

A Literature Review of Compassion Fatigue in Nursing

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Purpose: In this study the literature of compassion fatigue in nurses was reviewed in order to analyze the trends of overall research for level of fatigue, symptoms, and factors. **Methods:** For this study, five databases were searched using the key words 'compassion fatigue', 'secondary traumatization', 'secondary traumatic stress', and 'vicarious traumatization'. Thirty-six papers were analyzed. **Results:** Most of the compassion fatigue research (86%) was conducted between 2006 and 2011 and the most frequent research approach was quantitative research with the ProQOL which was the most frequently used instrument in the studies. The research was conducted in pediatric, emergency & trauma, oncology, psychiatric, and hospice units with no consistent patterns of compassion fatigue levels. Factors affecting compassion fatigue were personal factors such as age, education background, work-related factors such as caring for trauma patients, work hours, psychological factors such as work stress, burnout, and support/coping factors such as organizational support, and coping resources. **Conclusion:** Nurses' compassion fatigue varied from low to high by nursing specialties. Many factors affected the compassion fatigue of nurses. In the future there is a need for study on Korean nurses, and identification of groups at risk for compassion fatigue. Furthermore there is a need to develop management programs on compassion fatigue in nurses, stress reduction and wellbeing.

Key Words: Stress disorders, post-traumatic, Stress, psychological, Nurses, Review literature as topic

INTRODUCTION

Stress can be defined as a dynamic interaction between a person and the environment where certain environmental tasks or situations are perceived as taxing, exceeding the person's skills and abilities, or jeopardizing his or her well-being (Lazarus & Folkman, 1984). Occupational stress is common in nursing (McVicar, 2003). Nurses are continually exposed to stressful events in their day-to-day work and are at risk for the negative effects of stress. A potential consequence of such caring work has a negative and profound effect on nurses, and it is sometimes referred to as compassion fatigue or secondary traumatic stress (Sabo, 2006).

Compassion fatigue is a phenomenon experienced by caregivers who work with traumatized clients (Figley, 2002). While Figley initially referred to the phenomena of compassion fatigue as 'secondary traumatic stress disorder,' he later changed the name to compassion fatigue (Figley, 1995). Joinson (1992) first used the term

compassion fatigue to describe a prevalent experience among professional caregivers such as nurses, physicians, ministers, and mental health counselors. If chronic stress continues, individuals may use ineffective coping strategies to self-treat their emotional and physical pain with defensive or avoidant actions, and finally become apathetic, cynical, angry, or depressed (Joinson, 1992; Lazarus & Folkman, 1984).

The concept of vicarious traumatization was first introduced by McCann & Pearlman (1990), who provided a theoretical framework for understanding the complex and distressing effects of trauma work on therapists. Compassion fatigue or vicarious traumatization has been identified among individuals who, in the course of working with victims of traumatic events, themselves fall victim to secondary traumatic stress reactions brought on by helping or wanting to help a traumatized person (Figley, 1995). Figley (1995) stressed that compassion fatigue, vicarious trauma, and secondary traumatic stress are natural, predictable, treatable, and unpreventable

주요어: 스트레스 관련 장애, 심리적 스트레스, 간호사, 문헌분석

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when working with suffering and traumatized patients. Therefore, compassion fatigue has almost the same meaning as secondary trauma from clients at various setting.

The psychosocial and physiological symptoms of compassion fatigue are avoiding reminders of the trauma, heightened irritability, sleep disturbances, quick temper, sadness, withdrawal, and task avoidance (Figley, 2002).

Compassion fatigue has primarily been studied within the fields of psychotherapy and emergency medicine. However, as the concept has recently been better defined and studied, the impact of compassion fatigue is now believed reach far into other populations who often do counseling interventions with traumatized individuals. The studies about compassion fatigue, have been done for health professionals in many countries including hospice personnel (Keidel, 2002), social workers (Simon, Pryce, Roff, & Klemmack, 2005), psychiatric (Sprang & Clark, 2007), and emergency professionals (Conrad, & Kellar-Guenther, 2006). However, there has been little research in the nursing field. Beck (2011), in a study using a literature review of secondary traumatic stress in nursing, found only seven studies in his review research. Two other limited literature review studies were one by Sinclair & Hamill (2007) who studied vicarious traumatization of oncology nurses, and one by Najjar, Davis, Beck-Coon, & Doebbeling (2009) who studied the prevalence of compassion fatigue among cancer-care providers. Only a few literature reviews on compassion fatigue in nursing have been done so far. In Korea, there is no research on compassion fatigue in nurses. But Korean nurses have much burnout and turnover intention, because they have stress from patients and other organizational affects (June & Byun, 2009; Kim et al., 2009). Therefore, we need research on compassion fatigue in Korean nurses, for the following reasons: It is now widely recognized that indirect exposure to trauma involves a risk of significant emotional, cognitive, and behavioral changes in nurses, and is viewed as an occupational hazard. Compassion fatigue puts nurses at high risk for poor professional judgement, wrong assessments, unsympathetic nursing care, fear and avoiding nursing care, decreasing the quality of nursing care, and it also results in a decrease in self-esteem, increasing turnover rate, and possible complications (Bride, Radey, & Figley, 2007).

The goal of this study was to review the literature on compassion fatigue in nurses in order to analyze the trends of overall research on compassion fatigue, and to

identify the level, symptoms, and related factors of compassion fatigue. Additionally, in this study suggestions are made for future research and effective intervention studies for reducing compassion fatigue in nurses.

METHODS

This study is a type of systematic review. A systematic review is a literature review focused on a research question that tries to identify, appraise, select and synthesize all high quality research evidence relevant to that question. Framework for a systematic review includes, first, a theme, method for data collection, and review of the results of related research, second, analysis and synthesis of results, and derivation of conclusions related to the research question and finally provision of valid information (Greenhalgh, 1997). This systematic review was done using Greenhalgh's method of systematic review.

