Compassion Fatigue Education for Nurse Practitioners

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Abstract

Compassion fatigue (CF) has been studied in many healthcare and non-healthcare related professions. There has been, however, limited research regarding CF among nurse practitioners (NP). CF has been correlated to negative patient outcomes and can have a negative impact on the NP in their professional and personal lives. The question guiding this project was, Are nurse practitioners who participate in a virtual education presentation able to identify and define compassion fatigue as evident by post-education evaluation? A virtual education presentation, discussing CF, was sent to 260 full-time members of a Midwest statewide NP organization. Participants completed an 8-question multiple-choice pre-education test and an 8-question multiple-choice post-education test. The tests consisted of identical questions. Of the 260 full-time members, 25 members participated, however only 9 participants met inclusion criteria (N=9). There was an increase in knowledge regarding CF from pre-education test (M = 6.33 (SD = 0.87) to the post-education test (M = 7.67 (SD = 0.50). The increase was statistically significant at p = 0.01. This project addressed the need to provide CF education among NPs. This information has never been more critical than now due to the current Covid-19 pandemic. The Covid-19 pandemic has put an emotional, mental, and physical strain on healthcare providers, including NPs. By bringing awareness to CF and providing education on this phenomenon, it is intended that there will ultimately be a reduction in the number of CF episodes an NP may experience now and in the future.

Keywords: compassion fatigue; nurse practitioners; virtual education; compassion fatigue model

Compassion Fatigue Among Nurse Practitioners

Many individuals who enter the healthcare field to become healthcare professionals, do so out of a desire to help. This can especially be said about individuals who are called to become nurses, and those who then choose to advance their degrees and become Nurse Practitioners (NPs). Ryan and Ebbert (2013) discovered that NPs who specialized in family practice within the Kansas and Missouri areas found that the connection made with and the ability to provide high quality direct care to their patients was highly associated with their job satisfaction. What happens, however, when the demand of caring for people starts to feel like a burden for the provider? They may become distant from colleagues and patients, easily irritated, overwhelmed, and appear emotionally drained. These could be early signs of compassion fatigue (CF).

Overview

Problem Description

According to Joinson (1992) CF is defined as the overpowering invasive stress that interferes with one's ability to function. Compassion fatigue also encompasses burnout, and secondary traumatic stress (STS) (Stamm, 2010). Burnout is defined as "a negative emotional reaction to external stressors"; whereas STS is defined as the "emotional response to trauma" (Sheppard, 2016, p. 57). This is in comparison to compassion satisfaction (CS) which is the enjoyment and satisfaction associated with a job (Sheppard, 2016). Compassion fatigue has been studied since the 1990s within both healthcare and non-healthcare related professions (Bouchard, 2019). While there have been many studies regarding CF, especially among physicians and nurses, there has been a limited amount of published research focused on NPs and their experience with CF (Bouchard, 2019; Sorenson et al., 2016). Compassion fatigue has been correlated to negative patient outcomes, negative relationships among healthcare colleagues, and can be detrimental to a provider's mental health (Best et al., 2020). Other signs and symptoms of CF include, but are not limited to, increased alcohol consumption, absenteeism, emotional exhaustion,

headaches, forgetfulness, and negative self-image (Bouchard, 2019). This can be related to the ever-increasing demands on healthcare providers. These demands can include the increase in patient acuity, limited resources, challenges with electronic medical records, and irregular work hours (Glover-Stief et al., 2020; Fernando & Consedine, 2014; Graham et al., 2019; Harris et al., 2018). The question guiding this project was: Are NPs who participate in a virtual education presentation able to identify and define CF as evident by post-education evaluation?

The intended outcome of the education was for NPs to gain a better understanding of CF and learn tools and strategies on how to recognize and resolve it. This was measured through the use of pre-education and post-education tests. The participants completed a pre-education test which included questions that assessed their current knowledge of CF. After completing the presentation, the participants then completed the post-education test. The post-education test link was provided to participants immediately after the education was completed by the participant and assessed their comprehension of CF. The pre and post-education tests consisted of identical questions. This helped in the evaluation of knowledge gained from the intervention.

