

Using Social Media to Improve Nursing Compassion Satisfaction

Cynthia L. Cain

California Baptist University

Riverside, California

Author's Note

Cynthia L. Cain, College of Nursing, California Baptist University.

Correspondence concerning this article should be addressed to Cynthia L. Cain,

[cynthia.cain.dnp@gmail.com](mailto:cynthia.cain.dnp@gmail.com)

### Acknowledgements

A special thanks to the faculty advisor on this project, Dr. Susan Drummond Ph.D., RN, ANP, CNS for her invaluable guidance and support. She encouraged me to pursue my vision for this project when no one else believed in the idea. I am forever grateful for her investment in me and my future. I am also deeply grateful to the advisory team who aided in bringing this project to life, Dr. Gary Anacker, Ph.D., Dr. Elizabeth Scruth Ph.D., RN, CNS, Dr. Marilyn Stoner Ph.D., RN, Hattie McNutt MFT, and Justin Hobgood SN. Finally, no one has been more important to me as I pursued this endeavor than my family. I would like to thank my mother Dixie, my husband, Phillip and my children Jonathan and Janelle, Jared and Jessica, Brenna, Karin, Robin, and Michael whose love and encouragement were my unending motivation.

### Abstract

High nursing turnover rates are costly (5.9 million dollars/year) impacting quality of care and patient satisfaction. New graduate nurses are leaving the profession at a staggering rate. 17.5% of nursing graduates leave within their first year of employment and 43.4% leave within their first three years. One cause of this high turnover is Compassion Fatigue, which is emotional injury resulting in the inability to derive satisfaction from work impeding the nurse from experiencing Compassion Satisfaction. This project addresses Compassion Fatigue in nurses by using social media as a platform to increase Compassion Satisfaction. A shift to leverage social media for health information should include all generations of nurses. 70% of all Americans, across multiple generations, use social media for communication and information. Facebook has the largest usage with more than 75% of its users visiting the site daily. A non-experimental descriptive research design using Stamm's (2010) Professional Quality of Life version five (ProQOL-V) survey (n= 83) and input from an expert panel was used to inform the creation of a social media page addressing Compassion Fatigue. Additionally, a mobile application entitled "Compassion Satisfaction in Nursing: There's an APP for that!" was created. Data over the first three months included 18,522 impressions received, 13,781 users reached, and 36 people taking action, Effectiveness of social media for improving Compassion Satisfaction in Nursing is an area for future research.

**Table of Contents**

Abstract ..... 3

Using Social Media to Improve Nursing Compassion Satisfaction..... 6

Problem..... 7

Significance..... 7

Environmental Context ..... 9

    Regional Demographics..... 9

    Military Veteran Nurses ..... 10

    Nursing Work Environment ..... 10

    Social Media Use ..... 11

Faith Integration..... 11

    Spiritual Health ..... 11

    Prayer ..... 13

    Meditation..... 13

    Fellowship..... 14

Framework ..... 15

Literature Review..... 16

    Compassion Fatigue..... 16

    Burnout ..... 16

    Secondary Traumatic Stress ..... 17

    Treatment Focused on Prevention..... 17

Social Media .....	18
Project Outcomes .....	18
Methods/Implementation .....	19
Sample.....	19
Recruitment.....	20
Survey .....	20
Results.....	21
Expert Panel .....	22
Facebook Page .....	23
Mobile Application .....	24
Finances and Resources .....	25
Final Results.....	26
Implications for Practice .....	26
Recommendations.....	27
Conclusion .....	28
<b>References</b> .....	29
Appendix A .....	37
Appendix B .....	39
Appendix C .....	40

### Using Social Media to Improve Nursing Compassion Satisfaction

An emotionally healthy and engaged workforce is an essential element in providing safe quality care and improving patient satisfaction. An unhealthy workforce is demonstrated by increased absenteeism and staff turnover resulting in 5.9 million dollars a year in unanticipated hospital costs (Kovner, Brewer, Fatehi, & Jun, 2014). The highest nursing turnover rates are among new graduate nurses (Kovner, Brewer, Fatehi, & Jun, 2014). 17.5% of nursing graduates leave within their first year of employment and 43.4% leave within their first three years (Kovner, Brewer, Fatehi, & Jun, 2014). In addition to costly health care, these high turnover rates decrease quality care and patient satisfaction (Clifford, 2014; Hegney, et al., 2014; Mason, Leslie, Lyons, Walke, & Griffin, 2014; Melvin, 2015; Nelville & Cole, 2013). A healthier nursing workforce provides safer quality care and improves patient satisfaction. A key ingredient to promoting a healthier workforce is to improve Compassion Satisfaction which is defined as the pleasure a person derives from doing helping work (Stamm, 2010). This project provides a social media platform to improve awareness of strategies to promote Compassion Satisfaction for nurses. The goal of the project is to decrease absenteeism and turnover rates by providing a resource for nurses to improve their professional quality of life.

To achieve the goal of this project, a research study was conducted to inform the development of the content of the social media platform and a panel of experts was used as advisors to the design, development, and content of the project. The research study was conducted with graduate nursing students enrolled in a college of nursing at a university in Southern California. The advisory team was comprised of two PhD nurse leaders (a regional director with a large multi-hospital system and a former dean of nursing), one nursing student

who was also a military combat veteran, a marriage-family counselor, and a biblical ethics and philosophy professor.

### **Problem**

This project addresses the problem of Compassion Fatigue in nurses by providing resources to increase Compassion Satisfaction by using social media as a platform. Compassion Fatigue is emotional injury resulting in the inability to derive satisfaction from work and impedes the nurse from experiencing Compassion Satisfaction (Stamm, 2010). Due to the caring nature of the nursing profession, nurses are at risk for developing Compassion Fatigue impacting their emotional and physical well-being and the patients and institutions they serve.

### **Significance**

The significance of the problem of Compassion Fatigue in nursing includes trauma to the nursing workforce impacting care and satisfaction of patients and costs to the healthcare system (Melvin, 2015). Since Florence Nightingale took a group of nurses to the Crimean war and improved the conditions of the soldiers dropping the death rate by 95%, nursing has been seen as a “caring profession” (Cohen, 2014). Most nurses enter the profession desiring to care for others and make a positive impact by helping people. When nurses are able to derive pleasure in their helping work they are invigorated, happy, successful and believe their work makes a positive difference (Stamm, 2010). These nurses are experiencing Compassion Satisfaction. They derive joy and meaning in performing their work and as a result the work itself becomes satisfying (NPSF, 2013). These nurses develop resiliency and maintain a personal state of well-being (Brennan, 2017). An important part of maintaining this resiliency is engaging in self-care (NPSF, 2013).

Florence Nightingale lived the last 30 years of her life at home and although she continued to advocate for nurses and the profession, many say she suffered from Post-Traumatic Stress Disorder (PTSD) as a result of the horrific experiences in the Crimean war (Batten, 2009). Compassion Fatigue is emotional injury influenced by a combination of personal, patient, and work factors which may result in burnout and be further compounded by exposure to primary or secondary trauma resulting in inability to derive satisfaction in work (Stamm, 2010). A nurse experiencing Compassion Fatigue may exhibit inability to interact empathetically with others, displays of anger, anxiety, sarcasm, cynicism, apathy, exhaustion, and feelings of being overwhelmed (Lee, Veach, MacFarlane, & LeRoy, 2015; Melvin, 2015). Nurses suffering from Compassion Fatigue are at risk for depression, sleep disorders, relationship issues, diminished overall physical and emotional wellbeing, and potential drug and alcohol abuse (Owen & Wanzer, 2014). Even suicide among healthcare providers has been linked to Compassion Fatigue (Clifford, 2014). In addition to the human suffering contributed to Compassion Fatigue, significance includes increased turnover costing healthcare agencies millions of dollars, decreased quality of care, and declining patient satisfaction scores (Hegney, et al., 2014; Mason, Leslie, Lyons, Walke, & Griffin, 2014).