1. Data extraction methods for the literature review

For the literature review, Medline, CINAHL (the Cumulative Index to Nursing and Allied Health Literature), Ovid, Proquest and Scopus databases were searched using 4 key words: 'compassion fatigue,' 'secondary traumatization,' 'secondary traumatic stress' and 'vicarious traumatization,' There was no date limitation because these concepts were considered new. Searching for this study was of English research, because there is no research on compassion fatigue with Korean nurses as participants. First, a list of 5104 articles were retrieved using the 4 key words, then titles and abstracts of these articles were assessed with inclusion criteria. Of the 5,104 articles, 4,774 articles were excluded based on the inclusion criteria which were defined as follows. The papers were an original article, written in English, nurses as participants were included, and the concept of at least one of the 4 key words was measured. After exclusion, 330 articles remained. Researchers reviewed the 330 articles with full text and from that review 293 articles were excluded based on inclusion criteria which were described year, place, number of participants, research design, purpose, nursing department, tools, reliability of tool, results. Finally, 36 papers were extracted for this review on compassion fatigue of nurses (Figure 1).

2. Data analysis

In the selected studies, the following information was

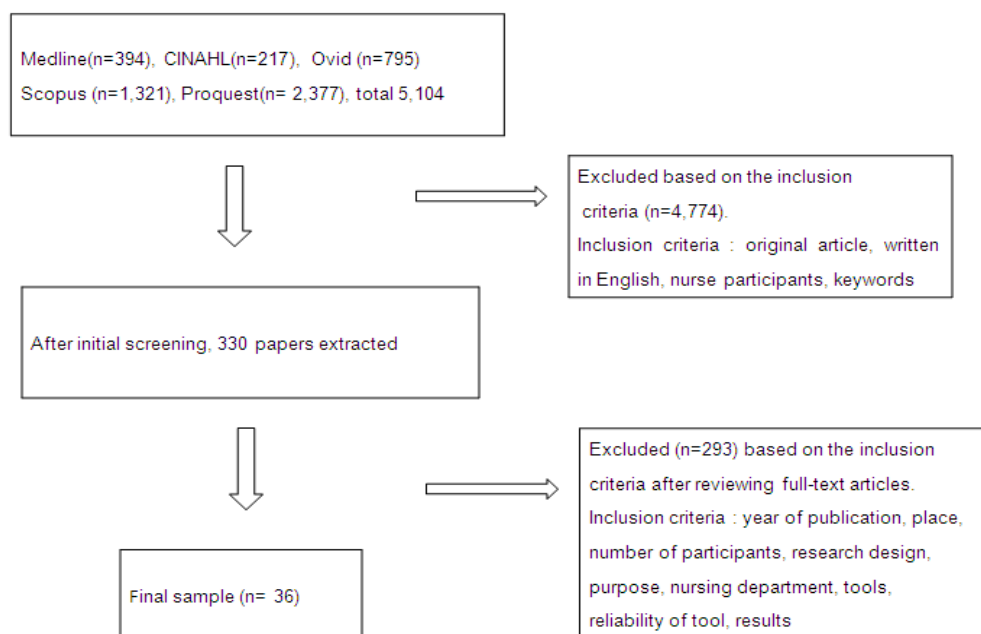


Figure 1. Process of proper research extraction.

gathered: publication year, country where research was conducted, research design, detailed research purposes, sample, sampling method, research tools, and study results. Furthermore, researchers examined if the reliability and validity of instruments were described for evaluating the quality of studies. The study results were analyzed by the level of compassion fatigue according to nursing specialties, factors associated with compassion fatigue, and management for compassion fatigue.

RESULTS

1. Analysis of overall literature features and research methods

1) Year of publication and studied country

The literature on compassion fatigue appeared in the early '90s, but the first study in which nurses only or partially were investigated as participants was published in 2000. Until 2005, there were only one or two research papers a year. From 2006 to 2011, 31 papers were published. Seven papers (19.4%) were published in 2006 and 2008 each. Eight papers (22.2%) on the subject were published in 2009 and 2010 each. Most studies (n=29, 80.6%) were performed in the U.S.A. Other countries where research was conducted were South Africa (n=3), Israel (n=2), Norway (n=1), and Greece (n=1) (Table 1).

2) Research design and purposes & sample

Out of the 36 studies, there were 30 (83.3%) descriptive research studies, and 4 (1.1%) experimental research studies. There was 1 (2.8%) each for qualitative research and triangulation research. The four experimental studies evaluated the effects of treatments for compassion fatigue. The detailed research purposes were categorized into 4 kinds. Major purposes were to identify level of compassion fatigue (n=28, 77.8%) and/or to determine related factors (n=29, 80.6%).

The different work areas for the nurses participating in the research studies were pediatrics (n=7, 19.4%), emergency room or trauma units (n=6, 16.7%), oncology (n=4, 11.1%), psychiatry or general wards (n=5 each, 13.5%), hospice centers (n=3, 8.3%), sexual assault victim examination units (n=2, 5.6%), operating room or intensive care units (each n=1, 2.7%), and long term facilities or public health clinics (n=1 each, 2.8%). In 23 studies, the participants were all nurses, and the other 13 studies included other professionals such as physicians, social workers, chaplains, and paramedics. The portion of nurses in the samples varied from 13.8% to 86.3% and all studies at least 40% of total participants were nurses (Table 1).

