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Compassion fatigue among physiotherapist and physical therapists around the world

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Physiotherapists work in a variety of settings around the world and exhibit great satisfaction in their work. Challenges of everyday practice may be a contributing factor to compassion fatigue (CF) and lower professional quality of life. The purpose of this study was to investigate CF among physiotherapists (PTs) around the world and discuss coping strategies utilized. Mixed methods included a survey and phenomenological interviews. Participants (n= 116) completed the Professional Quality of Life (PROQOL) survey and nine participants engaged in phenomenological interviews. The PROQOL was used to assess the level of compassion satisfaction (CS), burnout (BO), and secondary trauma (STS) experienced by PTs around the world. CF was considered a combination of STS and BO. Group mean CS, BO, and STS scores were low compared to normal populations of caregivers. CS and BO were negatively correlated ($r = -0.535$, $p < .001$). BO and STS were positively correlated ($r = 0.530$, $p < .001$). Three main themes emerged from interviews and included work environment stress, protective coping strategies, and the effects of compassion satisfaction. Better understanding CS, as well as CF in healthcare environments may help therapists develop better coping strategies for mitigating CF.

Key words: Compassion fatigue, compassion satisfaction, physiotherapist

ABBREVIATIONS
Professional Quality of Life (PROQOL)
Compassion Satisfaction (CS)
Burnout (BO)
Secondary Traumatic Stress (STS)
Compassion Fatigue (CF)
Physiotherapist/Physical Therapist (PT)

INTRODUCTION

The healthcare field is characterized by dynamic environments, evolving research, and patients with complex diagnoses. Physical therapists are challenged to provide patient-centered care in an efficient and effective manner while embracing evidence-based practice and meeting clinic productivity standards. These challenges in health care may become a struggle for clinicians leading to a decreased quality of life for care providers.

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REVIEW OF RELEVANT LITERATURE

The Professional Quality of Life (PROQOL) scale is a tool used to evaluate and measure three components associated with quality of life for healthcare professionals (Stamm, 2010). In the PROQOL, Stamm (2010) utilized a compassion continuum with compassion and fatigue as anchors. The three components measured in the PROQOL tool are compassion satisfaction (CS), burnout (BO), and secondary traumatic stress (STS). Compassion Satisfaction is described as the positive feeling one receives by completing tasks well (Stamm, 2010).According to Stamm (2010), STS refers to the residual stress of working with or helping a traumatized individual. This construct may also involve hearing about a traumatic event that happened to someone. Burnout includes physical, mental, and emotional exhaustion, diminished interest in work, and doubt in one's value according to Stamm (2010). Burnout is "associated with feelings of hopelessness and difficulties in dealing with work or in doing your job effectively" (Stamm, p. 13).

Compassion fatigue, the focus of this study, is a combination of BO and STS (Stamm, 2010). Compassion fatigue is defined as the negativity experienced by caregivers in their occupation or service work while helping those who have experienced traumatic stress or suffering (Stamm, 2010). Stamm (2010) suggests that CF not only involves mental exhaustion, but also has physical components associated with it that lead to a decreased quality of life among healthcare workers both at work and in their personal lives. Personal lives can be negatively impacted through a lack of joy in life, personality changes, and changes in personal relationships (Potter et al., 2010; Potter et al., 2013). Workplace costs are also high: CF may lead to decreased productivity, decreased quality of care, more sick days used, higher turnover rates, increased mistakes, burnout, and depersonalization of self and others (McMullen, 2007; Potter et al. 2010; Potter et al. 2013). Lastly, physical symptoms may accompany CF including a decline in health, chronic fatigue, irritability, and difficulty sleeping (Bush, 2009; Potter et al. 2010; Potter et al. 2013).