Resources to address this problem need to shift to include the millennial generation as increasingly younger nurses are entering the workforce (Cahill & Cima, 2016). The majority of Generation X (1965-1980) and millennials (1977-1994) are connected to social media, unlike the baby boomers (1946-1964), and the traditionalists (1900-1945) (St. Aubin, Haggerty & Associates Inc, 2017). New strategies with an emphasis on technology will be important as these generations become the majority of the nursing workforce and the linksters (born after 2002) begin to enter the profession (Blair, 2017).



## **Environmental Context**

### **Regional Demographics**

This Doctorate of Nursing Practice (DNP) project is generated from a university in Southern California located in the county of Riverside which is part of the Inland Empire. The national average of Registered Nurses (RN) per capita is 936 RNs per 100,000 population (Spetz, 2015). California ranks in the bottom 10 US states for per capita nursing at 752 RNs per 100,000 population (Sanchez & Sindstrom, 2012; Spetz, 2015). The Inland Empire region of California, consisting of Riverside and San Bernardino counties has one of the lowest per capita nursing rates in the nation at 515 RNs per 100,000 population (Sanchez & Sindstrom, 2012; Spetz, 2015). The university generating this study is the only university in Riverside county (7303 square miles) to offer higher education for nurses.

The shortage of registered nurses in the region as well as the nation will continue to worsen as the Baby Boomer (1946-1964) generation of nurses retire in the next ten years leaving the nation with only 60% of needed nurses (Sanchez & Sindstrom, 2012; Spetz, 2015). Additionally, there is a 100-150% increase in the elderly population in the Inland Empire with approximately 30% of households having one occupant over age 60 which is up from 15% ten years ago (CA.gov, 2017; Suburban Stats, 2017; Suburban Stats, 2017a). The aging populations are expected to substantially increase the use of healthcare services (Sanchez & Sindstrom, 2012). The combined shortage of nurses and a growing elderly population utilizing more healthcare services make it essential to prevent unnecessary loss of nurses due to Compassion Fatigue.

### **Military Veteran Nurses**

President Barack Obama implemented legislation in 2013 to fast-track civilian employment for military veterans leaving active service by streamlining credentialing and licensing processes (Executive Office of the President, 2013). This led to an increased number of military veterans pursuing licensure as registered nurses. Approximately 30% of veterans have a diagnosis of post-traumatic stress disorder (PTSD) or traumatic brain injury (TBI) (Barry, Whiteman, & MacDermid Wadsworth, 2012). Previous trauma exposure is a predisposing factor for developing Compassion Fatigue (Thieleman & Cacciatore, 2014; Melvin, 2015). It is essential these RNs be equipped with strategies for recognition and prevention of Compassion Fatigue decreasing the likelihood they will leave the profession adding to an already growing nursing shortage. Retention of military veteran nurses satisfied in their work will improve quality of care for the patients they serve and positively impact the veteran population seeking healthcare services.

### **Nursing Work Environment**

Stressful and toxic work environments (incivility, bullying) which contribute to the burnout component of Compassion Fatigue result in unanticipated costs in the form of an increase in absenteeism, staff turnover, adverse patient outcomes, and nurses leaving the profession (Stamm, 2010; Bates & Spetz, 2014; Brennan, 2017; McHugh & Ma, 2014). California RNs describe toxic work environments and organizational practices (poor communication and leadership support) as factors leading them to consider leaving their current position or nursing altogether (Bates & Spetz, 2014; Brennan, 2017; McHugh & Ma, 2014). Turnover rates among RNs are high industry wide with the highest rates among new graduate nurses. Current estimates place the turnover rate of new graduate nurses at 17.5%

within the first year of employment with 43.4% leaving their positions within three years (Kovner, Brewer, Fatehi, & Jun, 2014).

### **Social Media Use**

American usage of social media has risen to 70% in recent years (Pew Research Center, 2017). Social media is used for personal connections, sharing information and for entertainment. While younger generations are the primary consumers of social media, the appeal has broadened significantly across generations with 62% of older Americans now using Facebook (American Press Institute, 2015; Volkom, Stapley, & Amaturro, 2014). Of the numerous social media platforms, Facebook has more than double the number of subscribers as its nearest competitor, Twitter, with 79% percent of Americans utilizing its services (Pew Research Center, 2017). Approximately 75% of Facebook users visit the site daily. A search of Facebook for information on Compassion Fatigue or Compassion Satisfaction yielded no results, identifying the opportunity to deliver information on both Compassion Fatigue and Compassion Satisfaction via social media. Facebook allows the development of organizational pages for businesses and social causes to be created at no cost.

### **Faith Integration**

The heart of nursing practice is the ability to empathize with patients. A loss of empathy or the reduced ability to bear witness to the suffering of others is displayed by nurses suffering from Compassion Fatigue (Figley, 1995). A critical element for avoiding Compassion Fatigue and developing Compassion Satisfaction is a strong and active spiritual life.

### **Spiritual Health**

Spiritual health allows for understanding the purpose and meaning of life and fuels the ability to demonstrate love and forgiveness (Ehsani, Ghiasvad, Mohammadnejand, & Nemati,

2015). The spiritual health of the nurse directly impacts a nurses' attitude toward professional commitment and caring (Chiang, Lee, Chu, Han, & Hsiao, 2015). Nurses with the highest rates of Compassion Satisfaction report participating in regular spiritual practices (Hinderer, et al., 2014). Spiritual well-being is also protective against a key component of Compassion Fatigue, burnout (Rushton, Batcheller, Schroeder, & Donohue, 2015). A source of this empathy comes from loving the Lord our God with all our heart, soul, and strength (emotional, spiritual, and physical) (Deuteronomy 6:5, NLT).

Nurses must take care of themselves as a prerequisite to caring for patients. A Biblical Worldview operates within two principles: 1) Love the Lord your God with all your heart soul and mind and 2) Love your neighbor as yourself. This type of love or “agape” is the basis for the ethical principle of equal regard which requires a person to love others and themselves equally (Lachman, 2016). This principle is echoed by the American Nurses Association (ANA) and nursing matriarch Florence Nightingale. The ANA *Interpretive Statements* Provision 5 states “The nurses owe the same duties to self as to others, including the responsibility to promote health and safety, preserve wholeness of character and integrity, maintain competence, and continue personal and professional growth” (American Nurses Association, p. 19). Florence Nightingale identified the need for nursing self-care by reminding nurses not to undermine their own health in providing care for patients (Nelville & Cole, 2013).

Practices elemental to spiritual health are the disciplines of prayer and meditation. Times of personal prayer and meditation provide the opportunity for distance and separation from the hectic workplace and for rejuvenation of the spirit. Additionally, these practices are critical to establishing true equal regard (Pembroke, 2016). Prayer and meditation deepen the relationship to God leading to personal healing and connectedness to others (Frederick & White, 2015).

**Prayer**

Prayer is communion with God in which our hearts and minds are transformed (Foster, 2009). Prayer allows the opportunity to talk with God about the concerns for ourselves and others. It provides the opportunity to send good thoughts (prayers) towards self, patients, and coworkers. Time devoted to prayer allows for a calming of the mind which can yield unique insight for solving difficult problems. Prayer allows for self-reflection which may drive positive change in how we react to similarly encountered situations. Intercessory prayer, the act of praying on behalf of others, is known to improve the outcomes for patients undergoing cancer treatment and those suffering from depression (Boelens, Reeves, Replogle, & Koenig, 2012; Oliver & Dutney, 2012). Prayer also fosters genuine empathy which is an essential component of nursing practice (Foster, 2009). For example, Jesus was “moved with compassion” after praying for the crowds during the Sermon on the Mount. During the ministry of Jesus, compassion was also an evident part of every healing he performed (Foster, 2009).