Available Knowledge

Compassion Fatigue in Nurse Practitioners

While there has been limited research regarding CF among NPs, it has been studied extensively among nurses. Compassion fatigue, STS, and burnout may occur in nurses' secondary to an intuition, foundation of knowledge, and ability to care for others that doesn't "shut off" when they leave work (Sheppard, 2016). Sheppard (2016) provided examples such as seeing a worrisome mole on a stranger or wondering if they need to intervene when someone coughs in a restaurant. In addition, nurses who skip breaks, pick up extra shifts, present to work on their days off, and forgo self-care are at risk to develop compassion fatigue. While nurses and NPs have different scopes of practice, these findings may present similarly in NPs.

It is important for NPs to become educated on CF as they are a vital participant in patient care. According to the United Stated Department of Labor it is anticipated that the field of NPs will increase by 45 percent between 2019-2029 (Bureau of Labor Statistics, 2020). Nurse practitioners fill gaps in providing care where there has been an increase in workplace and patient demands (Hoff et al., 2019). This demand may leave NPs prone to develop CF. The research that has examined CF among NPs found their chosen specialty may put them at risk to develop CF (Glover-Stief et al., 2020). NPs who work in areas such as pediatric intensive care units, neonatal intensive care units, and emergency departments are more likely to experience CF compared to their colleagues (Sorenson et al., 2016; van Mol et al., 2015). The development of CF may also be related to cultural practices. Mizuno et al. (2013) found that Japanese midwives were prone to develop CF while assisting in deliveries they deemed to be viable, however the mother chose to abort. These experiences may lead an NP to feel isolated from others, which can directly impact the subjective amount of CF they may experience (Sorenson et al., 2016).

Overcoming Compassion Fatigue

While it has not been classified as a medical condition, burnout has been added to the 11th revision of the International Classification of Diseases (ICD-11), to describe the negative and exhaustive experiences that can occur within the workplace setting (World Health Organization, 2019). Burnout is a component of CF that can affect NPs. It is important for NPs to become educated in CF and all its components as it has been established to have negative impacts on both patients and the NP. The intent of implementing the virtual presentation was to educate NPs on CF topics including signs and symptoms, and identification of potential CF in self. Mindfulness techniques that can be used as self-care methods to aid in CF prevention and resolution were also presented. Some mindfulness techniques included chair yoga, breathwork, and meditation. Halm (2017) conducted a systemic review of evidence-based practice literature regarding the use of mindfulness strategies among nurses who experienced CF. It was discovered there was a decrease in stress levels at both the psychological and physiological levels with

the use of mindfulness-based stress reduction techniques, such as meditation, yoga, practicing gratitude, and body scanning (Halm, 2017).

Rationale

Through an integrative literature review, Coetzee and Laschinger (2017) examined and appraised models related to compassion fatigue and built upon those by creating their compassion fatigue model (CFM). While there have been various concepts, models, and theories that have been developed to define, explain, and evaluate compassion fatigue, there continues to be conflict in defining the role that empathy plays in the development of compassion fatigue or compassion satisfaction (Coetzee & Laschinger, 2017).

The CFM combines two theories to help connect the missing links in the etiology of CF. The first is Hobfoll's (1989 & 1998, as cited in Coetzee and Laschinger, 2017) conservation of resources (COR) theory, which is used to demonstrate the balance of resources within each patient interaction. The second is Decety and Lamm (2009) and Gonzalez-Liencres et al. (2013) social neuroscience of empathy research, which is used to illustrate the use of empathy in stress appraisal. As shown in Figure 1, Coetzee's and Laschinger's (2017) CFM first identifies resources available to the caregiver, which are broken into four categories: object, conditional, personal, and energy resources. After taking into account the various resources that are available to the provider, the model then moves towards patient demands and then to resource reappraisal. During resource reappraisal, the provider determines if the patient's demands are not a threat to their resource pool (other-focused) or they are a threat to their resource pool (self-focused). When the provider is other-focused, they are able to have empathic concern and empathic accuracy, which helps them develop solutions to the patient's problems.

