

# Compassion Fatigue, Burnout, and Compassion Satisfaction Among Oncology Nurses in the United States and Canada

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No financial relationships to disclose.

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Submitted May 2015. Accepted for publication September 17, 2015.

Key words: nursing; oncology; cancer; compassion fatigue; burnout; compassion satisfaction

ONF, 43(4), E161–E169.

doi: 10.1188/16.ONF.E161-E169

**Purpose/Objectives:** To examine the experiences of compassion fatigue, burnout, and compassion satisfaction among oncology nurses in the United States and Canada.

**Design:** Quantitative, descriptive, nonexperimental.

**Setting:** Online survey with members from the Canadian Association of Nursing Oncology and the Oncology Nursing Society.

**Sample:** 486 American and 63 Canadian practicing oncology nurses.

**Methods:** The Professional Quality of Life (ProQOL) scale, version 5, and modified Abendroth Demographic Questionnaire were administered through FluidSurveys™, an online data collection instrument. Chi-square tests of independence were used to investigate associations between demographic characteristics, health, personal stressors, and work-related characteristics to experiences of compassion fatigue, burnout, and compassion satisfaction. Compassion fatigue was measured using the subscales of secondary traumatic stress and burnout.

**Main Research Variables:** Compassion fatigue, burnout, and compassion satisfaction.

**Findings:** Demographic characteristics were similar in American and Canadian participants, and both cohorts reported comparable levels of compassion fatigue, burnout, and compassion satisfaction. Perception of team cohesiveness within the workplace environment was found to be significant for both groups, as indicated by significant relationships in all three subscales of secondary traumatic stress, burnout, and compassion satisfaction in the ProQOL.

**Conclusions:** Healthy and supportive work environments are imperative to nurses' health, well-being, and satisfaction. Improvements in the workplace can help prevent negative sequelae, as well as improve health outcomes for patients and nurses, decrease nurse turnover, and reduce healthcare expenditures.

**Implications for Nursing:** Findings can be used to implement institutional changes, such as creating policies and guidelines for the development of preventive interventions and psychosocial support for nurses.

Nursing care involves an innate recognition and responsibility to alleviate pain and suffering, which implies that kindness, compassion, and competency (Straughair, 2012) are integral parts of the process. Generally, those who enter the nursing profession are motivated by the desire to provide quality compassionate care (Baughan & Smith, 2008) regardless of the specialty area; however, oncology nursing has special challenges because of the nature of cancer.

Evidence indicates that oncology nurses are particularly vulnerable to occupational stress (Aycock & Boyle, 2009) because of the conditions under which they provide care. Research has demonstrated that two of the most commonly reported work-related consequences for nurses are compassion

fatigue and burnout (Sabo, 2011). Several studies report that oncology nurses naturally develop rapport with patients and family members, subjecting them to greater likelihood of immense emotional burden, grief, and distress. This is particularly true after nurses are involved in traumatic events, such as death or when the patient and the patient's family receive an unexpected prognosis of terminal illness (Aycock & Boyle, 2009; Potter et al., 2010; Wenzel, Shaha, Klimmek, & Krumm, 2011). In the current state of health care, institutional and political constraints, such as limited resources, lack of management support, increased workloads, and staffing shortages, in combination with increasing patient acuity, put oncology nurses at risk for the inability to provide compassionate care (Coetzee & Klopper, 2010; Hooper, Craig, Janvrin, Wetsel, & Reimels, 2010; Neville & Cole, 2013). As a result of routine and chronic exposure to human suffering (Coetzee & Klopper, 2010) amalgamated with pressures to provide quality care, oncology nurses are in a prime position for developing compassion fatigue and burnout.

