

Compassion Fatigue and Secondary Traumatization: Provider Self Care on Intensive Care Units for Children

Patrick Meadors, MS, & Angela Lamson, PhD, LMFT, CFLE

ABSTRACT

Introduction: Unexpressed grief in health care providers who care for chronically ill children may lead to the development of some symptoms of compassion fatigue. The purpose of this study was to describe the scope of compassion fatigue in health care providers working on critical care units with children. A secondary aim was to evaluate the effectiveness of providing educational seminars on compassion fatigue to health care providers working on critical care units with children.

Method: In this quantitative study, 185 providers employed within a Children's Hospital attended an educational seminar and voluntarily completed the questionnaires before and after the seminar. A modified version of the Social Readjustment Rating Scale, Index of Clinical Stress, and a compassion fatigue measure developed by the researchers were used in this study.

Results: The researchers found that this educational seminar was successful in raising awareness on compassion fatigue and reducing clinical stress. In addition, the results suggested that providers who experienced higher levels of personal stressors also experienced higher levels of clinical stress and compassion fatigue.

Discussion: Providers working on the intensive care units for children needed to be aware of compassion fatigue symptoms and techniques to manage or minimize their symptoms. Taking care of the providers on a personal and professional level had a significant impact on the amount of stress and compassion fatigue exhibited by health care professionals. *J Pediatr Health Care.* (2008) 22, 24-34.

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About 15% to 18% of children in the United States have a chronic health condition (University of Michigan Health System, 2006). These conditions range from asthma, the most common, to diabetes, cerebral palsy, sickle cell anemia, cystic fibrosis, cancer, AIDS, epilepsy, spina bifida, and congenital heart problems. Fortunately, not all chronic conditions are terminal; however, each chronic condition increases the likelihood that a child spends an abundance of his or her childhood in the care of medical providers compared with children without chronic conditions.

Because advances in medical technology have allowed patients to survive longer than in previous generations, providers are now more immersed and linked to their patient's experience than ever before (Maytum, Heiman, & Garwick, 2004). These long-standing health care experiences have changed the lives of children's family members, the providers, and everyone who was directly and indirectly involved with that child. As the longevity of life for children with chronic illnesses has increased, so has the likelihood for providers to have increased and prolonged exposure to suffering and/or dying patients. Figley (1995) described compassion fatigue as a result of prolonged exposure to trauma resulting in a variety of problematic symptoms that manifest in the workplace and at home. Compassion fatigue may have long-term implications for the care provided to the patients, because providers must be prepared to assist the family of a chronically ill, traumatized, or dying patient but also be prepared to deal with their own grief (Brosche, 2003). Figley (1998) recognizes that caring for patients with chronic illnesses and the realization that the patient may never fully recover is extremely challeng-

ing for providers, yet the continuation of individualized treatment is critical to the patient's health.

Wright (2004) underscores the need for health care organizations to develop respect and care for their employees in the same way that they require the employees to care for their patients. The purpose of this study was to describe the scope of compassion fatigue in health care providers working on critical care units with children. The secondary aim was to evaluate the effectiveness of providing educational seminars on compassion fatigue to health care providers working on critical care units with children.

LITERATURE REVIEW

The demands placed on professionals working with children in intensive care units (ICUs) have made it essential that providers learn to care for themselves and acknowledge how the patient's experience may affect their own life and ability to care for future patients. Many providers have endured unresolved traumas, prolonged exposure to patients' suffering, and personal life disruptions, yet have never been aware of the implications associated with these common problems or considered how those issues influenced their ability to care for patients. This lack of awareness has allowed symptoms to worsen and eventually led to multiple other problems (e.g., leaving the profession, stress in personal relationships, decreased productivity, and medical errors). The names associated with these set of symptoms are compassion fatigue and primary or secondary traumatization, which have been found to exist within medical professions working with traumatized populations (Figley, 1989). With the help of this research, more health care providers can become aware of primary or secondary traumatization and compassion fatigue and the implications of their presence in a provider's life.

Primary and Secondary Traumatization

Providers may exhibit symptoms of primary or secondary traumatization depending on a number of factors that may contribute to the providers' experience with their patient (Figley 1989, 1995). Traumatization symptom levels usually depend on three criteria: proximity, intensity, and duration. Proximity refers to how close the provider is to the traumatic event, intensity is defined by how extensive and extreme the traumatic event is, and duration refers to how long the provider is involved with the traumatic event (American Psychiatric Association, 2002). The following symptoms may be experienced by an individual struggling with primary traumati-

vider's vulnerability to primary traumatization include unhealthy coping strategies, unexpected nature of a case, and other factors that specifically address situations that face providers on critical units with children. Even though the children in the care of the pediatric intensive care unit (PICU) and neonatal intensive care unit (NICU) are not the provider's own, often there is an emotional identification if the patient is similar in age, gender, or temperament to one's own child. It also may be that particular circumstances surrounding the child's disease, trauma experience, or family relate to the provider's personal memories or experiences (Peebles-Kleiger).

