020). At the local level, in 2021, 34.7% of deaths in Adams County, Pennsylvania occurred in the inpatient acute care hospital setting (CDC, 2023). By 2040, palliative care needs are projected to increase by 25 – 42% (Etkind et al., 2017). Palliative care focuses on enhancing the quality of life until death by relieving the suffering of patients and families facing life-threatening illnesses (International Association for Hospice and Palliative Care, 2019). EOL encompasses the final phase of life when a person is actively dying and care shifts from treating a disease process to managing symptoms (Freeman, 2013; Phillips et al., 2011).

As the main care provider at the hospital bedside of dying patients, RNs must possess high levels of palliative care self-efficacy (PCSE): the belief in one’s capability, capacity, and knowledge to engage in competent EOL care provisions (Bandura, 1977; S. Kim et al., 2020; Mason et al., 2020; Parajuli et al., 2021; Puente-Fernandez et al., 2020; Rosa et al., 2021; Zheng et al., 2018; Zheng et al., 2022). However, nurses are one of the highest-risk groups for professional burnout due to the nature of caring for sick and dying patients (Kelly et al., 2021;

Shah et al., 2021). Researchers estimate that 35 – 54% of all RNs experience burnout, and 31.5% of nurses site burnout as the primary reason for resignation (Shah et al., 2021). For each dying patient a nurse cares for, burnout increases by 3.31% and the probability for turnover increases by 3.15% (Kelly et al., 2021).

High PCSE enriches RNs' personal and professional growth while minimizing emotional distress, situational discomfort, compassion fatigue, and professional burnout (Kelly et al., 2021; S. Kim et al., 2020; Puente-Fernandez et al., 2020; Rosa et al., 2021; Zheng et al., 2018; Zheng et al., 2020). Additionally, enhanced nursing PCSE promotes a good death experience for patients and families by minimizing patient suffering and maintaining clinical and ethical standards (Granda-Cameron & Houldin, 2012; Hagan et al., 2018).

Problem Statement

RNs with less than 5 years of experience or under 35 years of age, practicing outside of palliative or hospice specialties, are generally ill-prepared to provide EOL care (Aljehani et al., 2021; Mason et al., 2020; Wolf et al., 2019). Inpatient acute care nurses may struggle with the transition from providing restorative treatment to the noncurative focus of palliative care (Aljehani et al., 2021; Arnetz et al., 2020; de Campos & Walsh, 2021; Manning et al., 2021; Parajuli et al., 2021; Puente-Fernandez et al., 2020; Rees et al., 2020). Medical-surgical (M-S) RNs with low PCSE frequently experience professional fatigue and burnout (Aljehani et al., 2021; Arnetz et al., 2020; de Campos & Walsh, 2021; Manning et al., 2021; Parajuli et al., 2021; Puente-Fernandez et al., 2020; Rees et al., 2020; Rosa et al., 2021; Zheng et al., 2022).

While nurses are required to support patients through EOL (American Nurses Association, 2015, Provision 1.4), most have not received formal EOL education (Griffiths, 2019; Mason et al., 2020; Puente-Fernandez et al., 2020). Prelicensure undergraduate EOL education differs among nursing programs; however, many new graduate RNs have received minimal theoretical or clinical EOL preparation in school (Fristedt et al., 2021). Ongoing professional EOL instruction significantly increases RNs' PCSE, yet less than a third of practicing RNs have received EOL education in the past 2 years (Aljehani et al., 2021; Wolf et al., 2019). Regardless of whether preparation occurs pre- or post-licensure, a lack of EOL education is the root of poor PCSE (Appendix A).

Needs Assessment

A M-S unit at Gettysburg Hospital (GH), B1, was identified as a unit where nurses lacked PCSE. Historically, patients on B1 have been short-stay postoperative orthopedic or abdominal surgery patients. However, the COVID-19 pandemic created an influx of EOL patients. Between August 2021 and August 2022, GH experienced 622 patient deaths, with 240 deaths occurring on B1 (B. Snyder, personal communication, October 07, 2022).

The B1 RNs voiced fear, timidity, and a lack of knowledge to advocate and care for EOL patients appropriately. B1 RNs were aware of their low PCSE, but lacked self-care strategies to foster resilience, leading to high levels of burnout and compassion fatigue from caring for the increased volume of EOL patients. A root cause analysis (RCA) was completed to investigate underlying causes of B1 RNs' low PCSE (Appendix A). B1 RNs receive no EOL education in hospital or unit orientation and have no required continuing education related to provisions of EOL care. A strengths, weaknesses, opportunities, and threats (SWOT) analysis identified B1 as an appropriate project site for a doctor of nursing practice (DNP), quality improvement (QI) project related to RN' PCSE (Appendix B). B1 RNs and unit and hospital leadership supported the DNP QI project.

Aim, Objectives, Purpose Statement

The overarching aim of this DNP project was to improve the EOL experience for patients, families, and bedside nurses. The objectives for this project included the following:

- Within 3 weeks, 85% of eligible RNs will complete the baseline education and surveys.
- During the 9-week intervention period, 80% of participants providing EOL care will use the Comfort, Airway, Restlessness and delirium, Emotional support, and Self-care of the nurse (CARES) tool at least 80% of the time.
- At the completion of the 9-week intervention period, participants will demonstrate a 10% increase in Palliative Care Self-Efficacy (PCSE) Scale scores.
- At the completion of the 9-week intervention period, qualitative survey responses will demonstrate that 85% of participants found the CARES Tool a beneficial EOL resource.

The purpose of this project was to implement a QI project using the CARES Tool to increase the PCSE of M-S nurses providing EOL care.

Review of Literature

The following population, intervention, comparison, and outcome (PICO) question guided the literature review: For registered nurses in the acute care hospital setting providing care to patients at EOL, does implementation of the CARES Tool, compared to no tool, improve nurses' PCSE? A review of literature was conducted May 2022-April 2023. Databases searched included CINAHL, Medline Complete, and Cochrane Library; additional search strategies included Google Scholar and citation searching. Search terms were *CARES Tool, PCSE Scale,* and combinations of *nurse, end-of-life, hospice, palliative care, competence, confidence, self-*

efficacy, knowledge, education, and *resources*. Search limits were peer-reviewed articles available in the English language and published in 2017 or later. Inclusion criteria were articles that answered the PICO question and identified RNs as population of interest. Exclusion criteria were articles with resources using the acronyms CARES or PCSE but did not include the Comfort, Airway, Restlessness and delirium, Emotional support, and Self-care of the nurse Tool or PCSE Scale, articles with a population of interest other than RNs, articles appraised as low-quality evidence, and articles that did not answer the PICO question. A PRISMA diagram was developed to outline this process (Appendix C).

Evidence Level and Quality

Ten articles were appraised and included as the evidence-base for this project. Evidence included three quasi-experimental quantitative studies, two quantitative descriptive studies, and one of each of the following: qualitative study, literature review, integrative review, case study, and QI project. The Johns Hopkins Evidence-Based Practice Evidence Appraisal Tools (Dang et al., 2022) were used to appraise the evidence. Table 1 summarizes this information and Appendix D provides a detailed evidence summary tool.

Table 1

Number of Articles by Level and Quality

Quality	Level			
	II	III	IV	V
A	2	2	0	1
B	1	1	0	3

Note. Level and quality rating as per the *Johns Hopkins Evidence-Based Practice for Nurses and Healthcare Professionals Model & Guidelines* (Dang et al., 2022).

Themes

Experience alone does not produce PCSE: Nurses achieve enhanced PCSE through experience, education, and resources (de Campos & Walsh, 2021; Rees et al., 2020). Four themes emerged from the literature review: the tenets of PCSE, purposefully designed educational interventions, use of the CARES Tool, and the role of employers. Table 2 provides a summary of the relationship between evidence level, quality, and themes.

Table 2

Number of Articles by Level and Quality based on Theme

Article level, quality	Theme			
	Tenets of PCSE	Educational interventions	CARES Tool	Role of employers
II, A	1	2	0	2
II, B	0	1	1	0
III, A	2	2	1	0
III, B	1	1	1	1
V, A	1	0	1	1
V, B	2	2	2	2

Note. A total of 10 articles were reviewed. More than one theme was identified for some articles. PCSE = palliative care self-efficacy. Level and quality rating as per the *Johns Hopkins Evidence-Based Practice for Nurses and Healthcare Professionals Model & Guidelines* (Dang et al., 2022).

Tenets of PCSE

PCSE includes three primary tenets: comfort, confidence, and knowledge (Bierle et al., 2021; Christensen, 2017; J. S. Kim et al., 2020; Manning et al., 2021; Neiman, 2020; Pesut & Greig, 2017; Rees et al., 2020; Stacy et al., 2019). PCSE is broader than knowledge of the provisions of palliative care; a nurse must possess confidence and comfort with EOL care to provide appropriate holistic care and experience satisfaction, without fatigue or burnout, from caring for EOL patients (Bierle et al., 2021; J. S. Kim et al., 2020; Manning et al., 2021; Neiman, 2020; Pesut & Greig, 2017; Stacy et al., 2019). Therefore, interventions to enhance PCSE should address comfort and confidence as well as knowledge.

Educational Interventions

Educational interventions are an effective method of enhancing nurses’ PCSE when the interventions convey knowledge plus offer practical methods to uptake and apply knowledge in the practice setting (de Campos & Walsh, 2021; DeFusco et al., 2023; J. S. Kim et al., 2020; Manning et al., 2021; Neiman, 2020; Pesut & Greig, 2017; Rees et al., 2020; Stacy et al., 2019). Specifically, interventions that provide scaffolding for knowledge application enhance PCSE by increasing nurses’ comfort and confidence during EOL care activities. Easily accessible physical reference resources produce statistically significant increases in nurses' PCSE. (de Campos & Walsh, 2021; DeFusco et al., 2023; J. S. Kim et al., 2020; Pesut & Greig, 2017; Rees et al., 2020; Stacy et al., 2019).

The CARES Tool

The CARES Tool is a pocket-sized educational reference guide that has effectively enhanced nurses’ PCSE by providing prompts for symptom-based interventions categorized under the headings of comfort, airway, restlessness and delirium, emotional and spiritual needs, and self-care of the nurse (Bierle et al., 2021; Christensen, 2017; de Campos & Walsh, 2021; Neiman, 2020; Rees et al., 2020; Stacy et al., 2019). The CARES Tool adjuncts the nurse’s provisions of EOL care by directing the nurse in identifying and responding to typical EOL patient needs (Bierle et al., 2021; Christensen, 2017; de Campos & Walsh, 2021; Neiman, 2020; Rees et al., 2020; Stacy et al., 2019). Use of the CARES Tool has increased stakeholders’ and RN’s own perceptions of the RN’s knowledge of EOL care and enhanced interprofessional communication and collaboration during EOL care provisions (Bierle et al., 2021; Christensen, 2017; de Campos & Walsh, 2021; Neiman, 2020; Rees et al., 2020; Stacy et al., 2019). Additionally, the CARES Tool addresses the impact that EOL care has on the nurse by providing suggestions for self-care initiatives and strategies to manage personal grief and decrease stress, compassion fatigue, and burnout.

Role of Employers

Employers have a role and a responsibility to address nurses’ EOL educational needs, mitigate barriers to meeting these needs, and provide interventions that allow for the uptake and application of knowledge to improve nurses’ PCSE (Bierle et al., 2021; DeFusco et al., 2023; Pesut & Greig, 2017). Bedside nurses, regardless of previous experience, benefit when organizations provide ongoing education and resources to promote quality EOL care (Bierle et al., 2021; de Campos & Walsh, 2021; DeFusco et al., 2023; Manning et al., 2021; Pesut & Greig, 2017; Stacy et al., 2019).

Gaps, Limitations, Conclusion

Gaps in the literature included limited evidence from original research studies implementing interventions to enhance nurses’ PCSE (de Campos & Walsh; Neiman, 2020; Stacy et al., 2019). Due to small sample sizes and most implementation sites being intensive care units or oncology units, findings from the current literature may not be generalizable to all inpatient acute care settings (de Campos & Walsh, 2021; DeFusco et al., 2023; J. S. Kim et al., 2020; Manning et al., 2021; Neiman, 2020; Rees et al., 2020; Stacy et al., 2019). Despite gaps in the literature, the lack of nurses’ PCSE is well-known and well-documented in the evidence (Bierle et al., 2021; Christensen, 2017; de Campos & Walsh, 2021; DeFusco et al., 2023; J. S. Kim et al., 2020; Manning et al., 2021; Neiman, 2020; Pesut & Greig, 2017; Rees et al., 2020; Stacy et al., 2019). Ultimately, the literature supported using the CARES Tool as an appropriate educational intervention to enhance RN PCSE (Appendix E). Nurse leaders have a responsibility to provide interventions to further develop RN PCSE; thus, implementation of the CARES Tool in various settings are warranted.

Theoretical Model

The theoretical model that underpinned this DNP project was Kolcaba's Theory of Comfort (Kolcaba, 2010; Appendix F). Kolcaba's (1994) theory included three states of comfort: relief, ease, and transcendence; and four contexts in which comfort occurred: physical, psychospiritual, sociocultural, and environmental. The components of Freeman's (2013) CARES Tool directly relate to Kolcaba's dimensions of comfort (Figure 1). According to Kolcaba (2010), providing appropriate simple individualized comforting interventions should increase the health-seeking behaviors of EOL patients, create a more peaceful death experience, and increase patient, family, and nurse satisfaction with the care rendered.

Figure 1

Relationship between the CARES Tool and Kolcaba's Dimensions of Comfort

Comfort **Airway** **Restlessness & Delirium** **Emotional & Spiritual** **Self-care of Nurse**	**Relief: nurse has met the patient's needs**	**Ease: patient is calm and content**	**Transcendence: patient rises above difficulties**
Physical: Bodily functions and homeostasis	**C-**Pain control **A-** Manage dyspnea **R-**Medicate	**C-**Pain control **A-** Manage dyspnea **R-**Medicate	**C-**Pain control **A-** Manage dyspnea **S**- Nurse self-care
Psychospiritual: comfort with one's self, spirituality	**R, E-** Fear Education **E-** Communication	**R-**Unfinished business **R, E-** Fear Education **E-** Communication	**R-**Unfinished business **R, E-** Fear Education **E-** Communication **S**- Nurse self-care
Sociocultural: Personal relationships and cultural upbringing	**A- D**yspnea education **R, E-** Fear Education **E-** Communication	**A- D**yspnea education **R-**Unfinished business **R, E-** Fear Education **E-** Communication	**A- D**yspnea education **R-**Unfinished business **R, E-** Fear Education **E-** Communication **S**- Nurse self-care
Environmental: External context factors	**C-**Eliminate unnecessary Procedures **C, R-** Control Environment	**C-**Eliminate unnecessary Procedures **C, R-** Control Environment	**C, R-** Control Environment **S**- Nurse self-care

For this project, nurses used the CARES Tool as a reference resource at the bedside to address dimensions of comfort for EOL patients (Freeman, 2015; Kolcaba, 2010). The guidance provided by the CARES Tool should increase nurses' PCSE (Granda-Cameron & Houldin, 2012; Hagan et al., 2018; J. S. Kim et al., 2020; Rosa et al., 2021; Zheng et al., 2018; Zheng et al., 2020). Baseline PCSE Scale scores were compared to postintervention scores, and differences were analyzed for statistical and clinical significance. Recommendations were made to update standard EOL practice and policy to enhance institutional integrity based on clinically and statistically significant findings (Kolcaba, 2010). Application of Kolcaba's Theory of Comfort to this project is presented in Appendix G.

Translation Model

The Ottawa Model of Research Use (OMRU), which guided the translation of this DNP project, is a nonlinear model that addresses the complexity of implementing continuity-of-care interventions to provide a framework for the application of the assess, monitor, and evaluate (AME) process to six interrelated elements of healthcare knowledge transfer (Graham & Logan, 2004; Appendix H). The Ottawa Model was applied to identify the problem of nurses having low PCSE, establish the potential adopters as nurses, and determine that conditions made the unit an appropriate project site (Graham & Logan, 2004). This assessment and the literature review guided the choice of intervention, the CARES Tool. Implementation strategies were based on the assessment. Continued monitoring via a data collection log evaluated participants' use and degree of adoption of the intervention (Graham & Logan, 2004). Outcomes were evaluated for intended effect and unintended consequences while considering implications for the unit, hospital, and nursing practice (Graham & Logan, 2004). Sustainment can be achieved by using the outcomes to guide reassessment of the intervention, adopters, and environment and repeating the iterative AME process as needed (Graham & Logan, 2004).

Methodology

Participants

Participants were M-S RNs. Inclusion criteria were practicing staff RNs and charge RNs on the project unit of any full-time equivalent status or years of experience. Exclusion criteria included RNs cross-trained/floated to work on the project unit, RNs not practicing in a staff nurse or charge nurse role, RNs who were on orientation or were hired after project implementation started, RNs with a planned leave of absence during the implementation period, internal or external travel/agency RNs, and non-RN staff. An information script (Appendix I) was used to recruit a convenience sample of unit RNs. An anticipated project barrier was participant engagement. To mitigate this barrier and track participation, the project leader developed the CARES Tool Project Log (Appendix J) and routinely visited the project site.

Setting

WellSpan GH is a 76-bed, eight-unit acute care community hospital in Adams County, PA. B1, a 26-bed M-S unit at GH, was the project setting. The B1 RN staff consisted of 32 RNs employed at various FTEs; 15 RNs had greater than 2 years of nursing experience, and 17 RNs met eligibility for project inclusion.

The unit had one comfort care room reserved for EOL patients as hospital volumes allow. Project facilitators included the assistant nurse manager, chief nursing officer, and director of education, who collaborated with the project leader to develop an implementation process congruent with the culture of B1 and GH. Project constraints consisted of only one EOL room, and over 46% of unit RNs were ineligible to participate in the project.

Tools

The project included three surveys. A demographics survey (Appendix K) and the PCSE Scale (Appendix L; Phillips et al., 2011), were administered at baseline. Postintervention, the PCSE Scale and two open-response questions (Appendix M) developed by the project leader to better understand the nurses' experience using the CARES Tool were administered.

The PCSE Scale evaluated RNs' capacity to manage usual aspects of EOL care through 12 closed-ended statements (Phillips et al., 2011). Statements were scored as 1 = need further basic instruction to 4 = confident to perform independently (Phillips et al., 2011). Raw scores range from 12 – 48, with higher scores indicating higher PCSE levels (Phillips et al., 2011). Deciphering results involved calculating and comparing baseline and postintervention medians or means using statistical analysis (DeFuso et al., 2022; J. S. Kim et al., 2020). Validity and reliability of the PSCE Scale were confirmed by assessing internal consistency reliability (α = 0.92), criterion validity, construct validity, and predictive validity ($p < .001$; Phillips et al., 2011). The publishing company, Elsevier, provided permission to use the PCSE Scale (Appendix N).

Intervention

Project implementation steps were summarized in a process map (Appendix O). The CARES Tool, a peer-reviewed and evidence-based printed pocket-sized palliative care reference guide, was the intervention used by participants when caring for EOL patients as a resource to enhance PCSE (Freeman, 2015; Appendix P). The CARES Tool contains nursing prompts for addressing symptom management, supportive measures, interprofessional communication, family education, compassion fatigue, and professional burnout using the acronym CARES (Freeman, 2013). Permission to use the CARES Tool was obtained (Appendix Q).

The project leader introduced the project at a mandatory RN staff meeting, and live education (supported with PowerPoint) was conducted for all interested RNs. A quiz to confirm fundamental knowledge, understanding, and application of the CARES Tool was administered post education (Appendix R). All participants scored 100% on the quiz. Participants were provided physical copies of the CARES Tool and were advised to only use copies from the project leader to ensure project fidelity.

Participants were directed to use the CARES Tool while caring for EOL patients during the 9-week implementation period based on inclusion/exclusion criteria of having a hospice or palliative care consult related to provisions of EOL care. At the end of each shift, participants documented care of EOL patients and use of the CARES Tool on the CARES Tool Log (Appendix J). The project leader oversaw project implementation by visiting the project site regularly to monitor intervention use and maintain communication with staff.

Data Collection

Data were collected via printed surveys to enhance response rates based on firewalls and restricted computer resources at the site. Baseline data collection included demographics (age, gender, highest level of education, total years of nursing experience and years of nursing experience on B1, history of prior EOL education, and time since last caring for an EOL patient) and a PCSE Scale score. Participants completed the CARES Tool Log each shift worked intra-intervention. Repeat PCSE Scale scores and qualitative data were collected postintervention.

Cost Analysis

Inadequate preparation for providing EOL care and low PCSE are stressors that increase RN burnout and turnover (Baudoin et al., 2022; Kelly et al., 2021; Shah et al., 2021). In fiscal year 2022, the GH RN turnover rate was 15.30%, with a rate of 16.67% on B1; related expenses averaged $50,000 per RN (B. Snyder, personal communication, October 07, 2022). If this project prevents the organizational turnover of one B1 RN, the unit will save approximately $50,000 in turnover expenses, and gain 3 – 6 months of time savings from not having to orient a new nurse.

Project implementation cost GH nothing in hourly wage expenses. The one-time half-hour education session occurred during a mandatory staff meeting, and all components of the intervention and data collection occurred during the participants' regular working hours. CARES Tool use does not increase the time to provide EOL care, making other time costs/savings neutral (Freeman, 2015). The project leader collected no reimbursement for time or resources.

Project sustainment requires a one-time cost of approximately $2.00 per laminated copy of the CARES Tool for each newly hired RN. Education on use of the CARES Tool can be completed in under 10 minutes during working hours and requires no additional time cost. Therefore, GH can train 25,000 RNs for the cost equivalent to losing one RN to organizational turnover. Nonmonetary benefits of project sustainment include the potential to increase unit morale and enhance the EOL experience for patients, families, and nurses. Based on a detailed budget outline (Appendix S), project sustainment should be cost-effective.

Timeline

A Gantt chart outlining the project timeline is provided in Appendix T. Project proposal approval, followed by IRB exemption (Appendix U) was obtained in November 2022. Project implementation occurred from January 2023 through April 2023. In January 2023, participants completed baseline surveys and education. Participants used the CARES Tool from January 31, 2023, through April 04, 2023. Postintervention surveys were distributed on April 06, 2023. Results were analyzed between May and June 2023, and findings were reported to stakeholders.

The final project defense will occur in August 2023. Further dissemination of findings, submitting for publication, will occur post-defense.

Ethics and Human Subject Protection

Messiah University Institutional Review Board (IRB) exemption (Appendix U) was obtained before initiating the DNP QI Project. WellSpan Health did not require IRB submission for this project (Appendix V). National Institute of Health (NIH) Human Subject Training (Appendix W) was completed.

The risk to RNs participating in this project was no different from that of RNs providing standard bedside patient care. B1 RNs' completion of the baseline surveys provided implied consent for participation. Deidentified coding and deidentified analysis of aggregate data assured participant confidentiality. All paper documents are stored in a locked filing cabinet in a locked office, only accessible to the project leader. All individual electronic files containing identifiable information remain password protected and stored on a password-protected computer accessible to only the project leader. Based on IRB requirements, all data will be stored for 3 years. After that time, all paper data will be shredded at Messiah University, and all electronic data will be securely deleted from computer drives and devices.