Compassion fatigue is comprised of two parts: burnout, characterized as "exhaustion, frustration, anger and depression" (Stamm, 2010, p. 12), and secondary traumatic stress, described as the negative consequences secondary to fear and work-related trauma. Compassion satisfaction is the positive feelings derived from helping others, whether it be from direct contribution or for the betterment of society (Stamm, 2009). Although compassion fatigue is often used synonymously with burnout, the two concepts are derived from two separate failed survival strategies. Compassion fatigue arises from a rescue-caretaking response, and burnout arises from an assertiveness-goal achievement response (Valent, 2002). Compassion fatigue occurs when the caretaker cannot shield or save the individual from harm and, therefore, results in feelings of guilt and distress, and burnout is when one cannot achieve an anticipated goal, resulting in frustration and perceived loss of control (Valent, 2002). Compassion fatigue is caused by a natural and intrinsic response to alleviate pain and suffering. Burnout is environmentally driven (e.g., time and resource constraints, increased workload) (Perry, Toffner, Merrick, & Dalton, 2011), and the onset and resolution period between compassion fatigue and burnout are different. Compassion fatigue has an acute and insidious onset, resulting in long-term consequences that are not easily reversible. Conversely, burnout has a rapid onset and resolution, suggesting that removal of stressor source may be effective (Sabo, 2011). Despite these differences, researchers must investigate compassion fatigue and burnout

concurrently because of their intimate relationship, particularly in relationships between healthcare professionals and patients.

Differing healthcare delivery systems between the two countries under study, a nonuniversal healthcare system in the United States and a universal healthcare system in Canada, may contribute to perceptual differences of nursing, patient care, and workplace environment. These differences in healthcare delivery systems can result in differing models of cancer care delivery (e.g., private or public clinical settings with their own healthcare policies and protocols, culture of interdisciplinary teamwork, financing of health care for patients) that may dictate various levels of treatments available for patients. The Patient Protection and Affordable Care Act in the United States articulates patients' healthcare insurance coverage and may indirectly affect patients' and healthcare professionals' perceptions of cancer care (Kumar & Moy, 2013). Given these various contextual factors, recognizing how nurses' perceptions and experiences of varying levels of supportive work environment may differ because of the political, personal, institutional, or geographic setting of cancer care is important.

The purposes of this study were to (a) examine oncology nurses' experiences of compassion fatigue, burnout, and compassion satisfaction and (b) identify any differences in experiences of compassion fatigue, burnout, and compassion satisfaction between oncology nurses in the United States and Canada. The study addressed the following research questions:

- What demographic, personal, health, and work-related characteristics contribute to the risk for compassion fatigue and burnout among oncology nurses in the United States compared to those in Canada?
- What is the relationship between compassion fatigue, burnout, and compassion satisfaction among oncology nurses in the United States compared to nurses in Canada, given the differing healthcare systems and organization of healthcare delivery?

## Methods

This descriptive, nonexperimental study adhered to a quantitative methodology, an approach that suited the use of surveys to collect data that would inform the concepts identified for this study (Denzin & Lincoln, 2011). Maslow's Hierarchy of Needs (Burtson & Stichler, 2010), which postulates that motivations are dependent on meeting certain needs in a particular order, and Watson's Theory of Human Caring (Sourial, 1996), which emphasizes the relationship between the transaction of care between patient and nurse, was appropriate for this study. The ethics research committee at the California State University, Long

Beach gave ethics approval. The modified Abendroth Demographic Questionnaire (Abendroth & Flannery, 2006) and the Professional Quality of Life (ProQOL) scale, version 5 (Yang & Kim, 2012), were used as data collection tools. This study was conducted with practicing oncology nurses employed in Canada and the United States. All participants were members of the Canadian Association of Nurses in Oncology (CANO) and the Oncology Nursing Society (ONS). Included nurses were RNs (including advanced practice nurses) with active CANO or ONS membership who worked in an oncology setting and were currently in a role of direct patient care.