Secondary traumatization, on the other hand, is channeled when

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zation: decreased appetite, irritability, social withdrawal, increased anxiety, and increased sadness (Munson, 2002). It should be noted that symptoms of primary traumatization frequently are not obvious in diagnostic or treatment sessions; this is especially evident among health care providers who may have tendency to not acknowledge their own reactions to their patient's traumatic event (Munson).

Pediatric and neonatal intensive care professionals may experience primary traumatization if the medical event itself is traumatizing for the professional (e.g., working with a severely burned child or a child who was physically abused) (Peebles-Kleiger, 2000). Other factors that have contributed to a pro-

vider is personally affected by the primary traumatization of his or her patient (e.g., a child who shares with the provider his or her experience of being abused or exposure to a child who experienced significant suffering from his or her diagnosis or trauma) (Figley, 1989). The provider begins to experience some of the same symptoms (e.g., nightmares, anxiety, and heightened startle response) that affect those who were primarily traumatized. Secondary traumatization also can be seen as an overidentification with the patient's experience or the patient's coping response, and thus the provider begins to experience similar levels of traumatization to that of the child. The symptoms tend to have a continuing affect on the

provider's personal relationships, social networks, professional lives, and other aspects of his or her life until the issues of trauma are addressed. Whether a provider experiences primary or secondary traumatization or is affected by a series of other concerns, compassion fatigue is a real and imminent danger for NICU, PICU, and pediatric providers.

Compassion Fatigue

Compassion fatigue is a relatively new term that has been connected to persons who experience primary or secondary traumatization while working with traumatized populations (Figley, 1995). Compassion fatigue is defined as a natural consequence of working with those who have experienced a trauma or another stressful event (Joinson, 1992). In a series of works by Figley (1995, 1998) the model of compassion fatigue has been highlighted, which supports a theory that members of systems, in an effort to generate an understanding about a member who is experiencing traumatic stress, are motivated to express empathy toward the troubled member. This model included the following concepts: compassion stress, prolonged exposure to suffering, unresolved trauma, and degree of life disruption, all of which greatly influence or contribute to compassion fatigue. Figley (1998) clarified that compassion fatigue is where a person **loses the ability to provide the same level of compassion and care for another person following repeated exposures to traumatization.**

Becvar (2003) stated that professionals with compassion fatigue have experienced symptoms that are similar to patients who have struggled with primary traumatization. The symptoms of compassion fatigue that a provider may exhibit are separated into three domains: (a) **re-experiencing of primary survivor's traumatic event;** (b) **avoid-**

ance of reminders (about an event/a person or interactions of those places/persons/things involved in the event), or (c) numbing in response to triggers and persistent arousal (Figley). Clark and Gioro (1998) mentioned that nurses and other providers are not immune from feelings associated with trauma. **Professionals must recognize these feelings and develop a support network to help manage their trauma or grief experiences. Yet many medical professionals have stated that lack of time to recover from trauma or loss experiences (i.e., death of nonaccidental traumas on a unit) has made it difficult to cope with compassion fatigue (Pffifferling & Gilley).** In an attempt to **compensate for this lack of time, physi-**

Effect on the Workplace

Pffifferling and Gilley (2000) state that compassion fatigue not only takes a toll on the provider but also on the workplace, because there is **decreased productivity, higher turnover, and greater number of sick days** needed. Wright (2004) found that unspecified stress is the most common cause of long-term sickness in the public sector. In addition, Sexton (1999) acknowledged that the quality and effectiveness of an organization's work can be compromised when its providers are suffering from stress and primary or secondary traumatization. Providers who do not manage their traumatization are more likely to struggle with empathy toward their patients and thus reduce effective-

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professionals **multitask, thereby** decreasing the perceived need for utilization of coping mechanisms that would allow them to overcome the symptoms of compassion fatigue.

Collins and Long (2003a) have found that professionals who do not recognize and/or cope with the symptoms of compassion fatigue sometimes are challenged in their ability to provide effective services and maintain positive personal and professional relationships. This finding may be especially evident for providers who experience trauma or multiple deaths of children via their work environments (e.g., on the PICU, NICU, and Pediatric Units [PEDS]).

ness of care. In addition, resignations resulting from compassion fatigue and primary or secondary traumatization will likely cost more to the organization because they will need to hire and train new employees. Consequently, if these problems are not addressed, the subsequent culture in the organization can have a depressing effect that inevitably will contribute to reduction in the quality of care (Sexton) or perhaps an increase in medical errors.