**Meditation**

Daily meditation is fellowship with God. Thomas a Kempis described meditation as the development of a “familiar friendship with Jesus” (Foster, 2009). During meditation, we learn how we should live our lives through God’s teaching and guidance (Foster, 2009). Meditation allows for a period of self-reflection, a key factor for building resilience (Melvin, 2015). Periods of meditation can produce insight in difficult situations such as traumatic events thus allowing positivity, joy and even humor to invade the soul and mind bringing mental and physical relaxation (Foster, 2009).

Meditation requires focused concentration on God often referred to as mindfulness or being fully present in the moment. Psalms 46:10 describes this focused attention with “Be still

and know that I am God.” Practitioners are encouraged to sit comfortably and concentrate on loving surrender to God and recognizing His active presence (Frederick & White, 2015). In 2 Corinthians 10:5 and Romans 12: 2 of the Bible describes this as being “transformed by the renewing of your mind” (2 Corinthians 10:5) by “taking captive every thought to make it obedient to Christ” (Romans 12:2). Neuroscience has demonstrated that meditative practices positively alter the brain resulting in decreased anxiety, worry and depression common among sufferers of Compassion Fatigue (Frederick & White, 2015; Lambert, 2017).

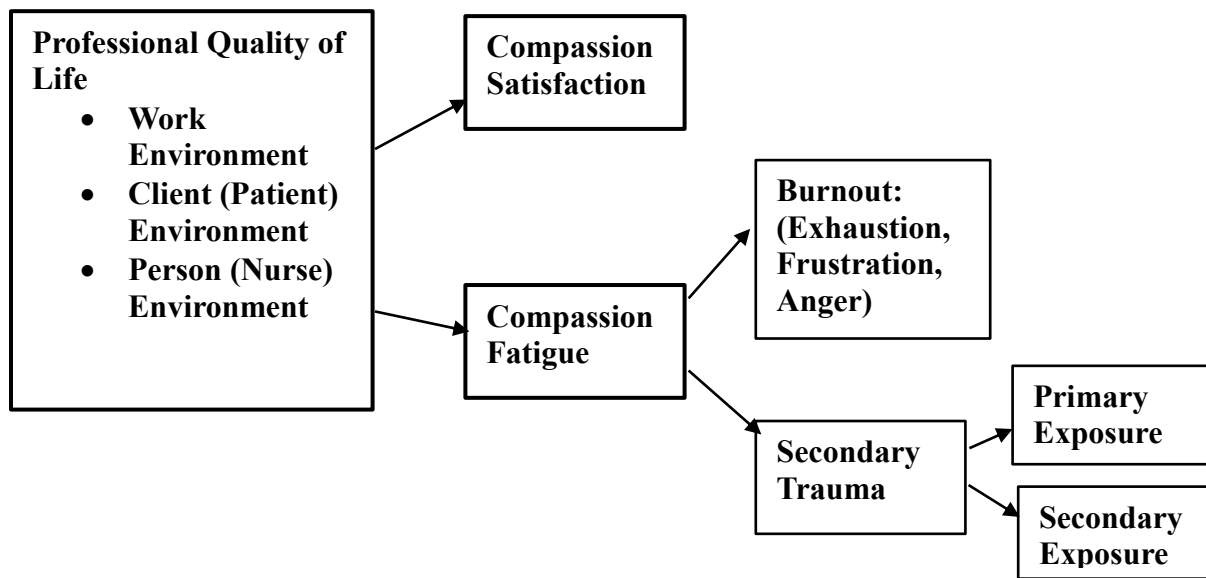
### **Fellowship**

Peer support is a critical element for the nursing professional. The Bible states, “As iron sharpens iron, so one man sharpens another” (Proverbs 27:17). Informally talking with trusted peers about difficult events or intense interactions with colleagues or patients can help an individual emotionally process difficult experiences occurring in the course of caring work (Harris & Griffin, 2015). Formal debriefing is another form of peer support. Formal debriefing sessions allow staff to focus on emotional experiences in a safe and confidential environment (Merriman, 2015; Thompson, 2013). Formal debriefing sessions may be conducted by trained nurse leaders, charges nurses or supervisors (Kelly, Baker, & Horton, 2017). Encouraging staff members experiencing highly emotional experiences to “tell their story” serves to diffuse the psychologic impact of the stress/distress (Mason, Leslie, Lyons, Walke, & Griffin, 2014, p. 224). Fellowship is the term most commonly used to describe these emotionally and spiritually supportive moments. Fellowship is intended to strengthen (sharpen) each participant’s spiritual health leading each one to exercise their faith in love and good works. For the nurse, such good works manifest themselves in safe and empathetic patient care.

**Framework**

Stamm defined professional quality of life as the quality derived in relation to the role of helper encompassing Compassion Satisfaction (positive aspects of work) and Compassion Fatigue (negative aspects of work) (Stamm, 2010). Stamm (2010) further describes Compassion Fatigue as a combination of burnout that may be demonstrated by exhaustion, frustration, and anger resulting in depression and work-related trauma resulting from primary or secondary exposure. Primary exposure is defined as experiencing or witnessing an event or events that involved actual or threatened death or serious injury to self or others (Figley, 1995). Secondary exposure is defined as work-related exposure to people who have experienced extremely or traumatically stressful events (Stamm, 2010).

**Figure 1: Professional Quality of Life (Stamm, 2010)**



## **Literature Review**

### **Compassion Fatigue**

Johnson first coined the term Compassion Fatigue (1992), to describe a unique form of burnout in which nurses became disconnected from their feelings or expressed helplessness in response to caring for patients with devastating illness or injury. The concept was further defined by Figley as the “cost of caring” (Figley, 1995, loc. 484). He described Compassion Fatigue as the reduced capacity of the caregiver to be empathetic or to witness the suffering of patients and expressed the belief that nurses are particularly vulnerable to Compassion Fatigue due to the empathetic and compassionate nature of nursing work (Figley, 1995). Stamm (2010) further conceptualized Compassion Fatigue as resulting from negative personal, patient, and work factors which may result in burnout and is further compounded by secondary traumatic stress stemming from either primary or secondary exposure to trauma. Stamm’s (2010) research seeking to understand why caregivers remain in their role despite high levels of Compassion Fatigue found the positive aspect of helping patients through traumatic events promoted Compassion Satisfaction leading to the desire to continue in caregiving. She summarized that a positive professional quality of life (ProQoL) score entailed maintaining a healthy balance between the positive and negative aspects of giving care (Stamm, 2010). For the purposes of this study and the development of the social media webpage, Stamm’s definitions and theoretical framework were used and her conceptual model is found in the theory section of this paper.

### **Burnout**

Burnout is defined as the gradual onset of feelings of hopelessness in relation to the inability to do an effective job coupled with high workloads and unsupportive environments (Stamm, 2010). Nurses working with the most critically ill patients have the highest levels of



burnout (Clifford, 2014; Mason et al. 2014). Work settings include both inpatient and outpatient units with emergency, oncology, critical care, medical-surgical units, outpatient oncology infusion and home health nurses being at highest risk. The increasingly stressful work environment with its growing complexity of patient care, advances in technology, high patient acuity, incivility and low managerial support were cited as contributing factors (Dyrbye, et al., 2017; Laschinger, Finegan, & Wilk, 2009; Nelville & Cole, 2013).

