DEFENSE PRESENTATION

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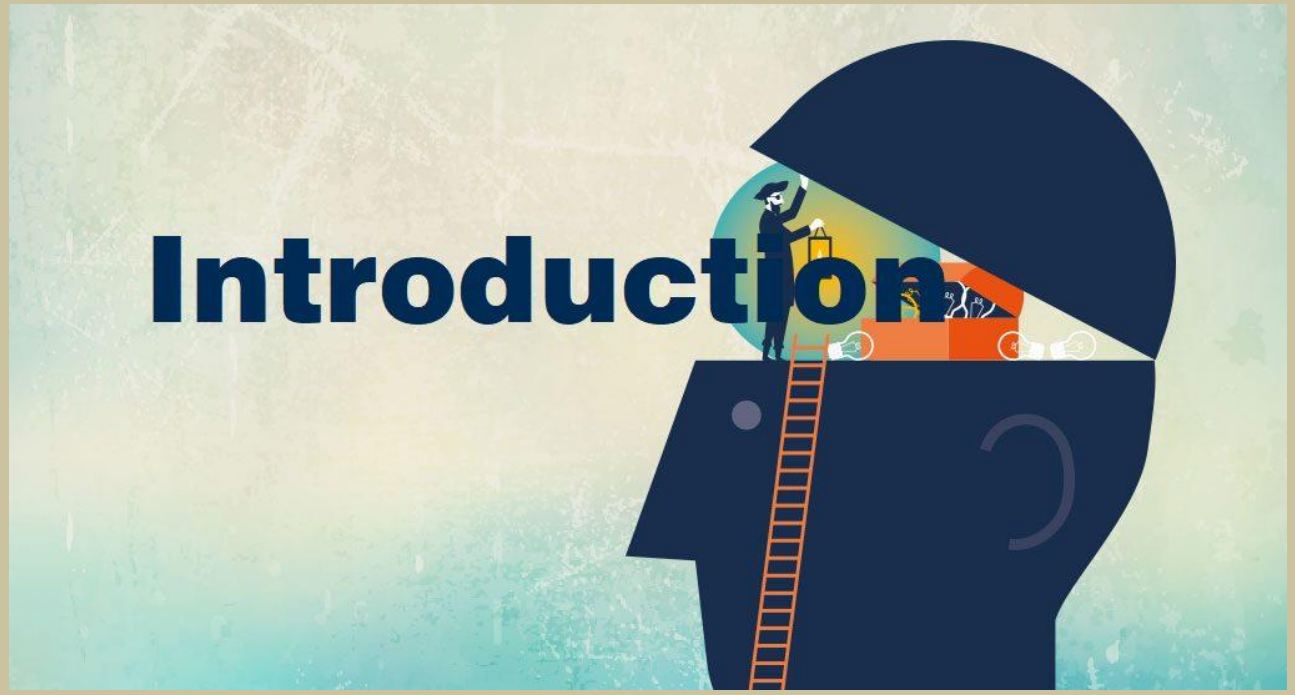
INTRODUCTION



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INTRODUCTION

- Compassion fatigue (CF) is a real phenomenon
- CF can plague Critical Care (CC) Nurses
- Identifying the presence of CF is paramount
- Understanding how to combat CF is critical
- Developing resiliency strategies to CF is vital
- Education is a key component to overcoming CF

(Kelly, Lefton, & Fischer, 2019)

BACKGROUND AND SIGNIFICANCE

- CF is "the emotional residue or strain of exposure to working with those suffering from the consequences of traumatic events…Compassion Fatigue can occur due to exposure on one case or can be due to a 'cumulative' level of trauma" (The American Institute of Stress, 2019, p. 1)
- CF is a term for burnout and secondary traumatic stress (Kelly, Runge, and Spencer, 2015)
- 48% of the work force in the US encounters high CF (Brandon Gaille, 2017)
- The highest percent of US workers that develop CF are nurses at >40% (Brandon Gaille, 2017)
- CF is recognized as a reason for healthcare provider withdraw (Sorenson, Bolick, Wright, and Hamilton, 2017)