3) Sampling method and sample size

In 18 (50%) of the 36 studies detailed explanations of

sampling methods were included. A non-probability method such as convenience sampling or purposive sampling was used in 11 studies (30.6%), and in 7 studies (19.4%), the probability method was used. In 4 studies (11.1%), all correlational studies, rational for the sample size for the study was described. None of 4 experimental studies had an estimated sample size (Table 1).

4) Research tools

For 29 of the 36 studies (80.6%) the reliability of the tool was reported and for 15 studies (41.7%) the validity was reported. Reliability was calculated by the authors for only 13 studies, and no study included calculation of

validity by authors. Questionnaires developed by authors were used in 3 studies, and existing analysis tools in 32 studies.

There were 7 kinds of tools used in 32 the studies. The Professional Quality of Life (ProQOL) scale was most commonly used (n=18, 56.3%), and measured the concepts of 'compassion fatigue,' 'secondary traumatic stress,' and 'vicarious traumatization.' The Compassion Fatigue Self Test (CFST) was used in 8 studies (25.5%) and measured the concepts of 'compassion fatigue,' 'secondary traumatization,' and 'vicarious traumatization.' The Secondary Traumatic Stress Scale (STSS) was used in 3 studies (9.4%), and measured the concept of

Table 1. Analysis of Selected Studies

(N=36)

Variables	Categories	n (%)	Remarks	
Year of publication	2000~2005	5 (13.9)	2000 (1), 2002 (2), 2004 (1), 2005 (1)	
	2006~2011	31 (86.1)	2006 (7), 2008 (7), 2009 (8), 2010 (8), 2011 (1)	
Country	USA	29 (80.6)		
	South Africa	3 (8.3)		
	Others	4 (11.1)	Israel (2), Norway (1), Greece (1)	
Research Design	Descriptive	30 (83.3)		
	Experimental	4 (11.1)		
	Qualitative	1 (2.8)		
	Triangulational	1 (2.8)		
Detailed purpose [†]	CF level	28 (77.8)		
	Relating factors	29 (80.6)		
	CF symptoms	3 (8.3)		
	Management of CF	9 (25.0)		
Nursing specialties	Pediatric	7 (19.4)		
	ER/trauma	6 (16.7)		
	Oncology	4 (11.1)		
	Psychiatric	5 (13.9)		
	General wards	5 (13.9)		
	Hospice	3 (8.3)		
	Others	6 (16.7)	SAVEU (2), OR (1), ICU (1), PHC (1), Nursing home (1)	
Sample	All nurses	23 (63.9)		
	Partially nurses	13 (36.1)	Range: 13.8~86.3%, Mean: 55.7%	
Sampling method	Mentioned	18 (50.0)		
	Non-probability	11 (30.6)	Convenience (7), Purposive (2), Non random (2)	
	Probability	7 (19.4)	Random (5), Proportional (1), Systematic (1)	
Rational for sample size	Mentioned	4 (11.1)	All correlational studies	
Validation for tool				
	Reliability	Mentioned	29 (80.5)	Calculated by authors (13)
	Validity	Mentioned	15 (41.7)	Calculated by author (0)

CF=compassion fatigue; SAVEU=sexual assault victim examiner unit; OP=operating room; ICU=intensive care unit; PHC=public health clinic.

[†]Multiple answers.

‘secondary traumatization.’ The Traumatic Stress Institute Belief Scale (TSI) was used in 2 studies (6.3%). The Trauma and Attachment Belief Scale (TABS), Penn Inventory, and Impact Events Scale-Revised (IES-R) were used in 1 study each (3.1%).

CFST is a tool for measurement of compassion fatigue and job burnout, and compassion satisfaction, job burnout, and compassion fatigue with 66 items in the original tool but with a reduced number of items in different versions (Beck, 2011). ProQOL is a revision of CFST and is composed of three discrete subscales: Compassion satisfaction, burnout, and compassion fatigue (Bride et al, 2007). STSS is a tool for assessment of the symptoms of secondary traumatic stress associated with indirect exposure to traumatic events through clinical work with traumatized populations (Beck, 2011). TABS is a new version of TSI (Beck, 2011). TSI is a tool for measurement of disruption in cognitive schemata that are related

to 5 basic psychological needs (safety, trust, esteem, intimacy, control) (Beck, 2011). Penn Inventory is a tool for measuring the presence or absence of traumatic stress symptoms. IES-R is a tool for measuring traumatic stress symptoms (Beck, 2011) (Table 2).

2. Analysis of research results

1) Level of compassion fatigue

The level of compassion fatigue was found to vary according to nursing specialties in these studies (Table 3). It was difficult to compare compassion fatigue by nursing speciality units, because of the different tools used for measuring compassion fatigue in the research studies. Nurses on pediatric units reported from low to high and severe levels of compassion fatigue, and emergency room nurses reported equal to or less than average, moderate, and high risk (28.4%) levels. Trauma unit nur-

Table 2. Tools according to 4 Key Words

(N=32)