### **Secondary Traumatic Stress**

Secondary traumatic stress is defined as work-related exposure to persons having experienced extremely traumatic events (Stamm, 2010). Hegney, et al., (2014), recognized Compassion Fatigue as an occupational hazard for caregivers working with trauma victims. Figley (1995), found that a history of personal trauma (physical or psychological) increased a person's risk of developing Compassion Fatigue. Stewart (2009), found in studies conducted during Operation Iraqi Freedom and Operation Enduring Freedom an increase risk of developing Compassion Fatigue for those exposed to death and traumatic injuries. In the meta-analysis conducted by Owen and Wanzer (2014), intense environmental factors (long hours, extremely complex patient care situations and personal safety issues) associated with caring for patients in a war zone were closely linked to Compassion Fatigue. Moss, et al. (2016), found that 25-33% of critical care nurses show signs of severe burnout with 22-29% showing evidence of PTSD indicating the presence of Compassion Fatigue.

### **Treatment Focused on Prevention**

Most recent literature emphasizes the importance of prevention recognizing that sustaining emotional health should be considered a "mandatory competency" for all nurses (Houck, 2014, p.455). One such educational model proposed the use of the three R's

(Recognize, Reverse, and Resilience) to teach military healthcare professionals the importance of self-care (Clifford, 2014). Supportive environments in which nursing practice and civil working relationships were promoted resulted in lower levels of burnout (Laschinger et al. 2009). The evidence also indicates that stable, supportive management environments lead to higher levels of Compassion Satisfaction (pleasure derived from helping work) (Hunsaker, Chen, Aughan, & Heaston, 2015; Sacco, Ciurzynski, Harvey, & Ingersol, 2015). Owen & Wanzer (2014) note that the lack of a uniform definition of Compassion Fatigue complicates the development of treatment and prevention strategies.

### **Social Media**

Social media is an electronic communication platform in which users can create communities for sharing ideas and information (Obar, 2015). Increasingly, social media is being used for health behavior modification (Korda & Itani, 2013). Smoking cessation campaigns and programs to increase adolescent seat belt use via social media have shown the ability to positively influence behavior change (Drake, Zhang, Applewhite, Fowler, & Holcomb, 2017). While, no literature was found on the usage of social media for dissemination of information on Compassion Fatigue or Compassion Satisfaction, practicing nurses are using social media to gain healthcare information and knowledge (Barry & Hardiker, 2012). Social media is also used by nursing faculty as a means of communicating and educating nursing students (Schmidt, Sims-Giddens, & Booth, 2012).

### **Project Outcomes**

Short-term outcomes of the project included assessing levels of Compassion Satisfaction, burnout, and secondary traumatic stress among graduate students enrolled in a Southern California university master of science in nursing program utilizing the Professional Quality of

Life Version 5 to inform to development of the resource to combat compassion fatigue. The long-term outcome of the project was to develop a social media platform delivering information on the recognition and prevention of Compassion Fatigue and describing methods for developing Compassion Satisfaction. Measurement of outcomes included monitoring the number of users reached, the number of people taking action, and the number of impressions expressed by the users. Demonstration of a one percent per month increase in the number of site visitors, likes and comments was identified as successful preliminary outcome data.

### **Methods/Implementation**

A non-experimental descriptive research design was used for this study to discover levels of Compassion Fatigue, burnout, and trauma in nurses and the data was used with additional input from a pre-determined expert panel to create a social media page. Institutional review board approval was obtained from the university prior to the initiation of the study. Participation in the survey was completely voluntary and did not affect course grades or progression in the nursing program. Informed consent was obtained from participants.

### **Sample**

The inclusion criteria included current employment as a full or part-time registered nurse and enrollment in the graduate nursing program. The program enrolls approximately 120 registered nurses each year who are pursuing advanced nursing degrees in the areas of nurse practitioner, clinical nurse specialist, nurse educator and nurse administrator. Nursing participants, both veterans and non-veterans, were recruited from the graduate nursing program. Enrollment in the graduate program (traditional DNP, MSN, and Entry Level MSN students) at the time of the study was 230 students. Approximately 43 of the students were pre-licensure entry level masters of science in nursing student and were excluded from the study due to the

lack of registered nursing licensure. Of the remaining 187 eligible students, 85 participated in the study. Two responses were excluded due to an incomplete ProQOL V5 form for a total of 83 eligible students participating in the study.

### **Recruitment**

Information was sent via e-mail to the graduate faculty regarding the project and requesting the opportunity to speak to each of their classes. The graduate students were informed of the project via e-mail and advertisement on the College of Nursing television requesting volunteers to participate in the study. Recruiting volunteers began on the following Monday and Wednesday when graduate classes were in session. About 5-10 minutes was spent in each class explaining the study, answering questions, and recruiting participants. Free pizza and bottled water was offered to eligible volunteers. Eligible volunteers were also offered the opportunity to participate in a raffle drawing for a \$25 Amazon gift card. Two faculty members assisted in the set-up of the tables and administration of the surveys. Two rooms were reserved, one room was for students who wanted privacy to complete the surveys and the other for group administration of the surveys. Participants were encouraged to take the pizza in with them to eat while completing the surveys.

### **Survey**

All participants were asked to complete a demographic survey in addition to Stamm's (2010) Professional Quality of Life version five (ProQOL-V) survey. Demographic information collected included age, gender, race, years of nursing experience, prior history of trauma, military history, combat exposure, type of unit or nursing provided, and management experience. Confidentiality was maintained throughout the survey process and identification data was numerical with no link to participant identity. Survey responses were kept by the researcher in

locked cabinet. The ProQOL-R-V5 is a 30 item, 5-point Likert scale measuring the negative and positive aspects working with persons experiencing stressful life events. The scale measures the caregiver’s exposure with 1 representing never and 5 as very often. Counseling services for participants were available and offered, however, no participants asked for this service.

The ProQOL-R-V5 has been used internationally to raise awareness of an individual’s or organization’s balance of positive and negative experiences in relation to work (Stamm, 2010). The tool is not a diagnostic test. The tool measures three items: Compassion Satisfaction, Burnout, and Secondary Traumatic Stress. Average ProQOL-R-V5 scores on all measured items (Compassion Satisfaction, Burnout, and Secondary Traumatic Stress) are 50 with a standard deviation of 10. Cut scores are set at the 25<sup>th</sup> and 75<sup>th</sup> percentiles.

	<b>Compassion Satisfaction</b>	<b>Burnout</b>	<b>Secondary Traumatic Stress</b>	<b>Chronbach’s Alpha</b>
<b>25<sup>th</sup> Percentile</b>	44	43	42	0.88
<b>50<sup>th</sup> Percentile</b>	50	50	50	0.75
<b>75<sup>th</sup> Percentile</b>	57	56	56	0.81

*(Stamm, 2010)*

**Results**

Average age of the participants was 30-39 years with 2-5 years mean nursing practice. Moderate levels of burnout and Secondary Traumatic Stress were evident in all age groups and years of practice. The overall averages were 48.7 for Secondary Traumatic Stress, 48.8 for burnout, and 50.5 for Compassions Satisfaction. However, those with less than five years of practice showed the highest levels of burnout and secondary traumatic stress (STS). Burnout among the participants with less than one year of practice was the highest with burnout levels 52.1, STS 50.9 and Compassion Satisfaction scores 48.3. Among those with 2-5 years of

practice, burnout was 49.0, 47.9 for Secondary Traumatic Stress, and Compassion Satisfaction 49.9. Although there was less than 5 percentage points separating all groups. The scores were very similar across all practice settings. Most participants listed work in a medical-surgical/telemetry unit followed by the emergency department. Average scores did not change if the participant was a veteran of the US military or among those who served in a combat zone. The sample size was small (n= 11; 8 veterans, 3 combat veterans). Analysis of the data indicated that the population of nurses most at risk of developing Compassion Fatigue were younger nurses with less than 5 years of experience. Strategies to increase awareness of Compassion Fatigue and improve Compassion Satisfaction would specifically need to target this population and utilize the information platforms familiar to them.