## Instruments

The modified Abendroth Demographic Questionnaire is a data collection tool developed for the study of compassion fatigue among hospice nurses. The form was created using concepts from disciplines of “nursing, medicine, and the social sciences” (Abendroth & Flannery, 2006, p. 349). The questions are designed to gather information related to participants’ demographic characteristics, health, and work-related roles and environment.

The ProQOL scale is one of the most common instruments used in the study of compassion fatigue (Yang & Kim, 2012). The instrument consists of three subscales used to measure secondary traumatic stress, burnout, and compassion satisfaction. Compassion fatigue is a combined measure of secondary traumatic stress and burnout, and compassion satisfaction is an independent measure. The ProQOL scale is a 30-item instrument using a five-point Likert-type scale from 1 (never) to 5 (very often) that yields composite scores for the three psychometrically unique phenomena. The instrument has been tested extensively with reliability alphas of 0.88 for compassion satisfaction, 0.75 for burnout, and 0.81 for secondary traumatic stress, and it is a valid measure of each individual phenomenon (Stamm, 2009). Cutoff and average scores were established as indicators of potential risk of the different concepts, using a quartile system with about 25% at high risk, 25% at low risk, and 50% at moderate risk.

## Recruitment and Data Collection

Permission for email access to CANO and ONS members was sought and given for a student thesis by the research officers from these organizations. From June to August 2014, convenience samples of CANO and ONS members were invited to participate in an online survey study. FluidSurveys™, a web-based survey tool for data collection, was used to conduct the survey. Canadian participants were recruited directly by CANO, with email invitations sent to every member, inviting

them to participate in the research study. Recruitment in the United States was conducted by leasing an ONS mailing list of 5,000 randomly selected members for the purpose of this study. ONS also emailed the participants directly. Every member on the ONS list met the inclusion criteria based on previously provided demographic data. Participants in both cohorts received an email invitation from their respective professional organization, notifying them of the study. Members interested in participating were provided with a link to the survey and consent form, as well as electronic versions of the modified Abendroth Demographic Questionnaire and ProQOL scale. All questions were mandatory and included a “decline to answer” option in the event that the respondent did not wish to provide a response. The study remained active for six weeks for both cohorts. An email reminder was sent one week prior to the closing of the study.

## Statistical Analysis

Responses were coded and entered into SPSS®, version 22.0. Data analysis employed inferential and descriptive analysis. The chi-square test of independence was used to investigate whether demographic, personal stressors, health, and work-related characteristics were associated with the risk for and experience of compassion fatigue, burnout, and compassion satisfaction. The study used a p value of 0.05 for significance. Analysis using chi-square tests for each of the questions on demographic data (age, gender, ethnicity, marital status, highest level of nursing education, professional nursing licensure, number of years in nursing, and number of years in oncology nursing), personal stressors (number of children at home, whether they were caring for an elderly or disabled parent or loved one at home, experience of a recent personal death, and if maintaining financial budget was a source of stress), health questions (headaches, smoking, diagnosis of hypertension, depression, and post-traumatic stress disorder [PTSD]), and work-related variables (workplace setting, nursing role, hours worked per week, self-sacrificing behaviors, and exposure to patient death and traumatic death) to the compassion fatigue subscales (secondary traumatic stress and burnout) and to compassion satisfaction to determine if significant relationships existed.

## Results

This study yielded a total of 63 responses from Canadian participants and 486 responses from American participants for a combined sample of 549 participants. Demographic representations were quite similar between the cohorts (see Table 1). The majority of respondents in both cohorts were Caucasian