Tools	n (%)	Measured concept	Versions	Authors
ProQOL	18 (56.3)	Compassion fatigue (15) Secondary traumatic stress (2) Vicarious traumatization (1)	ProQOL	Berger & Gelkopf (2010), Burston & Stichler (2010), French (2006), Lauvrud et al. (2009), Meadors et al.(2009), Smit (2006)
			ProQOL R-III	Abendroth & Flannery (2006), Alkema et al. (2008), Maiden (2008), Rohan (2005)
			ProQOL R-IV	Dogbey (2008), Hopper (2010), Mangoulia et al. (2010), Newell & MacNeil(2011), Porter et al. (2010), Reese (2008), Yoder(2010)
			ProQOL version 5	Roney (2010)
CFST	8 (25.0)	Compassion fatigue (6) Secondary traumatic stress (1) Vicarious traumatization (1)	CFST (66 items)	Jackson (2002), Robins et al. (2009), Townsend & Campbell (2009)
			CFST (30 items)	Frank & Karioth (2006)
			CFS (40 items)	Hilliard (2006), Lev-wiesel et al. (2009), Nkosi (2002)
			CF & BO (40 items)	Monroe (2008)
STSS	3 (9.4)	Secondary traumatic stress (3)		Dominguez-Gomez & Rutledge (2009), Meadors et al. (2009), Quinal et al. (2009)
TABS	1 (3.1)	Vicarious traumatization (1)		Cowgur (2006)
TSI	2 (6.3)	Vicarious traumatization (2)		Glidewell (2000), Martin (2006)
Penn inventory	1 (3.1)	Secondary traumatic stress (1)		von Rueden et al. (2010)
IES-R	1 (3.1)	Secondary traumatic stress (1)		Meadors et al. (2009)

ProQOL=professional quality of life; CFST=compassion fatigue self test; STSS=secondary traumatic stress scale; TABS=the trauma and attachment belief scale; TSI=traumatic stress institute belief scale; IES-R=impact of events scale-revised; CF & BO=compassion and burnout test.

Table 3. Level of Compassion Fatigue according to Various Nursing Specialties

Nursing department	Level of compassion fatigue	Using tools
Pediatric unit	From low to high and severe level	- Low level (Jackson, 2002), CFST (66)
		- Moderate-high level (39%) (Robins et al., 2009) CFST
		- Severe level (20%) (Berger & Gelkopf, 2010) ProQOL
		- High level (Meadors, et al., 2009) ProQOL
Emergency room	Equal to or less than average, moderate, and high risk (28.4%) level	- Equal to or less than average level (Cowgur, 2006) TABS
		- 33% were diagnosed with STS (Dominguez-Gomez & Rutledge, 2009) STSS
		- 28.4% were high risk (Hopper, 2010) ProQOL R-III
		- Moderate level (Reese, 2008) ProQOL R-IV
Trauma unit	High risk (50%)	- 50% were high risk compassion fatigue (Nkosi, 2002) CFST
		- 18% presented with STS (Von Rueden, et al., 2010) Penn Inventory
Psychiatric unit	High level	- 60% were high risk (Monroe, 2008) CFST
		- Low level of STS (Lauvrud et al., 2009) ProQOL R-IV
		- 50% were high level (Newell & MacNei, 2011) ProQOL-IV
		- 88.5% were moderate-high level (Mangoulia et al., 2010) ProQOL R-III
Oncology unit	Low and moderate level	- Low level (Rohan, 2005) ProQOLR-III
		- Low level of STS (Quinal et al. 2009) STSS
		- Moderate level (Porter et al., 2010) ProQOL R-IV
General wards	Low and moderate level using ProQOL	- Low level (Yoder, 2010) ProQOL R-IV
		- Moderate level of emotional exhaustion (Smit, 2006) ProQOL
		- Moderate level (Burston & Stichler, 2010) ProQOL
		- High level of VT (war-related) (Lev-Wiesel et al., 2009) CFST (40)
		- Low-average level (operating room) (Dogbey, 2008) ProQOL R-III
Hospice unit	Moderate-high level using ProQOL	- 78% were moderate-high risk for compassion fatigue and 26% were high-risk for compassion fatigue (Abendroth & Flannery, 2006) ProQOL R-III
		- Moderate level (Alkema et al., 2008) ProQOL R-III
SANE (sexual assault nurse examiner)	Moderate level	- 50% had elevated compassion fatigue (French, 2006) ProQOL
		- Moderate level of STS (Townsend & Campbell, 2009) CFST (66)
Long term facilities	Low level	- Low level of emotional exhaustion (Glidewell, 2000) TSI
Public health clinics	Low level	- Low level (Frank & Karioth, 2006) CFST (30)

ProQOL=professional quality of life; CFST=compassion fatigue self test; STSS=secondary traumatic stress scale; TABS=the trauma and attachment belief scale; TSI=traumatic stress institute belief scale; STS=secondary traumatic stress; VT=vicarious traumatization; CF=compassion fatigue.

ses reported high risk (50%) of compassion fatigue, and psychiatric unit nurses reported high levels. Oncology unit nurses reported low and moderate levels of compassion fatigue and general unit nurses reported low and moderate levels using ProQOL. Hospice unit nurses reported moderate - high level using ProQOL, and SANE (Sexual assault nurse examiner) nurses reported moderate levels of compassion fatigue. Long term facility nurses reported low level of compassion fatigue, and public health clinic nurses also reported low levels. Meadors, Lamson, Swanson, White, & Sira (2009) reported physicians showed higher levels of compassion fatigue than nurses and child-life specialists. Robins, Meltzer, & Zelikovsky (2009) reported pediatric trauma workers had the same level of compassion fatigue as healthcare professionals. In Newell & MacNeil's (2011) study, mental health providers at psychiatric clinics had the same level of compassion fatigue as administrators, and Rohan (2005) reported social workers had the same level of compassion fatigue as oncology physicians and nurses. Smit (2006) reported that physicians at general hospitals showed a higher level of compassion fatigue than nurses, and in the study by Lev-Wiesel, Goldblatt, Eisikovits, & Admi (2009), social workers who worked in war-related areas reported higher levels of compassion fatigue than nurses (Reference by Table 5).