**Table 2 Graduate Student ProQOL-V5 Scores**

	Descriptive Statistics	Compassion Satisfaction	Secondary Trauma Stress	Burnout
MEAN	overall	50.5	48.7	48.8
Gender	Male	51.8	46.6	46.8
	Female	50.1	49.3	49.5
	Descriptive Statistics	Compassion Satisfaction	Secondary Trauma Stress	Burnout
Years Licensed	<1	48.3	52.1	50.9
	2-5	49.9	49.0	47.9
	6-10	51.4	46.5	51.8
	11-15	57.0	48.0	52.3
	16-20	63.6	40.6	36.8
	21-25	51.3	44.7	45.8
	26-30	61.2	40.6	40.0
	>30	49.6	50.5	46.6

**Expert Panel**

A panel of experts was used as advisors to the design, development, and content of the project. The survey results and information on social media platforms were presented to the

expert advisory team utilizing an online meeting platform. A total of 6 meetings were conducted. Recommendations from the committee included development of an organizational Facebook page using a positive approach focusing on improving Compassion Satisfaction instead of preventing Compassion Fatigue. Concurrent to the advisory meetings, the American Nurses' Association launched the theme of "Nursing, Balancing Body, Mind and Spirit" for Nurses Week 2017. The advisory team strongly recommended launching the Facebook page to coincide with nurses' week due to this beneficial marketing opportunity.

### **Facebook Page**

The acronym APP (Awareness, Prevention, Protection) was chosen representing the need for awareness of Compassion Fatigue, strategies for prevention such as self-care (good nutrition, regular exercise) and protection in the form of a strong spiritual life. The slogan "There's an APP for that!" was adopted for the page entitled "Compassion Satisfaction in Nursing." The need for a distinct logo was identified by the advisory team. Two prototypes were developed, and the decision was made to use both, one for the cover photo of the page and the other for the profile picture. The cover photo used the title "Compassion Satisfaction in Nursing: There's an APP for that! Preventing Compassion Fatigue through Awareness, Prevention, Protection" in colorful lettering with a stethoscope integrated into the verbiage. The profile picture was developed with the assistance of a local artist. She utilized the concept of a Nightingale Lamp containing "self-care and spirituality" fueling the flame of "compassion." The page was populated with posts and notes with information and a self-produced, two-and-a-half-minute video on Compassion Fatigue/Compassion Satisfaction definition and related resources.

The Compassion Satisfaction in Nursing page contains the standard Facebook organizational page information tabs which may be accessed by page visitors. The menu for

these tabbed sections is located on the left margin of the page. The home screen provides a scrolling review of the most recent posts including “boosted posts” (posts that have more aggressive promotion through Facebook marketing). Boosted posts may be newer or older posts and contain original posts or information from other sections of the page selected by the page organizer to be promoted. The About tab provides visitors general information about the page and the page administrator. This tab includes the category classification of the page (health and wellness), the story of the page development, and contact information for visitors requesting to contact the page organizers. On the Compassion Satisfaction in Nursing page, the About section discusses the origin of the page as a Doctor of Nursing Practice project dedicated to sharing ideas for developing and maintaining Compassion Satisfaction in nursing and e-mail, messenger, and Instagram contact information. A disclaimer, encouraging users suffering with Compassion Fatigue to seek professional help is included on the About page. The Offers tab for the page includes the offers for downloading the mobile application and the Professional Quality of Life Self-Assessment. The remaining tabs allow visitors to access past posts, photos, videos and information about other Compassion Satisfaction in Nursing community members.

### **Mobile Application**

A mobile application with the same logo was developed containing the same information as the Facebook page. The mobile application was designed to redirect the user back to the Facebook page for more information. The application was made available for free download from the main page as part of the marketing strategy for launch of the page. A one-page information sheet was designed and also made available for free download from the page. Page visitors could also view a calendar of events for a variety of nursing-related activities over the coming months



### **Finances and Resources**

Approximate expenses for this project are \$2271/month or \$27,252 annually primarily in the form of the page developer's salaries and overhead (Appendix A). The development of the page itself is free however marketing the page is not free. Average monthly marketing costs are approximately \$80/month. Another expense is the development and ongoing licensing of the mobile application. The mobile application generator charges a monthly licensing and maintenance fee of \$4.99/month to update application software. A consultant was used to develop the mobile application at a cost of \$25/hour for 6 hours. A potential funding source for ongoing operation and research into the impact of this project is the American Association of Critical-Care Nurses Impact Research Grant. The research grant is awarded annually in the amount of \$50,000. Past grant recipients' projects have focused on factors essential in the creation of a healthy work environment and building resiliency.

This project is not projected to generate any direct revenue however, the expectation is that utilizing the resources from the Facebook page would increase awareness of the signs of Compassion Fatigue and strategies to improve Compassion Satisfaction. Improved Compassion Satisfaction may contribute to decreased absenteeism and staff turnover. A reduction of one call-off per day at a conservative \$35/hour rate for a registered nurses' salary would result in a savings of \$12,600 per month (12 hours X \$35 X 30 days) or \$211,000 annually to a healthcare agency benefitting from the project. Another potential source of cost savings is reduced staff turnover. The average cost of training one specialty nurse (Labor and Delivery, Critical Care, Emergency Department) is an average of \$60,000 per nurse per year (Mason et al., 2014). If utilization of the page resources prevented only one RN from leaving an institution and one absenteeism per day, a savings of \$15,300/month or \$184,000/annually (revenue from decreased

turnover/absenteeism minus expenses) could be realized. Factoring in a 1.7% annual cost of living increase, the savings for an organization over 5 years would be approximately one million dollars (Social Security Administration, 2016).

### **Final Results**

The Compassion Satisfaction in Nursing organizational page was launched on May 6, 2017 in conjunction with National Nurses' Week. Five campaign advertisements were launched during the three months from May 6<sup>th</sup> through July 31<sup>st</sup>, 2017 at a total cost of \$102.18. Facebook uses three measures to determine effectiveness of organizational page campaign advertisements. The three measures are reach, people taking action and impressions (Appendix C). Reach is the number of people exposed to the page. It is considered a more accurate measure than page likes or followers. The reach of the Compassion Satisfaction in Nursing Organizational page for the three-month period between the May 6<sup>th</sup>, 2017 launch and July 31<sup>st</sup>, 2017 was measure at 13,781 views. People taking action measures the number of people who take action based on seeing the post or page. It compliments reach of the page by measuring the number of likes, shares and/or clicks by visitors to the page or campaign advertisement. The number of people taking action during the three-month period was measured at 36 actions. Impressions measures the number of times the page or ad campaign was viewable by the target audience. It is considered a common marketing tool. For the three-month period of this measurement, the Compassion Satisfaction in Nursing Organizational page produced 18,522 impressions.

### **Implications for Practice**

Social media has significant power to influence change when used thoughtfully and professionally and is an underutilized resource for educating nurses regarding the topics of

Compassion Fatigue and Compassion Satisfaction (Milton, 2016). This is demonstrated by the wide reach (13,781 Facebook users) achieved by the campaigns launched during the Compassion Satisfaction in Nursing page's first three months. Evidence continues to suggest that social media is the preferred platform for communication among younger nurses and is increasing in use among all other age groups (Barry & Hardiker, 2012; Ross & Myers, 2017). Nurses can benefit from social media sites about Compassion Satisfaction through increased access to information, improved communication and engagement via the creation of support networks (Duke, et al., 2017).

