

Perceptions of Burnout, Its Prevention, and Its Effect on Patient Care as Described by Oncology Nurses in the Hospital Setting

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Purpose/Objectives: To identify overall perceptions of burnout within the inpatient oncology nursing population, how they perceived that burnout affected the care they provided, and how they perceived that burnout could be decreased.

Design: A quantitative descriptive study using questionnaires to describe perceptions of burnout.

Setting: A university-affiliated hospital using inpatient oncology nurses from three nursing units at University of Pittsburgh Medical Center Presbyterian in Pennsylvania.

Sample: A convenience sample of 61 nurses.

Methods: Two instruments were used to investigate various aspects about perceptions of burnout among inpatient oncology nurses. Nurses participated on an anonymous voluntary basis by completing these instruments.

Main Research Variables: Perceived burnout, perception of how burnout affects care provided to patients, and strategies to relieve burnout.

Findings: Inpatient oncology nurses report a moderate level of perceived burnout. In addition, this nursing population perceived that this burnout had a negative impact on the care they provided. Nurses believed they experienced burnout because of increased nurse–patient ratios and skipped or shortened lunches or breaks. However, they perceived that burnout could be prevented when adequate resources, collaboration, teamwork, and the support of family and friends existed.

Conclusions: As a result of the level of care needed by inpatients with cancer, the association between burnout experienced by nurses and how it can affect care is important to recognize. One such association identified was that a relationship existed between the nurses' interactions with patients' family, friends, or visitors and increased perceptions of burnout and depersonalization. As a result, nurses can experience increased burnout and act in a manner that lacks compassion because of emotional detachment.

Implications for Nursing: With extremely ill inpatients with cancer, nurses need to be able to manage high levels of demands from patients and their family members to provide quality and compassionate care. Nurses reported that they experience burnout because of emotional exhaustion and depersonalization as a result of missed, shortened, or skipped breaks and lunches. This perception can affect the nurse's ability to perform physically and mentally, resulting in negative effects on nurse–patient relationships.

Nurses working with patients with cancer are exposed to many stressors, such as coping with their patients' complex disease processes and treatments while providing physical, mental, and emotional support. Because of the complexity of patient and family care, stress is a common symptom related to the responsibilities surrounding hospital-based care of patients with cancer (Maslach & Jackson, 1981). The combination of these factors may result in nurses becoming overwhelmed and experiencing burnout. According to Maslach and Jackson (1981), burnout

is defined as “a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do ‘people-work’ of some kind” (p. 99). The current study aimed to identify overall perceptions of burnout within the inpatient oncology nursing population, how they perceived the ways in which burnout affected the care they provided, and how they perceived that burnout could be decreased.

Nurses employed on an inpatient oncology unit have numerous responsibilities and are exposed to high levels of stress while caring for patients who are critically ill. Oncology nurses play a large role in physical, emotional, and spiritual care of patients (Aycock & Boyle, 2009). One of the key challenges for nurses involves managing patients’ treatments. This includes the administration of complex medication regimens, such as chemotherapeutic agents given through multiple routes, coordinating tests and screenings, and providing physical care to their patients by assisting them with activities of daily living. Inpatient oncology nurses employed in the hospital setting work a variety of shifts and schedules, which pose stress to the nurses. Work-related stress stems from short staffing, rotating shifts or schedules, dying patients, and demanding families (Gallagher & Gormley, 2009). Added stress can come from inadequate staffing with high nurse–patient ratios. Increased ratios make it problematic for nurses to spend adequate amounts of time with patients. When this occurs, nurses function quickly, placing themselves at risk for providing substandard care. In addition, this may cause nurses to look for shortcuts in completing their many assigned duties, such as medication administration, which can result in medication errors (Beaulieu & Freeman, 2009).

Inpatient oncology nursing can be stressful. Nurses in these positions frequently do not properly care for themselves as they become involved in caring for their patients, which results in the nurses experiencing burnout that may lead to job dissatisfaction and compassion fatigue. Compassion fatigue can affect the healthcare professional and the workplace because of decreased productivity, more sick days used, and high-

er turnover (Potter et al., 2010). When oncology nurses employed in the hospital setting use more sick days, it often creates higher nurse–patient ratios among their colleagues. Hospitalized patients are often critically ill and have impaired immune responses, placing them at greater risk for many other side effects related to their disease process and treatment (Gallagher & Gormley, 2009).