BACKGROUND AND SIGNIFICANCE

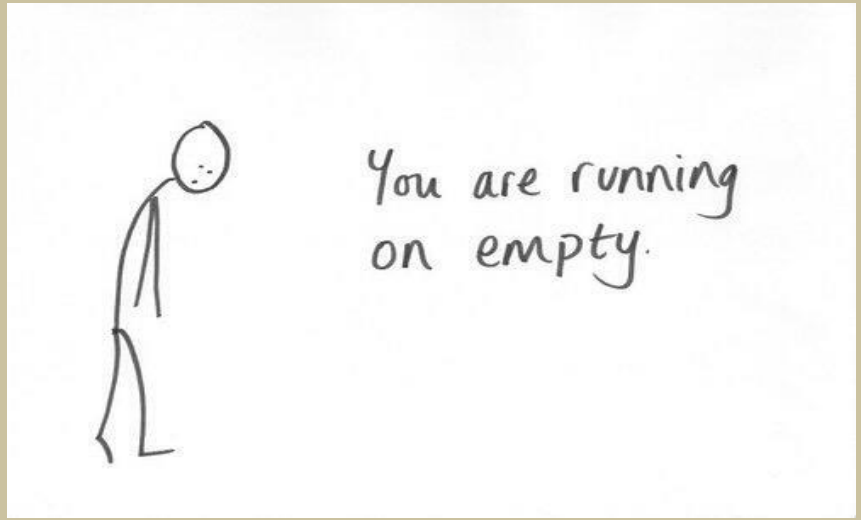
- The result of poor CF resiliency training can be catastrophic
- The average cost of turnover for a single RN is $36,000 to $57,300 or $729 Million across the U.S. (Sorenson et al., 2017)
- The cost of turnover for a CC nurse would be much higher due to specialty training and education
- Left unchecked, under researched, and underestimated, CF will continue to plague CC nurses

NEEDS ASSESSMENT

- CC nurses are expected to do more with less causing increasing rates of CF (Klein, Riggenbach-Hays, Sollenberger, Harney, & McGarvey , 2018)
- R. Forbes, Rn, MSN, CEN, ED Director, recognizes CF as a variable in job satisfaction and employee retention (personal communication, 2019)
- D. Samuelson, RN, MSN, CEN, ED Manager, indicates CF is palpable and cannot be ignored (personal communication, 2019)
- C. Olff, RN, MSN, Integrated Director of Critical Care Services, admits that nursing curricula does not have adequate focus on CF (personal communication, 2019)

NEEDS ASSESSMENT

- Providing CF education aids in understanding CF impacts CC nurses lives, profession, and patients
- CF education can assist CC nurses in developing a better clinical practice & reduce components of CF (Nolte, Downing, Temane, & Hastings-Tolsma, 2017)



The time to act is now and the place to start is here!

NEEDS ASSESSMENT: SWOT ANALYSIS

Internal Strengths

- Strong stakeholder buy-in
- Planned educational intervention is evidence based
- Facility/Leadership support that is mission/vision driven to promote high quality health care while promoting high quality self-care of nurses.

External Opportunities

- Improved nursing self-care management
- Increase in patient satisfactions
- Increase in positive patient outcomes
- Increases critical nurse retention

PROBLEM STATEMENT

- In the CC care setting, caring for the sick and dying is physically palpable and emotionally challenging, making CC nurses more vulnerable to CF. It is this vulnerability of CC nurses that put them at risk for developing CF (Upton, 2018)
- CF can adversely affect the nurse's ability to provide an expected level of compassionate care (Upton, 2018)
- The catastrophic damage CF can cause, if left unchecked, is astounding

PROJECT PURPOSE & OBJECTIVES

Purpose

- To educate CC nurses about CF so that they can recognize the symptoms of CF, learn ways to combat CF, and to build CC nursing resiliency

Objectives

- Develop a CF educational intervention for CC nurses
- Evaluate the Effectiveness of the educational intervention 2 months after implementation
- Describe the demographic characteristics of CC nurses and their perceived levels of CS and CF

PICOT

In critical care nurses with increased risk for compassion fatigue (CF), will a CF educational offering be effective in increasing awareness of CF two months following the CF offering?