Hurst (2005) specifically focused on staff turnover within adult ICUs. The ICU is a stressful environment because of the complex technology and daily challenges in caring for severely or chronically ill patients. The challenges associated with these

units include maximum accountability, continual change of patients, changes in technology, role expectation for their position, and exposure to pain, death, and sorrow. Personnel in the ICU have to remain focused on the personal, individualized, and human character of providing care to their patients while managing a growing technological environment (Wilkin & Slevin, 2004) and increased likelihood of treating patients with chronic conditions. This more intense focus invokes a seemingly higher level of stress from the ICU providers. On these units, much of the attention has focused on providing consistent quality care to the patients and their families. It is easy to overlook the increasing primary and secondary traumatization and compassion fatigue among the providers and staff of these hospital units with so much focus on the patient-centered care. It was assumed by the researchers, in the development of the current study, that health care providers for children in ICUs struggle with similar, if not more complex, issues.

Significance of Study

The signs and symptoms of compassion fatigue and secondary traumatic stress have been well documented (Collins & Long, 2003b; Figley, 2002; Maytum et al., 2004; Pfifferling & Gilley, 2000); however, it appears that limited research has been done on the affect that compassion fatigue may have on the work environment of NICU, PICU, and PEDS units. Even with the symptoms of compassion fatigue and secondary traumatic stress well documented in research, the research that has been conducted on compassion fatigue primarily focuses on physicians (Pfifferling & Gilley) and mental health providers (Figley, 2002). Pfifferling and Gilley found that 54% of office-based physicians had experienced a time when they felt that they no longer had any com-

passion to give, even after a restful weekend. With the debilitating symptoms of compassion fatigue and with the increased turnover of providers on these critical care units, it is essential that we provide care to the current providers to ensure their retention on these units and for these patients. Furthermore, no known studies have focused on the affect that education about compassion fatigue has on the reduction of compassion fatigue symptoms with providers who work on ICUs with children. Maytum et al (2004) suggested from their qualitative study on this topic that educational programs pertaining to compassion fatigue needed to be developed and evaluated for their effectiveness with nurses. In response to the recommendations from that study, the primary authors of this article attempted to address the impact of compassion fatigue on NICU, PICU, and PEDS units via an educational program with outcomes from a quantitative survey.

Purpose of Study

Following a unique death experience on the PEDS unit at a regional southeastern hospital, the staff and providers on the unit realized that something exceptional was needed to allow each provider a way of talking about the death with other providers in a place that was safe and confidential from patient rooms. Following that invaluable experience, the authors of this article were recruited to help address the concerns raised and strengths accomplished from this experience. Although the terms "primary/secondary traumatization" and "compassion fatigue" were not used in the initial discussions between the nurse managers and the authors, the symptoms of compassion fatigue were described by managers and the intensive care providers. In addition, managers and providers suggested that a series of educational seminars and a research protocol be

initiated to address the unique needs of NICU, PICU, and PEDS staff and providers.

Hypotheses

In an effort to explore the presence of compassion fatigue on these critical care units, the researchers hypothesized that participants who are in the high personal stress group as indicated on the Social Readjustment Rating Scale (SRRS) (Holmes & Rahe, 1967) would exhibit higher levels of compassion fatigue compared with the low personal stress level group. Secondly, the researchers believed that participants who are in the high personal stress group also would have a higher level of clinical stress as indicated on the Index of Clinical Stress (ICS) (Abell, 1991) compared with the low personal stress group. To address the secondary aim, the researchers hypothesized that survey results from the posttest, following an educational seminar on compassion fatigue, would reflect significant differences in awareness and/or understanding of compassion fatigue. In addition, the participants would have the ability to identify the different symptoms and resources that are associated with primary and secondary traumatization on ICUs for children.

METHOD

The research protocol and both questionnaires (pretest and posttest) were reviewed and approved through a university institutional review board after the measures were approved by the regional southeastern hospital's (Children's Hospital) NICU, PICU, and PEDS unit leadership teams.

Design

The participants voluntarily completed the questionnaires when they attended one 4-hour educational seminar presented by the authors on five separate occasions in a period spanning over 3 consecutive weeks. Each participant attended only one

seminar. The content of the lectures was consistent throughout all five seminars, with audience size and questions making the greatest contribution to differences among the seminars.

Participants

The participants consisted of 185 health care providers and staff who were currently employed or affiliated with a children's hospital at a regional southeastern hospital. Each participant was invited to complete the pretest and posttest questionnaire.