The goal of this study was to identify perceptions of burnout among inpatient oncology nurses. The first question asked what nurses perceive as their overall level of burnout. The second question asked how nurses perceive factors that increase burnout. This study also looked at how nurses think that burnout can be reduced because this information might be used by individual nurses and nursing administration to implement strategies to reduce burnout. Policies could then be developed to mitigate the issues that result in oncology nurses experiencing burnout in the inpatient hospital setting, which could improve absenteeism and patient outcomes.

Methods

Design

This descriptive, quantitative study used a survey design. In conducting this study, a two-part questionnaire tool was used. The data were analyzed using the Cochran–Mantel–Haenszel test, Kruskal–Wallis test, and the Bonferroni correction with identifying themes of central tendency. Patients were asked to participate by the researcher on an individual, voluntary, and anonymous basis. Approval to conduct this study was obtained through the institutional review boards at the University of Pittsburgh and Carlow University.

Setting

Inpatient oncology nurses from three units at the University of Pittsburgh Medical Center Presbyterian, a university-affiliated hospital, were invited to participate. This hospital, located in Pennsylvania, is one in a conglomerate of facilities operated by the University of Pittsburgh.

Sample

A convenience sample comprised of oncology nurses from a university-affiliated hospital was used. The nurses were asked to participate on a voluntary basis and were provided with an informational letter that explained the purpose of

TABLE 1. Maslach Burnout Inventory–Human Services Survey Category Subscale Scores and Study Results (N = 61)

Subscale	High	Moderate	Low	Study Results		
				$\bar{X}$	Median	SD
Emotional exhaustion	> 27	17–26	0–16	25.82	26	12.55
Depersonalization	> 13	7–12	0–6	7.39	7	6.21
Personal accomplishment	> 39	32–38	0–31	37.2	6.21	6.43

Note. Based on information from Maslach et al., 2010.

TABLE 2. IONQ Perceptions About Burnout and MBI-HSS Subscales (N = 61)

Nurse Statement	Emotional Exhaustion		Depersonalization		Personal Accomplishment	
	Test Statistic	p	Test Statistic	p	Test Statistic	p
Burnout negatively affects the patient care provided.	0.13	0.71	0.06	0.81	1.45	0.23
Current nurse–patient ratios allow for quality patient care.	1.08	0.3	0.24	0.62	0.49	0.48
Current nurse–patient ratios are increased because of nurses calling off work.	7.83	0.005	6.28	0.01	0.55	0.46
Current nurse–patient ratios are increased because of a lack of employed nurses on the unit.	1.28	0.26	2.31	0.13	1.81	0.18
High nurse–patient ratios negatively affect the patient care provided.	0.62	0.43	0.78	0.38	0.02	0.88
I often have to skip, shorten, or interrupt breaks or lunches.	3	0.08	2.2	0.14	4.14	0.04
Skipped, shortened, or interrupted breaks or lunches increase burnout.	7.31	0.007	4.09	0.04	6	0.01
Interactions with patient’s family, friends, or visitors increase burnout.	5.78	0.016	14.54	0.0001	4.18	0.04

IONQ—Inpatient Oncology Nursing Questionnaire; MBI-HSS—Maslach Burnout Inventory–Human Services Survey

Note. The test statistic was the result of using the raw data scores to assess for associations between the MBI-HSS and the IONQ using the Cochran–Mantel–Haenszel test. If the p value was less than 0.006, then it was deemed to be statistically significant with an association present between the MBI-HSS and the IONQ responses. Significant values are bolded.

the study and how to maintain anonymous responses with the completed questionnaires. A total of 61 of the 100 nurses invited to participate in the study responded.

The study used two instruments to investigate perceptions of burnout among inpatient oncology nurses. The research tools used in this study consisted of the Maslach Burnout Inventory–Human Services Survey (MBI-HSS) and the investigator-developed Inpatient Oncology Nursing Questionnaire (IONQ), which was designed to address demographics of the sample and perceptions about burnout.

The MBI has been used since the 1990s to evaluate burnout in healthcare professionals (Maslach, Jackson, Leiter, Schaufeli, & Schwab, 2015). Several versions of the MBI exist; in this study, the MBI-HSS was used. This version is meant to be used with professionals in the human services field, such as nurses (Maslach et al., 2015). The MBI-HSS is a 22-item inventory questionnaire that uses a Likert-type scale from 0–6 related to the frequency of agreement, where 0 indicates never and 6 indicates every day. The MBI-HSS focuses on three major categories related to burnout, which are emotional exhaustion, depersonalization, and personal accomplishment (Maslach et al., 2015).