Results

Analysis and Evaluation

Preintervention, the α-level of statistical significance was set at .05. Postintervention, data were scrubbed, coded, and entered into SPSS Statistics (v. 29.0). Nonrandom missing data resulted from one participant (12.5%, $N = 8$) lost to attrition. This participant's demographics were not statistically significantly different from the rest of the sample ($p = 1.0$ for all). Thus, the participant was dropped from the data set. One random missing demographic data point (1.5%, *n*

= 63) was not managed. Two participants (29%, *N* = 7) did not care for any EOL patients and were identified as potential confounding outliers as they were the only participants whose PCSE scores decreased from pre- to postintervention. These outliers were managed by analyzing the aggregate data, both including (complete data set [*N* = 7]) and omitting (condensed data set [*n* = 5]) these participants.

Descriptive Statistics

Participant descriptive statistics were analyzed at the nominal and ordinal levels (Appendix X). Participants consisted of a convenience sample of seven female M-S RNs. The majority were 36 years of age or older (57.1%, *n* = 4), with a BSN degree (57.1%, *n* = 4), having less than 5 years total nursing experience (57.1%, *n* = 4), and between 1- and 5-years nursing experience on B1 (71.5%, *n* = 5). Most participants reported no previous EOL education (66.7%, *n* = 4) but had cared for an EOL patient within the past month (85.7%, *n* = 6).

As shown in Table 3, during the 9-week implementation phase, participating RNs worked an average of nearly 12 days (*SD* = 8.9; range 1 – 22) and cared for an average of approximately three EOL patients a piece (*SD* = 2.87; range 0 – 8). Combined, participants cared for 19 EOL patients and initiated use of the CARES tool with 17 of those patients.

Table 3

Descriptive Statistics for CARES Tool Use

Variable	*M*	*SD*	*Mdn*	Mode	Range
Number of days worked	11.86	8.90	8.00	22	1 – 22
Number of EOL patients cared for	2.71	2.87	2.00	0	0 – 8
Number of times CARES Tool used while caring for EOL patients	2.14	2.48	1.00	0	0 – 6
Number of times CARES Tool attempted but declined while caring for EOL patients	0.29	0.76	0.00	0	0 – 2
Total attempts to apply CARES Tool	2.43	3.05	1.00	0	0 – 8

Note. EOL = end-of-life. Variables are per nurse (*N* = 7).

Pre- and postintervention PCSE scores had adequate reliability with a Cronbach's α of 0.85 and 0.98, respectively. For the complete data set, average preintervention scores on the 12 individual PCSE Scale items ranged from 2.29 to 3.71, with 66.7% (*n* = 8) of the items averaging above 3.0 (confident to perform with minimal consultation). Postintervention, all (100%, *n* = 12) PCSE Scale item scores averaged above 3.0, ranging from 3.14 to 3.57. From pre- to postintervention, average scores increased by 3.57 points (*M* = 36.57 to *M* = 40.14), and median scores increased by 10 points (*Mdn* = 34 to *Mdn* = 44). For the condensed data set, average preintervention individual item scores ranged from 2.6 to 3.8, with 66.7% (*n* = 8) of the items averaging above 3.0. Postintervention, all (100%, *n* = 12) item scores averaged above 3, ranging from 3.4 to 4.0. From pre- to postintervention, average total scores increased by 6.4 points (*M* = 38.8 to *M* = 45.2), and median total scores increased by 4 points (*Mdn.* = 41 to *Mdn.* = 45). Appendix Y further describes the data.

Inferential Statistics

Tests of normality for the difference in PCSE scores from pre- to postintervention were performed on both data sets. Both the complete and condensed data sets' difference scores were platykurtic (-1.263, -3.011, respectively). However, the Shapiro-Wilk test confirmed normality for both data sets (*p* = .333; *p* = .087, respectively). Both data sets met all assumptions of the dependent samples *t*-test.

A dependent samples *t*-test demonstrated a clinically, but not statistically, significant increase in PCSE Scale scores from pre- (*M* = 36.57, *SD* = 5.83) to postintervention for the complete data set (*M* = 40.14, *SD* = 8.971), *t*(6) = 1.58, *p* = .164, *d* = .60, 95% CI [-0.23, 1.39]. For the condensed data set, a dependent samples *t*-test demonstrated a clinically and statistically significant increase in PCSE Scale scores from pre- (*M* = 38.8, *SD* = 4.97) to postintervention (*M* = 45.2, *SD* = 1.64), *t*(4) = 3.35, *p* = .029, *d* = 1.50, 95% CI [0.14, 2.80].

Discussion

The initial project participation rate was 47.1% (*N* = 8) and did not meet the goal of 80% participation. During implementation, 80% of participants who cared for EOL patients used the CARES Tool 80% of the time. Of the five participants who cared for EOL patients, four (80%) used the CARES Tool 100% of the time (1 – 8 EOL patients each), and one (20%) used the CARES Tool 0% of the time (2 EOL patients). For the complete data set, the PCSE Scale score average increased by 9.46% from pre- to postintervention, slightly below the goal of a 10% increase. However, for the condensed data set, the PCSE Scale score average increased by 17.86% and exceeded expectations. All participants who cared for EOL patients (100%, *n* = 5), found the CARES Tool a beneficial resource, surpassing the 85% goal. Participants used either the word *helpful* or *useful* on the postintervention survey when describing the impact of the CARES Tool on their EOL care provisions. Overall, project findings were consistent with current literature that the CARES Tool is a practical resource for enhancing nurses' PCSE (Bierle et al., 2021; Christensen, 2017; de Campos & Walsh, 2021; Neiman, 2020; Rees et al., 2020; Stacy et al., 2019).

Limitations

Demographic data were collected at the nominal and interval levels of measurement, as opposed to the highest level possible, limiting the descriptive statistics analysis. The small final sample size (*N* = 7) limited the robustness of project findings and increased the risk of a Type II error. The QI project design prevented the generalizability of findings beyond the project site and the ability to make inferences about potential confounding variables.

Project outcomes may have been skewed based on participant age and experience. RNs with over 5 years of experience, or over 35 years of age, are better prepared to care for EOL patients than younger, less experienced RNs (Aljehani et al., 2021; Mason et al., 2020; Wolf et al., 2019). Furthermore, unplanned renovations on B1 during implementation temporarily shut down multiple patient rooms, including the comfort room, and may have decreased the number of EOL patients. From 02/14/2023 – 02/21/2023, and from 03/02/2023 – 03/22/2023, none of the participants cared for any EOL patients; this impact on project outcomes is indeterminable.

Implications of Findings

Project findings support continued use of the CARES Tool on the project unit as a practical resource for assisting bedside RNs to acknowledge and heighten their PCSE. Project sustainment on B1 would require all RNs who did not participate in the project to receive a copy of the CARES Tool and be educated on its use. Newly hired RNs could be educated during new-employee orientation or as part of unit onboarding. The CARES Tool is the only material resource required; the brief, one-time education for the tool can be delivered synchronously or asynchronously. Expanding the project beyond B1 has comparable requirements.

This project has the potential to aid in addressing and rectifying the low PCSE experienced by most RNs practicing outside of the specialties of palliative care or hospice settings (Aljehani et al., 2021; Mason et al., 2020; Wolf et al., 2019). The CARES Tool serves as a scaffold; as nurses become more comfortable with the tool’s content, provisions of EOL care become standard practice. Larger scale pilot studies and longitudinal studies will be required to determine how useful the CARES Tool is at engraining evidence-based EOL care provisions into organizational culture and the effects of the CARES Tool on RN PCSE long-term and across inpatient settings.

Significance to Advanced Practice Nursing

Increasing RN PCSE improves the patient care experience, enhances institutional integrity, and decreases nurse burnout and turnover (Bierle et al., 2021; Christensen, 2017; de Campos & Walsh, 2021; DeFusco et al., 2023; J. S. Kim et al., 2020; Manning et al., 2021; Neiman, 2020; Pesut & Greig, 2017; Rees et al., 2020; Shah et al., 2021; Stacy et al., 2019). Nurse leaders should address low nursing PCSE in their organizations (Bierle et al., 2021; DeFusco et al., 2023; Pesut & Greig, 2017; Roussel et al., 2020) by developing methods for nurses to receive EOL education and resources to enhance the quality of EOL patient care (Bierle et al., 2021; DeFusco et al., 2023; Pesut & Greig, 2017; Roussel et al., 2020). The CARES Tool provides nurse leaders with a resource that is both fiscally responsible and easily implementable.

Conclusion

M-S RNs are supporting patients through EOL regularly; however, many of these RN lack formal EOL education resulting in low levels of PCSE and leading to increased rates for burnout and turnover. Nurse leaders can address this by implementing easily accessible educational interventions that promote application of knowledge into practice. Clinically significant findings from this DNP project confirmed that, for the project site, the CARES Tool is a low-cost educational intervention that nurse leaders can readily implement to effectively increase RN PCSE. Based on project outcomes, additional QI projects and further research on using the CARES Tool to enhance RN PCSE is recommended. Longitudinal studies with larger sample sizes are necessary to better understand the effectiveness of the CARES Tool and generalize findings to other settings. Research on the impact of the RN’s use of the CARES Tool on the patient and family experience is also recommended.

References

Aljehani, N. M., Mersal, N. A., & Alsharif, F. (2021). A scoping review on palliative care: Knowledge and attitude of nurses. *Open Access Journal of Biomedical Science, 3*(2), 867-872. https://doi.org/10.38125/OAJBS.000259

American Nurses Association. (2015). *Code of ethics for nurses*. American Nurses Publishing.

Arnetz, J. E., Goetz, C. M., Arnetz, B. B., & Arbl, E. (2020). Nurse reports of stressful situations during the COVID-19 pandemic: Qualitative analysis of survey responses. *International Journal of Environmental Research and Public Health, 17,* 8126-8138. https://doi.org/10.3390/ijerph17218126

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.

Baudoin, C. D., McCauley, A. J., & Davis, A. H. (2022). New graduate nurses in the intensive care setting. *Critical Care Nursing Clinics of North America, 34*(1), 91-101. https://doi.org/10.1016/j.cnc.2021.11.007

Bierle, R., Vuckovic, K. M., & Ryan, C. J. (2021). Integrating palliative care into heart failure management. *Critical Care Nurse, 41*(3), e9-e18. https://doi.org/10.4037/ccn2021877

Centers for Disease Control and Prevention. (2023). *Underlying cause of death, 2018-2021, Single race results: Deaths occurring through 2021* [Data set]. U.S. Department of Health & Human Services. Retrieved July 20, 2023, from https://wonder.cdc.gov/controller/datarequest/D158;jsessionid=F9F7D676F9A497A537A57CDDFFCA

Christensen, D. (2017). The case of the comfort care concerns. *ONS Voice, 32*(9), 26.

Dang, D., Dearholt, S. L., Bissett, K., Ascenzi, J., & Whalen, M. (2022). *Johns Hopkins evidence-based practice for nurses and healthcare professionals: Models and guidelines.* (4th ed.). Sigma Theta Tau International Honor Society of Nursing.

de Campos, A. P., & Walsh, S. (2021). Nurses' degree of comfort in caring for palliative and hospice patients: A national survey. *MedSurg Nursing, 30*(6), 365-372.

DeFusco, C., Lewis, A., & Cohn, T. (2023). Improving critical care nurses perceived self-efficacy in providing palliative care: A quasi-experimental study. *American Journal of Hospice & Palliative Medicine, 40*(2), 117-121. https://doi.org/10.1177/10499091221094313

Etkind, S. N., Bone, A. E., Gomes, B., Lovell, N., Evans, C. J., Higginson, I. J., & Murtagh, F. E. M. (2017). How many people will need palliative care in 2040? Past trends, future projects and implications for services. *BCM Medicine, 15*, 102-112. https://doi.org/10.1186/s12916-017-0860-2

Freeman, B. (2013). CARES: An acronym organized tool for the care of the dying. *Journal of Hospice and Palliative Nursing, 15*(3), 147-153. https://doi.org/ 10.1097/NJH.0b013e318287c782

Freeman, B. (2015). *Compassionate person-centered care for the dying: An evidence-based palliative care guide for nurses.* Springer.

Fristedt, S., Grynne, A., Melin-Jonansson, C., Henoch, I., Hagelin, C. L., & Browall, M. (2021). Registered nurses and undergraduate nursing students' attitudes to performing end-of-life care. *Nurse Education Today, 98,* 1-7. https://doi.org/10.1016/j.nedt.2021.104772

Graham, I. D., & Logan, J. (2004). Innovations in knowledge transfer and continuity of care. *Canadian Journal of Nursing Research, 36*(2), 89-103.

Granda-Cameron, C., & Houldin, A. (2012). Concept analysis of good death in terminally ill patients. *American Journal of Hospice & Palliative Medicine, 29*(8), 632-639. https://doi.org/10.1177/1049909111434976

Griffiths, I. (2019). What are the challenges for nurses when providing end-of-life care in intensive care units? *British Journal of Nursing, 28*(16), 1047-1052. https://doi.org/10.12968/bjon.2019.28.16.1047

Hagan, T., Xu, J., Lopez, R. P., & Bressler, T. (2018). Nursing's role in leading palliative care: A call to action. *Nurse Education Today, 61,* 216-219. https://doi.org/10.1016/j.nedt.2017.11.037

International Association for Hospice and Palliative Care. (2019). *Palliative care definition.* https://hospicecare.com/what-we-do/projects/consensus-based-definition-of-palliative-care/definition/

Kelly, L. A., Gee, P. M., & Butler, R. J. (2021). Impact of nurse burnout on organizational and position turnover. *Nurse Outlook, 69,* 96-102. https://doi.org/10.1016/j.outlook.2020.06.008

Kim, J. S., Kim, J., & Gelegjamts, D. (2020). Knowledge, attitude and self-efficacy towards palliative care among nurses in Mongolia: A cross-sectional descriptive study. *Plos One, 15*(7), 1-15. https://doi.org/10.1371/journal.pone.0236390

Kim, S., Lee, K., & Kim, S. (2020). Knowledge, attitude, confidence, and educational needs of palliative care in nurses caring for non-cancer patients: A cross-sectional, descriptive study. *BMC Palliative Care, 19*(105), 2-14. https://doi.org/10.1186/s12904-020-00581-6

Kolcaba, K. Y. (1994). A theory of holistic comfort for nursing. *Journal of Advanced Nursing, 19*, 1178-1184.

Kolcaba, K. Y. (2010). Katharine Kolcaba's comfort theory. In M. E. Parker & M. C. Smith (Eds.), *Nursing theories and nursing practice* (3rd ed., pp. 389-399). F. A. Davis Company.

Manning, J., Creel, A., & Jones, N. (2021). Effectiveness of an End-of-Life Nursing Education Consortium training on registered nurses' educational needs in providing palliative and end-of-life patient care. *Journal of Hospice & Palliative Nursing, 23*(1), 84-88. https://doi.org/10.1097.NJH.0000000000000710

Mason, H., Burgermeister, D., Harden, K., Price, D., & Roth, R. (2020). A multimodality approach to learning: Educating nursing students in palliative care. *Journal of Hospice & Palliative Nursing, 22*(1), 82-89. https://doi.org/10.1097/NJH.0000000000000619

Neiman, T. (2020). Acute care nurses' experiences of basic palliative care. *Journal of Hospice & Palliative Nursing, 22*(2), 101-107. https://doi.org/10.1097/NJH.0000000000000622

Parajuli, J., Hupcey, J. E., Kitko, L., & Birriel, B. (2021). Palliative care: Oncology nurses' confidence in provision to patients with cancer. *Clinical Journal of Oncology Nursing, 25*(4), 449-455. https://doi.org/10.1188/21.CJON.449-455

Pesut, B., & Greig, M. (2017). Resources for educating, training, and mentoring nurses and unregulated nursing care providers in palliative care: A review and expert consultation. *Journal of Palliative Medicine, 20*(S1), S50-S56. https://doi.org/10.1089/jpm.2017.0395

Phillips, J., Salamonson, Y., & Davidson, P. M. (2011). An instrument to assess nurses' and care assistants' self-efficacy to provide a palliative approach to older people in residential aged care: A validation study. *International Journal of Nursing Studies, 48,* 1096-1100. https://doi.org/10.1016/j.ijnurstu.2011.02.015

Puente-Fernandez, D., Lozano-Romero, M. M., Montoya-Juarez, R., Marti-Garcia, C., Campos-Calderon, C., & Hueso-Montero, C. (2020). Nursing professionals' attitudes, strategies, and care practices toward death: A systematic review of qualitative studies. *Journal of Nursing Scholarship*, *52*(3), 301-310. https://doi.org/10.1111/jnu.12550

Rees, J. N., Shields, E., Altounji, D., & Murray, P. (2020). An end-of-life care educational series to improve staff knowledge and comfort levels. *Journal of Hospice & Palliative Nursing, 22*(6), 523-531. https://doi.org/10.1097/NJH.0000000000000704

Rogers, M. (2020). *Five key insights on hospital palliative care programs.* Center to Advance Palliative Care. https://www.capc.org/blog/five-key-insights-hospital-palliative-care-programs/

Rosa, W. E., Dahlin, C., Battista, V., Finlayson, C. S., Wisniewski, R. E., Greer, K., & Ferrell, B. R. (2021). Primary palliative care clinical implications: Oncology nursing during the COVID-19 pandemic. *Clinical Journal of Oncology Nursing*, *25*(2), 119-125. https://doi.org/10.1188/21.CJON.119-125

Roussel, L., Thomas, P. L., & Harris, J. L. (2020). *Management and leadership for nurse administrators* (8th ed.). Jones & Bartlett Learning.

Shah, M. K., Gandrakota, N., Cimiotti, J. P., Ghose, N., Moore, M., & Ali, M. K. (2021). Prevalence of and factors associated with nurse burnout in the US. *JAMA Network Open, 4*(3). https://doi.org/10.1001/jamanetworkopen.2020.36469

Stacy, A., Magdic, K., Rosenzweig, M., Freeman, B., & Verosky, D. (2019). Improving knowledge, comfort, and confidence of nurses providing end-of-life care in the hospital setting through use of the CARES tool. *Journal of Hospice & Palliative Nursing, 21*(3), 200-206. https://doi.org/10.1097/NJH.0000000000000510

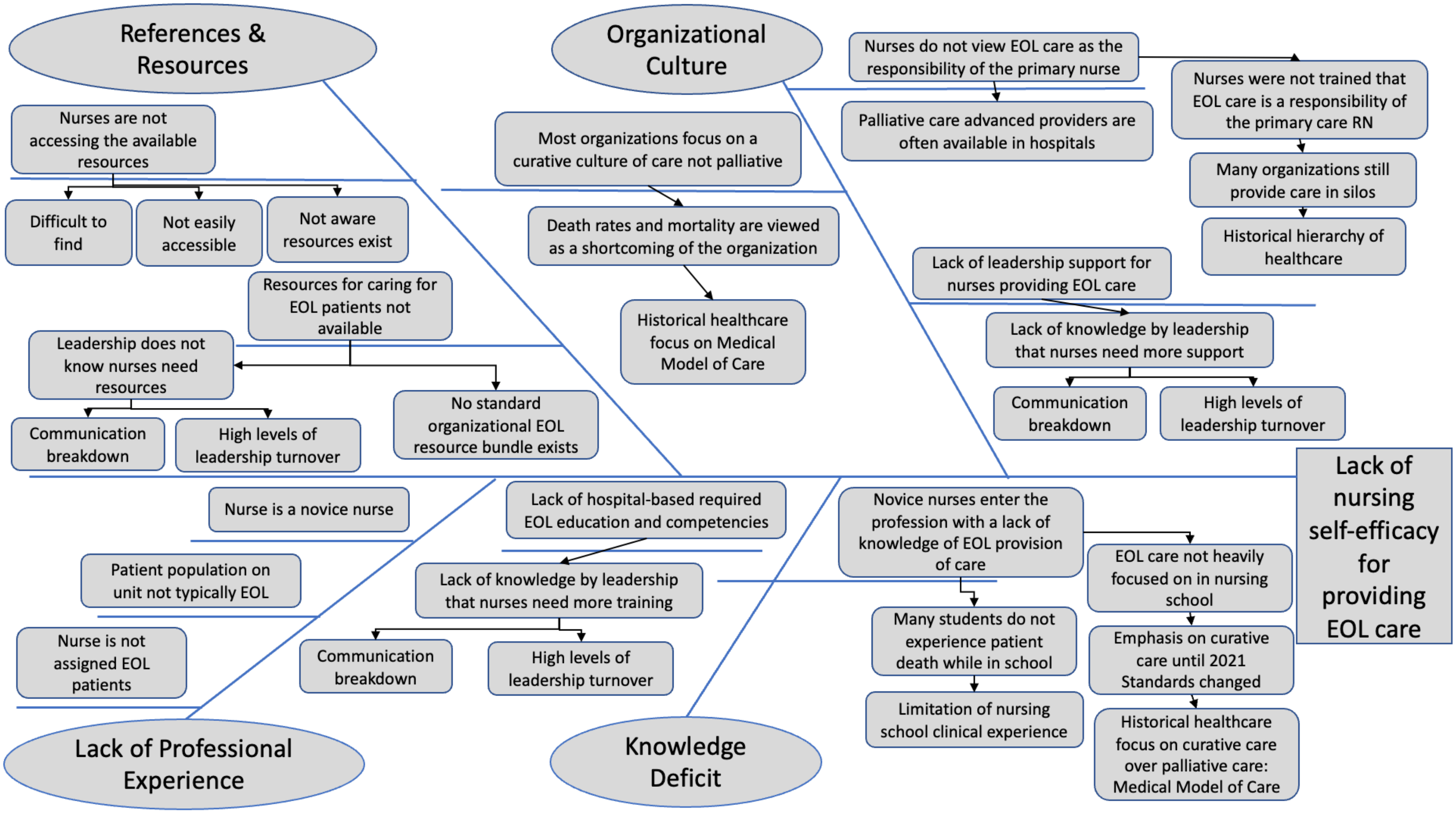
Wolf, A. T., White, K. R., Espstein, E. G., & Enfield, K. B. (2019). Palliative care and moral distress: An institutional survey of critical care nurses. *Critical Care Nurse, 39*(5), 38-49. https://doi.org/10.4037/ccn2019645

Zheng, R., Fiona, S., & Bloomer, M. J. (2018). How nurses cope with patient death: A systematic review and qualitative meta-synthesis. *Journal of Clinical Nursing, 27*(1), e39-e49. https://doi.org/10.1111/jocn.13975

Zheng, R., Guo, Q., Dong, F., & Gao, L. (2022). Death self-efficacy, attitudes toward death and burnout among oncology nurses: A multicenter cross-sectional study. *Cancer Nursing*, *45*(2), E388-E396. https://doi.org/10.1097/NCC.0000000000000839