**TABLE 1. Demographic Characteristics by Country**

Characteristic	United States (N = 486)		Canada (N = 63)	
	n	%	n	%
<b>Age (years)</b>				
21–30	64	13	3	5
31–40	111	23	10	16
41–50	112	23	22	35
51–60	153	31	25	40
61 or older	44	9	3	5
Decline to answer	2	< 1	–	–
<b>Gender</b>				
Male	27	6	–	–
Female	459	94	63	100
<b>Ethnicity</b>				
Caucasian (non-Hispanic)	330	68	37	59
Caucasian	86	18	16	25
Hispanic	23	5	–	–
Asian	18	4	5	8
African American	9	2	–	–
Southeast Asian	7	1	–	–
Native American	1	< 1	–	–
Other	5	1	3	5
Decline to answer	7	1	2	3
<b>Marital status</b>				
Single	85	18	9	14
Married	334	69	44	70
Separated	7	1	1	2
Divorced	46	10	5	8
Widowed	8	2	2	3
Decline to answer	6	1	2	3
<b>Highest level of nursing education</b>				
Diploma program	78	16	9	14
Associate degree	51	10	12	19
Bachelor's degree	233	48	25	40
Master's or doctorate	115	24	15	24
Other	6	1	1	2
Decline to answer	3	< 1	1	2
<b>Nursing licensure</b>				
RN	432	89	59	94
APRN	44	9	1	2
Other	9	2	3	5
Decline to answer	1	< 1	–	–
<b>Years in nursing profession</b>				
1 or less	4	1	2	3
2–5	77	16	3	5
6–10	94	19	6	10
11–15	43	9	13	21
16–20	42	9	8	13
21–25	55	11	3	5
26 or greater	170	35	28	44
Decline to answer	1	< 1	–	–
<b>Years in oncology nursing</b>				
1 or less	3	< 1	7	11
2–5	122	25	10	16
6–10	118	24	3	5
11–15	68	14	12	19
16–20	48	10	10	16
21–25	61	13	13	21
26 or greater	66	14	8	13

Note. Because of rounding, percentages may not total 100.

non-Hispanic, female (no male participants from Canada), aged 51–60 years, and married. Participants in the United States and Canada were predominately educated at the bachelor's degree level, were RNs, and had a substantial amount of nursing experience. The only notable difference between the cohorts was years of oncology nursing experience. The majority of nurses in the United States had 2–5 years of experience, compared to 21–25 years of experience in the Canadian cohort.

Descriptive statistics yielded no statistical differences between the two countries when mean scores and standard deviation for secondary traumatic stress, burnout, and compassion satisfaction were compared (see Table 2). Both cohorts of oncology nurses experienced high levels (as indicated by high risk) for compassion satisfaction and low levels of burnout and compassion fatigue (as indicated by a combination of low risks for burnout and secondary traumatic stress) (see Table 3).

Several significant associations were found between demographic variables and secondary traumatic stress (a component of compassion fatigue) and compassion satisfaction in the American participants (see Table 4). Younger nurses (categorized as aged 40 years or younger) were more likely to experience moderate to high levels of secondary traumatic stress ( $\chi^2[2, N = 484] = 8.094, p = 0.017$ ) when compared to older nurses (categorized as aged 41 years or older). Because younger nurses were not found to have experienced burnout, this finding indicates that they are at risk for compassion fatigue but does not point to having experienced compassion fatigue. This finding was further supported when more experienced nurses (experience of 26 years or greater) were found to have the lowest levels of secondary traumatic stress ( $\chi^2[2, N = 485] = 6.117, p = 0.047$ ), which suggests that older and more experienced nurses are least at risk of compassion fatigue. The samples did not reveal significant differences between years of oncology experience to any of the other subscales. Education was associated with levels of compassion satisfaction. Higher levels of education (those holding master's or doctoral degrees) were most likely to experience high levels of compassion satisfaction ( $\chi^2[2, N = 477] = 6.871, p = 0.032$ ). There were no significant findings between demographic characteristics of Canadian nurses to levels of secondary traumatic stress, burnout, and compassion satisfaction.