A specific grading system exists for interpretation of the data collected. Scores can range from 0–54, 0–30, and 0–48 in the three categories of emotional exhaustion, depersonalization, and personal accomplishment, respectively. In the emotional exhaustion and depersonalization categories, higher scores are associated with higher levels of burnout. In the personal accomplishment categories, higher scores are associated with lower levels of burnout. The MBI-HSS has been used in research for more than 20 years. Reliability has been found to be 0.9, 0.76, and 0.76 for emotional exhaustion, depersonalization, and personal accomplishment, respectively (Maslach, Jackson, & Leiter, 2010). In addition, many studies have assessed the validity of the MBI–General Survey, and it has been found to assess burnout in a consistent manner to the MBI-HSS (Maslach et al., 2010).

The investigator-developed IONQ assessed participants’ demographic information. Information collected included the number of years worked as an inpatient oncology nurse, employment status (full-time versus part-time), regular shift pattern, whether they work overtime, and, if so, the amount of overtime they complete. Additional data collected focused on the

perceptions of how nurses believe that burnout affects the care that they provide associated with staffing and how they perceive burnout can be decreased. Because this questionnaire was developed by the investigator for explicit use in this study, reliability and validity testing is not available.

Variables of interest included overall perceptions of burnout, how nurses perceived that burnout affected patient care provided, and how it was thought that burnout could be decreased. Additional variables of interest included what shifts the nurses worked, whether they worked overtime, length of time as an oncology nurse, and employment status.

Findings

Descriptive statistics were generated from the responses on the two measures. The scores on the MBI-HSS subscales were compiled according to instructions. Burnout is conceptualized as “a continuous variable, ranging from low to moderate to high degrees of experienced feeling” (Maslach et al., 2010, p. 6). The elements on the MBI-HSS tool are used to assess emotional exhaustion described as having “feelings of being emotionally overextended and exhausted by one’s work” (Maslach et al., 2010, p. 10). With these scores, higher scores are directly associated with increased levels of burnout. The items on the MBI-HSS tool that address the depersonalization subscale “describe an unfeeling or impersonal response toward recipients of one’s care or services” (Maslach et al., 2010, p. 10). Similar to the emotional exhaustion scoring, higher scores within the depersonalization elements are also associated with increased levels of burnout. Personal accomplishment is associated with “feelings of competence and successful achievement in one’s work with people” (Maslach et al., 2010, p. 10). Lower scores are indicative of increased levels of burnout.

The data collected from the MBI-HSS tool and the IONQ were analyzed using descriptive statistics. Mean, median, and standard deviations were calculated to assess the level of burnout on each subscale amongst participants. Data collected from the IONQ were analyzed to identify themes of central tendency among the responses. A consistent moderate level of burnout across all three subscales was reported among participants and is shown in Table 1.

The mean score for the MBI-HSS emotional exhaustion subscale category of 25.82 falls within the upper limits in the spectrum for moderate levels of burnout, which range from 17–26. This moderate level of burnout can result in nurses experiencing feelings of having the inability to complete their daily duties because they feel overextended. The mean depersonalization score of 7.39 is also indicative of a moderate

degree of burnout, which may result in a disconnect between themselves and the care provided to their patients, resulting in an inability to provide compassionate care. A mean personal accomplishment score of 37.2 is significant in that it illustrates nurses having perceived feelings of inadequacy with regards to the care that they provide.

The data collected from the responses on the IONQ were used to address the second research question, “How do nurses employed in the inpatient oncology setting perceive that burnout affects the care that is provided to patients?” The responses showed that most nurses either strongly agreed ($n = 39$) or agreed ($n = 19$) with the perception that burnout negatively affects patient care. Of the remaining three participants, two were neutral with regard to their perception of burnout negatively affecting patient care, and one participant disagreed.

Regarding a perception that high nurse–patient ratios negatively affect the care provided to patients, it was found that most of the participants strongly agreed ($n = 35$) or agreed ($n = 23$). The remaining participants responded with one participant having a neutral perception and the remaining two participants disagreeing with this perception.