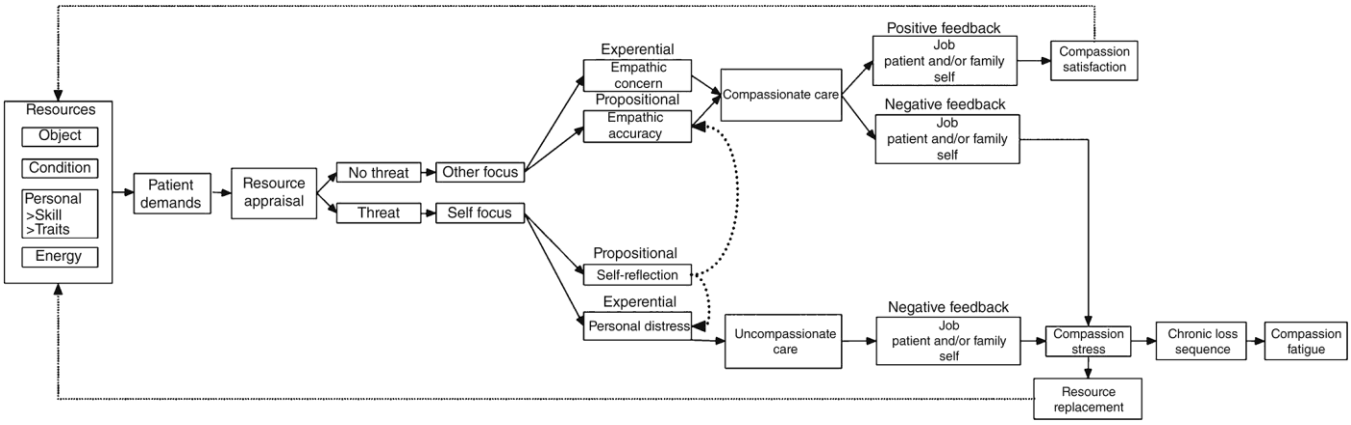

Figure 1

Compassion Fatigue Model

As stated by Coetzee and Laschinger (2017) "the CFM is applied to one cycle of caregiver-patient interaction" (p. 11). They are then able to provide compassionate care. This leads to either a positive or negative feedback. Positive feedback leads to compassion satisfaction, while negative feedback leads to compassion stress which could develop into compassion fatigue. When looking at the self-focused pathway, the provider is not able to distinguish between the patient's feelings and their own. This leads to self-reflection and/or personal distress. Self-reflection can lead to either personal distress or empathic accuracy. When a provider has empathic accuracy, they are able to provide compassionate care. When a provider has personal distress, this leads to uncompassionate care. The uncompassionate care pathway leads to negative feedback and ultimately compassion stress. If a provider reaches compassion stress, they either recognize their lack of internal resources and attempts to replenish them; or the provider progress into CF (Coetzee & Laschinger, 2017).

The development of this model helps close gaps that existed in prior compassion fatigue literature thereby helping to identify the cause of and the role of empathy in compassion fatigue (Coetzee & Laschinger, 2017). This model was applied to the virtual presentation intervention where it was defined and demonstrated to participants through examples. Through this module, the participants gained a clear understanding of the development and recognition of compassion fatigue. This resulted in

the participants being able to evaluate their own provider-patient interactions and their current level of compassion fatigue.

Purpose

The purpose of this project was to present a virtual presentation that educated NPs on the following: definitions of CF and like terminology, the signs and symptoms, the risks of developing, the CFM and how to apply to patient interactions, and mindfulness-based strategies and tools that can be used to resolve CF. It was anticipated that the NP would apply the mindfulness strategies and tools to their professional and personal lives.