Health-related characteristics were examined in relation to the subscales, and American nurses who had depression or PTSD and episodes of headache were more likely to experience moderate to high levels of secondary traumatic stress ( $\chi^2[1, N = 485] = 9.969, p = 0.002$ ) and high levels of burnout ( $\chi^2[1, N = 485] =$



13.659,  $p = 0.000$ ). The combined high levels on these two subscales are an indicator that nurses with these health conditions are significantly more likely to experience compassion fatigue. Likewise, results from the Canadian nurses suggest that episodes of headaches were also linked to high levels of secondary traumatic stress and burnout. However, unlike the American nurses, elevated conditions of depression and PTSD conditions were not associated with secondary traumatic stress or burnout in the Canadian cohort.

American and Canadian nurses expressed that stressors related to personal finances were linked to high levels of secondary traumatic stress (Americans:  $\chi^2[1, N = 479] = 38.198, p = 0.000$ ; Canadians:  $\chi^2[1, N = 63] = 13.542, p = 0.000$ ) and burnout (Americans:  $\chi^2[1, N = 479] = 27.334, p = 0.000$ ; Canadians:  $\chi^2[1, N = 63] = 8.646, p = 0.003$ ). Elevations in both subscales have indicated high levels of compassion fatigue. No statistically significant findings were found when other personal stress factors were compared.

Of note, work-related characteristics were addressed relating to experiences of secondary traumatic stress, burnout, and compassion satisfaction, with a number of significant findings within the American cohort. Experience of compassion fatigue was significant if there had been a nurse-encountered traumatic death (secondary traumatic stress:  $\chi^2[1, N = 485] = 3.887, p = 0.049$ ; burnout:  $\chi^2[1, N = 485] = 7.894, p = 0.005$ ) and when nurses felt a need to sacrifice their own personal and psychological needs to satisfy their patients' (secondary traumatic stress:  $\chi^2[1, N = 484] = 45.276, p = 0.000$ ; burnout:  $\chi^2[1, N = 484] = 31.541, p = 0.000$ ). However, these negative experiences could be buffered when nurses felt that their workplace encompassed a cohesive teamwork environment at all times. They were not only least likely to experience compassion fatigue and burnout, but also were able to derive more compassion satisfaction from it (secondary traumatic stress:  $\chi^2[2, N = 486] = 10.546, p = 0.005$ ; burnout:  $\chi^2[2, N = 486] = 12.928, p = 0.002$ ; compassion satisfaction:  $\chi^2[2, N = 486] = 10.51, p = 0.005$ ). Nurses who worked more hours and encountered a greater number of patient deaths (three or greater) experienced high levels of compassion satisfaction ( $\chi^2[3, N = 486] = 8.042, p = 0.045$ ).

Although the Canadian cohort did not yield as many significant findings in comparison to the American

**TABLE 2. Descriptive Statistics of Secondary Traumatic Stress, Burnout, and Compassion Satisfaction by Country**

Subscale	$\bar{X}$	SD	Min	Max	Interpretation
<b>United States (N = 486)</b>					
Compassion satisfaction	42.37	5.27	25	50	High risk
Burnout	22.66	5.74	10	38	Low to medium risk
Secondary traumatic stress	22.65	5.77	10	42	Low to medium risk
<b>Canada (N = 63)</b>					
Compassion satisfaction	42.6	4.7	31	50	High risk
Burnout	22.49	4.84	14	35	Low to medium risk
Secondary traumatic stress	22.41	5.6	12	37	Low to medium risk

**Note.** Secondary traumatic stress and burnout are the two components of compassion fatigue.

**Note.** For compassion satisfaction, scores range from 10–50, with higher scores indicating greater satisfaction derived from job activities. For burnout and secondary traumatic stress, scores range from 10–50, with higher scores indicating greater risk. max—maximum; min—minimum

cohort, one common finding between the two groups was the increased risk for compassion fatigue when tendencies of sacrificing personal and psychological needs to care for their patients existed (United States: secondary traumatic stress:  $\chi^2[1, N = 484] = 45.276, p = 0.000$ ; burnout:  $\chi^2[1, N = 484] = 31.541, p = 0.000$ ; Canada: secondary traumatic stress:  $\chi^2[1, N = 63] = 9.27, p = 0.002$ ; burnout:  $\chi^2[1, N = 63] = 15.047, p = 0.000$ )).