CONGRUENCE WITH ORGANIZATIONAL PLAN

- This DNP QI project:
  - Aligns with both the vision and mission of NCH (NCH, 2019)
  - Will strengthen relationships between CC nurses and leadership
  - Demonstrates a dedication to patients as well as CC nurses
  - Aids in decreasing CC nursing turnover secondary to enhanced CF resiliency

SEARCH STRATEGY

- Bradley University Online Library
  - Databases searched: Google scholar, CINAHL (Cumulative Index to Nursing and Allied Health), PubMed, and the Cochrane Library.
- Search Criteria: 2015-2019
- 14 search phrases used
- Total studies: 247
- Total studies that met criteria yielded: 22

SYNTHESIS OF EVIDENCE

- CF is a complex phenomenon significant to CC nurses (Nolte et al. 2017)
- There is evidence of the veracity of CF that applies to CC nurses (Nolte et al. 2017)
- The need for CF education and intervention is evident
- Leadership support for CC nurses participation in CF education is fundamental to professional and personal protection

SYNTHESIS OF EVIDENCE - CAUSES

- Diminishing Resources
- Increasing acuity of patients
- Repeated exposure to trauma
- "Prolonged, continuous, and intense contact with patients" (Cragun, April, & Thaxton, 2016, p. 730)
- Increased workloads – i.e. COVID-19 (Liew, Siow, & See, 2020)
- Organizational variables

SYNTHESIS OF EVIDENCE - SYMPTOMS

Psychological Symptoms

- Social withdrawal
- Emotional instability
- Loss of work satisfaction
- Relationship issues
- Anxiety
- Irritability
- Reliving another's tragedy

(Nolte et al., 2017)

Physical Symptoms

- Fatigue
- Too much/little sleep
- Eating too little/too much
- Pain (Nolte et al., 2017)
- Substance abuse (Cragun et al., 2016)
- Making medical errors

SYNTHESIS OF EVIDENCE - TOOLS

- Professional Quality of Life (ProQOL 5) Scale
  - One of the few validated measures of CF
  - Most commonly used tool
  - Free to use – Permission granted
  - Available in 27 different languages
  - Measures CS, Burnout and STS (both components of CF)
  - 30 question survey

(Professional Quality of Life Measure, 2019)
(The Center for Victims of Torture, 2019)

SYNTHESIS OF EVIDENCE - TOOLS

- Nurses' Compassion Fatigue Inventory (NCFI)
  - High reliability
  - Deductive/Inductive elements
  - Acceptable consistency and face, content, and construct validity (Sabery, Tafreshi, Mohtashami, & Ebadi, 2017)
  - 35 questions

SYNTHESIS OF EVIDENCE – INTERVENTIONS/STRATEGIES

Educational Interventions

- High validity of reduction of CF
  - Informs value of self-care, self-awareness, resiliency
  - Understanding signs of CF
  - Recognizing signs/symptoms of CF

(Klein et al. 2018)

Evidence based Projects

- Nurse participate in creating change
- Generates buy-in
- Generates resiliency

(West, Wantz, Shalongo, Campbell, Berger, Cole, … Cellitti, 2017)

SYNTHESIS OF EVIDENCE – INTERVENTIONS/STRATEGIES

Code Compassion

- Mobile cart that can deploy to needed area
- Offers snacks, hot/cold beverages
- Reading material
- CD player with headphones

(Kelly, Baker, and Horton, 2017)

Mindfulness

- Cultivated from Buddhist tradition
- Teach to respond to conditions reflectively vs. automatically
- Makes one more aware of thoughts, feelings, and body sensations

(Ruiz-Fernandez, Ortiz-Amo, Ortego-Galan, Ibanez-Mosero, Rodriquez-Salvador, & Ramos-Pichardo, 2019)

SYNTHESIS OF EVIDENCE – INTERVENTIONS/STRATEGIES

Self-Compassion

- How individuals deal with life
- Helpful thinking styles
- Helpful behaviors
- Self-forgiveness