2) Factors associated with compassion fatigue

The factors associated with compassion fatigue were organized into five categories: personal factors, professional factors, psychological factors, support factors, and coping factors (Table 4). Factors associated with high compassion fatigue were younger age, separated or unmarried (marital status), personal/family disruption, life demands, and high self-care. Factors such as educational level, career year and personal trauma history had inconsistent results. Among the work-related factors, factors associated with high compassion fatigue were less experience with traumatized patients, long work hours or overload, terminal case load, greater prosecution orientation, more goal diffusion, more continuing training, more job insecurity, perception of more medication errors, and informal discussions about work. Knowledge about compassion fatigue or nursing care was related to low compassion fatigue. Among the psychological factors, factors associated with high compassion fatigue were high work stress, traumatic stress, moral distress, personal stress, anxiety, traumatic response, burnout, and excessive empathy. Factors associated with low compassion fatigue were mental well-being and

compassion satisfaction and appropriate empathy. The support factors except for organizational support were related to low compassion fatigue. Among the coping factors, coping resources were related to low compassion fatigue, coping strategies such as escape, confrontation, or isolation from others were related to high compassion fatigue. Although the same factors affecting compassion fatigue were present, researchers reported different correlation tendencies. Factors such as length of career, personal training history, work load, and spirituality had different results for correlation with compassion fatigue in these studies.

3) Symptoms of compassion fatigue

The symptoms of compassion fatigue from these results were difficulty sleeping (Dominguez-Gomez & Rutledge, 2009; Jackson, 2002; Quinal, Harford, & Rutledge, 2009), irritability, intrusive thoughts, diminished activity levels (Dominguez-Gomez & Rutledge, 2009; Quinal et al., 2009), avoidance of clients, emotional numbing (Dominguez-Gomez & Rutledge, 2009), a foreshortened future outlook (Quinal et al., 2009), and mental health dysfunction (Jackson, 2002) (References by Table 5).

4) Results of intervention studies for compassion fatigue

There were 9 research studies related to management of compassion fatigue. In 5 studies, descriptive designs were used. In 1 study resources available to oncology nurses from all over the country were investigated. The results showed that 'online professional resources' and 'educational programs' were more frequently provided compared to 'specialized retreats' (Aycock & Boyle, 2009). The other four studies reported effective coping strategies utilized by participants as, engaging in self-care activities, developing a personal philosophy of nursing care, change/management of current situation, debrief informally, developing supportive professional relationships, using support systems; family, friends, coworkers, spiritual or religious, attitude modification, taking time away from work for hobbies, meditation or exercise (French, 2006; Maytum et al., 2004; Von Rueden et al., 2010; Yoder, 2010).

There were four experimental research studies on management of compassion fatigue: 1) increasing awareness of compassion fatigue, 2) increasing knowledge of warning signs of compassion fatigue (Meadors & Lamson, 2008), 3) improving professional self-efficacy, and 4) reducing levels of secondary traumatization (Berger & Gelkopf, 2010). Having levels of comfort and knowledge in care for dying infants was shown to be impor-

Table 4. Factors associated with Compassion Fatigue

Factors affecting CF		Condition	Correlation	Authors of articles
Personal factors	Age	Older age group	CF ↓	Burston & Stichler (2010), French (2006), Porter et al. (2010), Reese (2008), Roney (2010), Townsend & Campbell (2009), Cowgur (2006)
	Marital status	Having a spouse	CF ↓	Monroe (2008)
		Separated/unmarried	CF ↑	Rohan (2005)
	Educational level	Less education	CF ↑	Townsend & Campbell (2009)
		Advanced degree	CF ↑	Porter et al. (2010)
	Length of career	Long career	CF ↑	Frank & Karioth (2006), Lauvrud et al. (2009), Martin (2006), Robins et al. (2009)
		Long career	CF ↓	Roney (2010), French (2006)
			No correlation	Reese (2008), Meadors et al. (2009)
	Personal/family disruption	Yes	CF ↑	Frank & Karioth (2006),
	Life demands	High	CF ↑	Abendroth & Flannery (2006)
	Personal trauma history	Yes	CF ↑	Monroe (2008)
			No correlation	Martin (2006)
	Self-care	Yes	CF ↓	Alkema et al. (2008), Monroe (2008)
Work-related factors	Experience with traumatized patients	Yes	CF ↓	Burston & Stichler (2010), Cowgur (2006), French (2006), von Rueden, et al. (2010)
	Hours worked	Yes	CF ↑	Frank & Karioth (2006),
	Work overload	Yes	CF ↑	Maytum et al (2004), Townsend & Campbell (2009)
			No correlation	Martin (2006)
	Terminal case load	Yes	CF ↑	Rohan (2005)
	Prosecution orientation	Yes	CF ↑	Townsend & Campbell (2009)
	Goal diffusion	Yes	CF ↑	Townsend & Campbell (2009)
	Continuing training	Yes	CF ↑	Townsend & Campbell (2009)
	Job-insecurity	Yes	CF ↑	Smit (2006)
	Perceived medication errors	Yes	CF ↑	Maiden (2008)
	Informal discussions about work	Yes	CF ↑	Rohan (2005)
	Satisfaction with compensation	Yes	CF ↓	Townsend & Campbell (2009)
	Knowledge about compassion fatigue	Yes	CF ↓	Meadors & Lamson (2008)
	Knowledge of nurses caring	Yes	CF ↓	Burston & Stichler (2010)

CF=compassion fatigue.