Procedures

At the beginning of each seminar, everyone was provided with a brief introduction to the purpose of the research followed by an informed consent to participate in the research study. Those who consented were provided the questionnaires and told that their participation in the seminar was not contingent upon participation in the research study. The informed consent forms were collected before the other questionnaires were completed to ensure confidentiality of the participants. A pretest questionnaire was completed by the consenting participants and collected by the authors prior to the start of the educational seminar. Each questionnaire was numbered so that persons could remain anonymous but their numbers could be used to match their pretests with the posttests. Following the seminar, each participant who consented to participate in the study was asked to complete the posttest to provide perspective on how they felt at the conclusion of the seminar. The consent forms and questionnaires were stored in a lock box and transported to a southeastern university, where they were kept under double lock and key.

Intervention/Seminar

This seminar was entitled "Compassion fatigue: Addressing the biopsychosocial needs of professional caregivers," and focused on the spe-

cific concerns related to compassion fatigue, management of stress, and factors associated with grief for the providers on each of these units. Primary objectives for the seminar were: (a) explore the interaction between personal and professional stressors, (b) understand the biopsychosocial symptoms associated with compassion fatigue and secondary traumatic stress, (c) gain knowledge about factors associated with grief as it pertains to compassion fatigue, (d) acquire and practice techniques to manage stress, grief, and compassion fatigue, and (e) learn about personal/professional resources.

Instrument and Measures

The pretest survey supplied questions related to compassion fatigue among providers, consis-

addition to the family, and change in sleeping habits) they had experienced in the past 12 months. Each item was given a different point value based on criteria determined by Scully et al. The summation of the point totals for the designated life events were completed by the investigators, and the point total was used for analysis. Based on the point total, each participant is then placed in a low stress (<150), mild stress (150-199), moderate stress (200-299), and high stress category (>299). These categories were predetermined from the original SRRS by Holmes and Rahe. The justification for using the original categories was predicated by the equivalent potential point totals from each weight system proposed. Scully and colleagues stated that the SRRS

...supervision or debriefing time with a supervisor did not seem to affect the provider's level of stress.

tent with the main purpose of this study. The pretest consisted of demographic inquiries, a compassion fatigue measure formulated by the investigators, and two existing scales: a modified version of The Social Readjustment Rating Scale (SRRS) (Holmes & Rahe, 1967) and the Index of Clinical Stress (ICS) (Abell, 1991). The SRRS was used to assess the stress surrounding major life events for each participant in the past 12 months and has been used to measure psychosocial stress and illness (Holmes & Rahe). A modified weight system for each item in the measure (Scully, Tosi, & Banning, 2000) was used, based on the criteria of the 1967 version of the scale. Each participant was asked to check which of the 43 events listed on the survey (e.g., death of spouse,

was a robust instrument for identifying the potential for the occurrence of stress-related outcomes.

The Index of Clinical Stress (ICS) (Abell, 1991) was used to determine how the participants felt about the amount of personal stress that they experience. The 25 seven-point Likert items were developed to allow the investigators to explore perceived stress in the participants' lives. This measure included general descriptor questions about clinical stress (e.g., "I feel extremely tense," "I feel overwhelmed," and "I feel that I am near a breaking point"). These questions provided the investigators with a general assessment of stress that was devoid of a particular association with events at work or within the participant's personal life. A summation of the

participants' answers provided investigators with an overall clinical stress score for each provider or staff member. The ICS has a documented reliability of $\alpha = .96$. The ICS has been found to have good factorial validity and beginning construct validity as evidenced by the strong correlations of predicted direction with the Index of Family Relations (Hudson, 1997).

Because of the lack of documented measures pertaining to compassion fatigue on critical care units with children, a compilation of 18 items related to compassion fatigue, coping strategies, and critical care units with children were developed by the authors to gain a comprehensive understanding of the participant's experiences on the hospital unit. This measure was based primarily on the research conducted by Figley (1995) and the authors of the current study. These items were constructed with a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Examples of questions on this portion of the survey include: "I have difficulty separating work from personal life," "I value time with my supervisor following a loss on the unit," and "I know the warning signs of compassion fatigue." Recommendations for the content of these items were provided by and reviewed by nurse managers, unit administrators, and the authors to ensure that the items were appropriately focused.

The posttest was constructed to provide a measure pertaining to the secondary aim of the study. The posttest consisted of 10 Likert-type questions taken from the pretest. The posttest was completed by the participants following a 4-hour seminar entitled, "Compassion fatigue: Addressing the biopsychosocial needs of professional caregivers." Five of the questions on the posttest came from the compassion fatigue questions developed by the researchers: (a) "I know the warning signs of compassion fatigue," (b) "I feel I have

TABLE 1. Participants' profession

Profession	%	Frequency
Nurse	62.2	115
Child life specialist	7.6	14
Nurse practitioner	4.3	8
Social worker	1.1	2
Nurse manager	1.1	2
Secretary/office worker	4.9	9
Other (chaplain, care partner, etc.)	17.8	33
Missing data	1.1	2

enough resources to manage stressors at work," (c) "I feel I have enough resources to manage stressors at home," (d) "I feel I have enough resources to manage grief at work," and (e) "I feel I have enough resources to handle multiple deaths/trauma at work." The researchers also used five items from the Index of Clinical Stress Questionnaire: (a) "I feel extremely tense," (b) "I feel very jittery," (c) "I feel overwhelmed," (d) "I feel very relaxed," (e) "I feel very calm and peaceful." These 10 items were selected through consultation with the nurse managers of the NICU, PICU and PEDS units.