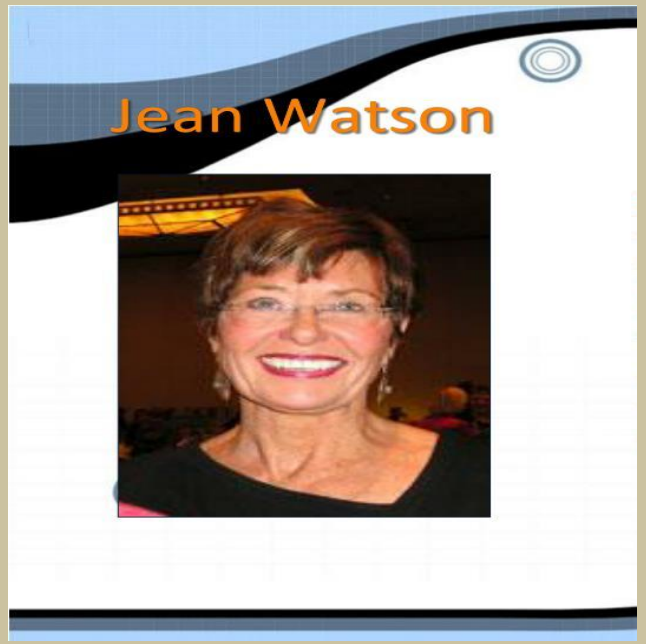
(Upton, 2018)

Other

- Critical Incident Stress Debriefing (CISD)
- Social Support
- Religious Support
- Peer Support Systems

(Morrison and Joy, 2018)

CONCEPTUAL FRAMEWORK



- Jean Watson's Caring Theory
  - Establishes background for nursing practice
  - Caring is key to compassion and restoring compassion
  - Foundation for compassionate Care

(West et al., 2017)

CONCEPTUAL FRAMEWORK

- Dr. Watson's Caring Science is based upon two principles:
  - (1) A caregiver must be able to care for him/herself in order to care for patients and their families (Foss-Durant, 2014)
  - (2) Caring can be delivered at a point in time in a way that each party is changed because of the caring interaction (Foss-Durant, 2014)
- Watson's caring science principles are the fundamental core of compassion
  - This core of compassion is the framework for compassion fatigue resiliency

METHODOLOGY

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PROJECT DESIGN

- Literature Review
- Development of Educational Intervention
- Quantitative design
- Use of ProQOL 5 tool (Stamm, 2009)
- Goal 1 : CC nurses to improve recognition and resiliency to CF
- Goal 2 : Develop self-care strategies

PROJECT SETTING

- 224 –Bed hospital in Northern California
  - STEMI and Stroke receiving facility
  - Magnet Designated facility
- CC areas to include: MSICU, PCU, CVTCU, and ED of the NCH healthcare organization.
  - 56 MSICU, PCU, CVTCU
  - 32 ED beds with the ability to accommodate an extra 6

PROJECT PARTICIPANTS

- CC nurses exhibit higher levels of CF (Mooney, Fetter, Gross, Rinehart, Lynch, & Rogers, 2017)
- Participation will be voluntary and surveys anonymous
- Approximately 231 CC nurses at NCH and 3 department managers
- Participants vary in education, age, time in CC, and position held (full-time, part-time, per-diem)

PROJECT PLAN: INTERVENTION

- One hour educational offering
  - Classroom format- Changed to webinar format due to COVID-19
  - PowerPoint information
  - Simulation techniques for relaxing, debriefing, and mindfulness

PROJECT PLAN: OUTCOMES

- Measuring CF using the ProQOL 5 scores before educational offering and a second ProQOL 5 three months after
  - Seeking improvement in compassion satisfaction and reduction of CF components
- Measuring ProQOL 5 scores of pre-educational offering with demographic data collected
  - Seeking to determine if CF is higher or lower in different demographics of CC nurses

PROJECT PLAN: SUSTAINABILITY

- Sustain CF awareness by offering annual educational offering
  - One time offering will be a temporary fix a band aid
- To maintain CF awareness and resiliency, it is prudent to provide educational routinely
- Ultimate goal: CF educational offering to become an annual CC nursing competency with the NCH Magnet designated facility.
- This project aligns with all eight DNP essentials (*DNP essentials*, 2006)
  - cementing the foundation for an annual QI nursing education

DATA COLLECTION TOOLS

- Quantitative Research methods
- ProQOL 5 Survey tool (Stamm, 2009) pre and post intervention
- Typeform™ survey software
- Statistical Data: Descriptive statistics, Mean, SD, percentages, ANOVA, and paired t-test
- Statistical Consultant: Dr. Denise Liu Li