Methods

Context

The virtual presentation was distributed through a statewide NP organization in the Midwest. By working with a statewide organization, this allowed the opportunity to educate NPs of different specialties, settings, and years of experience. It also allowed for a broader net to be cast in hopes of educating as many NPs as possible. With the assistance of the statewide organization, it was found that out of the current 314 NP members, 260 members are full-time, seven members are retired, and 47 members are students. The 260 full time members were the focused population of this project.

Intervention(s)

The CF virtual presentation consisted of three modules. Participants were able to experience the presentation on their own time through PowerPoint that included audio and video to enhance learning. The first module discussed what CF is. Participants learned the definitions of burnout, CF, STS, CS, and how they relate and intertwine with each other. A brief history about CF was discussed. Participants were then introduced to the signs and symptoms of CF. Through effects used within PowerPoint and other visual aids, the participants were given several examples on the various ways the CF can look, sound, and feel. These examples were displayed by fictional acting providers representing mild,

moderate, and severe cases of CF and were used throughout the presentation. Next, participants were educated on the risk factors for developing CF. This included risk factors that can occur in both the participants personal and professional lives. The final topic of this module discussed the impact CF may have on an NP. This included the negative impact CF can have on patient outcomes, their professional, and their personal lives.

The second module discussed the CFM. While the CFM can be complex at times, the content was broken down into small steps. Participants learned how the acting providers followed their own individual pathway through one patient interaction. The acting providers saw the same patient in different acuity settings. These settings included a rural primary care office, the emergency room, and an acute inpatient hospital. They were able to visualize how each personal thought and reaction can lead them to potentially experience CF.

The third module of the education discussed mindfulness-based techniques and strategies that participants can use to help prevent and resolve CF. While the education was completed virtually, at the convenience of the participant, they were highly encouraged to engage in the activities within this presentation.

Videos demonstrated breathwork, meditation, and chair yoga. The breathwork exercise was demonstrated by Wim Hoff. Wim Hoff is a Dutch extreme athlete who is the holder of 21 Guinness World Records (Wim Hof Method, 2020). He created the “Wim Hof Method” that combines breathing, cold therapy, and commitment, which many people from all over the world have followed for years. The video that demonstrated meditation was by the creator and voice of the Headspace application, which has 40 million downloads, Andy Puddicombe (Headspace, 2020). The chair yoga video was demonstrated by Adriene Mishler. Adriene has a YouTube channel with over 8 million followers, titled “Yoga with Adriene” in which she guides individuals of all shapes and sizes through various yoga techniques (Mishler, 2020). These three videos were between six to ten minutes long each. Participants

were able to see that only ten minutes or less is needed in order to create change. Overall the virtual presentation took approximately forty-five to sixty minutes to complete. The participants had thirty days to complete the pre-education test, the virtual education presentation, and the post-education test. A reminder to complete the pre-education test, the virtual education presentation, and the post-education test was sent at day fifteen.

Study of the Intervention(s)

Members of the NP statewide organization were recruited via an email that was distributed by the president of the organization. The content of the email was written by the project facilitator. In the initial recruitment email, NPs were invited to participate in the educational presentation. The email included bulleted information about what was included in the presentation, the purpose of educating them on CF, and a short biography of the project facilitator. If the NP chose to participate a link was included in the email that directed them to consent and the pre-test. Participants were directed to the consent form, which was labeled the "Agreement to Participate in Capstone Project". At the end of the agreement was the following statement:

> You are freely making a choice to be a part in this project. By clicking "continue" means that information given to you has been fully explained, all your questions have been answered, that you understand the information given to you, and you agree to participate in the project.

A Wavier of Documentation of Informed Consent was submitted to the Institutional Review Board (IRB).

After obtaining the consent, the participants were then directed to answer three demographic questions. These were multiple-choice questions. The questions asked the participants level of education, the years of NP experience, and the environment in which they work. The purpose of asking these demographic questions was to identify trends regarding CF knowledge specific to those different population characteristics.