Table 4. Factors associated with Compassion Fatigue (Continued)

Factors affecting CF		Condition	Correlation	Authors of articles
Psychological factors	Work stress	Yes	CF ↑	Dogbey (2008)
	Moral distress	Yes	CF ↑	Maiden (2008)
	Traumatic stress	Yes	CF ↑	Abendroth & Flannery (2006), Meadors et al. (2009)
	Traumatic response	Yes	CF ↑	Lev-Wiesel et al. (2009), Meadors & Lamson (2008), Rohan (2005)
	Personal stress	Yes	CF ↑	Meadors & Lamson (2008), Robins et al. (2009)
	Anxiety	Yes	CF ↑	Abendroth & Flannery (2006)
	Burnout	Yes	CF ↑	Alkema et al. (2008), French (2006), Glidewell (2000), Meadors & Lamson (2008), Rohan (2005)
	Mental well-being	Yes	CF ↓	Dogbey (2008)
	Compassion satisfaction	Yes	CF ↓	Yoder (2010), Alkema et al. (2008), Jackson (2002), Rohan (2005), Lauvrud et al. (2009),
	Empathy	Yes	CF ↓	Robins et al. (2009)
	Excessive empathy	Yes	CF ↑	Abendroth & Flannery (2006)
	Spirituality	Yes	No correlation	Reese (2008)
Support factors	Organizational support	Yes	CF ↑	Townsend & Campbell (2009)
			CF ↓	Maytum et al (2004)
	Social support	Yes	CF ↓	Monroe (2008), von Rueden et al. (2010)
	Peer support	Yes	CF ↓	Townsend & Campbell (2009)
	Personal resource	Yes	CF ↓	Lev-Wiesel et al. (2009),
Coping factors	Coping resources	Yes	CF ↓	Monroe (2008)
	Coping strategy of escape and confrontation	Yes	CF ↑	Nkosi (2002)
	Strategies that involved isolated from others	Yes	CF ↑	French (2006)

CF=compassion fatigue.

tant in the management of compassion fatigue (Rogers et al., 2008). One experimental research was on the effects of musical interventions on compassion fatigue, but there was no significant differences were reported (Hilliard, 2006) (References by Table 5).

DISCUSSION

This study was a systematic review study on compassion fatigue in nurses. It was done in order to analyze the overall trends of research related to compassion fatigue, and to identify the level, symptoms, and factors related to compassion fatigue. Compassion fatigue is an important concept but concept of compassion fatigue is

not precisely defined, and this lack presents obstacles to many researchers. There are four similar concepts in compassion fatigue, but concept definitions which take into account these differences are needed. In much of the research on compassion fatigue, different tools were used making it difficult to compare results. Therefore, there is a need for a clear definition of compassion fatigue, and uniformed tools to measure it.

Through this study, the level of compassion fatigue in nurses was found to differ by nurses' working units. Especially nurses who worked in war-related units had a high level of compassion fatigue, because war is a high crisis for everyone. Many research studies showed different levels of compassion fatigue in hospice, psychi-

Table 5. Reviewed Research for This Study

No	Author	Year	Theme	Purpose	Subjects
1	Abendroth, M., & Flannery, J.	2006	Predicting the risk of compassion fatigue: A study of hospice nurses.	To investigate the prevalence and the relationship between nurse characteristics and compassion fatigue risk.	216 nurses on hospice units
2	Alkema, K., Linton, J. M., & Davies, R.	2008	Relationship between self-care, compassion satisfaction, compassion fatigue, and burnout among hospice professionals.	To assess problematic work-related stress and enhance work-related satisfaction.	17 nurses in 37 professional hospices
3	Aycock, N., & Boyle, D.	2009	Interventions to manage compassion fatigue in oncology nursing.	To identify resources available to oncology nurses to manage compassion fatigue.	101 oncology nurses
4	Berger, R., & Gekkopf, M.	2010	An intervention for reducing secondary traumatization and improving professional self-efficacy in well baby clinic nurses following war and terror: a random control group trial.	To assess the level of secondary traumatization, And stress and trauma in infants, young children and parents.	80 well baby clinic nurses (42 treatment group and 38 control group)
5	Burtson, P. L., & Stichler, J. F.	2010	Nursing work environment and nurse caring: Relationship among motivational factors.	To examine the relations of compassion satisfaction, nurse job satisfaction, stress, burnout and compassion fatigue.	126 nurses (medical, surgical, emergency room, intensive care units)
6	Cowgur, A. M.	2006	Vicarious traumatization in the emergency nurse.	To describe the influence of caring for trauma victims on the development of vicarious traumatization.	123 emergency unit nurses
7	Dogbey, E.	2008	The relationships among unit culture, work stress, compassion fatigue and sense of wellbeing in operating room nurses.	To explore the relationships among unit culture, work stress, compassion fatigue, and sense of wellbeing.	138 operating room nurses
8	Dominguez-Gomez, E., & Rutledge, D. N.	2009	Prevalence of secondary traumatic stress among emergency nurses.	To investigate the prevalence of secondary traumatic syndrome.	67 emergency room nurses
9	Frank, D. I., & Karioth, S. P.	2006	Measuring compassion fatigue in public health nurses providing assistance to hurricane victims.	To measure the risk for compassion fatigue.	117 public health nurses
10	French, S. M.	2006	Compassion fatigue in Kentucky sexual assault nurse examiners.	To identify the manifestations of compassion fatigue, and to identify factors of compassion fatigue.	30 sexual assault nurse examiners
11	Glidewell, R.	2000	Burnout, vicarious traumatization, coping styles, and empathy in long-term care nursing personnel.	To investigate the relationships between burnout and vicarious traumatization.	160 nurses
12	Hilliard, R. E.	2006	The effect of music therapy sessions on compassion fatigue and team building of professional hospice caregivers.	To evaluate the effects of music therapy on compassion fatigue and team building.	17 nurses, social workers, and chaplains
13	Hopper, C., Craig, J., Janvrin, D., Wetsel, M. A., & Reimels, E.	2010	Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with inpatient unit nurses.	To investigate the prevalence of compassion satisfaction, burnout, and compassion fatigue.	109 nurses; 49 emergency nurses, 32 intensive care unit staff, 16 nephrology unit staff, 12 oncology unit staff
14	Jackson, E. D.	2002	A study of its potential risks among health care professionals.	To examine compassion fatigue, compassion satisfaction and burn out.	32 health care professionals; 50% nurses
15	Lauvrud, C., Nonstad, K., & Palmstierna, T.	2009	Post traumatic stress symptoms and their relationship to professional quality of life (ProQoL) in nursing staff at psychiatric security unit.	To explore relations between, and occurrence of, job satisfaction, burnout and post traumatic stress symptoms.	70 psychiatric nurses