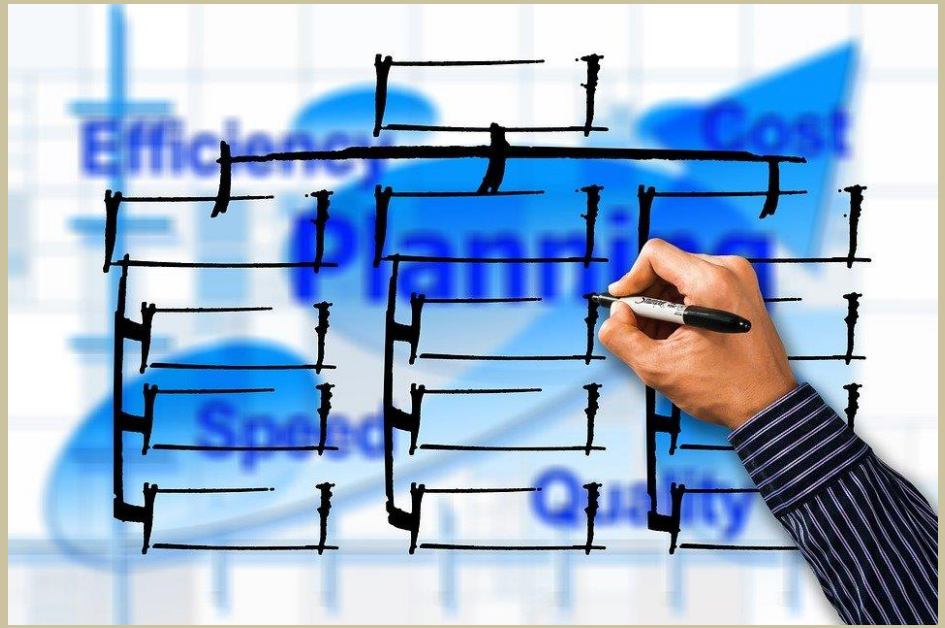
ETHICAL ISSUES

- Ethical aspects of this DNP project include:
  - protection of participants' rights, welfare, privacy, confidentiality, and informed consent
- Ethical issues addressed by maintaining anonymity of participants
  - No identifiable demographic questions
  - Each participant creates their own five digit code on each survey
- All survey results will be biometric protected on Project Managers laptop
  - Implied Consent will be assumed by completion of the anonymous surveys submitted by each participant

ETHICAL ISSUES

- Hospital Chaplains will be available for support
- Participants can leave the educational offering at any time
- Participants can withdraw from the project at any time
- There is no financial compensation
  - For project team
  - For project participants

ORGANIZATIONAL ASSESSMENT AND COST EFFECTIVENESS



ORGANIZATIONAL ASSESSMENT

- NCH cares about employee satisfaction as strongly as patient satisfaction
- NCH is ready for change
- Leadership is fully supportive of CC nurses
- Project builds upon NCH mission and core values
  - Excellence, mutual respect, teamwork, compassion, continuous improvement, and stewardship (Northern California Hospital, 2019)

ORGANIZATIONAL ASSESSMENT

Barriers

- Availability of CC nurses to participate
- COVID-19 restrictions for groups (*California Department of Public Health*, 2020)
- Technical issues with the survey part of the project

Risk

- Increased stressed due to realization of CF in self
- Different CC areas perspective clashing