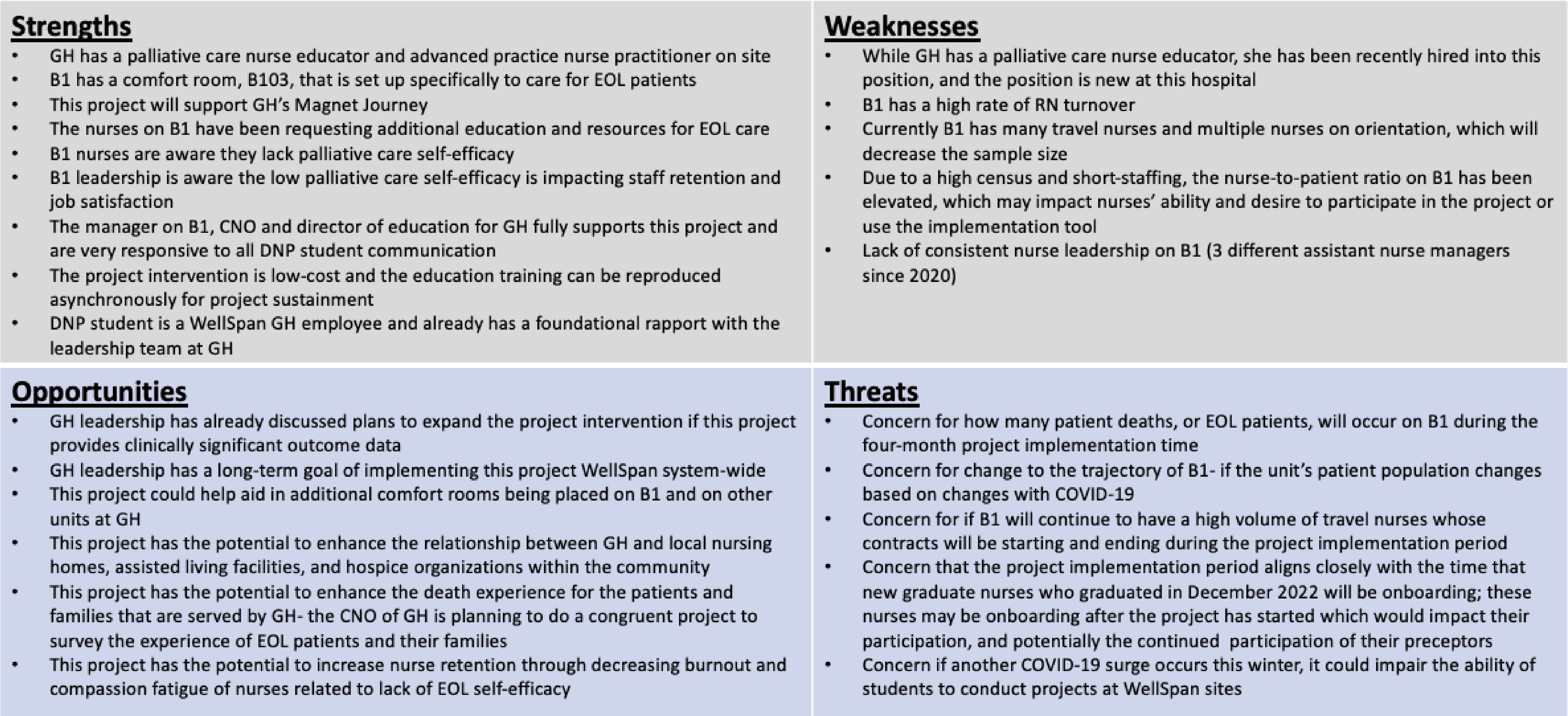
Appendix A

Root Cause Analysis: Fishbone Diagram



Appendix B

SWOT Analysis



Strengths

- GH has a palliative care nurse educator and advanced practice nurse practitioner on site
- B1 has a comfort room, B103, that is set up specifically to care for EOL patients
- This project will support GH's Magnet Journey
- The nurses on B1 have been requesting additional education and resources for EOL care
- B1 nurses are aware they lack palliative care self-efficacy
- B1 leadership is aware the low palliative care self-efficacy is impacting staff retention and job satisfaction
- The manager on B1, CNO and director of education for GH fully supports this project and are very responsive to all DNP student communication
- The project intervention is low-cost and the education training can be reproduced asynchronously for project sustainment
- DNP student is a WellSpan GH employee and already has a foundational rapport with the leadership team at GH

Weaknesses

- While GH has a palliative care nurse educator, she has been recently hired into this position, and the position is new at this hospital
- B1 has a high rate of RN turnover
- Currently B1 has many travel nurses and multiple nurses on orientation, which will decrease the sample size
- Due to a high census and short-staffing, the nurse-to-patient ratio on B1 has been elevated, which may impact nurses' ability and desire to participate in the project or use the implementation tool
- Lack of consistent nurse leadership on B1 (3 different assistant nurse managers since 2020)

Opportunities

- GH leadership has already discussed plans to expand the project intervention if this project provides clinically significant outcome data
- GH leadership has a long-term goal of implementing this project WellSpan system-wide
- This project could help aid in additional comfort rooms being placed on B1 and on other units at GH
- This project has the potential to enhance the relationship between GH and local nursing homes, assisted living facilities, and hospice organizations within the community
- This project has the potential to enhance the death experience for the patients and families that are served by GH- the CNO of GH is planning to do a congruent project to survey the experience of EOL patients and their families
- This project has the potential to increase nurse retention through decreasing burnout and compassion fatigue of nurses related to lack of EOL self-efficacy

Threats

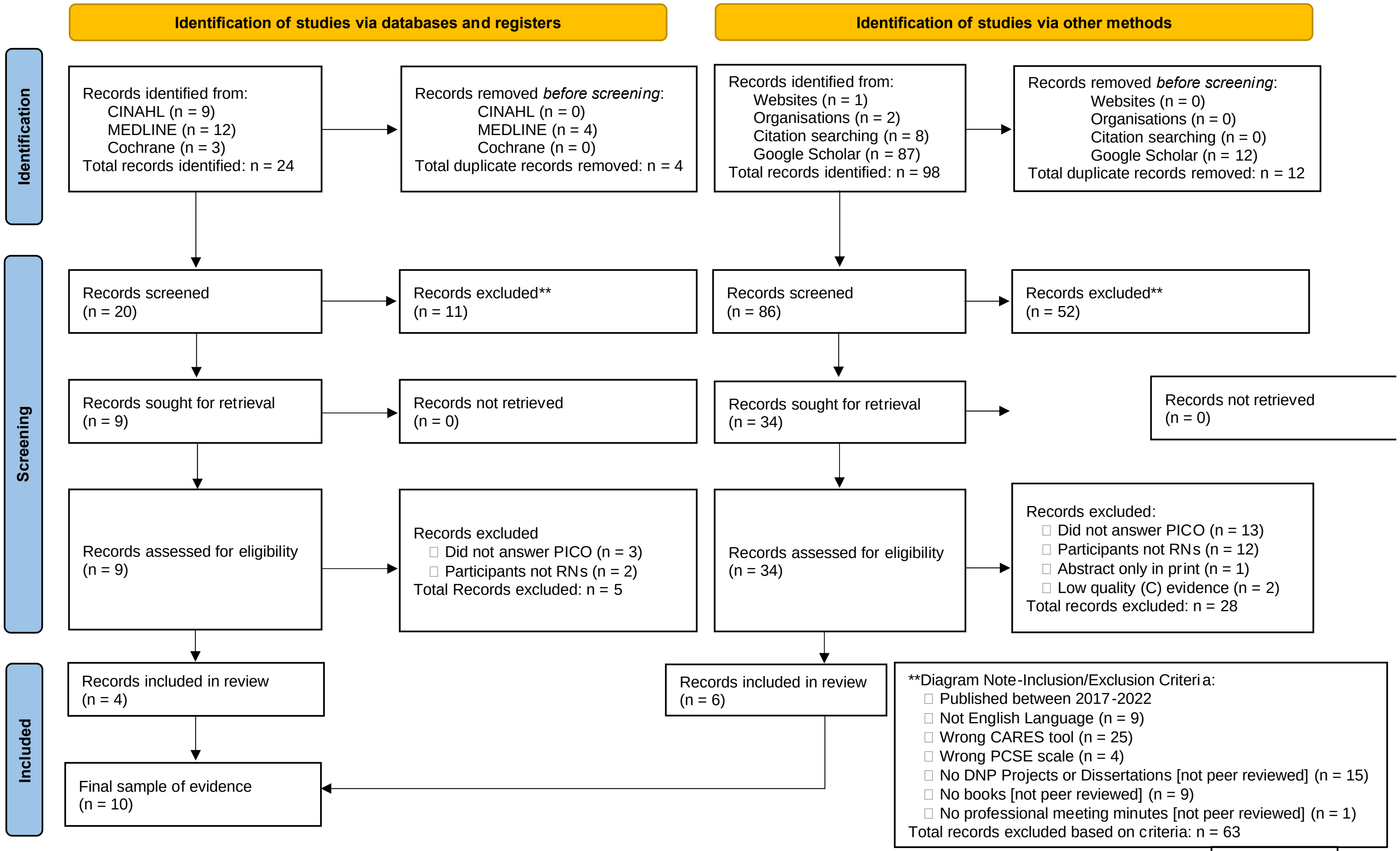
- Concern for how many patient deaths, or EOL patients, will occur on B1 during the four-month project implementation time
- Concern for change to the trajectory of B1- if the unit's patient population changes based on changes with COVID-19
- Concern for if B1 will continue to have a high volume of travel nurses whose contracts will be starting and ending during the project implementation period
- Concern that the project implementation period aligns closely with the time that new graduate nurses who graduated in December 2022 will be onboarding; these nurses may be onboarding after the project has started which would impact their participation, and potentially the continued participation of their preceptors
- Concern if another COVID-19 surge occurs this winter, it could impair the ability of students to conduct projects at WellSpan sites

Appendix C

PRISMA

Rebekkah Stanko, MSN, RN

PRISMA 2020 flow diagram for new systematic reviews which included searches of databases, registers and other sources



From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: http://www.prisma-statement.org/

Appendix D

Evidence Summary Table

PICO(T): For registered nurses in the acute care hospital setting providing care to patients at end-of-life, does implementation of the CARES Tool, compared to no tool, improve nurses’ palliative care self-efficacy?

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
1	**Author(s)** • Bierle, R. • Vuckovic, K. M. • Ryan, C. J. **Source** • Integrating palliative care into heart failure management • *Critical Care Nurse* • Google Scholar	**Evidence Type** Literature Review **Research Design** Review of principles and models of palliative care and recommendations for implementation with heart failure (HF) patients	**Purpose** • Address how to integrate models of palliative care when caring for heart failure patients • Recommendations for critical care nurses caring for palliative care patients with HF **Methods** • Review principles of palliative care • Review palliative care	**Sample Type** N/A **Size** N/A **Demographics** N/A **Setting** N/A **Intended audience** • United States healthcare systems • Critical care RNs working in the inpatient setting	Multiple interventions discussed: CARES tool; advanced directives; SUPPORT study of care planning interventions for HF patients; Advanced Care Planning Toolkit	None discussed	**Results/Findings** • CARES tool provides prompts for responding to patient symptoms and is a resource for nursing support when caring for EOL patients • CARES tool enhances RNs’ comfort in communicating with patients and families,	**Strengths** • Recommendations based on current evidence and practice from official organizations such as the World Health Organization, National Institute of Nursing Research, American College of Cardiology, The Improving Palliative Care in the	V A

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	Date 2021		models • Discuss palliative care r/t HF patients • Identify and evaluate available tools and resources	and caring for patients diagnosed with HF **Literature Reviewed** • Models of palliative care adopted by various organizations across the US			addressing patient needs, and planning for future care • Palliative care competence and confidence can help alleviate stress of caring for these patients **Recommendations** • Implementation of tools, such as the CARES tool, can improve patient outcomes, quality of life, and symptom	ICU Advisory Board, and the New York Heart Association • Guidelines sponsored by the American Association of Critical-Care Nurses (AACCN) • Generalizability: Tools suggested can be used in any palliative care setting • Credibility: all the authors are RNs and specialize in cardiac care and critical care, which means they are all experienced	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
							management • Tools, such as the CARES tool, should be used in inpatient settings to help guide decision support and plan of care	with working with EOL patients **Limitations** • Most of the recommendations came from professional organizations • Few research studies were included to support recommendations • Level of evidence was not discussed	
2	**Author(s)** Christensen, D. **Source** • The case of the comfort care	**Evidence Type** Case Report **Research Design** Single patient case study	**Purpose** Investigate how nurses can respond to the needs of the family of a patient who is actively dying	**Sample Type** Single-patient case study **Sample Size**	Use of the CARES tool: identify and address patient needs and communicat	None	**Results/Findings** • CARES tool was effective in this case study in directing the nurse to identify and	**Strengths** • Findings are supported by relevant research • Author is subject matter expert: Director of	V B

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	concerns • *ONS Voice* • CINAHL **Date** 2017		**Methods** • Single patient case study of a nurse's response to family's concern for nurse ability to care for a dying patient • Application of the CARES tool	One patient being cared for by one RN **Sample Demographics** • 63-year-old male patient with metastatic small cell lung cancer admitted to the inpatient oncology unit for severe pain • Oncology RN assigned to care for the patient	e with family		respond to EOL patient needs through application of symptom-based interventions • CARES tool offers the nurse self-care strategies to manage personal grief • CARES tool guides the nurse through educating family, increasing competence **Recommendations** • Resources such as the	Patient Services at Cancer Commons in St. George, Utah; Advanced Oncology Clinical Nurse Specialist; multiple peer reviewed publications related to EOL care **Limitations** • Limited information provided on patient or nurse demographics in case study • Findings and recommendations are brief and lack detail	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
				Sample Setting Inpatient oncology unit of an unidentified US critical care hospital			CARES tool can be used to help nurses focus on the emotional needs of the family of the dying patient • CARES tool can be used to educate family on the dying process		
3	**Author(s)** • de Campos, A. P. • Walsh, S. **Source** • Nurses' degree of comfort in caring for palliative and	**Evidence Type** Quantitative study **Research Design** Descriptive cross-sectional design	**Purpose** • Identify nurses' comfort in addressing the needs of patients in palliative care and their families • Explore gaps in comfort among nurses providing	**Sample Type** Convenience sample **Sample Size** Out of approx. 9,000 RN members, 174 participated in the	None	**Instrument(s)** • Modified version of the NACF (mNACF) • Modified with permission: adding the word comfort to each question and removing	**Results/Findings** • Years of experience in palliative care statistically significantly correlated with confidence (p=0.01) until a plateau after	**Strengths** • Researchers identified what was known and not known about the problem and discussed how gaps in knowledge will be addressed through the	III B

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	hospice patients: A national study • *MedSurg Nursing* • Google Scholar **Date** 2021		palliative care **Methods** • Literature review from CINAHL and PsychINFO for 2015-2020 • Survey link was placed on the Hospice and Palliative Nurses Association's (HPNA) website with an email sent to Association members 7 days after posting • Survey used a modified version of the Nurses' Activities in Communicating with Families	study, and 151 RNs completed the surveys. Results were based on the 151 RNs who completed the surveys (2% response rate) **Sample Demographics** Members of the HPNA with at least three months nursing experience **Sample Setting**		setting of ICU **Psychometrics/ Descriptive Details** • Original version showed instrument reliability with a Cronbach's alpha of 0.88 • No validation analysis was performed because when tool was developed, no validity measures for quality of family care existed • Questions	5 years (mean scores 72 for range 3 months to 1 year; 79 for 1-5 years; 83 for 6-11 years; 83.3 for 11-15 years; 80.4 for 16-20 years; and 82.1 for 20+ years) • New nurses without experience are the least comfortable in providing palliative care (mean score 79.1) **Recommendations** • Increased palliative care	study • Data collection methods were clearly described and displayed • Construct validity of the instrument used in the study: instrument measured what it was intended to measure, Cronbach's alpha 0.88 • Statistical validity: Factor analysis • 45/48 sources were from the past five years or seminal work • Tables that	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			(NACF) instrument - Demographic data was also collected via survey - Factor analysis determined comfort in palliative care accounted for 33.86% of variance - Association between nursing demographics and comfort were evaluated using ANOVA and Spearman's rho	West, Midwest, Southwest, Southeast, and Northeast US		were based on a Likert Scale (answers of 1-5) - Overall scores could range from 18-90	education for all RNs - CARES tool could be an effective tool to help nurses manage symptoms of patients in palliative care - Symptom management techniques, such as the CARES tool, would still be beneficial to nurses with 5 or more years of experience (no participants scored the maximum score of 90	were present in the article were consistent with the narrative provided **Limitations** - Convenience sample - While 174 RNs participated in the study, only 151 RNs completed the surveys. Data from 23 RNs (13% of participants) was not included in findings. Concern for external validity. - Sample size less than 2%	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
							on the instrument regardless of experience)	of population, and mostly highly educated Caucasian female nurses- concern for generalizability and external validity • Construct validity: while the participants ranked their competence and confidence high in some areas, observation did not always align with this self-report • Results were presented in the text,	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
								however p-values and means were not represented in a table format for non-narrative review	
4	**Author(s)** • DeFusco, C. • Lewis, A. • Cohn, T. **Source** • Improving critical care nurses perceived self-efficacy in providing palliative care: A quasi-experime	**Evidence Type** Quantitative Study **Research Design** Quasi-experimental one-group pre-test post-test design	**Purpose** Determine if an online palliative care education program would improve critical care nurses' self-efficacy in providing palliative care **Methods** • Qualtrix survey was posted on Facebook pages that focused on critical-care	**Sample Type** Convenience Sample **Sample Size** 41 RNS (response rate not identified) **Sample Demographics** All participants were self-identified critical care nurses	• Vital Talk education videos- five videos that totaled 25 minutes time covering palliative care topics • Two handouts provided by Vital Talk	**Instrument(s)** • Demographic data were collected via survey • PCSE scale: 12 questions based on a four-point Likert scale **Psychometrics/ Descriptive Details** • PCSE scale described as reliable and valid to measure	**Results/Findings** • Educational intervention resulted in statistically significant increase in self-efficacy ($p<0.001$) with a large effect size ($r=0.76$) • Improvement in self-efficacy noted for staff who self-identified as	**Strengths** • Researchers identified what was known and not known about the problem and discussed how gaps in knowledge will be addressed through the study • Data collection methods were clearly described	II A

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	ntal study - *American Journal of Hospice and Palliative Medicine* - Medline **Date** 2022		nurses - Power analysis was conducted to identify sample size needed (41 participants) - Demographic data and pre-intervention survey were completed prior to intervention - Palliative Care Self-Efficacy (PCSE) scale was used to measure baseline EOL self-efficacy - Vital Talk educational videos, five videos totaling 25 minutes time,	**Sample Setting** Facebook groups created for critical care nurses		nursing EOL self-efficacy - Content validity: 1.0 - Cronbach alpha: 0.67-0.82	having prior palliative care education, clinically significant - Handouts and physical resources are effective in increasing EOL self-efficacy - Employers have a major role in providing EOL education to fill knowledge gaps **Recommendations** - Findings support need for continued education on	- Construct validity of the instrument used in the study: described as reliable and valid instrument - Internal validity: intervention is what created the changes - Internal consistency pre-intervention was 0.908 and post intervention was 0.939, meaning the concept was captured adequately - Large effect size: the findings have	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			were administered online to participants • PCSE scale was re-administered after participants viewed videos • Data analysis was completed using SPSS version 27.0 • Descriptive statistics were collected on demographic data • Pre and post intervention medians were determined for the PCSE scale (38 and 43.5) • Wilcoxon Signed Rank				EOL care to enhance nurse self-efficacy • Employers should consider various structures and methods for providing education	practical significance • Study findings consistent with prior research • Priori power analysis determined assumptions of normality not met, so Wilcoxon Signed Ranks Test was used • Construct validity: multiple statistical tests were performed on demographic data and instrument findings to assess for percent of variance	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			Test was used to compare total pre and post PCSE scale scores (p <0.001) • Large effect size was calculated (r=0.76)					**Limitations** • Convenience sample of nurses on Facebook- findings may not be generalizable • Power analysis indicated 41 participants were required, but study only had 40 participants • No information provided on survey response-rate • Fidelity could not be assessed- no way for researchers to know if participants	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
								took post-intervention survey after watching videos • Concern for Hawthorne effect impacting post-intervention survey results	
5	**Author(s)** • Kim, J. S. • Kim, J. • Gelegjamts, D. **Source** • Knowledge, attitude and self-efficacy towards palliative care among nurses in Mongolia:	**Evidence Type** Quantitative study **Research Design** Cross-sectional descriptive study	**Purpose** Examine knowledge, attitudes, and self-efficacy toward EOL care among Mongolian oncology nurses; identify variables related to self-efficacy and predictors of self-efficacy toward EOL care	**Sample Type** Convenience Sample **Sample Size** 141 RNS (85% response rate) **Sample Demographics** All participants were	None	**Instrument(s)** • Demographic data were collected via survey • Knowledge of palliative care was evaluated using the 20-item Palliative Care Quiz for Nursing (PCQN) • Attitudes toward EOL	**Results/Findings** • Increased EOL knowledge is positively correlated with increased EOL self-efficacy (r= 0.23, p= 0.013) • EOL education should include	**Strengths** • Researchers identified what was known and not known about the problem and discussed how gaps in knowledge will be addressed through the study • Data collection	III A