Thirty nurses strongly agreed or agreed that current nurse–patient ratios are increased because of nurses calling off work. In addition, the perception that current nurse–patient ratios were increased because of a lack of employed nurses was also examined. In this analysis, the author found that 48 nurses either strongly agreed or agreed with this. Correlations between the data from the MBI-HSS were sought using the Cochran–Mantel–Haenszel test, which are presented in Table 2.

The data were analyzed and the Bonferroni correction used, which identified a statistically significant association when the p value was less than 0.006. According to Napierala (2012), “The Bonferroni correction is used to reduce the chances of obtaining false-positive results (Type I errors) when multiple pair-wise tests are performed on a single set of data” (para. 2). When the Bonferroni correction is used to identify the statistically significant p values, this results in a narrower window for statistically significant results compared to the standard p value of less than 0.05 because of the multiple comparisons being assessed when the data were analyzed.

A statistically significant association was found between the following nursing perceptions and the level of burnout perceived. Current nurse–patient ratios are increased because of nurses calling off work, resulting in emotional exhaustion. Nurses also perceived that their interactions with patients’ family, friends, or visitors increased burnout through the

experience of depersonalization. In addition, a marginally significant relationship existed between perceptions that skipped, shortened, or interrupted breaks or lunches increase burnout by causing emotional exhaustion. Although this result has a p value of 0.007, which is outside of the statistically significant p value parameters, it is considered a marginally statistically significant relationship.

Additional statistical analysis on demographic information and individual burnout levels was conducted with the Kruskal-Wallis test (see Table 3). Using the Bonferroni correction, statistical significance was defined as a p value of less than 0.008. A statistically significant association was found between perceptions that skipped, shortened, or interrupted breaks or lunches increase burnout and emotional exhaustion.

TABLE 3. IONQ Demographics and Perceptions With MBI-HSS Subscales (N = 61)

		Emotional Exhaustion			Depersonalization			Personal Accomplishment		
Variable	n	$\bar{X}$	Test Statistic	p	$\bar{X}$	Test Statistic	p	$\bar{X}$	Test Statistic	p
Years of experience as inpatient oncology nurse			5.19	0.16		7.32	0.06		8.6	0.04
Less than 1	12	26.75			8.58			33.92		
1–5	20	27.15			8.1			38.1		
6–10	19	28.47			8.11			36.05		
Greater than 10	10	17			3.2			41.5		
Shift pattern that most closely matches your work schedule			7.16	0.07		6.82	0.08		4.95	0.18
Daylight	13	26.92			7.46			37.08		
Rotating	41	26.71			7.9			36.39		
Night	6	14.67			2.67			42		
Evening	1	42			14			43		
In a usual pay period, do you work overtime?			980	0.48		1,019.5	0.2		801	0.06
No	30	27.07			8.43			35.73		
Yes	31	24.61			6.39			38.61		
Total number of overtime hours worked per week			2.7	0.61		4.7	0.32		3.91	0.42
None	30	27.07			8.43			35.73		
1–4	5	27.2			8.4			38.6		
5–8	7	29.43			6			37.43		
9–12	10	21.4			7.4			39.5		
Greater than 12	9	23			4.44			38.56		
I often have to skip, shorten, or interrupt breaks or lunches.			7.85	0.049		5.43	0.14		5.66	0.13
Strongly disagree	–	–			–			–		
Disagree	2	21			3.5			39		
Neutral	3	30			9.67			36		
Agree	25	20.72			6.08			39.6		
Strongly agree	31	29.84			8.48			35.26		
Skipped, shortened, or interrupted breaks or lunches increase burnout.			12.03	0.002		4.36	0.11		7.27	0.03
Strongly disagree	–	–			–			–		
Disagree	–	–			–			–		
Neutral	5	18			5.2			40.6		
Agree	30	21.6			6.5			38.93		
Strongly agree	26	32.19			8.85			34.54		

IONQ—Inpatient Oncology Nursing Questionnaire; MBI-HSS—Maslach Burnout Inventory—Human Services Survey

Note. The test statistic was the result of using the raw data scores to assess for associations between the MBI-HSS and the IONQ using the Kruskal-Wallis test. If the p value was less than 0.008, then it was deemed to be statistically significant with an association present between the MBI-HSS and the IONQ responses. Significant values are bolded.