### **Recommendations**

More research is needed to determine which social media platform is best for imparting information regarding Compassion Satisfaction and Compassion Fatigue and what quantifiable measures best capture the impact of the tool. Preventing Compassion Fatigue or achieving Compassion Satisfaction once a nurse has identified signs of it requires behavior change towards self-care and spiritual care. Currently, research surrounding the use of social media for modifying health behavior has not identified absolute, quantifiable outcome measures, although recent evidence does suggest that tallying the number of "likes" and "shares" on social media may correlate to changes in behavior (Drake, Zhand, Applewhite, Fowler, & Holcomb, 2017; Ross & Myers, 2017). Studies that link nursing retention to Compassion Satisfaction as demonstrated in self-care and spiritual practices are warranted. Further areas of study include researching the connection between knowledge gained from social media websites related to Compassion Satisfaction and successful implementation of strategies to combat Compassion Fatigue that result in nursing retention, an increase in quality patient care, and/or higher levels of patient satisfaction.

### **Conclusion**

An emotionally healthy and engaged workforce is an essential element in providing safe, quality care and improving patient satisfaction. A key ingredient to promoting a healthier workforce is to improve Compassion Satisfaction which is defined as the pleasure a person derives from doing helping work (Stamm, 2010). An increasing percentage of nurses use social media to obtain health information. Facebook is the most popular social media platform with 75% of users visiting the site at least daily. This project provided a social media platform to improve awareness of strategies to promote Compassion Satisfaction for nurses. The outcomes of this project demonstrate the wide exposure to information social media platforms such as Facebook can provide. More research is needed to determine which social media platform to use for such health information and what measures are best used to quantify its effectiveness.

### References

- American Nurses Association. (2017, November 30). *Code of Ethics*. Retrieved from Nursingworld.org: <http://nursingworld.org/DocumentVault/Ethics-1/Code-of-Ethics-for-Nurses.html>
- American Press Institute. (2015, March 16). *How millennials use and control social media*. Retrieved from <https://www.americanpressinstitute.org/publications/reports/survey-research/millennials-social-media/>
- Barry, A. E., Whiteman, S. D., & MacDermid Wadsworth, S. M. (2012). Implications of posttraumatic stress among military-affiliated and civilian students. *Journal of American College Health, 562-573*.
- Barry, J., & Hardiker, N. P. (2012, September). *Advancing nursing practice through social media: A global perspective*. Retrieved from Online Journal of Issues in Nursing: <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-17-2012/No3-Sept-2012/Advancing-Nursing-Through-Social-Media.html?css=print>
- Bates, T., & Spetz, J. (2014). *California health care almanac*. Oakland: California Healthcare Foundation.
- Batten, S. V. (2009, July 16). *Notable historical figures may have experienced PTSD*. Retrieved from Defense Centers of Excellence: [http://www.dcoe.mil/blog/09-07-16/Thursday\\_July\\_16\\_2009\\_-\\_Notable\\_Historical\\_Figures\\_May\\_Have\\_Experienced\\_PTSD.aspx](http://www.dcoe.mil/blog/09-07-16/Thursday_July_16_2009_-_Notable_Historical_Figures_May_Have_Experienced_PTSD.aspx)

- Blair, O. (2017, April 11). *What comes after millennials*. Retrieved from Independent:  
<http://www.independent.co.uk/life-style/millennials-generation-z-linksters-what-next-generation-x-baby-boomers-internet-social-media-a7677001.html>
- Boelens, P. A., Reeves, R. R., Replogle, W. H., & Koenig, H. G. (2012). The effect of prayer on depression and anxiety: Maintenance of positive influence one year after prayer intervention. *International Journal of Psychiatry in Medicine*, 85-98.
- Brennan, E. J. (2017). Towards resilience and wellbeing in nurses. *British Journal of Nursing*, 43-47.
- CA.gov. (2017, July 29). *Data and statistics - facts about California's Elderly*. Retrieved from California Department of Aging:  
[http://www.aging.ca.gov/data\\_and\\_statistics/facts\\_about\\_elderly/](http://www.aging.ca.gov/data_and_statistics/facts_about_elderly/)
- Cahill, T. F., & Cima, L. E. (2016, January). *On common ground: Addressing generational issues in nursing services*. Retrieved from Catholic Health Association of the United States:  
<https://www.chausa.org/publications/health-progress/article/january-february-2016/on-common-ground-addressing-generational-issues-in-nursing-services>
- Chiang, Y.-C., Lee, H.-C., Chu, T.-L., Han, C.-Y., & Hsiao, Y.-C. (2015). The impact of nurses' spiritual health on their attitudes toward spiritual care, professional commitment, and caring. *Nursing Outlook*, 215-224.
- Clifford, K. (2014). Who cares for the carers? Literature review of compassion fatigue and burnout in military health professionals. *Journal of Military and Veteran's Health*, 53-63.
- Cohen, I. B. (2014, October 30). *Florence Nightingale*. Retrieved from University of North Carolina at Chappel Hill: <http://www.unc.edu/~nielsen/soci708/cdocs/cohen.htm>

County of Riverside. (2017, August 28). *County of Riverside*. Retrieved from County of Riverside Map:

<http://countyofriverside.us/Visitors/MapsofRiversideCounty/CountyofRiversideMap.aspx>

Drake, S. A., Zhang, N., Applewhite, C., Fowler, K., & Holcomb, J. B. (2017). A social media program to increase adolescent seat belt use. *Public Health Nurse*, 500-504.

Duke, V. J., Anstey, A., Carter, S., Gosse, N., Hutchens, K. M., & Marsh, J. A. (2017). Social media in nurse education: Utilization and E-professionalism. *Nurse Education Today*, 8-13.

Dyrbye, L. N., Shanafelt, T. D., Sinsky, C. A., Cipriano, P. F., Bhatt, J. W., & Meyers, D. (2017). *Burnout among healthcare professionals: A call to explore and address this underrecognized threat to safe, high-quality care*. Washington DC: National Academy of Medicine.

Ehsani, S. R., Ghiasvad, A. M., Mohammadnejand, E., & Nemati, D. F. (2015). The concept of spiritual health from the viewpoint of nurses working in intensive care units. *Journal of Nursing and Midwifery Sciences*, 48-52.

Executive Office of the President. (2013). *The fast track to civilian employment: Streamlining credentialing and licensing for service members, veterans, and their spouses*. Washington DC: National Economic Council and President's Council of Economic Advisors.

Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat te traumatized*. New York: Brunner-Mazel.

Foster, R. J. (2009). *Celebration of Discipline: The path to spiritual growth*. Nashville: Harper Collins Publications (e-book).

- Frederick, T., & White, K. M. (2015). Mindfulness, christian devotion, meditation, surrender, and worry. *Mental Health, Religion & Culture*, 850-858.
- Hegney, D. G., Craigie, M., Hemsworth, D., Osseiran-Moisson, R., Aoun, S., Francis, K., & Drury, V. (2014). Compassion satisfaction, compassion fatigue, anxiety, depression and stress in registered nurses in Australia study 1 results. *Journal of Nursing Management*, 506-518.
- Hinderer, K. A., VonRueden, K. T., Friedmann, E., M. K., Gilmore, R., Kramer, B., & Murray, M. (2014). Burnout, compassion fatigue, compassion satisfaction and secondary traumatic stress in trauma nurses. *Journal of Trauma Nursing*, 160-169.
- Houck, D. (2014). Helping nurses cope of grief and compassion fatigue: An educational intervention. *Clinical Journal of Oncology Nursing*, 454-458.
- Hunsaker, S., Chen, H.-C., Aughan, D., & Heaston, S. (2015). Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. *Journal of Nursing Scholarship*, 186-194.
- Johnson, C. (1992). Coping with compassion fatigue. *Nursing*, 116-122.
- Kelly, L. A., Baker, M. E., & Horton, K. L. (2017). Code Compassion: A caring fatigue reduction intervention. *Nursing Management*, 18-22.
- Korda, H., & Itani, Z. (2013). Harnessing social media for health promotion and behavior change. *Health Promotion Practice*, 115-123.
- Kovner, C. T., Brewer, C. S., Fatehi, F., & Jun, J. (2014). What does the nurse turnover rate mean and what is it? *Policy, Politics and Nursing Practice*, 64-71.