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	A cross-sectional descriptive study • *Plos One* • Medline **Date** 2020		**Methods** • IRB approval obtained prior to beginning study • Translation and cross-cultural adaption process was used to translate instruments and preserve content validity and cultural sensitivity • Nurses were provided with self-administrated questionnaires for demographic data and three surveys between July	employed as oncology nurses with at least three years' experience, understood the purpose of the study, and spoke and read the Mongolian language **Sample Setting** National Cancer Center (NCC) in U city, Mongolia		care was evaluated using the 30-item Frommelt Attitudes Toward Care of the Dying (FATCOD) Form A • Self-efficacy toward palliative care was evaluated using the 12-item Palliative Care Self-Efficacy (PCSE) scale **Psychometrics/ Descriptive Details** • All three scales were identified as	strategies such as communication skills and delirium management • Educational materials should address knowledge gaps in both physiological and spiritual aspects of EOL care **Recommendations** • More efforts are needed to improve nurses' palliative care education • Employers should consider	methods were clearly described • Internal consistency of each scale discussed-reliability • Documentation of translation and cross-cultural adaption process to ensure content validity and cultural sensitivity of scaled developed in English but translated to Mongolian • Study findings consistent with prior research	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			and August, 2018 • Survey completion time was between 10-15 minutes • Data analysis was completed using SPSS version 23.0 • Descriptive statistics were calculated for demographic data • Kolmogorov-Smirnov tests, histograms, and Q-Q plots were used to check for normality in survey scores • T-tests and ANOVA were used to determine			having good internal consistency, and thus were reliable scales • The PCQN had an internal consistency of 0.78, measured using the Kuder-Richardson Formula-20 • The FATCOD Form A had a Cronbach's alpha of 0.94 • The PCSE scale had a Cronbach's alpha of 0.92 • No validity information was provided for any of	sources like ELNEC for identifying high-quality educational offerings • Educational materials should be tailored to health care systems, societal, and cultural needs	• 85% response rate of participants • Copies of all instruments used provided in the article with appropriate statistics • Detailed tables of results provided in article • Construct validity: multiple statistical tests were performed on demographic data and instrument findings to assess for percent of variance	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			how self-efficacy varied based on characteristics - Pearson's correlations were used to analyze relationships between self-efficacy and other variables - Regression analysis was used to determine predictors of self-efficacy toward EOL			the three scales		**Limitations** - Setting only included one hospital in Mongolia- concern for generalizability and external validity - Convenience sample - While the instruments were all identified as being valid, no information to support this was provided - Upon completion of the surveys, participants received a gift of a water bottle and a cup- possible incentive	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
								• Concern for social desirability bias inflating positive attitudes toward care of the dying	
6	**Author(s)** • Manning, J. • Creel, A. • Jones, N. **Source** • Effectiveness of an end-of-life nursing education consortium on registered nurses' educational needs in providing	**Evidence Type** Quantitative study **Research Design** One-group pre-test post-test design	**Purpose** Investigate the impact of EOL nursing education on RN's knowledge and confidence in providing high-quality EOL care **Methods** • Email surveys before and after educational intervention • Survey Part 1 was demographic	**Sample Type** Convenience Sample **Sample Size** 44 RNS (66.7% response rate) **Sample Demographics** All participants were enrolled in a hospital-sponsored EOL	• Evidence-based EOL education session provided by a trained speaker • Education included nine modules, which covered the topics that are included within the CARES tool	**Instrument(s)** • Demographic data were collected via survey • EPCS survey developed by Lazenby et al.: 28 item survey **Psychometrics/ Descriptive Details** • EPCS survey described as reliable and valid for use with RNs in an inpatient	**Results/Findings** • Education resulted in a statistically significant increase in knowledge and preparation for providing EOL care ($t44 = -5.50$, $p<0.0001$) • After education, nurses felt better prepared to meet the needs of	**Strengths** • Researchers identified what was known and not known about the problem and discussed how gaps in knowledge will be addressed through the study • Data collection methods were clearly described • Construct	II A

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	palliative and end-of-life patient care - *Journal of Hospice and Palliative Nursing* - Google Scholar **Date** 2021		data (7 questions) - Survey Part 2 was the End-of-Life Professional Caregiver Survey (EPCS) - Email surveys sent 1-week before intervention - Reminder for post-intervention survey sent 4 and 5 weeks post-intervention - Data analysis was completed using SAS version 9.4 and Microsoft Excel - Means and standard	professional development seminar **Sample Setting** Large Magnet hospital in the Greater New Orleans Area		hospital setting; no specific psychometrics given - EPCS survey measured: patient and family centered communication; cultural and ethical considerations; effective care delivery	EOL patients ($t_{44} = -5.50$, $p<0.0001$) **Recommendations** - Findings support need for additional education for nurses on EOL care - Nursing administration should provide nurses with most up to date education and tools to provide competent EOL care	validity of the instrument used in the study: described as reliable and valid instrument - Internal validity: intervention is what created the changes - Large effect size: the findings have practical significance - Study findings consistent with prior research - 66.7% response rate of participants - Precision of results: unpaired two	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			deviations were calculated for both pre and post surveys • Hedges's g was calculated to measure effect size (1.24- a large effect size) • Unpaired 2-sample t test was used to compare pre and post survey scores					sample t-test used with P <0.0001 • Detailed tables of results provided in article • Construct validity: multiple statistical tests were performed on demographic data and instrument findings to assess for percent of variance **Limitations** • Setting only included one hospital- concern for generalizability and external	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
								validity • Convenience sample • While the instrument was identified as valid and reliable, no statistics to support this claim were provided	
7	**Authors(s)** Neiman, T. **Source** • Acute care nurses' experiences of basic palliative care • *Journal of Hospice & Palliative Nursing*	**Evidence Type** Qualitative Study **Research Design** Descriptive Qualitative Study using focus groups and individual interviews	**Purpose** Describe and explore RNs' understandings and perceptions of basic palliative care (BPC) **Methods** • Focus group and individual interviews conducted via use of a semi-structured interview	**Sample Type** Convenience sample: recruited through employee email, flyers, social media, and word-of-mouth **Sample Size** • 34	None	**Instrument(s)** Interviewers who used semi-structured interview guide **Psychometrics/ Descriptive Details** Copy of guide provided in article Table	**Results/Findings** • Experiences with patients' families was integral component of providing competent EOL care • Explaining clearly to patient and families "doctor talk" was integral	**Strengths** • Participants had knowledge of the subject researchers were exploring: based on criteria for inclusion in study • Pilot focus group interview completed prior to study	III A

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	- Google Scholar **Date** 2020		guide - Pilot focus group interview completed prior to study to refine interview questions - Interview were audio recorded, transcribed, and analyzed	participants - 7 focus groups (n=26) - 8 individual interviews **Sample Demographics** Participants met the following criteria: worked in the acute-care setting, cared for adult patients, read/speak/ understand English **Sample Setting**			component of providing competent EOL care - Nurses lacked confidence in symptom management of the EOL patient - Nurses in this study fell short of providing BPC to the level expected by National Consensus Project (NCP) - Major Theme: Nurse ability to help families navigate chronic	to refine interview questions - Characteristics of study participants thoroughly discussed in the article sample description section - Verification used in every step of data analysis: ○ Credibility: audio recording with transcription, method triangulation (focus groups and individual interviews), data saturation	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
				RNs from 1 healthcare organization in a Midwest state with 3 acute-care hospitals			illness ○ Educating family on how to interact with dying patient and what to expect ○ Nurse as a liaison between provider and family • Major theme: Empowering families (broken down into three sub-themes) ○ Giving options: Keep family informed on what is happening	achieved, member checking, peer review ○ Dependability: method triangulation, member checking ○ Confirmability: audit trail, peer review ○ Authenticity: audio recording and transcription, thick and vivid descriptions ○ Transferability: data saturation achieved, thick and vivid description	

Article #	**Author, Publication Source, & Date (alphabetical order)**	**Evidence Type & Specific Research Design**	**Purpose & Methods**	**Sample Type, Size, Setting**	**Intervention**	**Instruments (include psychometrics)**	**Results/Findings & Recommendations for practice**	**Strengths/ Limitations**	**Evidence Level & Quality Rating**
							and what to expect ○ Being present: Acknowledge the emotional component of EOL for patients and families ○ Advocating: related to EOL decision making and pain control; supporting and carrying out the patient’s decisions **Recommendations**	s ○ Fittingness: Rich description of findings including quotes and summaries from interviews as well a sample of interview questions that were asked • Two major themes and three sub-themes were identified and discussed by the researchers • Congruency: between study findings and data; between research	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
							• CARES tool is a helpful tool to aide nurses in symptom management of EOL patients • CARES tool may assist nurses in improving their BPC practice and confidence • Implementation of CARES tool could benefit nurses, patients, and families	method and research questions, data collection methods, data interpretation methods • Study findings consistent with prior research **Limitations** • Participant homogeneity: 70% of patients from one of the 3 hospitals; 47% of participants from the same unit; all participants were experienced in providing	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
								EOL care; majority of participants were white Caucasians • Demographic data on how long nurses were working in EOL care, years of nursing experience, and education level were not collected	
8	**Author(s)** • Pesut, B. • Greig, M. **Source** • Resources for educating and mentoring nurses and unregulat	**Evidence Type** Integrative Review **Research Design** Systematic search and narrative review of primary studies and	**Purpose** • Review the resources required to ensure adequate education and mentorship for nurses and nursing care providers who care for EOL Canadians	**Sample Type** N/A **Size** N/A **Demographics** N/A **Setting** N/A **Intended audience**	Multiple interventions discussed: palliative curriculum from ELNEC, undergraduate nursing school education initiatives, standards of	None discussed	**Results/Findings** • High-quality EOL preparation involves knowledge and methods to adapt, uptake, and apply that knowledge • Knowledge	**Strengths** • Thorough review: systematic retrieval method with inclusion and exclusion criteria were discussed • Review relied heavily on research	V B

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	ed nursing care providers in palliative care: A review and expert consultation • *Journal of Palliative Medicine* • Hand Search **Date** 2017	gray literature with expert consolation to identify key Canadian resources	and their families **Methods** • Systematic retrieval of primary studies and gray literature • RN searches were limited to articles published between 2012 and 2016 • Unregistered nursing care provider searches were limited to articles published between 2006 and 2016 • Review findings were reported based on two themes:	• RNs and unregistered nursing care providers in Canada **Literature Reviewed** • 26 studies included in final review • 13 mixed-method studies • Seven quantitative studies • Five qualitative studies • One curricular evaluation	practice, competency frameworks, education curriculums		translation is essential for enhancing EOL self-efficacy and should include tangible resources or reference materials • Translation methods should be applicable across various settings • Effective translation strategies address the progression of the EOL process • Nurses need translation strategies with	reports with 25 of the 26 article being qualitative, quantitative, or mixed methods research; only one article curricular evaluation • Review well organized and separated by two themes • Review summarized evidence for clinical practice and drew appropriate conclusions regarding implementation • Credibility: both of the authors are	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			effectiveness of EOL education and EOL educational resources				practical support tools and communication structure **Recommendations** • Translational tool should address both EOL management and management of other disease processes appropriate to the setting • Employers should identify organizational barriers to educational initiatives	RNs at the University of British Columbia • Credibility: the authors used expert consultation from palliative care educational organizations **Limitations** • Level of evidence of studies reviewed was not discussed • While the studies related to RNs were within the past five years, the studies related to unregistered nursing care	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
								providers spanned 10-years - Authors did not identify any limitations of their literature review	
9	**Author(s)** - Rees, J. N. - Shields, E. - Altounji, D. - Murray, P. **Source** - An end-of-life care educational series to improve staff knowledg	**Evidence Type** Quantitative Study **Research Design** Quasi-experimental study	**Purpose** Investigate if a multi-modal EOL education series would increase nurses' self-perceived self-confidence, knowledge and comfort with providing EOL care **Methods** - Pre- and Post-intervention assessment survey - Demographic	**Sample Type** Convenience sample **Sample Size** - 66 RNs, LPNs, and nursing assistants participated in pre-survey - 34 participated in both surveys (31 were	**Intervention(s)** - 6-month long educational series - One module a month - All modules covered the topics included in the CARES tool - Last module specificall	**Instrument(s)** No previous instrument existed for pediatric nursing staff, thus a survey was developed by researchers, based on 3 established instruments: End-of-life Professional Caregivers Survey; End-of-Life Clinical Nurse Survey; End-	**Results/Findings** - 50% of participants found the CARES tool education to be the most valuable education - Education yielded statistically significant findings for confidence in the following areas ($p<0.05$):	**Strengths** - Researchers identified what was known and not known about the problem and discussed how gaps in knowledge will be addressed through the study - Data collection methods were clearly described	II B

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	e and comfort levels • *Journal of Hospice & Palliative Nursing* • Google Scholar **Date** 2020		data was collected on the pre-intervention survey • To develop survey for the study, researchers modified three established questionnaires • Qualitative data was analyzed to identify major themes of the open-ended questions • Quantitative data was analyzed using the R software environment • Chi squared tests used to compare pre	RNs) **Sample Demographics** Study duration: Sept., 2017-May, 2018 **Sample Setting** • Inpatient hematology, oncology, and bone marrow transplant units • Children's Hospital in Los Angeles, CA	y was on putting the information together through use of the CARES tool	of-Life Attitudes Survey **Psychometrics/ Descriptive Details** • End-of-life Professional Caregivers Survey had Cronbach alpha >0.70 • No reliability or validity data for End-of-Life Clinical Nurse Survey or End-of-Life Attitudes Survey • Survey developed used a Likert scale and took 10-15	communicating with families($p=0.006$); knowledge of EOL care ($p=0.003$); assessing pain ($p=0.010$); medications ($p=0.004$); positioning for comfort ($p=0.013$); communicating with patients ($p=0.004$); using resources (0.014); having resources available (0.031) **Recommendations**	• 24/28 articles included in the references were less than five years old or seminal articles validating tools • Survey response rate was 25% • Internal validity: Fisher exact tests assessed for association between characteristics and baseline comfort and knowledge, only statistical significant characteristic identified was ($P < 0.05$) was having	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			and post education surveys			minutes to complete	• Findings suggest that education and resources regarding EOL care are important even for staff with prior experience providing EOL care (open-ended question feedback found theme that respondents requested more education and support and felt this would increase their comfort with EOL care) • Multiple	attended an ELNEC course in the past • CARES tool education was taught by the author of the CARES tool • Study findings were clearly presented within the text as well as within various tables • Table content was consistent with narrative • Study findings consistent with prior research • Construct validity: multiple statistical tests	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
							strategies such as, CARES tool resource, can enhance nurse confidence in providing EOL care and result in positive impact for staff and patients	were performed on demographic data and instrument findings to assess for percent of variance **Limitations** • Because the study occurred over six months, high attrition rate. 66 participants completed the pre-intervention survey, but only 34 of those participants remained throughout the entire intervention	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
								and completed the post-intervention survey. • 32 out of the 34 respondents who completed both surveys forgot their unique identifier so pre and post-test surveys could not be linked to specific participants • Pediatric population-concern for generalizability to other populations and external validity • Instrument	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
								used was developed by researchers, so concern for validity and reliability • While the results were from 31 RNs, 3 participants were not RNs which causes concern for statistical conclusion validity of the results	
10	**Author(s)** • Stacy, A. • Magdic, K. • Rosenzweig, M. • Freeman B. • Verosky, D. **Source**	**Evidence Type** Quality Improvement Project **Research Design** Pre- and Post-test Quasi-Experimental Design	**Purpose** Improve nursing knowledge and comfort with providing EOL care via use of the CARES tool **Methods** • Pre- and post-	**Sample Type** Convenience sample **Sample Size** 9 RNs participated out of 11 RNs on unit	• Education on how to use CARES tool-individually reviewed PowerPoint with 5 question post-test • Nurses	**Instrument(s)** • Survey questions developed by the project coordinator • Interview questions developed by researchers to gain additional	**Results/Findings** • CARES tool improved nurses' confidence in providing EOL care in all areas assessed (all paired-sample t	**Strengths** • Formal QI method used for conducting the project: PDSA • Method was fully described • Outcomes measures	V B

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
	• Improving knowledge, comfort, and confidence of nurses providing end-of-life care in the hospital setting through use of the CARES tool • *Journal of Hospice & Palliative Nursing* • CINAHL **Date** 2019		implementation surveys of knowledge and confidence providing EOL care • Survey questions developed by the research coordinator • One-on-one interviews were also conducted to obtain additional qualitative data • Pre intervention surveys and education were completed prior to making copies of the CARES	**Sample Demographics** • Study duration: Sept. 2017-Jan. 2018 • The 9 nurses cared for 30 EOL patients over this time period **Sample Setting** 16-bed medical progressive unit at a western PA hospital	given copies of CARES tool and asked to independently use while providing EOL care	feedback **Psychometrics/ Descriptive Details** Questions approved by all study authors prior to use	scores <0) • Statistically significant improvement ($p<0.05$) in: knowledge of EOL care ($p=0.035$); comfort addressing pain ($p=0.002$); comfort addressing airway ($p=0.002$); comfort providing emotional support ($p=0.022$); confidence communicating with families ($p=0.008$) • Three main themes related to the	identified: survey tool discussed in detail and copy provided in Table 1 • Results fully described in the text of the article and summarized in the Figure and Tables 3 and 4 • Interpretation of findings clearly presented in the implications and recommendations section of the article • One of the researchers was the author of the CARES tool	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			tool available for all nurses to choose to use on the unit • After five months, post intervention surveys and interviews were conducted • Knowledge and comfort self-assessed using a Likert scale • Responses to interviews recorded by interviewer and reviewed by two additional authors to identify major themes • Quantitative data analyzed				use of the CARES tool were identified for qualitative data ○ Helped reinforce the information on EOL care to families ○ Guided the nurse in answering difficulty questions ○ Enhanced communication between the healthcare team and the family	• Study findings consistent with prior research • Qualitative and quantitative findings collected, analyzed, and results presented **Limitations** • Sample had above-average baseline knowledge and experience with EOL patients, may have skewed findings compared to general population	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
			using SPSS • Paired-sample t test was used to compare survey results; pre-determined confidence interval of p<0.05				**Recommendations** • CARES tool can be used to promote optimal evidence-based care to improve EOL care experiences for nurses, patients, and families • CARES tool can help mitigate unnecessary patient suffering at EOL by enhancing nurses' confidence and knowledge on this topic	• Self-developed survey tools used- survey questions developed by the research coordinator; no stakeholders were involved in developing the questions • Lack of rigor in evaluating the interviews • No cost/benefit analysis was discussed • Discussion of qualitative findings lacked thick and vivid descriptions; threat to transferability and	

Article #	Author, Publication Source, & Date (alphabetical order)	Evidence Type & Specific Research Design	Purpose & Methods	Sample Type, Size, Setting	Intervention	Instruments (include psychometrics)	Results/Findings & Recommendations for practice	Strengths/ Limitations	Evidence Level & Quality Rating
								authenticity	

*Modified from JHEBP (2022), Appendix G. Refer to page 316-318 for details

Intervention Table

Article/Author	Intervention	Outcome A:	Outcome B:	Outcome C:
de Campos & Walsh	Intervention: CARES tool Instrument: Modified Nurses' Activities in Communicating with Families (mNACF) instrument Outcome measured: Increased comfort and confidence	Years of experience in palliative care statistically significantly correlated with confidence (p=0.01) until a plateau after 5 years (mean scores 72 for range 3 months to 1 year; 79 for 1-5 years; 83 for 6-11 years; 83.3 for 11-15 years; 80.4 for 16-20 years; and 82.1 for 20+ years)	New nurses without experience are the least comfortable in providing palliative care (mean score 79.1)	
DeFusco et al.	Intervention: Educational videos and handouts	Educational intervention resulted in statistically significant increase in self-efficacy (p<0.001) with a large effect size (r=0.76).	Improvement in self-efficacy noted for staff who self-identified as having prior palliative care education, clinically significant	Employers have a major role in providing EOL education to fill knowledge gaps

	Instrument: Palliative Care Self-Efficacy (PCSE) scale Outcome measured: EOL self-efficacy	Specificity, handouts and physical resources are effective in increasing EOL self-efficacy		
Manning et al.	Intervention: Educational Session including education on the components of the CARES tool Instrument: End-of-Life Professional Caregiver Survey (EPCS) Outcome measured: Increased knowledge and competence	Education resulted in a statistically significant increase in knowledge and preparation for providing EOL care (t44 = -5.50, p<0.0001)	After education, nurses felt better prepared to meet the needs of EOL patients (t44 = -5.50, p<0.0001)	
Rees et al.	Intervention: 6-month educational series with last module focused on putting all the components together through use of the CARES tool Instruments: End-of-Life Professional Caregiver Survey (EPCS); End-of-Life Clinical Nurse Survey;	Multiple strategies such as, CARES tool resource, enhance nurse confidence in providing EOL care and result in positive impact for staff and patients	Education yielded statistically significant findings for confidence in the following areas (p<0.05): communicating with families(p=0.006); knowledge of EOL care (p=0.003); assessing pain (p=0.010); medications (p=0.004); positioning for comfort (p=0.013); communicating with patients (p=0.004); using resources	Findings suggest that education and resources regarding EOL care are important even for staff with prior experience providing EOL care (open-ended question feedback found theme that respondents requested more education and support and felt this would increase their comfort with EOL care)

	End-of-Life Attitudes Survey Outcome measured: Increased competence, confidence, and knowledge		(0.014); having resources available (0.031)	
Stacy et al.	Intervention: CARES tool Instrument: Survey questions developed by coordinator Outcome measured: Increased confidence, knowledge and comfort	CARES tool improved nurses’ confidence in providing EOL care in all areas assessed (all paired-sample t scores <0) with statistically significant improvement ($p<0.05$) in: knowledge of EOL care ($p=0.035$); comfort addressing pain ($p=0.002$); comfort addressing airway ($p=0.002$); comfort providing emotional support ($p=0.022$); confidence communicating with families ($p=0.008$)	CARES tool can be used to promote optimal evidence-based care to improve EOL care experiences for nurses, patients, and families	CARES tool can help mitigate unnecessary patient suffering at EOL by enhancing nurses’ confidence and knowledge on this topic