RESULTS

Demographics

The sample consisted of primarily female participants (96.8%; $n = 179$), with only six men participating (3.2%). The participants' average age was 35.28 years, with a range from 21 to 61 years. The sample consisted of primarily White participants (77.8%; $n = 144$) and African American participants (20.5%; $n = 38$). There was one Hispanic participant (.5%), and 1% of the sample ($n = 2$) chose not to answer. Each participant was currently employed in one of the following children's hospital units: PICU, 2.7% ($n = 5$); NICU, 56.2 % ($n = 104$); PEDS, 34.6% ($n = 64$); other (e.g., emergency department), 4.9% ($n = 9$); and 1.6% of the data was missing ($n = 3$). The specific profession of each participant is shown in Table 1. The average tenure of the par-

ticipants at their current position was 7.4 years, with a range of 1 month to 28 years of service. Most of the participants reported some religious involvement (85.4%, $n = 179$); some participants reported no religious involvement (11.4%, $n = 21$), and six participants (3.2%) did not respond to this question.

Primary Aim

The Social Readjustment Rating Scale (modified). This scale allowed researchers to determine the top stressors that were influencing the participants in their personal life. The top five stressors the participants reported were the Christmas season ($n = 134$), mortgage over \$10,000 ($n = 90$), vacation ($n = 88$), change in sleeping habits ($n = 82$), and change in work responsibilities ($n = 67$). The participants were placed in four groups according to their stress level score on the SRRS (Low, 149 or less; Mild, 150-199; Moderate, 200-299; and High, 300 and above). The mean total score for all of the participants combined was $M = 197.68$, $SD = 110.16$, placing the average close to the moderate stress level. The high standard deviation for the total mean score suggested a large variability in the scores provided from the questionnaire. The number of participants in the four separate stress level groups is as follows: low ($n = 74$), mild ($n = 28$), moderate ($n = 43$), and high ($n = 36$).

The Index of Clinical Stress. The total mean score for all of the participants in the Index of Clinical

TABLE 2. Means and standard deviations for Index of Clinical Stress Questionnaire

Item	<i>M*</i>	<i>SD*</i>
I feel overwhelmed	3.61	1.81
I feel very relaxed	3.69	1.39
I feel so stressed that I would like to hit something	2.07	1.20
I feel very calm and peaceful	3.76	1.44
It is very easy for me to fall asleep at night	4.52	1.49
I feel like my life is going very smoothly	4.26	1.24
I feel very panicky	2.09	1.17
I feel like I am on the verge of a total collapse	1.69	1.24
I feel that I am losing control of my life	1.82	1.41
I feel that I am near a breaking point	1.97	1.49

**M* = Mean, *SD* = Standard Deviation.

TABLE 3. Means and standard deviations of Compassion Fatigue Questionnaire

Items	<i>M*</i>	<i>SD*</i>
Difficulty separating work from personal life	2.28	1.08
Try to use humor when work is stressful	4.25	0.84
Try to take time myself with meditation, massages, personal retreats, etc.	2.80	1.08
Value time with my supervisor following a loss on the unit	2.47	1.15
Tend to bring negative feelings from work to my house and family	2.47	1.15
Take time away from work	3.95	0.99
Have rituals for situations dealing with a loss, grieving, or death	2.73	1.09
Developed supportive professional relationships	4.01	0.90
Developed an awareness of personal boundaries between me and my patients	3.87	0.88
See the strengths in my job even when a patient has died/experienced a trauma	4.02	0.90

**M* = Mean, *SD* = Standard Deviation.

Stress was computed ($M = 30.62$, $SD = 15.409$). The means and standard deviations were computed for each of the items in the Index of Clinical Stress. The participants strongly agreed that they felt calm and peaceful, it was easy to fall asleep, and life was smooth ($M = 3.76$, $M = 4.52$, and $M = 4.26$, respectively). Participants strongly disagreed with feeling like they were on the verge of collapse, losing control of their life, or near their breaking point ($M = 1.69$, $M = 1.82$, and $M = 1.97$, respectively). The means and standard deviations to all responses are presented in Table 2.