- Lachman, V. D. (2016). Compassion fatigue as a threat to ethical practice: Identification, personal and workplace prevention/management strategies. *MEDSURG Nursing*, 275-278.
- Lambert, S. (2017, November 12). *Being still in a busy world*. Retrieved from Evangelical Alliance: <http://www.eauk.org/church/stories/being-still-in-a-busy-world.cfm>
- Laschinger, H. K., Finegan, J., & Wilk, P. (2009). New graduate burnout: The impact of professional practice environment, workplace civility and empowerment. *Nursing Economics*, 377-383.
- Lee, W., Veach, P., & MacFarlane, I. a. (2015). Who is at risk for compassion fatigue? An investigation of genetic counselor demographics, anxiety, compassion satisfaction and burnout. *Journal of Genetic Counseling*, 358-370.
- Mason, V. M., Leslie, G., Lyons, P., Walke, E., & Griffin, M. (2014). Compassion fatigue, moral distress, and work engagement in surgical intensive care unit trauma nurses. *Dimension in Critical Care*, 215-225.
- McHugh, M. D., & Ma, C. (2014). Wage, work environment, and staffing: Effects on net nurse outcomes. *Policy, Politics and Nursing Practice*, 72-80.
- Melvin, C. S. (2015). Historical review in understanding burnout, professional compassion fatigue, and secondary traumatic stress disorder from a hospice and palliative nursing perspective. *Journal of Hospice and Palliative Nursing*, 67-72.
- Merriman, J. (2015). Enhancing counselor supervision through compassion fatigue education. *Journal of Counseling and Development*, 370-378.
- Milton, C. L. (2016). Power with social media: A nursing perspective. *Nursing Science Quarterly*, 113-115.

- Nelville, K., & Cole, D. A. (2013). The relationships among health promotion behaviors, compassion fatigue, burnout, and compassion satisfaction in nurses practicing in a community medical center. *Journal of Nursing Administration*, 348-354.
- NPSF. (2013). *Through the eyes of the workforce*. Boston: National Patient Safety Foundation.
- Obar, J. (2015). Social media definition and the governance challenge: An introduction to the special issue. *Telecommunications Policy*, 745-750.
- Oliver, I. N., & Dutney, A. (2012). A randomized, blinded study of the impact of intercessory prayer on spiritual well-being in patients with cancer. *Alternative Therapies*, 18-27.
- Owen, R. P., & Wanzer, L. (2014). Compassion fatigue in military healthcare teams. *Archives of Psychiatric Nursing*, 2-9.
- Pembroke, N. (2016). Contributions from Christian ethics and Buddhist philosophy to the management of compassion fatigue in nurses. *Nursing and Health Sciences*, 120-124.
- Pew Research Center. (2017, January 12). *Social media fact sheet*. Retrieved from Internet and Technology: <http://www.pewinternet.org/fact-sheet/social-media/>
- Ross, J. G., & Myers, S. M. (2017). The current use of social media in undergraduate nursing education. *CIN: Computers, Informatics, Nursing*, 338-344.
- Rushton, C. H., Batcheller, J., Schroeder, K., & Donohue, P. (2015). Burnout and resilience among nurses practicing in high-intensity settings. *American Journal of Critical Care*, 412-420.
- Sacco, T. L., Ciurzynski, S. M., Harvey, M. E., & Ingersol, G. L. (2015). Compassion satisfaction and compassion fatigue among critical care nurses. *Critical Care Nurse*, 32-42.

Sanchez, L., & Sindstrom, Z. (2012). *Healthcare industry and occupations in the Inland Empire*.  
San Bernardino: The Regional Center of Excellence.

Schmidt, T. L., Sims-Giddens, S. S., & Booth, R. G. (2012, September). *Social media use in nursing education*. Retrieved from Online Journal of Issues in Nursing:  
<http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-17-2012/No3-Sept-2012/Social-Media-in-Nursing-Education.html?css=print>

Social Security Administration. (2016). *Cost of living adjustment*. 10: April .

Spetz, J. (2015). *Forecasts of the registered nurse workforce in California*. San Francisco:  
University of California, San Francisco.

St. Aubin, Haggerty & Associates Inc. (2017, July 22). *Generational differences chart*. Retrieved from Graduate School of Banking at Colorado:  
[http://www.gsbcolorado.org/uploads/general/Talent\\_Management\\_Class\\_Handout\\_SHA\\_Generational\\_Chart.pdf](http://www.gsbcolorado.org/uploads/general/Talent_Management_Class_Handout_SHA_Generational_Chart.pdf)

Stamm, B. H. (2010). *The concise ProQOL manual*. Pocatello: ProQOL.org. Retrieved January 20, 2016, from [http://www.proqol.org/ProQOL\\_Test\\_Manuals.html](http://www.proqol.org/ProQOL_Test_Manuals.html)

Stewart, D. W. (2009). Casualties of war: Compassion fatigue and health care providers. *MEDSURG Nursing*, 91-94.

Suburban Stats. (2017, July 29). *Current Riverside County, California population demographics and statis in 2016,2017*. Retrieved from  
<https://suburbanstats.org/population/california/how-many-people-live-in-riverside-county>

- Suburban Stats. (2017a, July 29). *Current San Bernardino, California population, demographics and stats in 2016,2017*. Retrieved from <https://suburbanstats.org/population/california/how-many-people-live-in-san-bernardino>
- The Joint Commission. (2012). *Improving patient and worker safety: Opportunities for synergy, collaboration and innovation*. Oakbrook Terrace, IL: The Joint Commission. Retrieved from [www.jointcommission.org](http://www.jointcommission.org).
- Thieleman, K., & Cacciatore, J. (2014). Witness to suffering: mindfulness and compassion fatigue among traumatic bereavement volunteers and professionals. *Social Work, 34*-41.
- Thompson, A. (2013). How Schwartz rounds can be used to combat compassion fatigue. *Nursing Management, 16*-20.
- Volkom, M. V., Stapley, J. C., & Amaturio, V. (2014). Revisiting the digital divide: Generational differences in technology use in everyday life. *North American Journal of Psychology, 557*-574.

Appendix A

Appendix A1: Compassion Satisfaction in Nursing Social Media Page Development Budget					
Expenses					
Salaries	Description	Fixed/Variable	Quantity	Cost	Total
Page Administrator	10% of Time on Project	Fixed	1	958	\$958
Benefits	23% total Page Administrator salary	Fixed	1	220	\$220
Consultants	Consultant fee (hourly or flat)	Variable	6	25	\$150
<b>Sub - total Salaries</b>					<b>\$1,328</b>
Supplies	Description		Quantity	Cost	Total
Computer	Development and ongoing page updates	Variable	1	40	\$40
Artwork	Logo Design	Variable	1	150	\$150
Gifts	Application download, Info sheet		30	0	\$0
Other					\$0
<b>Sub-total Supplies</b>					<b>\$190</b>
Marketing/Communications	Description		Quantity	Cost	Total
Facebook Page Set up	Development of Page	Fixed	1	0	\$0
Facebook Promotion Management	Monthly Page Promotion	Variable	1	35	\$35
Facebook Post Boosts	Individual Page Promotion	Variable	4	10	\$40
Application Manager	License for App Maintenance	Fixed	1	4.99	\$5
<b>Sub-total Marketing/Communications</b>					<b>\$80</b>
Indirect Costs			Quantity	Cost	Total
Indirect	15% of total expenses	Fixed			\$673
<b>Sub-total Indirect</b>					<b>\$673</b>

Appendix A2: Compassion Satisfaction in Nursing Social Media Page Potential Indirect Revenue