Appendix E

Evidence Intervention Table

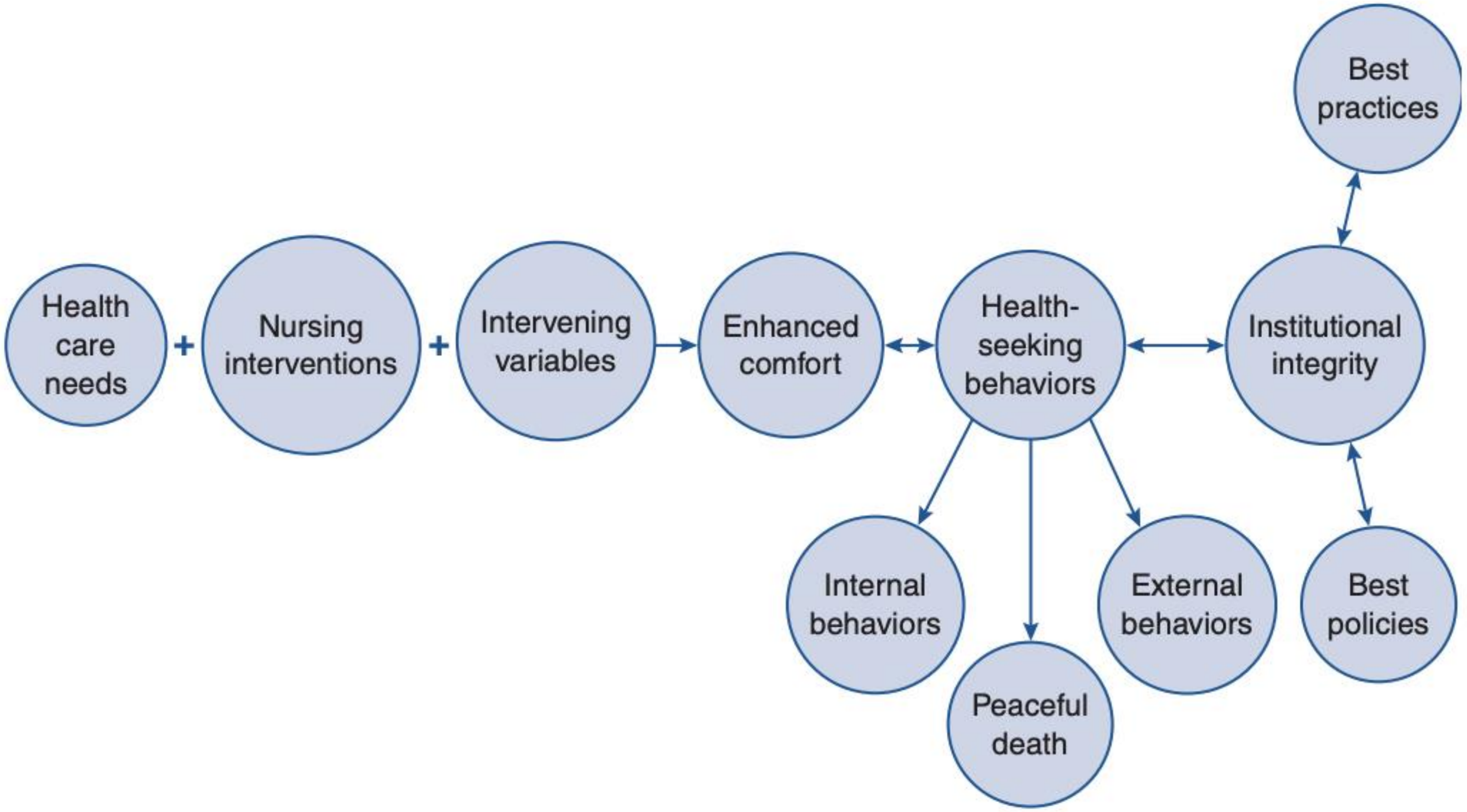
Article/Author	Intervention	Outcome A:	Outcome B:	Outcome C:
de Campos & Walsh	Intervention: CARES tool Instrument: Modified Nurses' Activities in Communicating with Families (mNACF) instrument Outcome measured: Increased comfort and confidence	Years of experience in palliative care statistically significantly correlated with confidence (p=0.01) until a plateau after 5 years (mean scores 72 for range 3 months to 1 year; 79 for 1-5 years; 83 for 6-11 years; 83.3 for 11-15 years; 80.4 for 16-20 years; and 82.1 for 20+ years)	New nurses without experience are the least comfortable in providing palliative care (mean score 79.1)	
DeFusco et al.	Intervention: Educational videos and handouts Instrument: Palliative Care Self-Efficacy (PCSE) scale Outcome measured: EOL self-efficacy	Educational intervention resulted in statistically significant increase in self-efficacy (p<0.001) with a large effect size (r=0.76). Specificity, handouts and physical resources are effective in increasing EOL self-efficacy	Improvement in self-efficacy noted for staff who self-identified as having prior palliative care education, clinically significant	Employers have a major role in providing EOL education to fill knowledge gaps
Manning et al.	Intervention: Educational Session	Education resulted in a statistically significant	After education, nurses felt better prepared to meet the	

	including training on the components of the CARES tool Instrument: End-of-Life Professional Caregiver Survey (EPCS) Outcome measured: Increased knowledge and competence	increase in knowledge and preparation for providing EOL care (t44 = -5.50, p<0.0001)	needs of EOL patients (t44 = -5.50, p<0.0001)	
Rees et al.	Intervention: 6-month educational series with last module focused on putting all the components together through use of the CARES tool Instruments: End-of-Life Professional Caregiver Survey (EPCS); End-of-Life Clinical Nurse Survey; End-of-Life Attitudes Survey Outcome measured: Increased competence, confidence, and knowledge	Multiple strategies such as, CARES tool resource, enhance nurse confidence in providing EOL care and result in positive impact for staff and patients	Education yielded statistically significant findings for confidence in the following areas (p<0.05): communicating with families(p=0.006); knowledge of EOL care (p=0.003); assessing pain (p=0.010); medications (p=0.004); positioning for comfort (p=0.013); communicating with patients (p=0.004); using resources (0.014); having resources available (0.031)	Findings suggest that education and resources regarding EOL care are important even for staff with prior experience providing EOL care (open-ended question feedback found theme that respondents requested more education and support and felt this would increase their comfort with EOL care)

Stacy et al.	Intervention: CARES tool Instrument: Survey questions developed by coordinator Outcome measured: Increased confidence, knowledge and comfort	CARES tool improved nurses' confidence in providing EOL care in all areas assessed (all paired-sample t scores <0) with statistically significant improvement (p<0.05) in: knowledge of EOL care (p=0.035); comfort addressing pain (p=0.002); comfort addressing airway (p=0.002); comfort providing emotional support (p=0.022); confidence communicating with families (p=0.008)	CARES tool can be used to promote optimal evidence-based care to improve EOL care experiences for nurses, patients, and families	CARES tool can help mitigate unnecessary patient suffering at EOL by enhancing nurses' confidence and knowledge on this topic

Appendix F

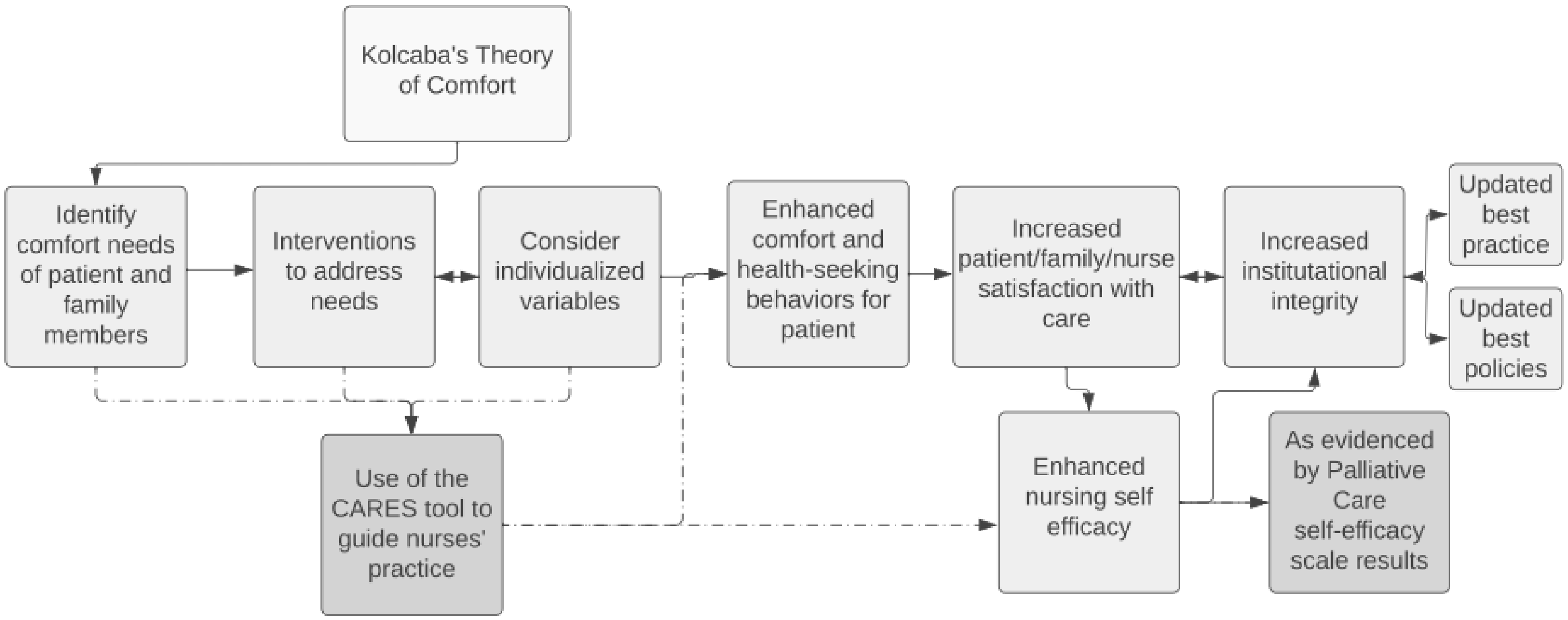
Kolcaba's Theory of Comfort Schematic



From " Katharine Kolcaba's Comfort Theory," by K. Kolcaba, in M. E. Parker & M. C. Smith (Eds.), *Nursing theories and nursing practice* (3rd ed., pp. 389-399), 2010, Copyright 2010 by F. A. Davis Company.

Appendix G

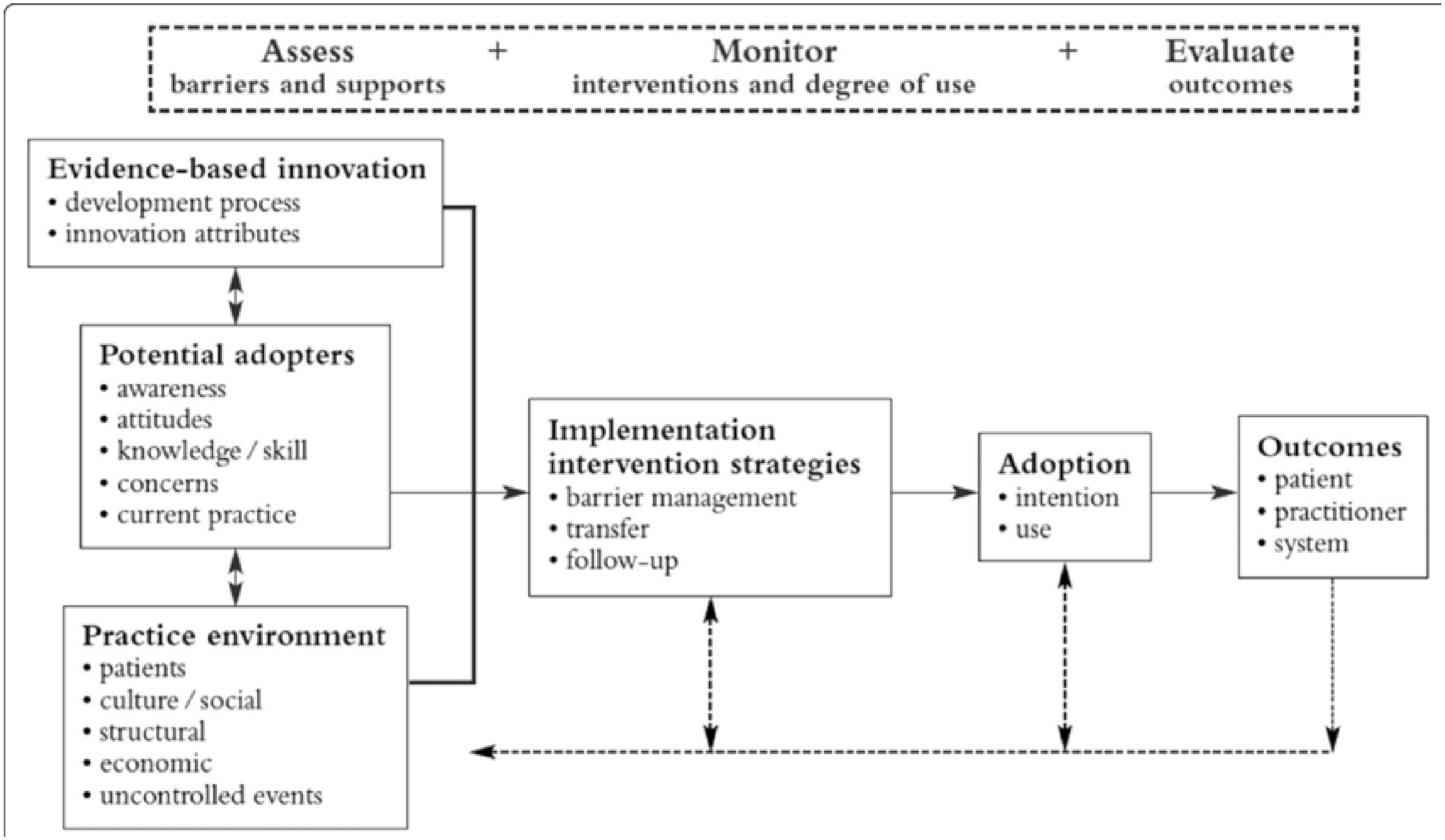
Kolcaba's Theory of Comfort Application Schematic



Adapted from "Katharine Kolcaba's Comfort Theory," by K. Kolcaba, in M. E. Parker & M. C. Smith (Eds.), *Nursing theories and nursing practice* (3rd ed., pp. 389-399), 2010, Copyright 2010 by F. A. Davis Company.

Appendix H

Ottawa Model of Research Use



From "Innovations in knowledge transfer and continuity of care," by I. D. Graham and J. Logan, 2004, *Canadian Journal of Nursing Research, 36*(2), p. 94. Copyright 2004 by the Canadian Journal of Nursing Research.

Appendix I

Information Script

Hello, my name is Rebekkah Stanko, and I am a DNP student at Messiah University. I have been approved by leadership at Gettysburg Hospital and the Institutional Review Board at Messiah University to conduct a DNP project on your unit related to increasing RN palliative care self-efficacy, or your confidence, comfort, and knowledge in providing end-of-life care, through use of an educational intervention called the CARES tool.

I have identified that your unit has seen an increase in end-of-life patient volume, and I have been made aware that some of the nurses have asked for additional training and tools to help assist them in providing high quality end-of-life care. The CARES tool is an evidence-based reference resource that has effectively enhanced nurses' palliative care self-efficacy by increasing nurse confidence in EOL symptom management through providing easily accessible prompts for symptom-based interventions. This tool fits conveniently in your scrub pocket and is similar in shape and size to ACLS and PALS algorithm tools. The CARES tool is organized using the acronym CARES: **C**omfort, **A**irway, **R**estlessness and delirium, **E**motional support, and **S**elf-care.

For this project, I am looking for RNs who work on B1, regardless of full-time status, who would be interested in trialing use of the CARES tool for a three-month period from late January through late April, 2023. Interested qualified nurses would be required to attend one of three half-hour paid training sessions. At the session, you will complete a brief demographics survey, a preintervention survey to access your current palliative care self-efficacy level, and then sit through a short training on the project. After training, you will be required to complete a brief post training quiz to demonstrate understanding of the project. Upon successful completion of the quiz, you will be provided with a copy of the CARES tool to use when providing care to end-of-life patients. Sitting through training does not require you to participate in the project. If, after learning more about the project, you decide you do not want to participate, you may excuse yourself at any time.

During the implementation period, I ask that each day you work, at the end of your shift, you complete the tracking log that will be kept by the time clock. This log is very simply to complete and will take you less than two minutes. To complete the log, you will simply write down your unique identifier, the last four digits of your badge number, and then check the appropriate boxes to answer the following questions: did you provide care for an end-of-life patient during your shift, and did you use the CARES tool when providing care. There will also be a column to add any additional information you want to tell me.

During the first two weeks of May, I will distribute postintervention surveys to re assess your palliative care self-efficacy. You will complete the same survey you completed preintervention as well as answer two short answer questions to provide additional information on the usefulness of the CARES tool.

There is no obligation to participate in this project, you will be identified only through use of the last four digits of your badge number, and I will not notify your leadership team of who chooses to participate and who does not. You have the right to withdrawal your participation at any time. If you withdrawal from the project, no data from you will be used. Does anyone have any questions?

Appendix J

CARES Tool Project Log

Directions: At the end of your shift, please complete the log. Use the last four digits of your BADGE/ATK# found on the bottom right of the back of your badge as your personal ID. Use the notes section to add any information you want to relay to the project leader. Thank you for your participation!

Questions: You can contact the project leader, Rebekkah Stanko, at RStanko@messiah.edu

Date	Personal ID	Did you care an EOL patient?		Did you use the CARES tool?		Notes
		Yes	No	Yes	No	
10/01/2022	8626	x		X		Communication section very helpful

Appendix K

Demographics Survey

Badge #: __________________

Demographics Survey

Please answer the questions below. All information will be kept confidential. The only identifier will be your badge ID number.

1. What is your age in years?
    A. 20 years or younger
    B. 21 – 25 years
    C. 26 – 30 years
    D. 31 – 35 years
    E. 36 years or older

2. What is your gender?
    A. Male
    B. Female
    C. Non-Binary
    D. Prefer not to answer

3. What is your highest level of nursing education?
    A. Associates in nursing
    B. Bachelors in nursing
    C. Masters in nursing
    D. Doctorate of nursing practice
    E. PhD in nursing

4. Do you have any degrees in a field other than nursing?
    A. No
    B. Yes - Degree: ________________________

5. How many years of nursing experience do you currently have?
    A. Less than 6 months
    B. 6 months – less than 1 year
    C. 1 year – less than 3 years
    D. 3 years – less than 5 years
    E. 5 years – less than 10 years
    F. 10 years – less than 15 years
    G. 15 years or more

6. How many years of nursing experience on B1 do you currently have?
    A. Less than 6 months
    B. 6 months – less than 1 year
    C. 1 year – less than 3 years
    D. 3 years – less than 5 years
    E. 5 years – less than 10 years
    F. 10 years – less than 15 years
    G. 15 years or more

7. Have you ever received previous end of life training?
    A. Yes
        i. How long ago: __________________
        ii. What type of training: __________________
    B. No

8. How long has it been since you last cared for and end-of-life patient?
    A. Less than 1 month ago
    B. 1 month ago – less than 3 months ago
    C. 3 months ago – less than 6 months ago
    D. 6 months ago – less than 1 year ago
    E. 1 year ago or longer
    F. I have never cared for an end-of-life patient
    G. I don't recall the last time I cared for an end-of-life patient

Survey developed by Rebekkah Stanko, MSN, RN
10-15-2022
Do not reproduce without permission

Appendix L

Palliative Care Self-Efficacy Scale

Badge Number: _______________

Palliative Care Self-Efficacy (PCSE) Scale Survey

Palliative care confidence
Please rate your degree of confidence with the following patient / family interactions and patient management topics, by checking the relevant box below

1 = Need further basic instruction	2 = Confident to perform with close supervision / coaching
3 = Confident to perform with minimal consultation	4 = Confident to perform independently

	Patient/family interactions and clinical management	**1**	**2**	**3**	**4**
1	Answering patients' questions about the dying process				
2	Supporting the patient or family member when they become upset				
3	Informing people of the support services available				
4	Discussing different environmental options (eg hospital, home, family)				
5	Discussing patient's wishes for after their death				
6	Answering queries about the effects of certain medications				
7	Reacting to reports of pain from the patient				
8	Reacting to and coping with terminal delirium				
9	Reacting to and coping with terminal dyspnea (breathlessness)				
10	Reacting to and coping with nausea / vomiting				
11	Reacting to and coping with reports of constipation				
12	Reacting to and coping with limited patient decision-making capacity				

Adapted from "An Instrument to Assess Nurses' and Care Assistants' Self-Efficacy to Provide a Palliative Approach to Older People in Residential Aged Care: A Validation Study," by J. Phillips, Y. Salamonson, and P. M. Davidson, 2011, *International Journal of Nursing Studies*, *48*, p.1100 (https://doi.org/10.1016/j.ijnurstu.2011.02.015). Copyright 2011 by Elsevier. Reprinted with permission.

Appendix M

Open Response Questions

Badge #: ___________________

Open Response Questions

Please answer the questions below. Be as honest as possible. All responses will be kept confidential. Your answers will help to improve the use of this tool in the future.

What are your thoughts regarding using the CARES tool?

What barriers to using the tool did you experience?

Survey developed by Rebekkah Stanko, MSN, RN
10-15-2022
Do not reproduce without permission