COST EFFECTIVENESS

- Typeform™ survey software
- Project manager/team time

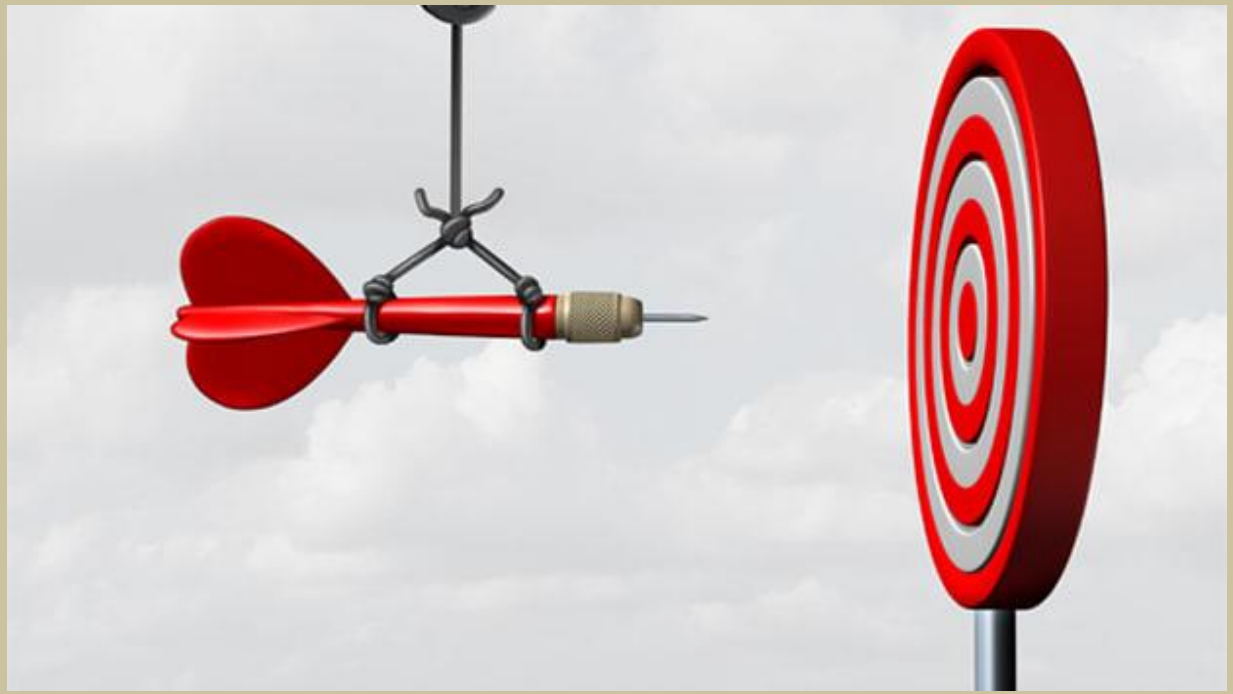
Item	Cost
Participants (100 Nurses for one hour)	$8,500.00
ZOOM software (4 months)	$360.00
Laptop	$0.00
ProQOL 5 Tool	$0.00
Typeform™ software	$420.00
Project Manager Time	$2225.00
Project Team Time	$480.00
Total	$11,985.00

COST EFFECTIVENESS

- Cost to hire and train a new **nurse** can be costly
  - Average cost of hospital nursing turnover is $8.1 million annually (The University of New Mexico, 2016)
- Cost to hire and train a new **CC nurse** will be higher
  - Specialized training
  - Certification in care areas

** The cost to offer an effective compassion fatigue intervention for CC nurses is minimal in relation to the cost of training new CC nurses!

RESULTS



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ANALYSIS OF IMPLEMENTATION PROCESS

- Approval by NCH IRB and Bradley Universities CUHSR prior to implementation
- Development of Educational Intervention- while awaiting approval
- Email Invitation to participate sent to 231 CC Nurses- with instruction to complete the 2 pre-intervention surveys
- N=19 (25 initial respondents- 6 excluded for not completing all 3 tasks)
- Educational Intervention offered via **ZOOM** webinar
- 2 Months post-intervention email with second ProQOL 5 survey (Stamm, 2009) sent to all CC nurses
- Transcription of Survey results into SPSS software initiated/completed

ANALYSIS OF PROJECT OUTCOME DATA

- Achieved 3 Outcomes:
  1. Developed effective educational intervention
  2. Reported Demographic differences in CS, and CF
  3. Demonstrated positive changes in CC nurses perceived CS and BO (component of CF)

- The Educational Intervention was reported as effective (as reported in the chat portion of ZOOM webinars)
- Liked by participants due to ease of logging on from home
- Would have preferred classroom so that debriefings and mindfulness could be practiced in formal setting

ANALYSIS OF DEMOGRAPHIC DATA

- N=19
- Age range from 18 to 85 years old (Mean 1.89±0.32)
- Most were Full time (N=15, 79%) in ED (N=15, 78.9%), and have BSN and/or higher degree (N=17, 89.4%)
- Nursing experience varied from <5 years (N=7, 37%), 5 to 10 years (N=8, 42%) or > 10 years (N=4, 21%)
- Most of the participants reported moderate CS (N=17, 90%) and BO (N=14, 73%)
- STS was fairly even between low (N=9, 47.4%) and moderate (N=10, 52.6%)