Knowledge Translation

- Burnout and compassion fatigue in nursing can negatively affect patient care.
- Nursing administration needs to be aware of this issue to ensure nurses' overall well-being and job satisfaction, and to maintain quality patient care.
- Awareness of burnout, along with incorporation of teamwork and collaboration, can provide nurses with a greater ability to care for themselves.

Themes of central tendency were examined to identify what activities nurses perceived as decreasing burnout to address the final research question, "What activities do nurses perceive that alleviate the effects of burnout?" More than 75% of nurses responded with either agree or strongly agree with the perception that four activities alleviate the effects of burnout. Fifty-one nurses agreed that adequate nurse–patient ratios would decrease burnout. Fifty-one nurses agreed that nurse collaboration and teamwork and adequate resources and supplies being present would decrease burnout. Fifty nurses agreed that sleep and rest would decrease burnout.

Discussion

This study found that the nurses have a moderate level of burnout. A relationship exists between interactions with patients' family, friends, or visitors and increased perceptions of burnout and depersonalization. As a result of the high level of care or support demanded from patients or family members, nurses may experience an increase in burnout. This increase in burnout can result in nurses responding in a manner that lacks compassion as they become detached from providing supportive and compassionate care. Additional associations were identified between skipped, shortened, or interrupted breaks or lunches and increased burnout and emotional exhaustion. In addition, a tendency existed toward the perception that a high nurse–patient ratio negatively affects the care provided to patients. Nurses also felt that inadequate staffing because of nurses calling off and lack of full-time nurses resulted in increased nurse–patient ratios. When adequate resources and collaboration among staff on the unit were present, the perception of burnout decreased.

Research conducted by Alacacioglu, Yavuzsen, Dirioz, Oztop, and Yilmaz (2009) and Medlan, Howard-Ruben, and Whitaker (2004) found that, when nurses experienced burnout, it resulted in a substandard quality of care being provided to patients. It was found that the inpatient oncology nurses strongly believed that

an association existed between burnout affecting the patient care provided in the current study. Quattrin et al. (2006) and Gustafsson, Erikson, Strandberg, and Norberg (2010) reported that nurses experienced burnout when a gap existed in the needed support from staff or resources. This supports the present study that suggests when staffing is substandard because of a lack of employed nurses or nurses calling off, increased nurse–patient ratios and burnout occur.

This study reveals an overall perception of moderate levels of burnout among the nurses who participated. Research conducted by Italia, Favara-Scacco, Di Cataldo, and Russo (2008) found that an increase in feelings of burnout occurred when nurses experienced a detachment from themselves and the care they provide. In addition, the study revealed that the nurses strongly believe that burnout has a negative impact on the patient care they provided. Garrett (2008) found that when nurse–patient ratios were improved, this resulted in improved patient care outcomes, which also decreased the impact on nurses experiencing burnout.

The findings from this study indicate a need to find ways to prevent and decrease burnout to improve the perception of quality of care provided to patients. The findings identified that the nurses believed that when there was collaboration among staff and adequate resources and supplies, this resulted in a decrease in burnout levels. Along with collaboration and resources, the inpatient oncology nurses also perceived that, when adequate sleep and rest was acquired, it led to a decrease in burnout levels. Aycock and Boyle (2009) identified that it was beneficial for nurses to maintain behaviors, such as being selfish, caring for themselves outside of the work environment, being able to separate work from home, and to use resources (e.g., support groups, religious beliefs) to prevent burnout.

Implications for Nursing and Conclusion

Nurse need to manage the high level of demands from patients and their family members to maintain high-quality, compassionate care. In this study, it was perceived by the nurses that they experience burnout related to emotional exhaustion and depersonalization as a result of missed, shortened, or skipped breaks and lunches. This perception can affect the nurses' ability to perform physically and mentally because of emotional exhaustion and for them to have impaired rapport with patients.

Nursing administrators can provide education to nurses that stresses the importance of proper self-care, so they can provide the highest level of quality care. The reason why nurses continue to skip,

shorten, or eliminate breaks or lunches should be examined. Systems could be implemented to promote the importance of nurses taking this time away from the unit to care for themselves so that they are better equipped to care for their patients. Nurses need to be provided with education surrounding the importance of teamwork and collaboration and how working together can benefit themselves and their patients. With this information, nursing administration needs to take patient acuity into consideration when making patient assignments. Nursing administration needs to examine whether adequate resources and supplies are present to alleviate burnout.

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