Appendix N

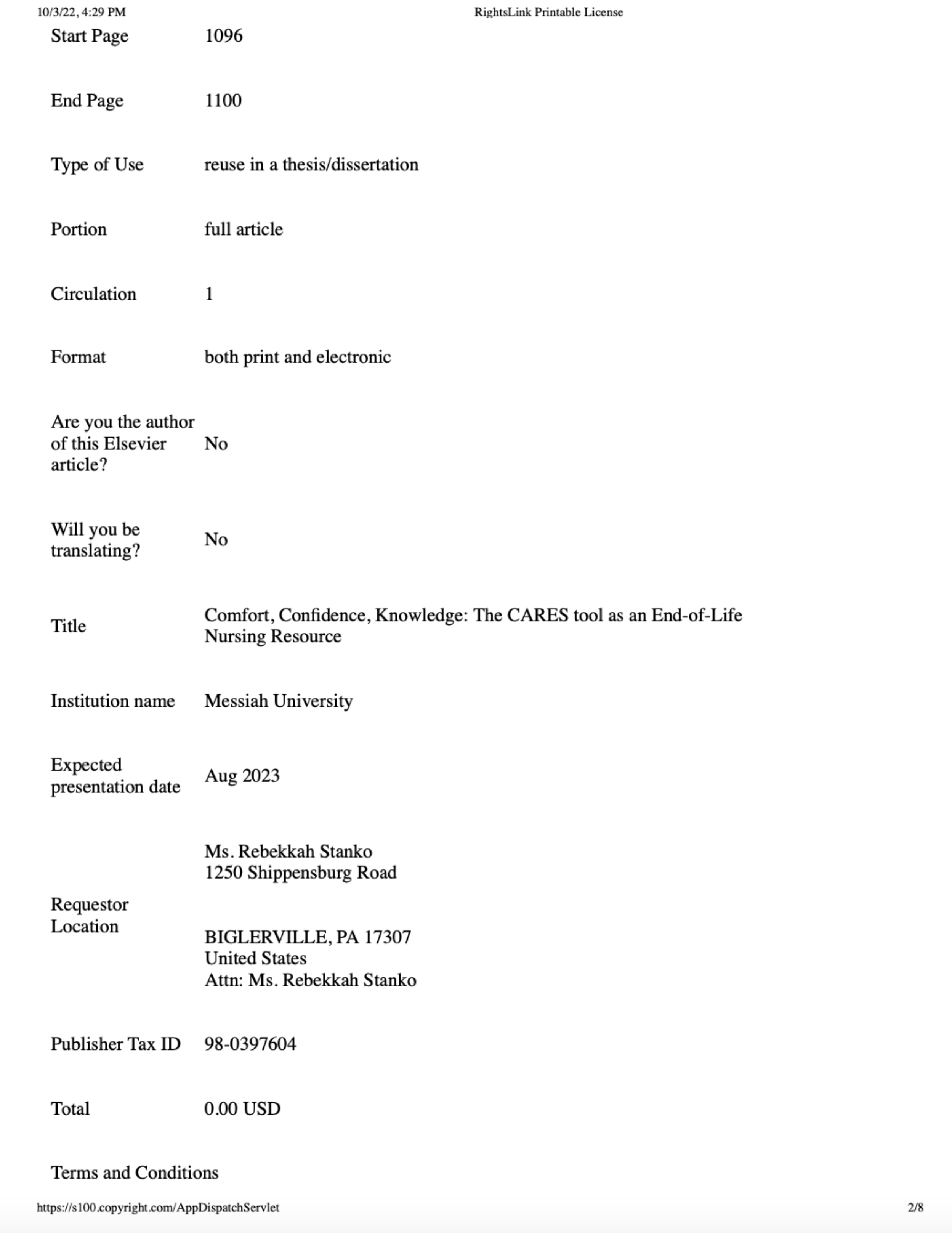
PCSE Scale Permission Letter

ΕΛΣΕςΙΕΡ ΛΙΧΕΝΣΕ
ΤΕΡΜΣ ΑΝΔ ΧΟΝΔΙΤΙΟΝΣ

Οχτ 03, 2022

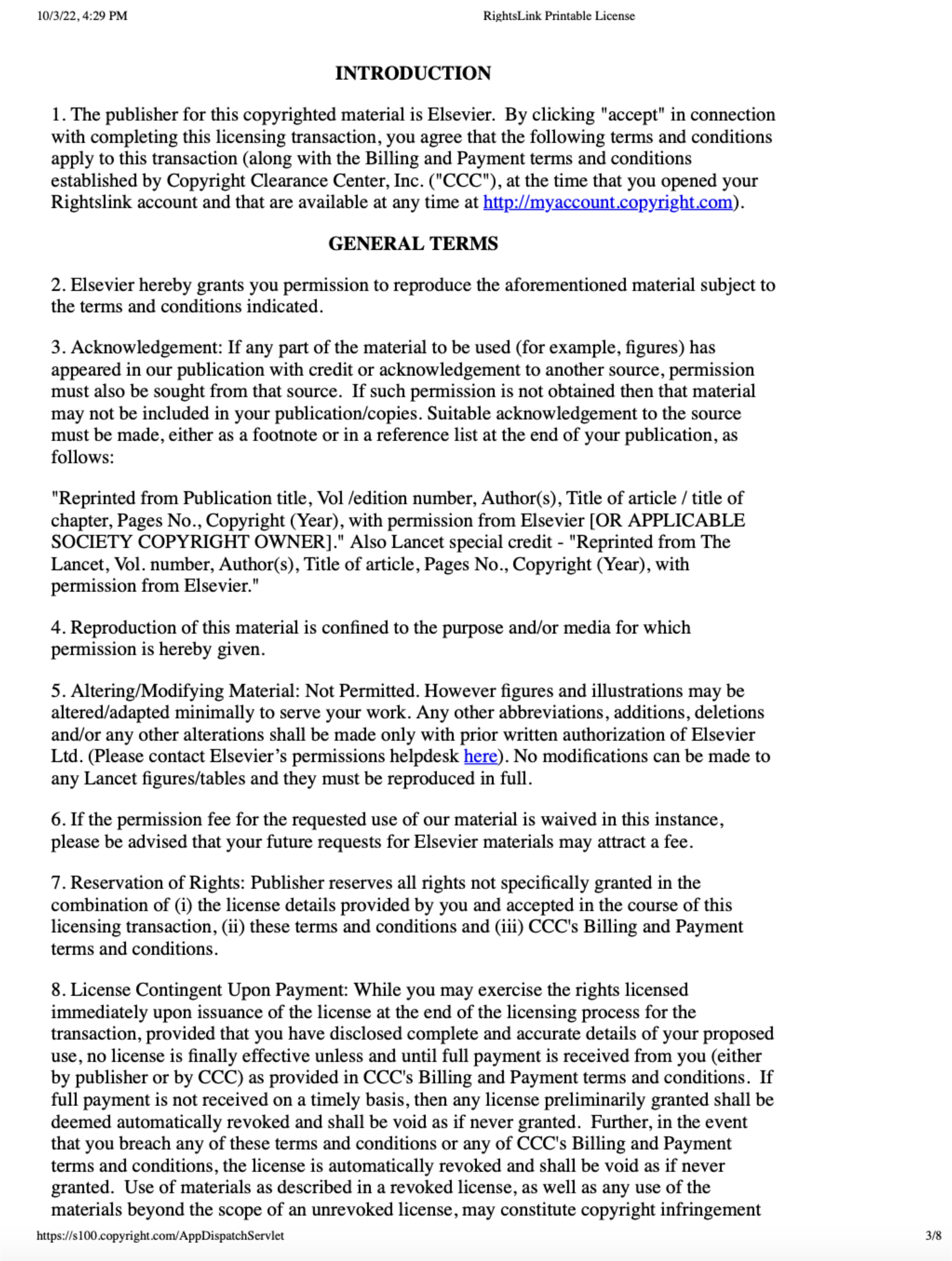
Τηισ Αγρεεμεντ βετωεεν Μσ. Ρεβεκκαη Στανκο (∀Ψου∀) ανδ Ελσεϖιερ (∀Ελσεϖιερ∀) χονσιστσ οφ ψουρ λιχενσε δεταιλσ ανδ τηε τερμσ ανδ χονδιτιονσ προϖιδεδ βψ Ελσεϖιερ ανδ Χοπψριγητ Χλεαρανχε Χεντερ.

Λιχενσε Νυμβερ	5401530758505
Λιχενσε δατε	Οχτ 03, 2022
Λιχενσεδ Χοντεντ Πυβλισηερ	Ελσεϖιερ
Λιχενσεδ Χοντεντ Πυβλιχατιον	Ιντερνατιοναλ ϑουρναλ οφ Νυρσινγ Στυδιεσ
Λιχενσεδ Χοντεντ Τιτλε	Αν ινστρυμεντ το ασσεσσ νυρσεσ□ ανδ χαρε ασσισταντσ□ σελφ-εφφιχαχψ το προϖιδε α παλλιατιϖε αππροαχη το ολδερ πεοπλε ιν ρεσιδεντιαλ αγεδ χαρε: Α ϖαλιδατιον στυδψ
Λιχενσεδ Χοντεντ Αυτηορ	ϑανε Πηιλλιπσ,Ψεννα Σαλαμονσον,Πατριχια Μ. Δαϖιδσον
Λιχενσεδ Χοντεντ Δατε	Σεπ 1, 2011
Λιχενσεδ Χοντεντ ςολυμε	48
Λιχενσεδ Χοντεντ Ισσυε	9
Λιχενσεδ Χοντεντ Παγεσ	5



Start Page	1096
End Page	1100
Type of Use	reuse in a thesis/dissertation
Portion	full article
Circulation	1
Format	both print and electronic
Are you the author of this Elsevier article?	No
Will you be translating?	No
Title	Comfort, Confidence, Knowledge: The CARES tool as an End-of-Life Nursing Resource
Institution name	Messiah University
Expected presentation date	Aug 2023
Requestor Location	Ms. Rebekkah Stanko 1250 Shippensburg Road BIGLERVILLE, PA 17307 United States Attn: Ms. Rebekkah Stanko
Publisher Tax ID	98-0397604
Total	0.00 USD

Terms and Conditions



INTRODUCTION

1. The publisher for this copyrighted material is Elsevier. By clicking "accept" in connection with completing this licensing transaction, you agree that the following terms and conditions apply to this transaction (along with the Billing and Payment terms and conditions established by Copyright Clearance Center, Inc. ("CCC"), at the time that you opened your Rightslink account and that are available at any time at http://myaccount.copyright.com).

GENERAL TERMS

2. Elsevier hereby grants you permission to reproduce the aforementioned material subject to the terms and conditions indicated.

3. Acknowledgement: If any part of the material to be used (for example, figures) has appeared in our publication with credit or acknowledgement to another source, permission must also be sought from that source. If such permission is not obtained then that material may not be included in your publication/copies. Suitable acknowledgement to the source must be made, either as a footnote or in a reference list at the end of your publication, as follows:

"Reprinted from Publication title, Vol /edition number, Author(s), Title of article / title of chapter, Pages No., Copyright (Year), with permission from Elsevier [OR APPLICABLE SOCIETY COPYRIGHT OWNER]." Also Lancet special credit - "Reprinted from The Lancet, Vol. number, Author(s), Title of article, Pages No., Copyright (Year), with permission from Elsevier."

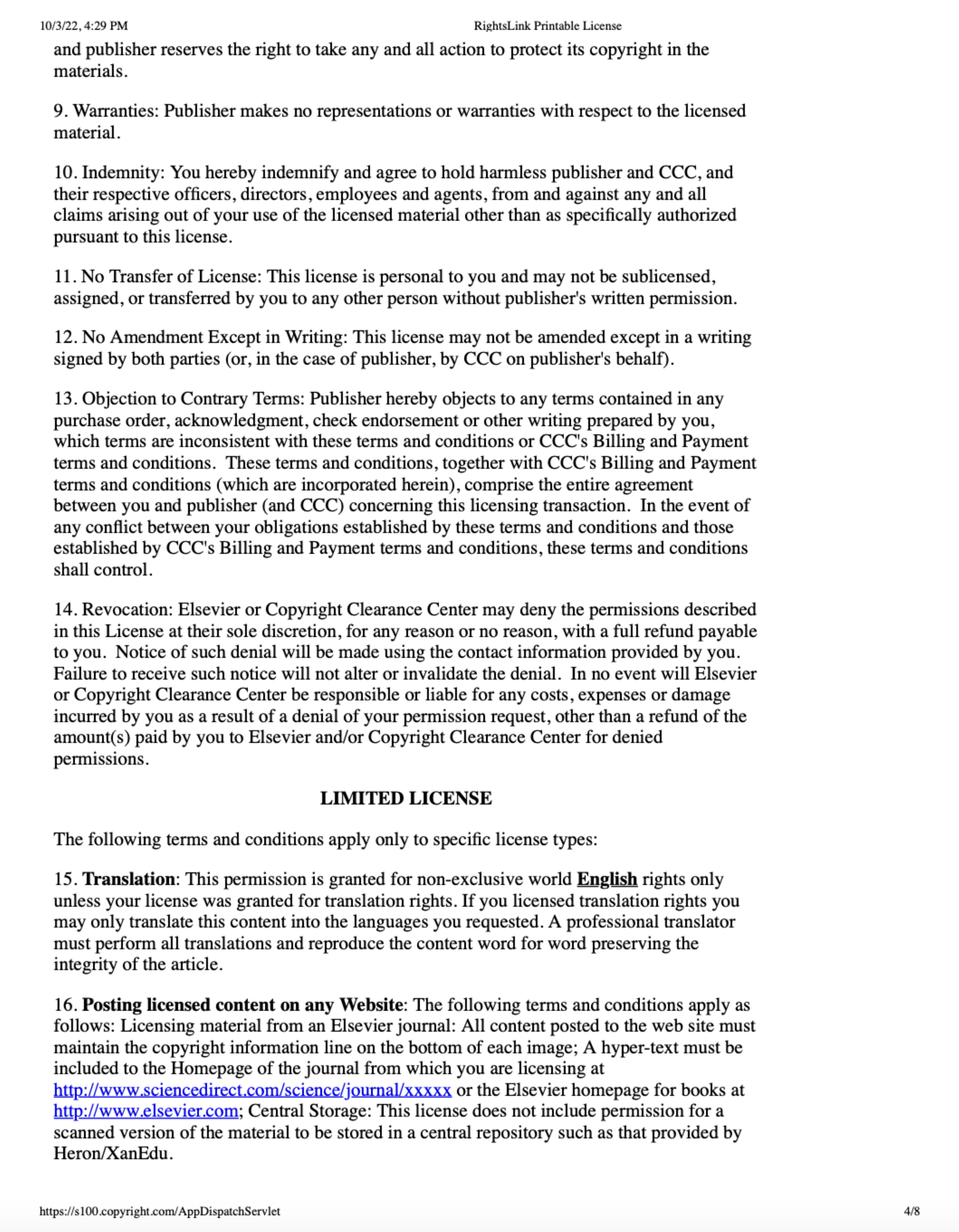
4. Reproduction of this material is confined to the purpose and/or media for which permission is hereby given.

5. Altering/Modifying Material: Not Permitted. However figures and illustrations may be altered/adapted minimally to serve your work. Any other abbreviations, additions, deletions and/or any other alterations shall be made only with prior written authorization of Elsevier Ltd. (Please contact Elsevier's permissions helpdesk here). No modifications can be made to any Lancet figures/tables and they must be reproduced in full.

6. If the permission fee for the requested use of our material is waived in this instance, please be advised that your future requests for Elsevier materials may attract a fee.

7. Reservation of Rights: Publisher reserves all rights not specifically granted in the combination of (i) the license details provided by you and accepted in the course of this licensing transaction, (ii) these terms and conditions and (iii) CCC's Billing and Payment terms and conditions.

8. License Contingent Upon Payment: While you may exercise the rights licensed immediately upon issuance of the license at the end of the licensing process for the transaction, provided that you have disclosed complete and accurate details of your proposed use, no license is finally effective unless and until full payment is received from you (either by publisher or by CCC) as provided in CCC's Billing and Payment terms and conditions. If full payment is not received on a timely basis, then any license preliminarily granted shall be deemed automatically revoked and shall be void as if never granted. Further, in the event that you breach any of these terms and conditions or any of CCC's Billing and Payment terms and conditions, the license is automatically revoked and shall be void as if never granted. Use of materials as described in a revoked license, as well as any use of the materials beyond the scope of an unrevoked license, may constitute copyright infringement



and publisher reserves the right to take any and all action to protect its copyright in the materials.

9. Warranties: Publisher makes no representations or warranties with respect to the licensed material.

10. Indemnity: You hereby indemnify and agree to hold harmless publisher and CCC, and their respective officers, directors, employees and agents, from and against any and all claims arising out of your use of the licensed material other than as specifically authorized pursuant to this license.

11. No Transfer of License: This license is personal to you and may not be sublicensed, assigned, or transferred by you to any other person without publisher's written permission.

12. No Amendment Except in Writing: This license may not be amended except in a writing signed by both parties (or, in the case of publisher, by CCC on publisher's behalf).

13. Objection to Contrary Terms: Publisher hereby objects to any terms contained in any purchase order, acknowledgment, check endorsement or other writing prepared by you, which terms are inconsistent with these terms and conditions or CCC's Billing and Payment terms and conditions. These terms and conditions, together with CCC's Billing and Payment terms and conditions (which are incorporated herein), comprise the entire agreement between you and publisher (and CCC) concerning this licensing transaction. In the event of any conflict between your obligations established by these terms and conditions and those established by CCC's Billing and Payment terms and conditions, these terms and conditions shall control.

14. Revocation: Elsevier or Copyright Clearance Center may deny the permissions described in this License at their sole discretion, for any reason or no reason, with a full refund payable to you. Notice of such denial will be made using the contact information provided by you. Failure to receive such notice will not alter or invalidate the denial. In no event will Elsevier or Copyright Clearance Center be responsible or liable for any costs, expenses or damage incurred by you as a result of a denial of your permission request, other than a refund of the amount(s) paid by you to Elsevier and/or Copyright Clearance Center for denied permissions.

LIMITED LICENSE

The following terms and conditions apply only to specific license types:

15. **Translation**: This permission is granted for non-exclusive world **English** rights only unless your license was granted for translation rights. If you licensed translation rights you may only translate this content into the languages you requested. A professional translator must perform all translations and reproduce the content word for word preserving the integrity of the article.

16. **Posting licensed content on any Website**: The following terms and conditions apply as follows: Licensing material from an Elsevier journal: All content posted to the web site must maintain the copyright information line on the bottom of each image; A hyper-text must be included to the Homepage of the journal from which you are licensing at http://www.sciencedirect.com/science/journal/xxxxx or the Elsevier homepage for books at http://www.elsevier.com; Central Storage: This license does not include permission for a scanned version of the material to be stored in a central repository such as that provided by Heron/XanEdu.

Licensing material from an Elsevier book: A hyper-text link must be included to the Elsevier homepage at http://www.elsevier.com . All content posted to the web site must maintain the copyright information line on the bottom of each image.

Posting licensed content on Electronic reserve: In addition to the above the following clauses are applicable: The web site must be password-protected and made available only to bona fide students registered on a relevant course. This permission is granted for 1 year only. You may obtain a new license for future website posting.

17. **For journal authors:** the following clauses are applicable in addition to the above:

Preprints:

A preprint is an author's own write-up of research results and analysis, it has not been peer-reviewed, nor has it had any other value added to it by a publisher (such as formatting, copyright, technical enhancement etc.).

Authors can share their preprints anywhere at any time. Preprints should not be added to or enhanced in any way in order to appear more like, or to substitute for, the final versions of articles however authors can update their preprints on arXiv or RePEc with their Accepted Author Manuscript (see below).

If accepted for publication, we encourage authors to link from the preprint to their formal publication via its DOI. Millions of researchers have access to the formal publications on ScienceDirect, and so links will help users to find, access, cite and use the best available version. Please note that Cell Press, The Lancet and some society-owned have different preprint policies. Information on these policies is available on the journal homepage.

Accepted Author Manuscripts: An accepted author manuscript is the manuscript of an article that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and editor-author communications.

Authors can share their accepted author manuscript:

- immediately
    - via their non-commercial person homepage or blog
    - by updating a preprint in arXiv or RePEc with the accepted manuscript
    - via their research institute or institutional repository for internal institutional uses or as part of an invitation-only research collaboration work-group
    - directly by providing copies to their students or to research collaborators for their personal use
    - for private scholarly sharing as part of an invitation-only work group on commercial sites with which Elsevier has an agreement
- After the embargo period
    - via non-commercial hosting platforms such as their institutional repository
    - via commercial sites with which Elsevier has an agreement

In all cases accepted manuscripts should:

- link to the formal publication via its DOI
- bear a CC-BY-NC-ND license - this is easy to do
- if aggregated with other manuscripts, for example in a repository or other site, be shared in alignment with our hosting policy not be added to or enhanced in any way to

appear more like, or to substitute for, the published journal article.

Published journal article (JPA): A published journal article (PJA) is the definitive final record of published research that appears or will appear in the journal and embodies all value-adding publishing activities including peer review co-ordination, copy-editing, formatting, (if relevant) pagination and online enrichment.

Policies for sharing publishing journal articles differ for subscription and gold open access articles:

Subscription Articles: If you are an author, please share a link to your article rather than the full-text. Millions of researchers have access to the formal publications on ScienceDirect, and so links will help your users to find, access, cite, and use the best available version.

Theses and dissertations which contain embedded PJAs as part of the formal submission can be posted publicly by the awarding institution with DOI links back to the formal publications on ScienceDirect.

If you are affiliated with a library that subscribes to ScienceDirect you have additional private sharing rights for others' research accessed under that agreement. This includes use for classroom teaching and internal training at the institution (including use in course packs and courseware programs), and inclusion of the article for grant funding purposes.

Gold Open Access Articles: May be shared according to the author-selected end-user license and should contain a CrossMark logo, the end user license, and a DOI link to the formal publication on ScienceDirect.

Please refer to Elsevier's posting policy for further information.

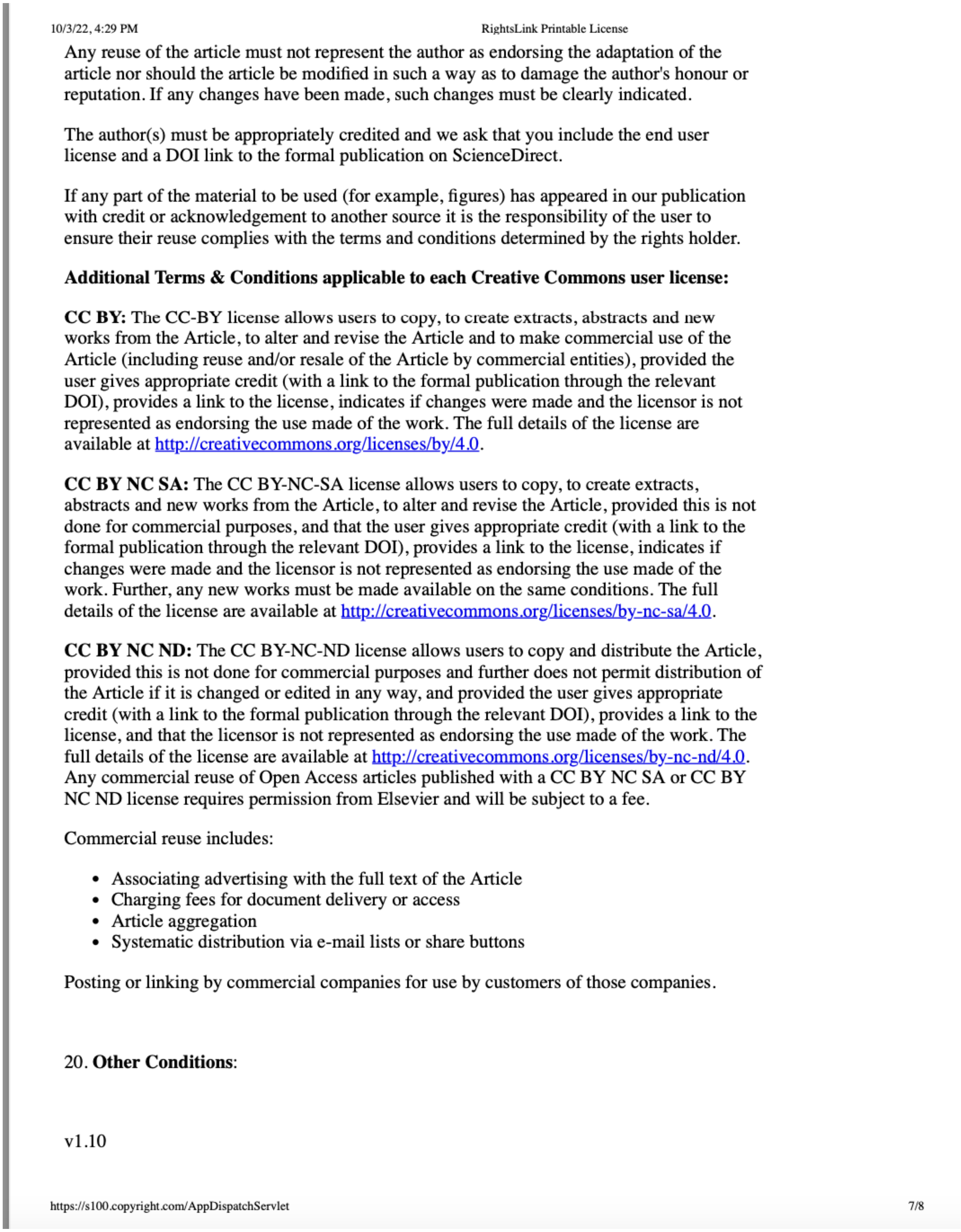
18. **For book authors** the following clauses are applicable in addition to the above: Authors are permitted to place a brief summary of their work online only. You are not allowed to download and post the published electronic version of your chapter, nor may you scan the printed edition to create an electronic version. **Posting to a repository:** Authors are permitted to post a summary of their chapter only in their institution's repository.

19. **Thesis/Dissertation**: If your license is for use in a thesis/dissertation your thesis may be submitted to your institution in either print or electronic form. Should your thesis be published commercially, please reapply for permission. These requirements include permission for the Library and Archives of Canada to supply single copies, on demand, of the complete thesis and include permission for Proquest/UMI to supply single copies, on demand, of the complete thesis. Should your thesis be published commercially, please reapply for permission. Theses and dissertations which contain embedded PJAs as part of the formal submission can be posted publicly by the awarding institution with DOI links back to the formal publications on ScienceDirect.

Elsevier Open Access Terms and Conditions

You can publish open access with Elsevier in hundreds of open access journals or in nearly 2000 established subscription journals that support open access publishing. Permitted third party re-use of these open access articles is defined by the author's choice of Creative Commons user license. See our open access license policy for more information.