ANALYSIS OF DEMOGRAPHIC DATA

- High CS was reported by only two (10%) participants who were age >36 years old, full time, ED nurses with >10 years experiences
- Moderate BO observed in the majority of nurses (N=14, 73%) who were age > 36 years (N=12, 63%), ED (N=10, 52.6%), <5 year experience (N=6, 31.6%) or >10 years (N=5, 26.3%), full time (N=12, 31.6%), and had BSN degree or higher (N=13, 68.4%)
- Of the seven nurses with <5 years of experience, six reported moderate STS. There were only two nurses with ADN degree who reported low (1)and moderate (1) STS compared to 11 (52.8%) of the 17 BSN/MSN nurses reporting moderate levels of STS

ANALYSIS OF DEMOGRAPHIC DATA

- In this sample of nurses, demographic characteristics such as age<35, MSICU/PCU, nursing experience 5-10 years, part-time employment, and ADN nurses were not prevalent in any CS, BO or STS scores
- The result of ANOVA did not find statistically significant effect of any demographic characteristic on pre CS, pre BO, and pre-STS scores ($p>0.05$)

ANALYSIS OF PRE/POST INTERVENTION OUTCOME

ProQOL Scores		TIME	MEAN± SD (RANGE)#	PAIRED DIFFERENCES (T_P : T_B)			
				Difference of Means ±SD	% Change T_P : T_B	t (df=18)	Sig. (2-tailed)*
COMPASSION SATISFACTION		T_B	35.3± 5.7 (24 - 45)	+3.5 ±6.7	+12.5	2.3	0.03*
		T_P	38.9± 5.6 (28 - 46)				
COMPASSION FATIGUE	Burnout	T_B	26.1± 6.3 (10 – 34)	-3.5 ±5.6	-12.8	-2.7	0.01*
		T_P	22.5± 5.7 (11 - 34)				
	Secondary Trauma Stress	T_B	23.5± 4.8 (12 - 30)	-2.5 ± 5.8	-7.4	-1.8	0.07
		T_P	20.9±54.8 (14 - 29)				

δ Time: T_B= Before intervention; T_P= Post-intervention

Total possible score range 10-50/Category

*Reported values with statistical significance (p<.05)

ANALYSIS OF PRE/POST INTERVENTION OUTCOME

- The paired sample t-test was performed to determine changes in CS, BO, and STS scores between the two times (i.e., T_B=before intervention; T_P=after intervention)
- CS = a positive (+) score change denotes higher satisfaction after intervention
- BO and STS = a lower score or negative (-) change reflects lower CF after education intervention
- Both of these directional changes are desirable as they indicate education effectiveness on improving CS and reducing CF

ANALYSIS OF PRE/POST INTERVENTION OUTCOME

- CS = There was a significant difference between scores at before intervention (35.3± 5.7) and after intervention (38.9± 5.6), t (18) = +2.3, p=.03
- Data showed an improvement in CS score by 3.5±6.7 (+12.5%) after intervention
- CF (BO) = scores had a mean difference of -3.5 ±5.6 between the two times
  - This change reflected a 12.8% improvement (reduction) in BO scores after education intervention, which was statistically significant (t (18) =-2.7, p=.01)

ANALYSIS OF PRE/POST INTERVENTION OUTCOME

- STS scores = computed mean difference in scores between pre-intervention (23.5$\pm$ 4.8) and after intention (20.9$\pm$54.8) was -2.5 $\pm$ 5.8
  - This change reflected a modest 7.4% improvement in STS after intervention, which was not statistically significant (p=.07)
- Since the ProQOL5 (Stamm, 2010) is a subjective tool that can be influenced by a variety of factors at the time of assessment, directional correlation or cause-effect relationship between CS or CF and education intervention cannot be discerned by this project's design

POSITIVE CHANGES IN CS AND BO

- Overall there was a positive change in CS between the pre and post educational intervention with an increase of CS by 12.5%
- Overall there was a positive change in BO, component of CF, between the pre and post educational intervention with a decrease of BO by 12.8%
- Although STS decreased it was not significant for the purposes of this project.