SRRS Group Comparison on Index of Clinical Stress. A one-way between-groups analysis of variance was conducted to explore

the impact of the participants' life events stress (SRRS) on their clinical stress level (ICS). The participants were divided into four groups according to their stress level score on the SRRS (Low, 149 or less; Mild, 150-199; Moderate, 200-299, and High, 300 and above), and then their clinical stress means were computed (Low, $M = 25.10$; $SD = 12.809$; Mild, $M = 31.79$, $SD = 11.170$; Moderate, $M = 31.87$, $SD = 14.475$; High, $M = 39.02$, $SD = 19.614$). There was a statistically significant difference at the $P < .001$ level for the four groups [$F(3, 171) = 7.45$, $P < .001$] in their level of clinical stress (ICS). Specifically, the Tukey multiple comparison determined that those in the high SRRS group had significantly higher ICS scores than did the participants in

the low SRRS group ($P < .001$). The other groups did not significantly differ from each other. The participants who were designated as the high-stress group from the SRRS were more likely to show signs of clinical stress (e.g., "I feel extremely tense," "I feel very jittery," "It is hard for me to relax," and "I feel panicked") in comparison with participants who were in the low-stress group. The high-stress group reported significantly higher scores on every item of the ICS than did the low-stress group.

Compassion Fatigue Questions. Many of the participants reported healthy behaviors in regard to compassion fatigue. The participants strongly agreed that they were using humor, developing supportive professional relationships, and seeing the strengths in their job despite trauma and death ($M = 4.25$, $M = 4.01$, and $M = 4.02$, respectively). The participants disagreed that they have difficulty separating work from their personal life ($M = 2.28$) or that they bring negative feelings from work to their house and family ($M = 2.47$). The participants also did not seem to value time with their supervisor following a loss on the unit ($M = 2.47$). The results of the means and standard deviations for these items are presented in Table 3.

High and Low SRRS Group Comparison on Compassion Fatigue Items. An independent samples *t* test was used to analyze the impact of the participants' life events stress (SRRS) on the compassion fatigue questions. Results from this analysis are presented in Table 4. When comparing the low-stress and high-stress group as designated from the SRRS, many of the items on the compassion fatigue questionnaire showed a statistically significant difference. Those in the high-stress group exhibited more negative behaviors than did the low-stress group and had a more difficult time separating work from

TABLE 4. Independent samples *t* test: low and high stress level comparison on Compassion Fatigue items

Item	Low stress		High stress		<i>t</i>	<i>P</i>
	M	SD	M	SD		
Difficulty separating work from personal life	1.93	0.96	2.51	1.04	2.71	.01
Try to keep a regular exercise and healthy eating habits	3.54	0.93	2.84	1.13	3.10	.003
Try to take time myself with meditation, massages, personal retreats, etc.	3.24	0.92	2.22	1.04	4.81	.001
Tend to bring negative feelings from work to my house and family	1.95	0.96	3.11	1.01	5.43	.001
Take time away from work	4.48	0.68	3.69	1.13	3.84	.001
Have rituals for situations dealing with a loss, grieving, or death	3.18	1.17	2.43	0.97	3.18	.002
Know the warning signs of compassion fatigue	3.15	0.95	2.70	0.95	2.14	.04
Engage in self assertive behaviors and setting limits at work	3.70	0.69	3.36	0.71	2.26	.03
Feel I have enough resources to manage stressors at work	3.83	0.80	2.87	0.99	4.92	.001
Feel I have enough resources to manage stressors at home	4.32	0.65	2.96	0.99	7.41	.001
Feel I have enough resources to manage grief at work	3.83	0.86	2.91	0.97	4.61	.001
Feel I have enough resources to handle multiple deaths/traumas at work	3.63	0.86	2.76	1.11	4.07	.001

TABLE 5. Paired samples *t* test: pretest and posttest comparisons

Item	Pretest		Posttest		<i>t</i>	<i>P</i>
	M	SD	M	SD		
Know the warning signs of compassion fatigue	2.97	1.06	4.22	0.77	13.09	.001
Feel I have enough resources to manage stressors at work	3.31	0.98	3.80	0.85	7.51	.001
Feel I have enough resources to manage stressors at home	3.69	0.95	3.89	0.82	3.13	.002
Feel I have enough resources to manage grief at work	3.38	0.95	3.80	0.83	6.35	.001
Feel I have enough resources to handle multiple deaths/trauma at work	3.09	1.10	3.64	0.87	7.42	.001
I feel extremely tense	3.37	1.19	2.81	1.22	7.93	.001
I feel very jittery	2.35	1.17	2.05	1.03	5.30	.001
I feel overwhelmed	3.60	1.83	3.17	1.29	3.59	.001
I feel very relaxed	3.68	1.39	4.02	1.42	4.77	.001
I feel very calm and peaceful	3.78	1.44	4.02	1.43	3.06	.003

personal life, and they tended to bring negative feelings from work to their house and family. Those in the low-stress group exhibited higher positive behaviors as they tried to take time to themselves with meditation, massages, regular exercise, healthy eating habits, time away from work, self-assertive behaviors and setting limits at work, and rituals for situations dealing with a loss.