Terms & Conditions applicable to all Open Access articles published with Elsevier:



Any reuse of the article must not represent the author as endorsing the adaptation of the article nor should the article be modified in such a way as to damage the author's honour or reputation. If any changes have been made, such changes must be clearly indicated.

The author(s) must be appropriately credited and we ask that you include the end user license and a DOI link to the formal publication on ScienceDirect.

If any part of the material to be used (for example, figures) has appeared in our publication with credit or acknowledgement to another source it is the responsibility of the user to ensure their reuse complies with the terms and conditions determined by the rights holder.

Additional Terms & Conditions applicable to each Creative Commons user license:

CC BY: The CC-BY license allows users to copy, to create extracts, abstracts and new works from the Article, to alter and revise the Article and to make commercial use of the Article (including reuse and/or resale of the Article by commercial entities), provided the user gives appropriate credit (with a link to the formal publication through the relevant DOI), provides a link to the license, indicates if changes were made and the licensor is not represented as endorsing the use made of the work. The full details of the license are available at http://creativecommons.org/licenses/by/4.0.

CC BY NC SA: The CC BY-NC-SA license allows users to copy, to create extracts, abstracts and new works from the Article, to alter and revise the Article, provided this is not done for commercial purposes, and that the user gives appropriate credit (with a link to the formal publication through the relevant DOI), provides a link to the license, indicates if changes were made and the licensor is not represented as endorsing the use made of the work. Further, any new works must be made available on the same conditions. The full details of the license are available at http://creativecommons.org/licenses/by-nc-sa/4.0.

CC BY NC ND: The CC BY-NC-ND license allows users to copy and distribute the Article, provided this is not done for commercial purposes and further does not permit distribution of the Article if it is changed or edited in any way, and provided the user gives appropriate credit (with a link to the formal publication through the relevant DOI), provides a link to the license, and that the licensor is not represented as endorsing the use made of the work. The full details of the license are available at http://creativecommons.org/licenses/by-nc-nd/4.0. Any commercial reuse of Open Access articles published with a CC BY NC SA or CC BY NC ND license requires permission from Elsevier and will be subject to a fee.

Commercial reuse includes:

- Associating advertising with the full text of the Article
- Charging fees for document delivery or access
- Article aggregation
- Systematic distribution via e-mail lists or share buttons

Posting or linking by commercial companies for use by customers of those companies.

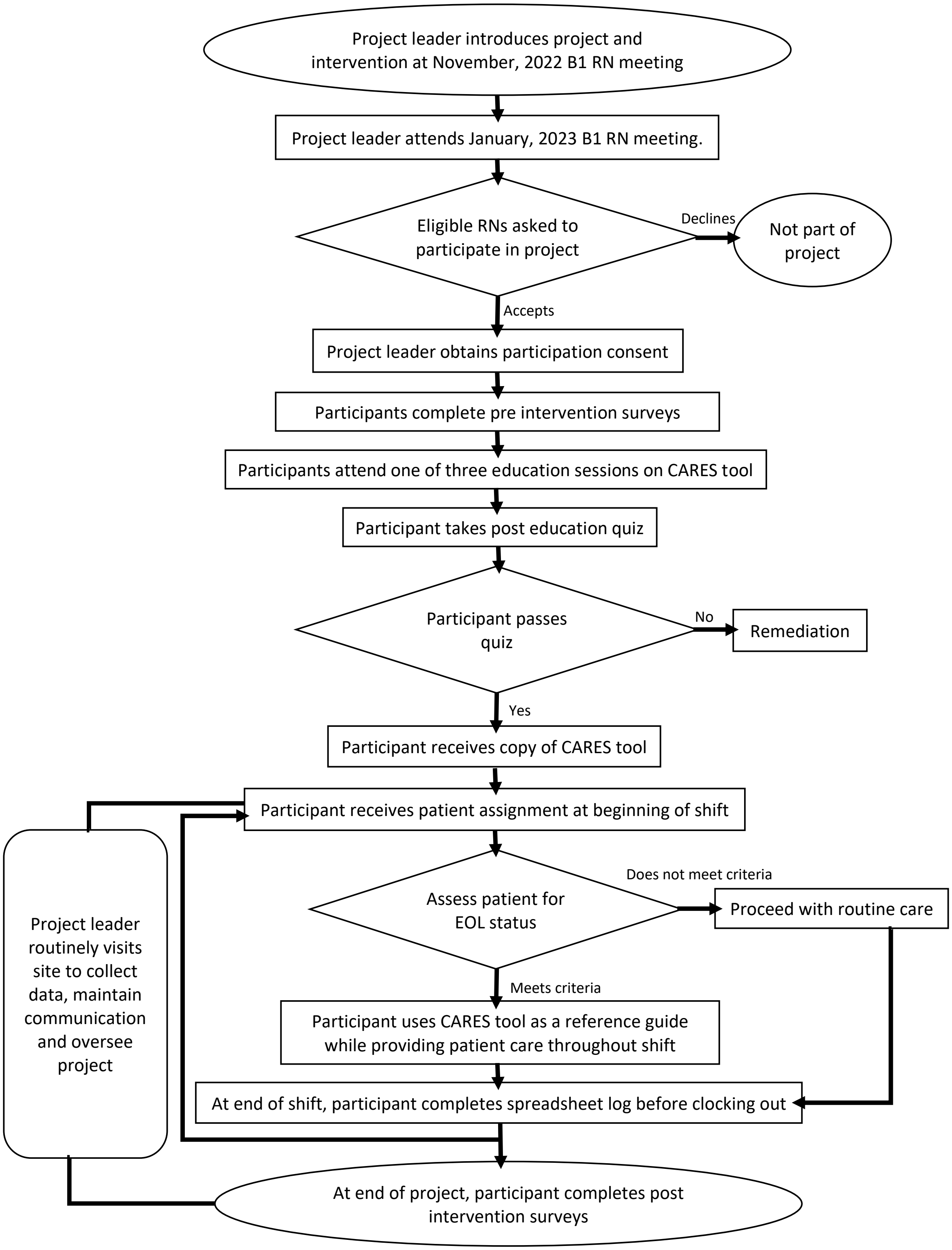
20. **Other Conditions**:

v1.10

Questions? customercare@copyright.com or +1-855-239-3415 (toll free in the US) or +1-978-646-2777.

Appendix O

Process Map



Appendix P

CARES Tool

CARES
Tool

Introduction

The following are recommendations for care of the dying based on the End of Life Nursing Education Consortium (ELNEC) project and the second edition (2009) National Consensus Project for Palliative Care Clinical Practice Guidelines for Quality Palliative Care. The recommendations are arranged in the acronym CARES (Comfort, Airway, Restlessness, Emotional support, and Self-care) to organize the most common needs and education requirements to support the dying patient and their family. The tool is intended to prompt nurses to obtain orders for symptom management, increase awareness of resources and promote communication with the ultimate goal of achieving a peaceful death for their patient and family.

> *"...there are worse things than having someone you love die. Most basic, there is having the person you love die badly, suffering as he or she dies. Worse still is realizing later on that much of his or her suffering was unnecessary."*
>
> IRA BYOCK, 2012

COMFORT

Pain Management

- You must act as an advocate for your patient to control their pain. Pain control is an essential need for all dying patients.
- The route of the medication determines time to maximum effect:
  - IV peak effect is 15 minutes
  - Sub-q in 30 minutes
  - PO in 60 minutes
  - Transdermal 4 to 6 hours
- Terminal pain/pain during dying is best managed by around the clock, scheduled or a continuous infusion of opioid (such as from a PCA pump) and additional doses (boluses) given as needed for breakthrough pain.
- There is no maximum dose of opioids for pain control.
- Nurses are often frightened the opioid they give a patient will cause them to die prematurely.
  - There will always be a last dose when caring for a dying patient. Keep in mind the legal and ethical concepts of intent.
  - The patient is dying because of their disease process, not the opioid.
- Adjustments in dosage or type of opioid may be required in the presence of renal failure, and if the pain medication does not help to control the patient's pain.
  - Consider fentanyl if the patient is in renal failure and if the patient is having small seizure-like tremors (myoclonus).
  - Opioids stay in the system longer with renal failure. Dosage is usually smaller.
  - Consider changing the type of opiate if pain remains uncontrolled.

COMFORT (CONTINUED)

The focus of care for the dying patient is comfort. All unnecessary procedures, tests and activities should be evaluated. Providing as much time for the patient and family to be together should be the priority. Consider obtaining orders as appropriate for the following:

- Stop or modify vital signs.
- Stop oral medications if unable to swallow, and all nonessential medications.
- Clarify IV options: Stop or reduce.
- Stop or reduce tube feedings.
- Turn off monitor.
- Discontinue isolation.

You can provide the following comfort measures without an order:

- Turn and position patient only for comfort.
- Modify bathing or stop per family request.
- Consider re-enforcing dressings only.
- Provide frequent oral care.
- Provide oral suctioning if family requests.
- Provide temperature comfort measures such as a cool wash cloth and ice packs.
- Explain mottling and cyanosis as part of dying process and not from being cold.

AIRWAY

The use of supplemental oxygen during the dying process is often ineffective but may help to minimize the family's fears of their loved one suffering.

- Review goals of care established by the patient and family for supplemental oxygen.
- Consider use of a fan.
- Provide nasal cannula per M.D.'s orders.
- Reposition patient as needed.

The dying process results in irregular breathing with periods of apnea. Secretions often pool in the back of the patient's throat resulting in loud congestive sounds. Patients can become restless and anxious. Consider obtaining orders for:

- Glycopyrrolate, scopolamine patch or Atropine 1% ophthalmic solution
- Morphine IV or Sub-q: The patient is dying and will stop breathing due to their disease and the dying process, and not from receiving morphine.
- Consider using anti-anxiety agents and/or antipsychotics.
- Provide family education as needed. Some common issues to address are:
  - Breathing patterns of the dying. Breathing becomes progressively irregular, shallow and slowed. Episodes of apnea will extend. This is all from brain stem activity. It is involuntary and the patient is not suffering.
  - Emphasize the calming effects of touch and talking to the patient.

Comfort
Airway
Restlessnes
Emotional support
Self-care

RESTLESSNESS AND DELIRIUM

The restlessness that commonly occurs during the dying process is also called terminal or agitated delirium. It can also result from pain, bladder distention or stool impaction.

- The patient must be protected from injury and the family needs to be supported.
- Consider the following:
  - Give a trial dose of opioids to rule out pain.
  - Assess for bladder distention and insert indwelling catheter if needed. Assess for impaction if appropriate.
  - Consider antipsychotics: haloperidol or chlorpromazine.
  - Consider benzodiazepines: lorazepam or midazolam.
  - Maintain calm environment.
  - Minimize bright lights.
  - Play patient's favorite music.
  - Talk softly to patient; maintain use of touch and presence.
  - Comfort patient by saying: "You are safe. We are with you. We love you."
  - Consider aromatherapy.
  - Unfinished business may cause restlessness. Discuss with family possible causes of anxiety.
  - Review with the family the importance of saying goodbye and to give permission to stop fighting.
  - Question family about an important family event or anniversary.
- Educate the family:
  - Patient lacks awareness of behavior.
  - Possible to be peacefully confused

EMOTIONAL AND SPIRITUAL SUPPORT

Providing emotional, spiritual, psychosocial and cultural support to the patient and family allows us to care for the soul. This is the very foundation of caring for the dying. It is important to know your resources:

- Notify supportive care medicine team members for assistance.
- Be specific if resources are for patient, staff or both.
- Always work to retain the patient's dignity and feelings of value.
- Remember every family is unique and grieves differently.
- Good communication is essential:
  - Ensure communication exists with the family and all disciplines.
  - Take your cues from the family. Do not assume you know what they are thinking or feeling.
  - Clarify how much the family wants to know.
  - Clarify goals of care.
  - Clarify privacy needs.
- Just be with patient and family and sit in silence.
- Work with family to provide favorite activities, smells, sounds, etc.
- Support rituals and assist with obtaining desired clergy or equipment.

EMOTIONAL AND SPIRITUAL SUPPORT (CONTINUED)

Other activities and methods of support to consider:

- Your humanity is needed the most now. Always be available.
- Your very presence is reassuring to the family.
- The family is an important part of your patient care and becomes your focus as the patient becomes more unresponsive.
  - Be sure families are getting rest and breaks.
  - Provide coffee, water, etc.
  - Continue to be available to answer questions.
  - You cannot take away their pain. Acknowledge their emotions and be present.
- Play patient's favorite music.
- Position bed to see out a window.
- Encourage family to provide patient's favorite hat, clothing, etc.
- Lower or mute lighting.
- Consider bringing in a favorite pet.

> *"It is the power of our own humanity that can make a difference in the lives of others. We must value this as highly as our own expertise."*
>
> PUCHALSKI AND FERRELL, 2010

SELF-CARE

The health care provider must allow themselves to be human and expect some personal emotional response to the death of their patient and for the grieving family.

- Palliative/Supportive Services are also available to staff.
- Often a review and debriefing can assist with professional grieving and promote emotional health by:
  - Recognizing the stressful event and thanking supportive team members
  - Reviewing what went well and what challenges need to be addressed
  - Sharing bereaved family comments
  - Addressing moral distress issues
  - Expressing issues of death anxiety and obtaining support
  - Exploring challenges and privilege of assisting a fellow human being through the dying process
  - Acknowledging the spiritual impact of witnessing death
  - Exploring how your care made a difference to the grieving family
  - Reviewing effective communication techniques, available resources and support

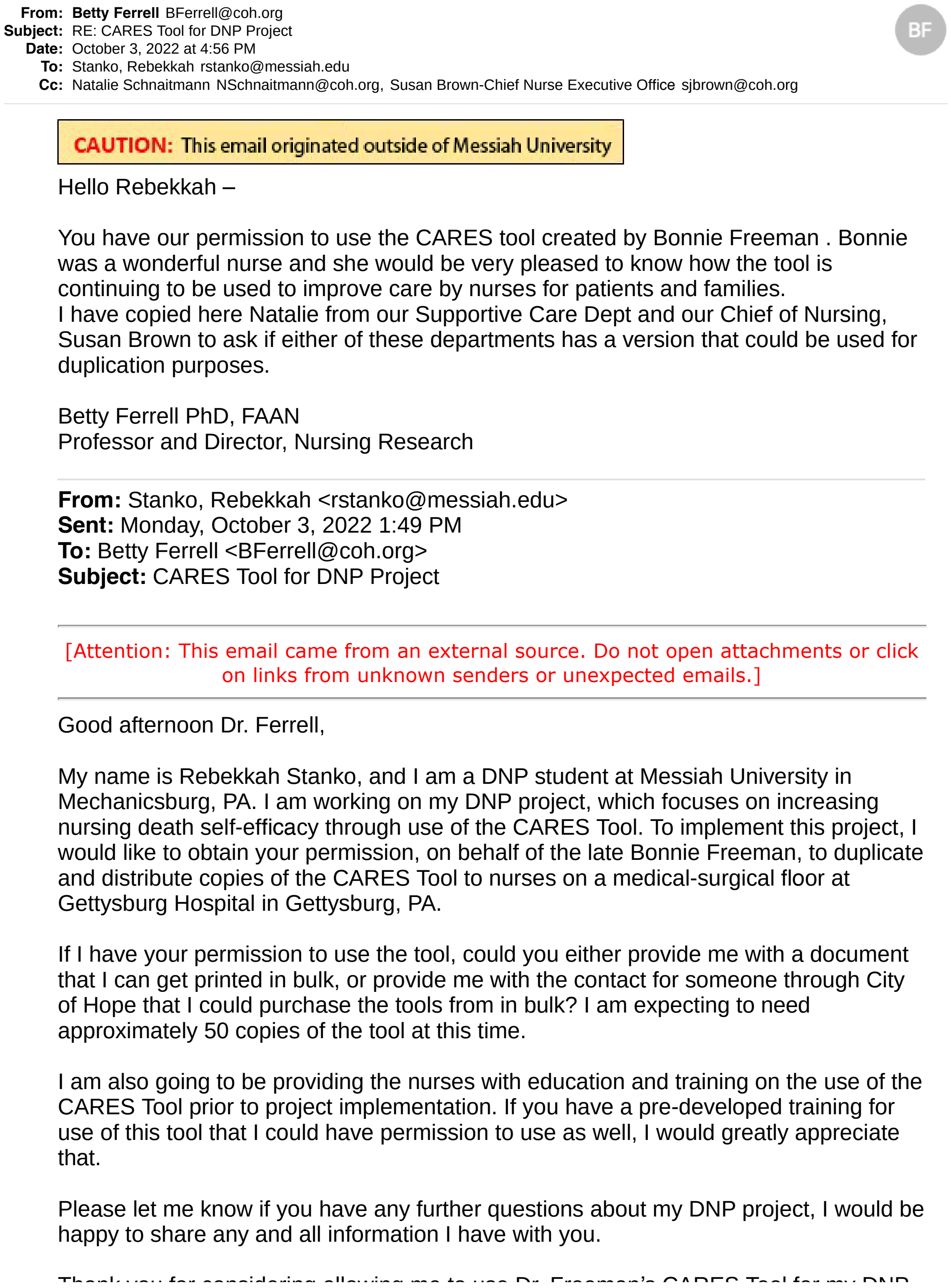
A Tool for the Care of the Dying

CARES
Tool

From "CARES: An Acronym Organized Tool for the Care of the Dying," by B. Freeman, 2013, *Journal of Hospice and Palliative Nursing*, *15*(3), pp. 148-152 (https://doi.org/ 10.1097/NJH.0b013e318287c782). Copyright 2012 by City of Hope. Reprinted with permission.

Appendix Q

CARES Tool Permission Letter



From: **Betty Ferrell** BFerrell@coh.org
Subject: RE: CARES Tool for DNP Project
Date: October 3, 2022 at 4:56 PM
To: Stanko, Rebekkah rstanko@messiah.edu
Cc: Natalie Schnaitmann NSchnaitmann@coh.org, Susan Brown-Chief Nurse Executive Office sjbrown@coh.org

CAUTION: This email originated outside of Messiah University

Hello Rebekkah –

You have our permission to use the CARES tool created by Bonnie Freeman . Bonnie was a wonderful nurse and she would be very pleased to know how the tool is continuing to be used to improve care by nurses for patients and families.
I have copied here Natalie from our Supportive Care Dept and our Chief of Nursing, Susan Brown to ask if either of these departments has a version that could be used for duplication purposes.

Betty Ferrell PhD, FAAN
Professor and Director, Nursing Research

From: Stanko, Rebekkah <rstanko@messiah.edu>
Sent: Monday, October 3, 2022 1:49 PM
To: Betty Ferrell <BFerrell@coh.org>
Subject: CARES Tool for DNP Project

[Attention: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.]

Good afternoon Dr. Ferrell,

My name is Rebekkah Stanko, and I am a DNP student at Messiah University in Mechanicsburg, PA. I am working on my DNP project, which focuses on increasing nursing death self-efficacy through use of the CARES Tool. To implement this project, I would like to obtain your permission, on behalf of the late Bonnie Freeman, to duplicate and distribute copies of the CARES Tool to nurses on a medical-surgical floor at Gettysburg Hospital in Gettysburg, PA.

If I have your permission to use the tool, could you either provide me with a document that I can get printed in bulk, or provide me with the contact for someone through City of Hope that I could purchase the tools from in bulk? I am expecting to need approximately 50 copies of the tool at this time.

I am also going to be providing the nurses with education and training on the use of the CARES Tool prior to project implementation. If you have a pre-developed training for use of this tool that I could have permission to use as well, I would greatly appreciate that.

Please let me know if you have any further questions about my DNP project, I would be happy to share any and all information I have with you.

Thank you for considering allowing me to use Dr. Freeman's CARES Tool for my DNP

Appendix R

CARES Tool Quiz

CARES Tool Quiz

Directions: For each question, please circle the correct answer.

1. For this project, a patient will be identified as end-of-life based on which criteria?
   A. The patient is a DNR (do not resuscitate).
   B. The patient has a palliative care consult or is under the services of palliative care.
   C. The pate is over 85 years of age.
   D. The patient has a long-term illness such as COPD, or CHF.

2. Which is the purpose of the CARES tool for this project?
   A. To replace the need for a palliative care consult.
   B. To identify patients who are at end-of-life.
   C. To serve as a reference and a guide when providing end-of-life care.
   D. To replace the current protocols for patient care.

3. The CARES tool will provide information on all the following **EXCEPT:**
   A. The appropriate dose of medications that should be given to relieve pain.
   B. Information on the common symptoms related to the progression of end-of-life.
   C. Guidance on how to have conversations with family.
   D. Tips for self-care that I can use as the nurse.

4. How should you record your use of the CARES tool for this project?
   A. I should notify the charge nurse that I used the CARES tool.
   B. I should provide documentation EPIC that I used the CARES tool.
   C. I do not need to record that I used the CARES tool.
   D. I should complete the log at the end of each shift.

5. For this project, what will you use to identify yourself?
   A. Nothing, this is completely anonymous.
   B. I will use my first and last initials.
   C. I will use the last four digits of my social-security-number.
   D. I will use the last four digits of my badge number.