DISCUSSION

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RESULTS LINKED TO PROJECT OBJECTIVES

- This quality improvement DNP scholarly project intended to meet three objectives
  - Development and implementation of an educational intervention
  - Evaluate the effectiveness of that educational intervention
  - Describe the characteristics of CC nurses participating in the project by low, moderate, and high CF scores

RESULTS LINKED TO PROJECT OBJECTIVES

- CC nurses were encouraged to employ lessons learned such as recognizing signs and symptoms of CF, practicing ways to reduce CF in their own practice by trying out the different interventions, and ultimately building resiliency to CF
- This project demonstrated a statistical significance in the reduction in BO (a component of CF) and increase in CS (incidental finding) following the employment of an educational intervention
- 19 CC nurses that participated in this project, an overall reduction in BO was 12.8% and an overall increase in CS of 12.5% (incidental finding)

LIMITATIONS

- Concern of having a virtual educational intervention secondary to COVID-19
- Low participation number (N=19) (8%)
  - Secondary to reduction in participant pool due to another scholarly project
- Delay in timeline secondary to COVID-19

IMPACT OF OUTCOMES

- This DNP project has determined that an educational intervention demonstrates positive benefits to CC nurses concerning CF
- The next step is to provide and sustain the positive effects of this educational intervention for CC nurses
- CF is and can be preventable and a correctable condition
  - Healthcare organizations who implement effective interventions may see improvements in nursing retention and morale (Wijdenes et al., 2019)
  - The cost of training a new nurse and developing a long and prosperous employee/employer relationship could be a consideration worth evaluating

IMPACT OF OUTCOMES

- This project aligns with the Magnet culture at this NCH
  - Amalgamates with nature of health and wholeness
- The catastrophic implications of COIVD-19 have overwhelmed many of the nurses at this NCH
  - An educational intervention might be the catalyst to health and healing
- Borges et al., (2019), prevention strategies for CF in nurses should focus on education/training and symptoms, regular monitoring, and peer-peer support on a regular basis

FUTURE IMPLICATIONS TO PRACTICE

- This project is an impetus to future nursing practice
- This project could benefit the healthcare organization in terms of retention and turnover
- More research is required to study the financial significances of CF on healthcare organizations
- Consequences of CF
  - Consequences to CF that include: petulance, hyper-stimulation, disturbing feelings, alcoholism, and apprehension of working with patients (Beaumont et al., 2015).
- Education could be the cure
  - Alharbi et al., (2019) indicate that through education nurses can begin to develop coping strategies to avoid CF

FUTURE IMPLICATIONS TO PRACTICE

- Longitudinal research with a double-blind study is recommended
  - Including larger population pool
  - More demographic categories
  - Including financial aspects of the organization
  - Including leadership participation and education

CONCLUSION

- Value of Project
  - Provides supplementary understanding into best practices for CC nurses in combatting CF
  - Recognized approaches to educate CC nurses on elements of CF
  - Provides a comprehensive awareness for mitigating the detrimental effects of CF on their own practice, on their peers, and on their patients

CONCLUSION

DNP Essentials

- Aligns with all eight of the DNP Essentials
  - Essential I- Expanded nursing theory using Watson's Care Theory
  - Essential II- Disseminated best EBP in QI to an organizations CC nurses
  - Essential III- DNP student exhibiting leadership skills facilitating an organizational change
  - Essential IV- Designed an educational offering

CONCLUSION

DNP Essentials

- Essential V- Advocated for CC nurses to combat CF that could set precedence and the blueprints for healthcare policy changes
- Essential VI- Engaged in effective communication to work along side leadership to collaborate in QI project
- Essential VII- Collected and analyzed data regarding the occupational health of CC nurses
- Essential VIII- Designed, implemented, and evaluated a QI therapeutic intervention based on nursing science

CONCLUSION

Plan for Dissemination

- Regular CF education to CC nurses is the next step
- Publication of this DNP project
- A podium presentation to Leadership
- Leadership training in CF is the next project exploration
- Dedicating real efforts in combatting CF for all nurses, not just CC nurses

Attainment of Personal/Professional Goals

- Illuminated the importance and impact an educational intervention had on CF
- Highlighted core concepts of CF
  - Recognition
  - Combating
  - Resiliency

THANK YOU

- Thank you for taking the time to be here today!
- I now open the floor to questions…

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