During the pretest, the higher stress group reported significantly lower knowledge of the warning signs of compassion fatigue. The lower stress group reported feeling they had significantly more resources than did the higher stress group to manage stressors at work and home, grief at work, and multiple deaths/traumas at work.

Secondary Aim

Pretest and posttest comparison. A paired samples *t* test was used to analyze the affect that the educational seminar had on the 10 predetermined compassion fatigue and Index of Clinical Stress items on the posttest. The specific results from this analysis are presented in Table 5. The participants reported increased knowledge of the warning signs of compassion fatigue following the seminar. They exhibited an increased feeling that they had more resources to manage stressors at work and home. The participants also reported feeling that they had enough resources to manage grief and multiple traumas at work. Following the seminar, the participants reported decreased tenseness, feeling jittery, and feelings of

being overwhelmed. Accordingly, they also reported an increase in relaxed feelings and felt calm and peaceful.

DISCUSSION

The purpose and primary aim of this study was to describe the scope of compassion fatigue in health care providers working on critical care units with children. The first two hypotheses were linked to this primary aim. First, the researchers hypothesized that that the participants who have a higher level of personal stress will exhibit higher levels of compassion fatigue. The results from this study support this hypothesis. When comparing the high level stress participants with the low level stress participants as designated by the SRRS, 12 of the 18

compassion fatigue items developed by the researchers were found to be significant at the .05, .01, or .001 levels.

Interestingly, the low stress level participants reported that they felt they had enough resources to manage stressors at work, home, grief at work, and the multiple deaths/traumas at work, whereas those who were in the higher stress group reported that they did not feel they had the resources to manage these same stressors. Inbar and Ganor (2003) suggested that professionals need to regain effective time management, restructure their daily routine, and become more aware of fatigue symptoms. The findings in the current study are congruent with Inbar and Ganor's findings.

In addition, participants in the low stress level groups seemed to incorporate more self-care strategies into their routine to help them manage or prevent the symptoms of compassion fatigue than did those in the high stress level group. The low stress level group was more likely to incorporate regular exercise, healthy eating habits, and time to recuperate with massages or meditation than did the high stress level group. The low stress level participants also were more likely to exhibit self-assertive behaviors, set limits at work, as well as separating work from their personal life. Maytum et al. (2004) suggested similar coping strategies for providers to clarify their personal and professional boundaries as a way to prevent burnout.

While there were many statistically significant findings between the low and high stress level groups, some of the questionnaire items did not yield significant differences. Surprisingly, time with a supervisor did not seem to differ for these two stress level groups. While this study did not focus on whether or not supervision was accessed, supervision or debriefing time with a supervisor did not seem to affect the provider's level

of stress. This finding contrasts the work of researchers who have found that clinical supervision can be a place to discuss caring experiences and gain emotional relief (Lindahl & Norberg, 2002). In fact, Lindahl and Norberg found that supervision helps staff in remaining sensitive, increasing self-awareness, and developing interpersonal encounters.

Another interesting finding from the current study was that the use of humor did not seem to differ between the low and high stress level groups. Inbar and Ganor (2003) suggested that the use of humor was encouraged for enhanced prevention of compassion fatigue and effective coping, yet the use of humor seemingly did

interestingly, participants in the high personal stress level groups were significantly higher in their measured clinical stress in comparison with the low stress level group. This is particularly significant to providers on these ICUs because it links the personal stressors to the ability to handle clinical stress levels. Furthermore, the linkage between personal stressors and the increased level of clinical stress provides a clearer understanding of how the personal stressors can inhibit many providers from being as effective within their profession. In conjunction with the link between personal stressors and clinical stress, the participants also reported some of the main stressors in their personal life. These stressors were particularly rel-

Having a culture that encourages providers to take some time off, ensures that providers eat during their shift, and promotes self achievements is essential for minimizing the likelihood of compassion fatigue.

not affect the stress level reported by the participants in this study. While many of the findings were congruent with previous research, some of our findings did not support previously noted coping strategies. The comparison between the groups revealed a notable difference in the types and amount of coping strategies that were used between providers who have a high level of personal stress and those considered to have a low level of personal stress.

Second, the primary investigators hypothesized that the participants with higher levels of personal stress as indicated on the SRRS would have higher levels of clinical stress (ICS). The finding from the present study supported this hypothesis. In-

evant in gaining an idea of what types of stressors are affecting providers on the ICU units within their personal life.