Once demographic data was gathered, participants were then directed to the pre-education test. They answered eight multiple-choice questions that evaluated their baseline knowledge of CF. The estimated time that it took for a participant to complete the pre-education test was approximately five to ten minutes. SurveyMonkey was the software used to collect all data.

Next, a link to the virtual presentation was provided. After completion of the presentation, the participants were then asked to complete the post-education test. This test was comprised of the same eight questions that were asked in the pre-education test. The post-education test took approximately five to ten minutes to complete. The project facilitator was then able to compare both test and evaluate the knowledge gained by participants.

Measures

The measures that were chosen to evaluate the intended outcome were multiple-choice pre and post-education tests that were completed by the participant. The pre-education and post-education tests were designed by the project facilitator. They were developed using evidence-based information collected through literature reviews, however no survey reliability and validity measures were available. The multiple-choice questions chosen for the both the pre-education assessed the participants basic knowledge of CF, its relation to like terminology, and the tools that can be used to resolve it (Bouchard, 2019; Coetzee & Laschinger, 2017; Glover-Stief et al., 2020; Halm, 2017; Joinson, 1992; Sheppard, 2016). Identical multiple-choice questions on the post-education tests helped assess knowledge gained from the virtual education. An increase in NPs knowledge about CF, like terminology, the signs and symptoms, the risks of developing, the CFM and how to apply to patient interactions, and mindfulness-based strategies and tools that can be used to resolve CF was the goal of the virtual education. If participants had an increase in their post-education test scores of 10% or higher from their pre-education test scores, it was determined that there was an increase in knowledge. While there are 260 members of the

statewide NP organization, it was anticipated that 10% of the members would participate due to the length of the intervention.

Analysis

After data was collected through SurveyMonkey from both the pre-education and post-education tests, it was exported into Microsoft Excel. The data was then analyzed through the Microsoft Excel Software. The responses to the multiple-choice questions for both the pre-education and post-education tests were coded as zero for correct and one for incorrect. There was only one correct choice per question for both the pre-education and post-education tests.

The inferential statistical test that was used to analyze the data was a dependent samples t-test. This showed the change in the means of the scores from the aggregate data between the pre-education and post-education tests. It was anticipated that the mean score from the post-education test would increase, showing that the outcome of NPs gaining knowledge about CF, how to recognize, and resolve it had been met. If a participant did not fully complete any portion of the study, including the pre-education test, the virtual education presentation, or the post-education test, their responses were excluded from data analysis. A participant's response was also excluded from the study if they choose to opt out of the study at any time.

Ethical Considerations

Before implementation, the project was reviewed by the Institutional Review Board (IRB). An additional review was not needed as there is no IRB within the statewide organization in which the project will be dispersed. While no personal identifying information was collected, the security of the participants IP address could not be guaranteed. The project facilitator, however, ensured that collected data was stored on a password protected computer in an encrypted file. Only the project facilitator had access to the data. The Collaborative Institutional Training Initiative (CITI) education program was completed by both the project facilitator and the faculty advisor.

Results

Only participants who fully completing all portions of the study. This included the pre-education test, the virtual education, and the post-education test. Of the 260 full-time members of the NP organization, 25 members participated. Of the 25 members, nine participants completed all parts of the intervention (*N*=9). The participants were asked to answer three demographic questions that were included in the pre-education test. The purpose of asking these questions was to identify any possible trends. When asked about level of education, three participants had completed a Doctor of Nursing Practice and six participants completed a Master of Science in Nursing. Participants were then asked about level of experience. There appeared to be an even distribution among years practiced between the participants. Two participants have been in practice for five to ten years; two participants have been in practice for ten-fifteen years; three participants have been in practice for fifteen to twenty years; and two participants have been in practice for 20 plus years. The final demographic question assessed the participants area of current clinical work. Participants were given the option to choose from acute care, family practice, specialty practice, rural, and an "other" option in which they provided their type of practice. Three participants worked in an acute care setting; two participants in a family practice site; one participant in a rural area; and one participant in a specialty practice. Two participants chose the "other" option and wrote in that they worked in a hospice practice and an urgent care.