Revenue

Program Income	Description	Value	Month Total
RN	Enrolled in CBU Grad Program		\$0
Decreased Absenteeism*	1 Shift/day Average RN Salary (30 days)	\$35hr X 12 X 30 days	\$12,600
Decreased Turnover Cost*	60K/year Orientation Costs	1 RN	\$5,000
<b>Total Income</b>			<b>\$17,600</b>

\*Conservative estimate of potential savings for average hospital in the US

Appendix A3: Compassion Satisfaction in Nursing Social Media Page Operating Budget

Expenses		Total	
Salaries		\$1,328	
Supplies		\$190	
Marketing/Communications		\$80	
Indirect Costs		\$673	
<b>Total Direct and Indirect Costs</b>		\$2,271	Per Month
Revenue (All Sources)		Total	
Potential Hospital savings		\$17,600	Per Month
			<b>Total</b>
<b>Net Income</b>	<b>Income-Expenses</b>		<b>\$15,329</b>

Appendix A4: Compassion Satisfaction in Nursing Social Media Page 5 Year Budget

Expenses	2017	2018	2019	2020	2021
Salaries	\$15,936	\$16,206.91	\$16,482.43	\$16,762.63	\$17,047.60
Supplies	\$2,280	\$2,318.76	\$2,358.18	\$2,398.27	\$2,439.04
Marketing/Communications	\$960	\$976.20	\$992.79	\$1,009.67	\$1,026.84
Indirect Costs	\$8,076	\$8,213.29	\$8,352.92	\$8,494.92	\$8,639.33
<b>Total Direct and Indirect Costs*</b>	\$27,252	\$27,715.16	\$28,186.32	\$28,665.49	\$29,152.80
<b>Total</b>					
<b>Revenue (All Sources)*</b>	\$211,200	\$214,790.40	\$218,441.84	\$222,155.35	\$225,931.99
<b>Total</b>					
<b>Net Income (Income-Expenses)*</b>	<b>\$183,948</b>	<b>\$187,075</b>	<b>\$190,256</b>	<b>\$193,490</b>	<b>\$196,779</b>
<b>Ratio: Total Expenses/Total Revenues</b>	29%	29%	29%	29%	30%

\*Based on 1.7% US average Cost of Living increase

Appendix B

Appendix B1: Mean ProQOL-V5 Scores by Facility Worked

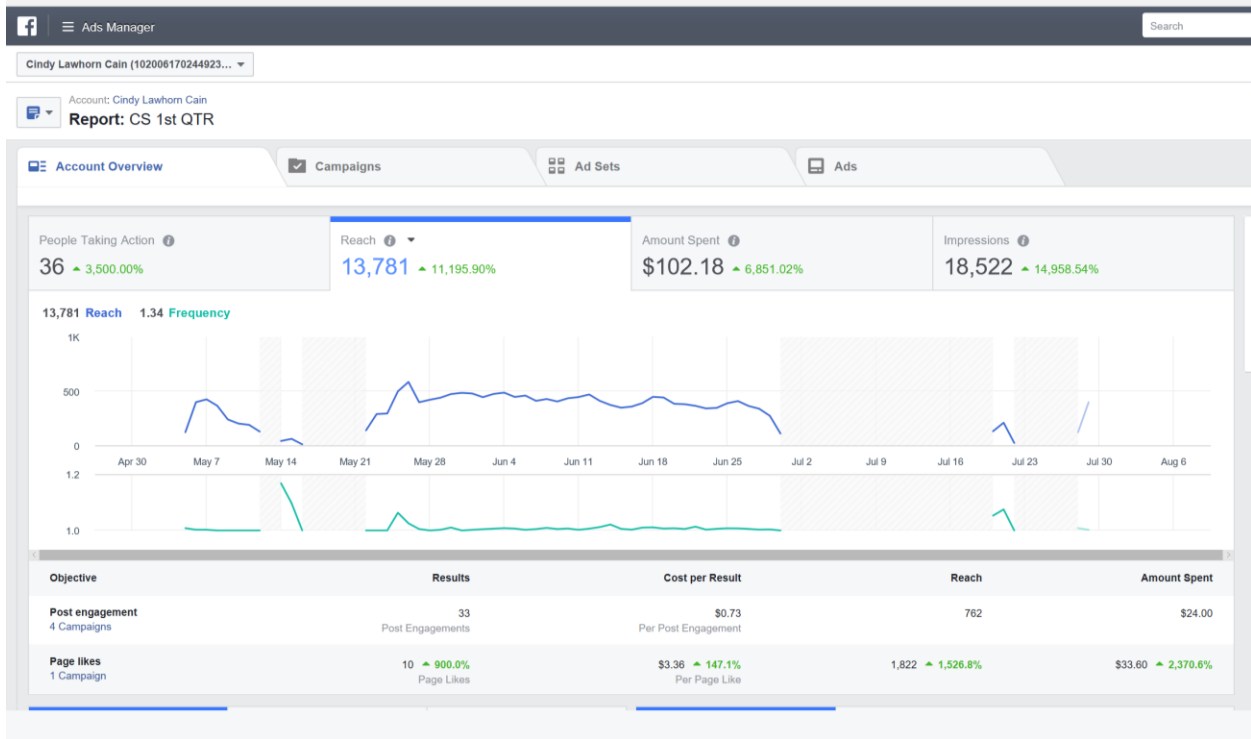
MEAN	Descriptive Statistics	Compassion Satisfaction	Secondary Trauma Stress	Burnout
Facility	Acute Care	51.0	49.1	49.3
	University Setting	44.7	55.5	46.6
	Public Health	42.5	54.4	53.6
	Outpatient	56.2	42.3	43.3
	Combination	51.5	43.7	44.8
	Other	48.5	50.5	46.3

Appendix B2: Mean ProQOL-V5 Scores by Unit Worked

MEAN	Descriptive Statistics	Compassion Satisfaction	Secondary Trauma Stress	Burnout
Unit	N/A	51.8	45.7	44.4
	Emergency	51.2	50.9	50.3
	ICU	53.5	44.7	49.6
	L & D / MCH	47.5	52.6	54.5
	M/S/Tele	47.4	51.3	49.8
	Periop	53.9	44.9	46.6
	Other	55.4	40.6	40.9
	Other: Case Mgmt	61.2	40.6	40.0
	Other: Case Mgr	57.9	39.0	35.2
	Other: Psychiatric	48.0	45.6	43.3
	Other: Rehab	54.6	55.5	44.9
	None	52.9	45.6	51.5

Appendix C

Appendix C1: Reach, People Taking Action and Impression Marketing Outcomes May-July 2017



Appendix C2: Compassion Satisfaction in Nursing Marketing Campaigns May-July 2017

Campaign Name	Delivery	Results	Reach	Cost per Result	Amount Spent	Ends	People Takin...
Post: "Compassion Satisfaction in Nursing shared your post."	Completed	15 Post Engagements	317	\$0.67 Per Post Engagement	\$10.00	Jul 22, 2017	11
Post: "It can be work to maintain compassion in a..."	Completed	10 Post Engagements	388	\$1.00 Per Post Engagement	\$10.00	May 27, 2017	9
Post: "Compassion Satisfaction in Nursing shared your post."	Completed	6 Post Engagements	89	\$0.33 Per Post Engagement	\$2.00	May 16, 2017	6
Post: "Go like Flo! ...Dr. Geneva Oaks"	Completed	2 Post Engagements	128	\$1.00 Per Post Engagement	\$2.00	May 8, 2017	2
<b>Results from 4 Campaigns</b>		<b>33 Post Engagements</b>	<b>762 People</b>	<b>\$0.73 Per Post Engagement</b>	<b>\$24.00 Total Spent</b>		<b>24 People</b>



Appendix C Table 13: Compassion Satisfaction in Nursing Marketing Demographics