## Discussion

Perhaps the most significant finding is nurses' perceptions of team cohesiveness within the workplace environment and the relationship with their experiences of compassion fatigue, burnout, and compassion satisfaction. Oncology nurses in this study reported that a healthy work environment was valuable in decreasing compassion fatigue and burnout. In both cohorts, nurses who felt that their workplace functioned cohesively experienced low levels of compassion fatigue and burnout and high levels of compassion satisfaction. The culture of teamwork has been linked to considerable benefits, including more positive leadership and more effective mentoring of novice nurses (Nelsey & Brownie, 2012). Team cohesiveness may help with nursing staff retention. High turnover is expensive for any healthcare organization. Turnover costs an average of \$20,561 in the United States and \$26,652 in Canada per nurse (Duffield, Roche, Homer, Buchan, & Dimitrelis, 2014; McPhee, 2014).

The retention of nurses will not only assist in closing the nursing shortage gap by increasing job

**TABLE 3. Two-Way Frequency Table of Level of Compassion Satisfaction, Burnout, and Secondary Traumatic Stress by Country**

Variable	United States (N = 486)		Canada (N = 63)	
	n	%	n	%
<b>Compassion satisfaction</b>				
Average	203	42	26	41
High	283	58	37	59
<b>Burnout</b>				
Low	251	52	34	54
Average	235	48	29	46
<b>Secondary traumatic stress</b>				
Low	255	52	33	52
Average	229	47	30	48
High	2	< 1	–	–

satisfaction, but also facilitate building patient relationships from greater continuity of care and improving communication among interdisciplinary professionals (Oncology Nursing Society, 2015). Lack of teamwork can have detrimental effects, such as increasing patient mortality as a result of poor communication and problem-solving skills (Brunetto et al., 2013).

Some of the study respondents presented with health problems that may be related to workload and the nature of cancer care that leads to compassion fatigue and decreased job satisfaction. In the American and Canadian cohorts, high levels of compassion fatigue and burnout were found to be associated with nurses' tendency to sacrifice personal and psychological needs to satisfy the needs of their patients. The nature and profession of nursing is deeply rooted in the concept of care, with oncology nursing being more pronounced because of the nature of cancer care (Watson, 2014). Although the human-to-human relationship and humanistic care of nursing remains socially pervasive, advances in technology and disease management have demanded that nurses become more skilled and technically proficient, placing nurses at risk for compassion fatigue and burnout (American Nurses Association, 2011). The incongruence between social and institutional expectations has only increased the pressures and stress of the nursing profession. Healthcare institutions' policies and expectations of nurses' performance on measures of overtime and workload will affect fatigue, burnout, stress, and nurses' overall experience in the workplace.

The negative consequences of prolonged exposure to compassion fatigue and burnout have been well documented (Aycok & Boyle, 2009; Meadors & Lamson, 2008; Perry, 2008; Potter et al., 2010) because nurses' physical and mental health may directly affect the quality and safety of patient care (Potter et al., 2010).

American nurses who reported a diagnosis of depression or PTSD, as well as episodes of headaches, were found to experience high levels of compassion fatigue and burnout. Canadian nurses who reported a history of headaches had similar experiences of compassion fatigue and burnout. Although this study did not investigate the source of these reported health conditions, it does suggest a possible coexisting relationship. A combined high level of compassion fatigue and burnout warrants an assessment for depression and PTSD because this may be secondary to experiences of compassion fatigue and burnout (Stamm, 2009).