Appendix S

Budget Outline

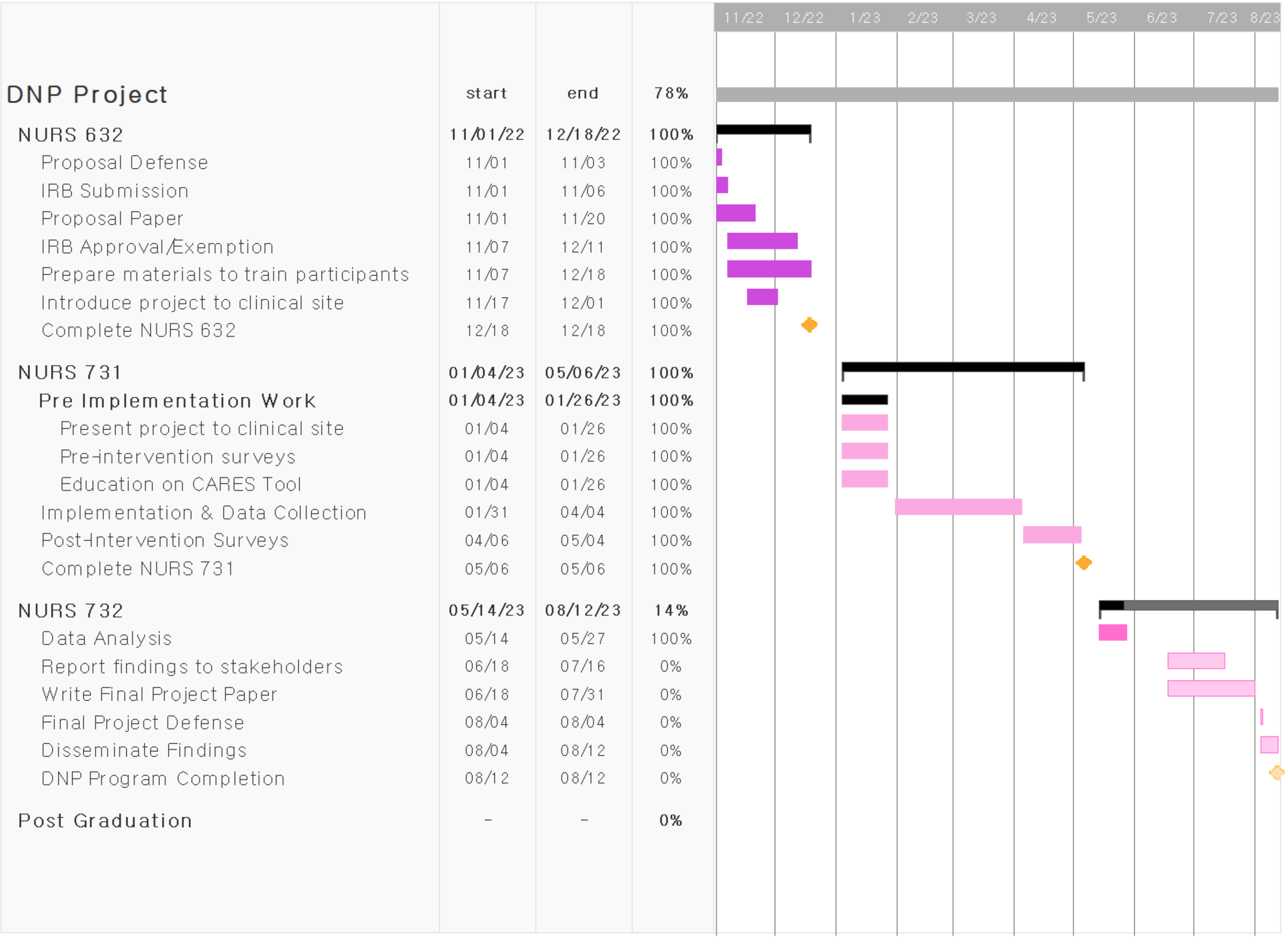
Project Expenses		
Salaries/Wages		
Itemize human resource costs in this section (i.e., administrative support, practitioner, nurses, project manager, etc.)		
	Hourly	Total
• 32 RNs wages for education (1/2 hour)	$ 35.00/hour (one time cost)	$ 0.00 (no additional time requirement)
• Site mentor	$ 45.00/hour	$ 0.00 (no additional time requirement)
• Wages for providing education (1/2-hour x3 sessions)	$ 0.00	$ 0.00*
• Project leader wages for time spent on site	$ 0.00	$0.00*
Total Salary Costs		$ 0.00
Startup Costs		
Itemize startup costs in this section (i.e., copies, charts, display boards, etc.)		
	One Time Costs	Total
• Paper for surveys	$ 0.10 x 100 copies	$10.00 *
• Printer ink for surveys	$ 0.05 x 100 copies	$ 5.00 *
• Printing and laminating CARES tool	$ 2.00 x 50 copies	$ 100.00 *
• Pens/pencils	$ 15.00	$ 15.00 *
Total Startup Costs		$130.00 *
Capital Costs		
	Additional cost for project	Total
Hardware	$ 0.00	$ 0.00
Equipment	$ 0.00	$ 0.00
Other- conference room	$ 0.00	$ 0.00
Total Capital Costs		$ 0.00
Operational Costs		
Itemize operational costs in this section (i.e., electricity, heat, etc.)		
	Additional cost for project	Total
• Electricity	$ 0.00	$ 0.00
• Heat	$ 0.00	$ 0.00
Total Project Expenses	$	$ 130.00- $130.00* = $0.00

Program Revenue		
Itemize potential revenue in this section (i.e., revenue attained through billable evaluation & management codes, teaching codes, etc.)		
	One time Savings	Total
• Prevent organizational turnover of one RN	$50,000.00	$ 50,000.00
• **Total Project Revenue**		$ 50,000.00
Less Expenses		-$ 0.00
Total Project Benefit		$ 50,000.00

**cost covered by the DNP project leader*

Appendix T

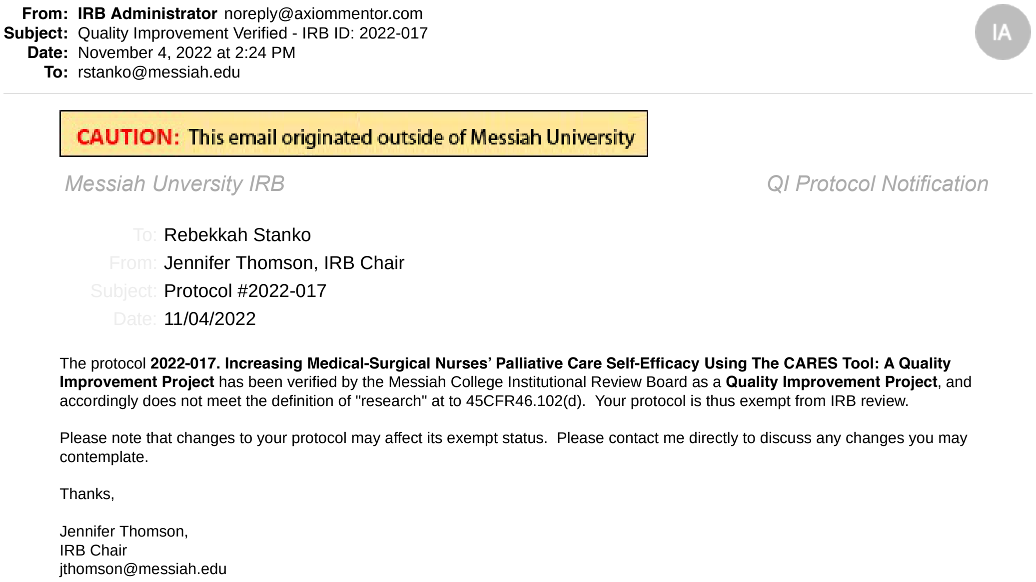
Gantt Chart



DNP Project	start	end	78%
NURS 632	11/01/22	12/18/22	100%
Proposal Defense	11/01	11/03	100%
IRB Submission	11/01	11/06	100%
Proposal Paper	11/01	11/20	100%
IRB Approval/Exemption	11/07	12/11	100%
Prepare materials to train participants	11/07	12/18	100%
Introduce project to clinical site	11/17	12/01	100%
Complete NURS 632	12/18	12/18	100%
NURS 731	01/04/23	05/06/23	100%
Pre Implementation Work	01/04/23	01/26/23	100%
Present project to clinical site	01/04	01/26	100%
Pre-intervention surveys	01/04	01/26	100%
Education on CARES Tool	01/04	01/26	100%
Implementation & Data Collection	01/31	04/04	100%
Post-Intervention Surveys	04/06	05/04	100%
Complete NURS 731	05/06	05/06	100%
NURS 732	05/14/23	08/12/23	14%
Data Analysis	05/14	05/27	100%
Report findings to stakeholders	06/18	07/16	0%
Write Final Project Paper	06/18	07/31	0%
Final Project Defense	08/04	08/04	0%
Disseminate Findings	08/04	08/12	0%
DNP Program Completion	08/12	08/12	0%
Post Graduation	-	-	0%

Appendix U

Messiah IRB Exemption



From: **IRB Administrator** noreply@axiommentor.com
Subject: Quality Improvement Verified - IRB ID: 2022-017
Date: November 4, 2022 at 2:24 PM
To: rstanko@messiah.edu

CAUTION: This email originated outside of Messiah University

Messiah Unversity IRB *QI Protocol Notification*

To: Rebekkah Stanko
From: Jennifer Thomson, IRB Chair
Subject: Protocol #2022-017
Date: 11/04/2022

The protocol **2022-017. Increasing Medical-Surgical Nurses' Palliative Care Self-Efficacy Using The CARES Tool: A Quality Improvement Project** has been verified by the Messiah College Institutional Review Board as a **Quality Improvement Project**, and accordingly does not meet the definition of "research" at to 45CFR46.102(d). Your protocol is thus exempt from IRB review.

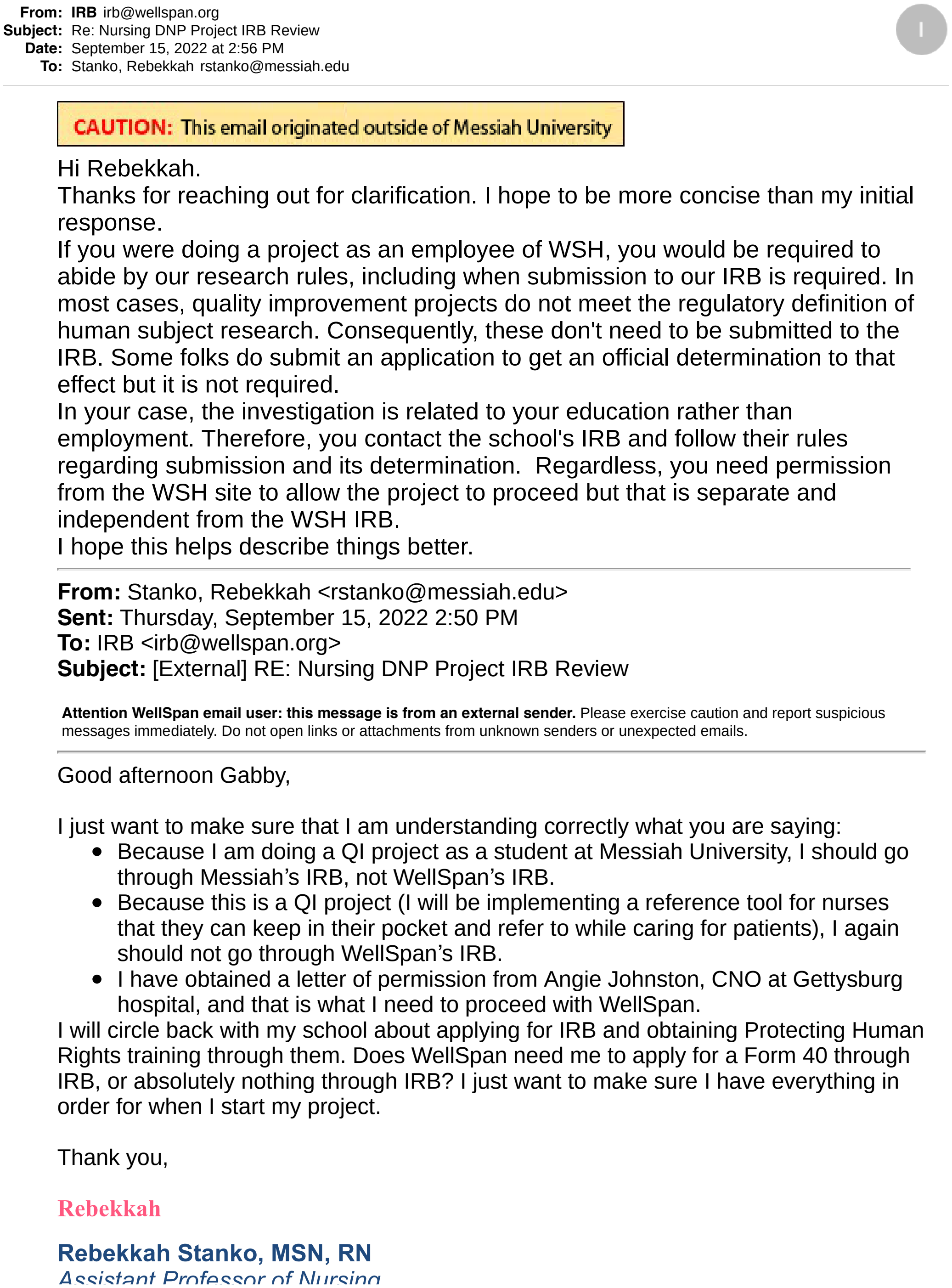
Please note that changes to your protocol may affect its exempt status. Please contact me directly to discuss any changes you may contemplate.

Thanks,

Jennifer Thomson,
IRB Chair
jthomson@messiah.edu

Appendix V

WellSpan IRB Letter



From: **IRB** irb@wellspan.org
Subject: Re: Nursing DNP Project IRB Review
Date: September 15, 2022 at 2:56 PM
To: Stanko, Rebekkah rstanko@messiah.edu

CAUTION: This email originated outside of Messiah University

Hi Rebekkah.
Thanks for reaching out for clarification. I hope to be more concise than my initial response.
If you were doing a project as an employee of WSH, you would be required to abide by our research rules, including when submission to our IRB is required. In most cases, quality improvement projects do not meet the regulatory definition of human subject research. Consequently, these don't need to be submitted to the IRB. Some folks do submit an application to get an official determination to that effect but it is not required.
In your case, the investigation is related to your education rather than employment. Therefore, you contact the school's IRB and follow their rules regarding submission and its determination. Regardless, you need permission from the WSH site to allow the project to proceed but that is separate and independent from the WSH IRB.
I hope this helps describe things better.

From: Stanko, Rebekkah <rstanko@messiah.edu>
Sent: Thursday, September 15, 2022 2:50 PM
To: IRB <irb@wellspan.org>
Subject: [External] RE: Nursing DNP Project IRB Review

Attention WellSpan email user: this message is from an external sender. Please exercise caution and report suspicious messages immediately. Do not open links or attachments from unknown senders or unexpected emails.

Good afternoon Gabby,

I just want to make sure that I am understanding correctly what you are saying:
- Because I am doing a QI project as a student at Messiah University, I should go through Messiah's IRB, not WellSpan's IRB.
- Because this is a QI project (I will be implementing a reference tool for nurses that they can keep in their pocket and refer to while caring for patients), I again should not go through WellSpan's IRB.
- I have obtained a letter of permission from Angie Johnston, CNO at Gettysburg hospital, and that is what I need to proceed with WellSpan.

I will circle back with my school about applying for IRB and obtaining Protecting Human Rights training through them. Does WellSpan need me to apply for a Form 40 through IRB, or absolutely nothing through IRB? I just want to make sure I have everything in order for when I start my project.

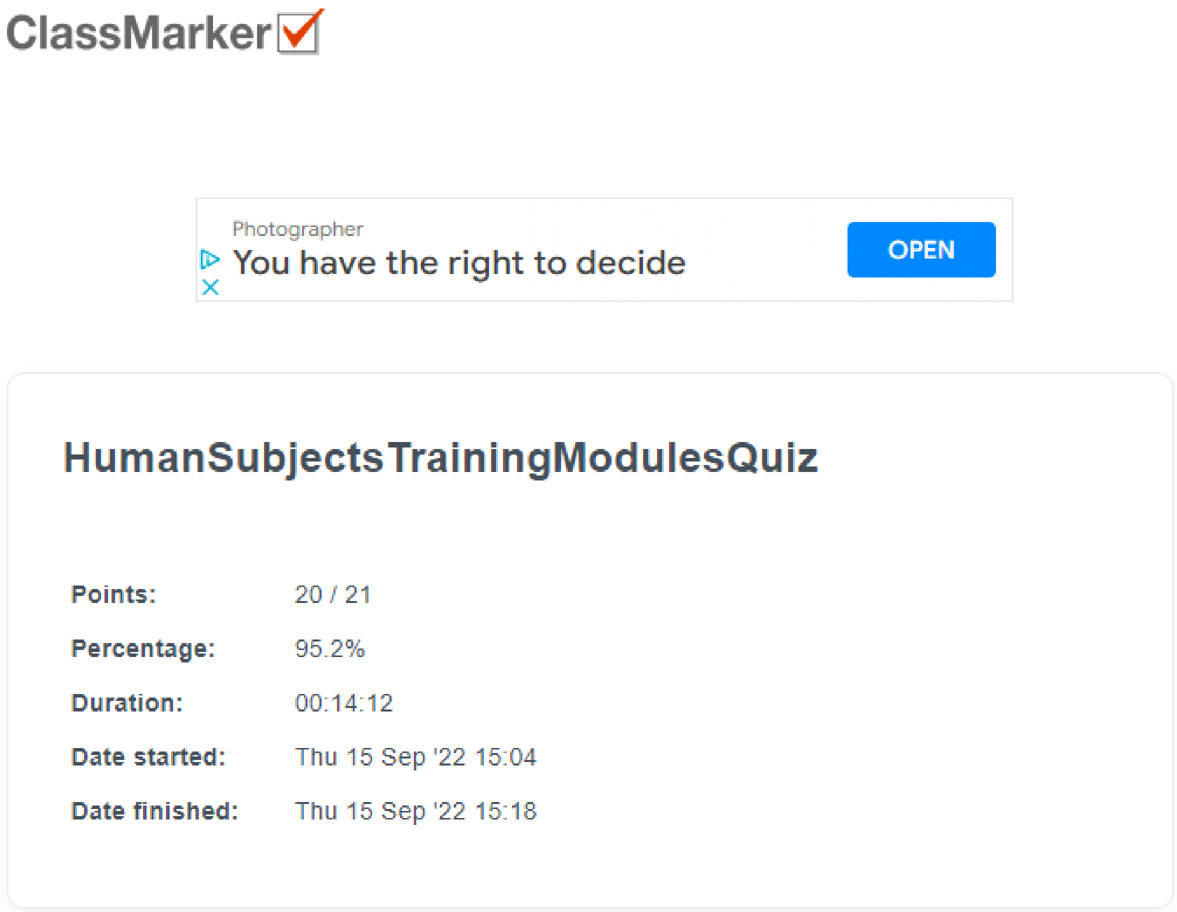
Thank you,

Rebekkah

Rebekkah Stanko, MSN, RN

Appendix W

NIH Human Subject Training Completion



HumanSubjectsTrainingModulesQuiz

Points:	20 / 21
Percentage:	95.2%
Duration:	00:14:12
Date started:	Thu 15 Sep '22 15:04
Date finished:	Thu 15 Sep '22 15:18

Appendix X

Descriptive Statistics for Sample Demographics

Characteristic	Survey Answers		Characteristic	Dichotomized Answers	
	n	%		*n*	%
Age			Age		
21 – 25 years	1	14.3	21 – 35 years	3	42.9
26 – 30 years	1	14.3	36+ years	4	57.1
31 – 35 years	1	14.3			
36+ years	4	57.1			
Gender					
Male	0	0			
Female	7	100			
Highest level of nursing education					
Associate’s Degree	3	42.9			
Bachelor’s Degree	4	57.1			
Degree in other profession					
Yes	3	42.9			
No	4	57.1			
Amount of nursing experience			Amount of nursing experience		
6 months - < 1 year	1	14.3	6 months - < 5 years	4	57.1
1 year - < 3 years	1	14.3	5 years – 15+ years	3	42.9
3 years - < 5 years	2	28.6			
5 years - < 10 years	1	14.3			
10 years - < 15 years	1	14.3			
15+ years	2	28.6			
Nursing experience on project unit			Nursing experience on project unit		
6 months - < 1 year	1	14.3	6 months - < 3 years	3	42.9
1 year - < 3 years	2	28.6	3 years – 15+ years	4	57.1
3 years - < 5 years	3	42.9			
5 years - < 10 years	0	0			
10 years - < 15 years	1	14.3			
Received prior end-of-life education[a]					
Yes	2	33.3			
No	4	66.7			
Time since last cared for end-of-life patient			Time since last cared for end-of-life patient		
< 1 month	6	85.7	< 1 month	6	85.7
1 month - < 3 months	0	0	> 1 year	1	14.3
3 months - < 6 months	0	0			
6 months - < 1 year	0	0			
Over 1 year ago	1	14.3			

Note. N = 7

[a] Only six participants answered this question

Appendix Y

Descriptive Statistics for PCSE Scale Survey

Survey Item	Full Data Set					Condensed Data Set				
	M	*SD*	*Mdn*	Mode	Range	*M*	*SD*	*Mdn*	Mode	Range
Answering patient questions about the dying process										
Pre	3.00	0.58	3.00	3	2 – 4	3.20	0.45	3.00	3	3 – 4
Post	3.43	0.79	4.00	4	2 – 4	3.80	0.45	4.00	4	3 – 4
Providing emotional support to patients and families										
Pre	3.00	0.00	3.00	3	3 – 3	3.00	0.00	3.00	3	3 – 3
Post	3.57	0.79	4.00	4	2 – 4	4.00	0.00	4.00	4	4 – 4
Informing about support services										
Pre	2.29	1.11	2.00	1[a]	1 – 4	2.60	1.14	3.00	3	1 – 4
Post	3.29	0.95	4.00	4	2 – 4	3.80	0.45	4.00	4	3 – 4
Discussing environment options										
Pre	2.86	1.22	3.00	4	1 – 4	3.20	1.10	4.00	4	2 – 4
Post	3.14	0.90	3.00	4	2 – 4	3.60	0.55	4.00	4	3 – 4
Discussing patient’s wishes for after death										
Pre	2.43	1.13	3.00	3	1 – 4	2.80	1.10	3.00	3	1 – 4
Post	3.14	0.90	3.00	4	2 – 4	3.60	0.55	4.00	4	3 – 4
Answering questions about medications										
Pre	3.14	0.69	3.00	3	2 – 4	3.40	0.55	3.00	3	3 – 4
Post	3.14	0.90	3.00	4	2 – 4	3.60	0.55	4.00	4	3 – 4
Responding to patient pain										
Pre	3.71	0.49	4.00	4	3 – 4	3.80	0.45	4.00	4	3 – 4
Post	3.57	0.79	4.00	4	2 – 4	4.00	0.00	4.00	4	4 – 4
Responding to terminal delirium										
Pre	2.57	0.98	3.00	3	1 – 4	3.00	0.71	3.00	3	2 – 4
Post	3.14	0.90	3.00	4	2 – 4	3.60	0.55	4.00	4	3 – 4

Survey Item	Full Data Set					Condensed Data Set				
	M	*SD*	*Mdn*	Mode	Range	*M*	*SD*	*Mdn*	Mode	Range
Responding to terminal dyspnea										
Pre	3.29	0.49	3.00	3	3 – 4	3.40	0.55	3.00	3	3 – 4
Post	3.57	0.79	4.00	4	2 – 4	4.00	0.00	4.00	4	4 – 4
Responding to nausea/vomiting										
Pre	3.43	0.54	3.00	3	3 – 4	3.40	0.55	3.00	3	3 – 4
Post	3.43	0.79	4.00	4	2 – 4	3.80	0.45	4.00	4	3 – 4
Responding to constipation										
Pre	3.57	0.54	4.00	4	3 – 4	3.60	0.55	4.00	4	3 – 4
Post	3.57	0.79	4.00	4	2 – 4	4.00	0.00	4.00	4	4 – 4
Responding to patient’s limited decision-making capacity										
Pre	3.29	0.76	3.00	3[a]	2 – 4	3.40	0.89	4.00	4	2 – 4
Post	3.14	0.69	3.00	3	2 – 4	3.40	0.55	3.00	3	3 – 4
Total Score										
Pre	36.57	5.83	34.00	34	28 – 44	38.80	5.00	41.00	33[a]	33 – 44
Post	40.14	9.00	44.00	44[a]	24 – 48	45.20	1.64	45.00	44[a]	44 – 48

[a] Multiple modes exist, the smallest mode is listed