Table 5. Reviewed Research for This Study (Continued)

No	Author	Year	Theme	Purpose	Subjects
16	Lev-wiesel, R., Goldblatt, H., Eisikovits, Z., & Admi, H.	2009	The case of social workers and nurses working in a shared war reality.	To assess post-traumatic stress symptoms and vicarious traumatization versus post-traumatic growth.	76 nurses, 128 social workers
17	Maiden, J.	2008	A quantitative and qualitative inquiry into moral distress, compassion fatigue, medication error, and critical care nursing.	To determine the accuracy of the IVs; moral distress and compassion fatigue in predicting medication scores.	205 critical care nurses
18	Mangoulia, P., Koukia, E., Alevizopoulos, G., Fildissis, G., & Katostaras, T.	2010	Compassion fatigue, burnout and compassion satisfaction among nurses in Greece.	To investigate the risk of secondary traumatic stress/compassion fatigue and burnout.	174 psychiatric nurses
19	Martin, P.	2008	An investigation into the effects of vicarious trauma experienced by healthcare workers.	An examination of the effects of working with traumatized individuals.	37 psychiatric nurses
20	Maytum, J. C., Heiman, M. B., & Garwick, A. W.	2004	Compassion fatigue and burnout in children's unit nurses.	To identify the triggers and coping strategies for compassion fatigue and prevent burnout.	7 care coordinators, 4 case managers, 7 nurses, 1 manager, 1 practitioner
21	Meadors, P., & Lamson, A.	2008	Compassion fatigue and secondary traumatization: at intensive care units for children.	To describe the scope of compassion fatigue.	185 health care providers in critical care units with children, 62.2% nurses
22	Meadors, P., Lamson, A., Swanson, M., White, M., & Sira, N.	2009	Secondary traumatization in pediatric healthcare providers: compassion fatigue, burnout, and secondary traumatic stress.	To examine the impact of secondary traumatization.	167 pediatric health care professional (13.8% nurses)
23	Monroe, A.	2008	Psychiatric nurses' management of compassion fatigue through self-care.	To explore the levels of compassion and burn out.	51 psychiatric nurses
24	Newell, J. M., & MacNeil, G. A.	2011	Burnout and professional quality of life in clinical mental health providers.	To determine the degree of burnout, compassion fatigue, and compassion satisfaction.	87 mental health professional staff and 78 administrative staff
25	Nkosi	2002	Compassion fatigue and coping styles in nurses working in a hospital trauma unit.	To determine whether a relationship exists between compassion fatigue and coping style.	2 trauma unit nurses
26	Potter, P., Deshields, T., Divanbeigi, J., Berger, J., Cipriano, D., Norris, L., et al.	2010	Compassion fatigue and burnout oncology nurses.	To explore the prevalence of burnout and compassion fatigue.	132 nurses and 21 patient care technicians, medical assistants, technologist
27	Quinal, L. O. C. N., Harford, S. O. C. N., & Rutledge, D. N.	2009	Secondary traumatic stress in oncology staff.	To explore the prevalence of secondary traumatic stress.	33 nurses (76.7%) in 42 oncology staff
28	Reese, M.	2008	Compassion fatigue and spirituality with emergency health care providers.	To investigate the relationship between spirituality and compassion fatigue, compassion satisfaction, and burn out.	89 emergency health care providers (nurses, flight paramedics, chaplains, and physicians)
29	Robins, P. M., Meltzer, L., & Zelikovsky, N.	2009	Secondary traumatic stress upon children care providers.	To assess the impact of providing care to patients, compared two comparison groups of professionals.	136 nurses in 314 health care professional settings

Table 5. Reviewed Research for This Study (Continued)

No	Author	Year	Theme	Purpose	Subjects
30	Rogers, S., Babgi, A., & Gomez, C.	2008	Educational interventions in end-of-life care.	To assess knowledge and comfort via an educational intervention.	82 neonatal nurses
31	Rohan, E. A.	2005	Vicarious traumatization of nurses at oncology unit.	To explore the possibility of vicarious traumatization.	90 oncology nurses (49.7%), 39 social workers, 52 physicians
32	Roney, L.	2010	Compassion satisfaction and compassion fatigue among emergency department.	To explore the incidence of compassion fatigue and compassion satisfaction	93 emergency nurses
33	Smit, J. A.	2006	Coping of burnout and compassion fatigue among health care professionals.	To investigate the levels of burnout, compassion fatigue and compassion satisfaction	237 nurses, 75 doctors
34	Townsend, S. M., & Campbell, R.	2009	Organizational correlates of secondary traumatic stress and burnout among sexual assault nurse examiners.	To explore correlates of secondary traumatic stress and burnout.	110 sexual assault nurse examiners.
35	Von Rueden, K. T., Hinderer, K. A., McQuillan, K. A., Murray, M., Logan, T., Kramer, B., et al.	2010	Secondary traumatic stress in trauma nurses.	To determine the incidence of secondary traumatic stress.	262 level 1 trauma center staff
36	Yoder, E. A.	2010	Compassion fatigue in nurses.	To describe the prevalence of compassion fatigue.	178 nurses

atric units, pediatric units, emergency or trauma units, and oncology units. But, nurses in long term facilities and public health clinics had low levels of compassion fatigue. Therefore, there is a need to do further research using the same tool and giving consideration to organizational factors for nursing units in hospitals and clinics. These results should be used to interpret how nursing specialty units and patient characteristics affect compassion fatigue.