Although Canadian nurses did not report a relationship of depression or PTSD to experiences of compassion fatigue and burnout, this may be partly because of social and cultural differences between Canada and the United States. Depression and PTSD are more pronounced in the United States and are overall more acceptable and recognizable conditions, but mental health concerns continue to be routinely stigmatized in Canada and are underreported (Stuart, Patten, Koller, Modgill, & Liinamaa, 2014). However, this is not a conclusive inference because Canadian oncology nurses' representation was significantly lower than the representation of their American counterparts. These findings point to the need for future research that explores differences in the healthcare structuring and model-of-care delivery between these two countries, particularly for cancer centers that are private and/or public with differing policies for clinical protocols and healthcare delivery structuring.

The study also revealed that the more experienced American nurses were at lower risk for compassion fatigue compared to their less experienced counterparts. Nurses aged 40 years or younger were found to be at higher risk for compassion fatigue. This finding parallels previous studies (Grafton, Gillespie, & Henderson, 2010; Perry et al., 2011), which suggests that insufficient transition from student to staff nurse, maladaptive behaviors, and lack of support and resources in the workplace environments were contributing factors to their consideration of leaving the profession. Experienced nurses tend to have greater intuitive knowledge and expertise. They are also more equipped to handle difficult situations (Grafton et al., 2010; McPhee, 2014). This would help explain the finding that American nurses experienced higher levels of compassion satisfaction with an increased number of patient death encounters. Similarly, nurses who witnessed more traumatic deaths were also less likely to experience compassion fatigue and burnout. More seasoned nurses may be more accepting of death and dying and have a greater understanding of advanced disease processes and may be able to derive better satisfaction from their work by being able to provide

better quality care to patients and families (Grafton et al., 2010; Meadors & Lamson, 2008; Perry et al., 2011). Experienced nurses may also be more likely or willing to work additional hours or overtime given the positive feedback and experiences, which may also help explain the finding that nurses who work more hours (36 hours or more per week) experienced higher levels of compassion satisfaction.

In addition, more educated nurses in the American cohort were found to experience high levels of compassion satisfaction, which differs with previous research. Potter et al. (2010) found that nurses holding advanced degrees were more likely to experience burnout, and bachelor's degree-prepared nurses were more at risk for compassion fatigue. More educated nurses may need to achieve a higher threshold of accomplishment

**TABLE 4. Frequency of Risk of CS, Risk of Burnout, and Risk of STS, and Significant Study Variables for Participants From the United States**

Variable	Risk of CS				Risk of Burnout				Risk of STS			
	Average		High		Low		Average		Low		Average or High	
	n	%	n	%	n	%	n	%	n	%	n	%
<b>Age (years) (N = 484)</b>												
40 or younger	80	46	95	54	81	46	94	54	77	44	98	56
41–50	42	38	70	63	67	60	45	40	66	59	46	41
51 or older	80	41	117	59	103	52	94	48	111	56	86	44
<b>Years in nursing profession (N = 485)</b>												
10 or less	76	43	99	57	86	49	89	51	84	48	91	52
11–25	58	41	82	59	69	49	71	51	68	49	72	51
26 or greater	68	40	102	60	96	57	74	44	102	60	68	40
<b>Highest level of nursing education (N = 477)</b>												
Diploma or associate degree	52	40	77	60	64	50	65	50	61	47	68	53
Bachelor's degree	109	47	124	53	117	50	116	50	118	51	115	49
Master's degree or doctorate	37	32	78	68	67	58	48	42	69	60	46	40
<b>Headaches (N = 485)</b>												
Yes	72	48	79	52	59	39	92	61	63	42	88	58
No	131	39	203	61	191	57	143	43	191	57	143	43
<b>Financial stress (N = 481)</b>												
Yes	120	46	142	54	106	41	156	60	103	39	159	61
No	81	37	138	63	141	64	78	36	148	68	71	32
<b>Caring for traumatic death (N = 485)</b>												
Yes	152	42	212	58	175	48	189	52	182	50	182	50
No	50	41	71	59	76	63	45	37	73	60	48	40
<b>Sacrifice needs (N = 484)</b>												
Yes	142	43	185	57	140	43	187	57	137	42	190	58
No	59	38	98	62	110	70	47	30	117	75	40	26
<b>Staff functioning cohesively as a team (N = 486)</b>												
All the time	18	25	53	75	44	62	27	38	49	69	22	31
Most of the time	135	43	179	57	170	54	144	46	161	51	153	49
Some of the time, rarely, or never	50	50	51	51	37	37	64	63	45	45	56	55
<b>Number of patient deaths in the past 30 days (N = 486)</b>												
None	35	51	34	49	38	55	31	45	41	60	28	41
1–2	67	48	73	52	65	46	75	54	74	53	66	47
3–4	57	38	92	62	82	55	67	45	79	53	70	47
5 or greater	44	34	84	66	66	52	62	48	61	48	67	52