The secondary aim of the current study was to evaluate the effectiveness of providing educational seminars on compassion fatigue to health care providers working on critical care units with children. By providing educational seminars, the researchers hoped that the providers would have a more complete understanding of compassion fatigue and its symptoms in addition to providing more resources that would reduce the stress level in the providers. In the final hypothesis, the posttest was predicted to reflect significant improvements on awareness of compassion fatigue and

identification of strategies to handle the different stressors that are associated with working on ICUs. The findings were overwhelmingly supportive of the secondary aim and final hypothesis. **The participants reported an increase in awareness of compassion fatigue and the feeling that they had the resources to prevent compassion fatigue in the future.** In addition to the increased knowledge about compassion fatigue, **the participants felt significantly less tense, jittery, or overwhelmed, while having increased feelings of being calm and peaceful.**

These findings were particularly interesting because they suggested that educational seminars on compassion fatigue not only increase the awareness of compassion fatigue and the implications but also seem to offer the providers a decreased clinical stress level (tense, jittery, overwhelmed, etc.). The providers reported feeling that they had gained the appropriate resources to handle the stressors associated with compassion fatigue at home, work, and when traumas or multiple traumas occurred on the unit. The improved access and knowledge of resources gained from the seminar may be linked to the increased feeling of being calm and peaceful that was reported at the end of the seminar. These results are consistent with the qualitative study completed by [Maytum et al. \(2004\)](#), who concluded that nurses must be aware of the triggers and symptoms of compassion fatigue. Their findings also suggested that nurse educators and managers should provide opportunities to gather information on compassion fatigue. The educational seminar provided by the authors afforded that opportunity to learn more about compassion fatigue and may have helped the providers take one step toward creating a healthy environment on the ICUs for children.

Recommendations for Providers

Given the significant findings from this research, the authors suggest that providers be offered a seminar on compassion fatigue, primary and secondary traumatization, and clinical stress management. In the case of these authors, these seminars were provided at the beginning of the year for the NICU, PICU, and PEDS units and then again during any orientations for new providers on those units.

Second, having a work culture that supports the physical and emotional health of providers is critical and may be especially helpful on intensive care and pediatric units during the holiday season, when providers seem to experience more stress in their personal

venues for future research, there are some limitations to the study. The sample pool was primarily female, and thus the generalizability of the findings may be different for male providers on ICUs. In addition, most of the providers who attended the seminar and participated in the study were from the nursing profession. It would be interesting to see if different levels of providers from the ICUs differ in their ability to cope with compassion fatigue. The participant pool also was drawn primarily from a NICU and did not include many of the providers from the PICU. Future research needs to be completed to gather more information about the different coping strategies from each of the ICUs.

While the participant pool was

Educational seminars that introduce the topic of compassion fatigue and provider coping strategies should be incorporated on all ICUs with children.

lives in addition to stressors that occur on the units. The most common stressor for the providers in this study was the “Christmas/holiday season.” The winter holidays typically are coupled with increased capacity in these hospital units, forcing providers to be challenged in their work and home environments. Having a culture that encourages providers to take some time off, ensures that providers eat during their shift, and promotes self achievements is essential for minimizing the likelihood of compassion fatigue.

Limitations and Future Research Directions

Even though the findings of this study are supported by the work of previous research and provide av-

relatively limited, another limitation stems from the questionnaires used in the study. Because of the lack of a concise and established questionnaire that measured compassion fatigue, the researchers had to develop many of their own questions related to compassion fatigue. Therefore, a concise measure on compassion fatigue should be developed to further explore compassion fatigue exhibited in providers in health care systems. Because of time constraints, another limitation in the questionnaire stems from the amount of questions used on the posttest. Only 10 items were used on the posttest following the 4-hour seminar. The researchers and the nurse managers selected the questions that would be included

in the final version of the posttest questionnaire.

CONCLUSION

As providers on ICUs for children, it is essential that we take the best care of ourselves on personal and professional levels. Working with children who are chronically ill or dying can be extremely difficult and trying to everyone involved. Repeated exposure to the traumas experienced by patients and their families can exacerbate symptoms of compassion fatigue and primary traumatization. This study accentuates the need for providers to care for themselves personally and professionally. Educational seminars that introduce the topic of compassion fatigue and provider coping strategies should be incorporated on all ICUs with children, because this study found it to be effective in reducing clinical stress and compassion fatigue. Ultimately, as providers on ICUs with children, the passion we have in caring for our patients should be the same passion that we have in caring for ourselves. If providers neglect caring for themselves and recognizing the symptoms of compassion fatigue, we may be compromising our ability to care for the patients at the high standard we expect from health care providers.

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