Compared to expected results in other studies, Conrad & Kellar-Guenther (2006) reported that Colorado child protection workers had low levels of compassion fatigue, and Sprang & Clark (2007) studied compassion fatigue of behavioral health providers such as psychologists, psychiatrists, social workers, marriage and family therapists, professional counselors, and drug and alcohol counselors, and reported that their level of compassion fatigue was low. These results are similar to the results of this study. Simon and colleagues (2005) reported that oncology social workers had moderate levels of compassion fatigue, but this result differs from our results.

The symptoms of compassion fatigue in these studies showed irritability, avoidance of clients, difficulty sleeping, intrusive thoughts, diminished activity level, emotional numbing, foreshortened future outlook, and men-

tal health dysfunction. Many other studies among lawyers, therapists, emergency professionals, and researchers showed similar symptoms of compassion fatigue, such as avoidance, persistent arousal (Figley, 1995), sadness, depression, sleeplessness, general anxiety, nightmares, intrusive thoughts (Cerney, 1995), decreased concern, physical and emotional exhaustion, job dissatisfaction, hopelessness, irritability, quick temper (Figley, 2002), and dissociation (Bride, 2004).

There were a few other factors of compassion fatigue identified through this study. Among personal factors, age, length of career, marriage, educational level, personal life, and self-care were associated with compassion fatigue. Even though the results of age and length of career showed inconsistency, nurses who felt high compassion fatigue seemed to be younger, single, had lower educational levels, longer clinical experience, and more problems in their lives. These results let us identify risk groups and help to develop specific interventions. Experience with traumatized patients was expected to be a very important factor and many studies in our literature reported this same result. Less-experienced therapists feel more overwhelming strain from their clients than experienced therapists (Neuman & Gamble, 1995). Trauma experience is the essence of the occurrence of compassion fatigue based on this literature review.

Other work-related factors found to influence compassion fatigue were negative work environments such as work overload, job insecurity, and diffuse goals, and perception of medication errors but nursing care seemed to be a consequence of compassion fatigue, rather than a symptom. Several researchers (Beaton & Murphy, 1995; Sabo, 2006) also noticed that factors increasing compassion fatigue were poor collaborative work environments, lack of social support, work experience, training and role orientation factors, heavy workloads, increased time in contact with patients, and long work hours. Based on these results, management of compassion fatigue needs to be studied.

Many psychological emotions or stress were associated with compassion fatigue, as either as causative factors or consequent factors. Empathy was especially included, and excessive empathy resulted in blurring of professional boundaries and could generate compassion fatigue. Figley (1995, 2002) indicated that compassion fatigue is a phenomenon that occurs when a caregiver feels overwhelmed by repeated empathy with distressed clients, has poor self-care, previous unsolved trauma, inability or refusal to control work stressors, and a lack of satisfaction in the work. Many of the factors affecting compassion fatigue identified in these studies were similar to Figley's study. Support seems to be the intervening factor. From these results, adequate support appears to be related to less compassion fatigue except in the case of support from some organizations. These factors were different in the research results for length of career, personal training history, work load, and spirituality, so more study is needed on how these factors influence compassion fatigue.

Interventions for compassion fatigue are very important for nurses and other health professionals. Among the studies reviewed in this paper, intervention studies using education reported a significant effect on compassion fatigue. Through education, nurses can become aware of and reduce the level of compassion fatigue. However, there were very few intervention studies. Therefore, in the future, more attention needs to be given to experimental studies on interventions to managing compassion fatigue, because the emotional well-being of professional helpers plays a significant role in their ability to work effectively with clients. Coping mechanisms can relieve residual compassion stress (Figley, 2002). There are some methods of reducing compassion fatigue including joining a Traumatic Stress Study Group (Gentry, Baranowsky, & Dunning, 2002) and self-hypnosis (Gruzelier, 2002). There are limits to our discus-

sion comparing the results in this study. Compassion fatigue is different from fatigue, compassion fatigue indicates psychiatric fatigue, and fatigue indicates physical fatigue. In Korea we need research on compassion fatigue for nurses in units such as psychiatric, emergency room, intensive care unit, and oncology, because none has been done to date. With such research it will be possible to compare results of other research and develop interventions to overcome compassion fatigue for nurses according to Korea hospital culture.

CONCLUSION

This literature review analyzed 36 studies from articles taken from 5 databases using 4 key terms related to compassion fatigue in nurses. Most study designs were quantitative studies including descriptive and correlational studies, and many studies used ProQOL as the survey tool. This literature review revealed that nurses who work in specialty areas showed different level of compassion fatigue. In hospice units nurses showed moderate-high level using ProQOL, in long term facilities and public health clinics, nurses showed low level of compassion fatigue measured either by TSI or CFST. The symptoms of compassion fatigue include irritability, difficulty sleeping, intrusive thoughts, diminished activity level, avoidance of clients, and emotional numbing. Factors associated with compassion fatigue were age, having a spouse, educational level, length of career, trauma experience, negative work environment, stress, empathy, and support/ coping.

Nurses cannot avoid compassion fatigue in the work place, so they have to learn to manage and overcome compassion fatigue. Nursing departments should try to reduce the stress of nurses' work environments and pay attention to the signs of compassion fatigue in nursing staff. In future research, there is a need to develop program to reduce compassion fatigue. Furthermore, nursing departments should hold educational seminars on compassion fatigue, so nurses can learn about compassion fatigue and how to handle it.

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