CS—compassion satisfaction; STS—secondary traumatic stress  
 Note. Bolded values indicate statistical significance at  $p < 0.05$ .

in the workplace to feel job satisfaction. They may also experience incongruence between personal expectations and the realistic nature of oncology nursing. One reason for this discrepancy may be because of the inclusion of advanced practice nurses (n = 44, 9%) in this study. The work settings for advanced practice nurses are typically in the outpatient setting providing treatments to patients with less acute conditions.

## Limitations

Several limitations existed in this study. The small number of responses from the Canadian cohort is not adequate to fully capture the experiences of Canadian nurses and may not be generalizable for all Canadian locations. Male nurses' experiences are an important factor to consider in the recommendations and development of interventions, and a lack of male participants existed. According to Jaslow (2013), a growing number of male nurses and their experiences exist, and risks for compassion fatigue and burnout may differ in characteristics and presentation compared to their female counterparts. A wide age range in the current study provides lack of age gaps for more accurate response options. Because age was found to be significant to the nursing experience, smaller age brackets with more options may be more appropriate to identify a more specific age range in relation to individual subscales. It may be best to separate advanced practice nurses from staff nurses to see if the distribution of education makes a difference in experiences among those with higher education and in leadership positions.

## Implications for Nursing and Conclusion

A healthy and supportive workplace environment is imperative to nurses' health, well-being, and satisfaction in the workplace (Fetter, 2013). The findings in this research study may be used to implement institutional changes, such as creating policies and guidelines toward the development of preventive interventions or psychosocial support for nurses who are constantly faced with situations that demand compassion and care for patients with life-threatening conditions. Improvements in the workplace environment may help prevent many negative sequelae, such as poor health outcomes for patients and nurses, as well as decrease nurse turnover and reduce healthcare expenditures.

The findings demonstrated a decrease in compassion fatigue and burnout and maintenance of compassion satisfaction when the oncology unit is a well-managed environment. Supportive work environments emerge from responsible workforce designs that lead to

## Knowledge Translation

- Supportive work environments decrease compassion fatigue and burnout and increase compassion satisfaction.
- Teamwork increases supportive work environments.
- Positive work environments for oncology nurses enhance patient care and safety.

teamwork and effective engaged leadership styles (Potter et al., 2010). Experiences that oncology nurses have in common with other nurses, what is specific to them, and leadership styles that foster interdisciplinary teamwork are important to explore in future studies. Hospitals are also increasingly forced to limit inpatient days that decrease the oncology nurse and patient encounter time, which does not help to enhance patient care and safety (Potter et al., 2010).

This study demonstrated that oncology nurse and patient time is a strong predictor of compassion satisfaction. Future research could inform hospital oncology units novel ways to extend the quality of nurse-patient relationships to compensate for less encounter time. In practice, this study demonstrates that oncology nurses who have the qualifications and the dedication to care for patients with cancer through the cancer trajectory need some tools to care for themselves as well. Future research needs to explore how supportive and positive work environments correlate to decreased compassion fatigue and burnout, as well as enhanced compassion satisfaction for oncology nurses.

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