After comparing the results, there was an increase in knowledge regarding CF from the pre-education test (M = 6.33 (SD = 0.87) to the post-education test (M = 7.67 (SD = 0.50). The increase was statistically significant at p = 0.01. See table 1 for complete results.

Table 1

Paired t-Test results Comparing the Correct Pre-Education and Post-Education Test Answers

	M	*N*	*SD*	*t*	*df*	*p*
Number of correct answers on pre-education test	6.33	9	0.87	3.58	8	0.01
Number of correct answers on post-education test	7.67	9	0.50			

Discussion

Summary

Throughout the literature review, many articles discussed the lack of dedicated research regarding CF among NPs. This study is one small attempt to close that gap in the literature. One aim of the study was to present a virtual presentation to NPs of a statewide Midwest organization in hopes to educate NPs of different specialties, settings, and years of experience. While the participant sample was small, it was encouraging to see a variety of years of experience, degree level, and areas of practice. The second and third aims of the study were to present a virtual presentation that educated NPs on CF and evaluate their ability to define CF as evident by post-education evaluation. Per the results, there was an increase in the mean averages of the number of correct answers between the pre-education and post-education test. This increase demonstrates that the goal was met. One strength of this project includes timeliness of the topic. While CF has been a reoccurring phenomenon, it has never been on the minds of so many individuals as it is today due to the COVID-19 pandemic. Another strength of this project is the virtual format of the presentation. This allowed participants the flexibility to complete the education anywhere and at any time during the 30 days the link to the education was available.

Interpretation

This project was different when compared to the literatures reviews that were used to provide evidence-based practice for this project. This project focused on educating NPs about CF, the CFM, and tools and strategies to help prevent and resolve CF. Studies and articles found during the literature review examined CF primarily in nurses and other healthcare professionals (Bouchard, 2019; Coetzee & Laschinger, 2017; Glover-Stief et al., 2020; Halm, 2017; Joinson, 1992; Sheppard, 2016). While nurses and NPs have different scopes of practice, articles exploring CF in nurses were used as those findings may present similarly in NPs. One future recommendation would be to have dedicated research into NPs personal experiences with CF and their individual coping mechanisms. Another future recommendation includes research that compares NPs risk for developing CF when compared to their healthcare colleagues due to the NPs prior patient care experience(s).

Limitations

Possible limitations of the study include the pre and post-education test design, using only one NP organization to distribute the education to, the length of the presentation, the delivery method of the presentation, the availability of the participants, and the sample size of the participants. The pre and post-education tests were designed by the project facilitator and were developed using evidence-based information collected through literature reviews. No survey reliability and validity measures were available, however. The multiple-choice questions chosen for the both the pre-education assessed the participants basic knowledge of CF, its relation to like terminology, and the tools that can be used to resolve it (Bouchard, 2019; Coetzee & Laschinger, 2017; Glover-Stief et al., 2020; Halm, 2017; Joinson, 1992; Sheppard, 2016). To encourage participation in the study, a recruitment email was originally distributed to the NPs by the president of the Midwest statewide organization. A reminder to participate was sent at day 15 of the link being open.

Conclusions

The revised Standards for Quality Improvement Reporting Excellence (SQUIRE 2.0) were used as a framework for reporting this project. This project addressed the need to provide CF education among NPs. This information has never been more critical than now due to the current Covid-19 pandemic. The Covid-19 pandemic has put an emotional, mental, and physical strain on healthcare providers, including NPs. By bringing awareness to CF and providing education on this phenomenon, it was shown that NPs had an increase in knowledge gained as evidence by a post-education test. This increase in knowledge has the potential to reduce the number of CF episodes an NP may experience now and in the future. Next steps include continued education regarding CF among NPs and focused research on NPs specific experiences with CF.

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