The PROQOL has been for used for the last 20 years as an assessment tool to examine quality of life among caregivers. Stamm (2010) determined the reliability values for measuring BO (.85), CS (.75), and STS (.81) of the PROQOL tool. The PROQOL tool is not a diagnostic test, but can raise awareness to issues found in the healthcare system regarding clinicians on the compassion continuum. The PROQOL utilizes a self-report questionnaire with statements graded on a Likert scale to assess an individual's frequency of experiencing various emotions. The PROQOL is divided into three different sections representing CS, BO, and STS, with the sum of the scores in each section determining the level of CS, BO, and STS experienced by an individual. Studies have demonstrated instances where healthcare professionals have scored high in CS, and also high in CF (Elkonin et al., 2011; Kim, 2013; Klappa et al., 2015; Stamm, 2010). The PROQOL tool is important in helping to identify when a caregiver is in danger of being pulled toward the fatigue anchor of the compassion continuum by BO and STS.

Environmental conditions of practice for physiotherapists and physical therapists may also influence movement along the compassion continuum via the level of BO and STS experienced by the care providers. Individuals living and working in war zones(Ghobarah et al., 2004), areas of civil unrest or complex humanitarian emergencies (Al Gasseer et al., 2004; Almedom et al., 2004; Musa et al., 2008; Shawcross, 2000; Sideris, 2003; Teyhen, 1999) and disaster situations (Klappa et al., 2013; Klappa et al., 2014; Klappa et al., 2016) may experience higher levels of BO and STS leading to CF. Aid workers in these types of environments are more susceptible to STS as they hear stories of pain and suffering from patients (Musa et al., 2008; Klappa et al., 2013; Klappa et al., 2014; Klappa et al., 2016). It has recently been suggested that aid workers serving traumatized individuals may develop the same symptoms as individuals directly exposed to trauma (Musa et al., 2008; Klappa et al., 2013).

The work environment may also drive the strategies used to mitigate or heighten CF. Stressful environments appear related to higher CF levels in clinicians (Bhutani et al., 2012; Bush, 2009; Craig, 2010; Elkonin et al., 2011; Kim, 2013; Klappa et al., 2013; Klappa et al., 2014; Klappa et al., 2015; Musa et al., 2008; Weidlich, et al., 2015). Potter et al. (2013) noted that CF is a process caused by prolonged exposure to stressful environments leading to intrusive thoughts, increased mistakes, and avoidance. In addition, clinicians working in acute care inpatient settings with an increased percentage of patients experiencing post-traumatic stress disorder (PTSD) tended to experience more BO according to Craig (2010).

Although clinical work environments may influence levels of CF and BO, personal factors, such as personality, may also predispose individuals to experience CF (Bush, 2009; Cañadas-De la Fuente, 2015; Voss Horrell, 2011). Personality traits associated with higher levels of CF include individuals who are idealistic, highly motivated, committed to personal goals, and highly empathetic (Bush, 2009; Cañadas-De la Fuente, 2015; Potter et al., 2013). Younger age and the status of novice professional are other personal factor linked with higher rates of BO leading to CF (Bush, 2009; Craig, 2010; Klappa et al., 2015). Researchers suggest novice clinicians may have difficulty with role identity, ambiguity in the workplace, large workloads, and stressful environments (Bush, 2009; Craig, 2010; Klappa et al., 2015). Individuals possessing adequate stress management and coping skills, in contrast, are at decreased risk for CF according to Bhutani et al. (2012). Craig (2010) reported gender did not appear linked to CF.

Therefore, individual characteristics and coping skills should be considered when determining who is at risk for CF.

By having a greater awareness of the elements of BO, STS, and CS, therapists may recognize the signs of CF and utilize constructive strategies to mitigate the effects of CF. Previous research has examined CF among service workers, such as physicians (Bhutani et al., 2012; Voss Horrell et al., 2011), nurses (Bush, 2009; Elkonin et al., 2011; Hunsaker et al., 2015; Kim, 2013; McMullen 2007; Peterson, et al., 2014; Owen, et al., 2014; Potter et al., 2013; Potter et al., 2010; Weidlich et al., 2015), trauma workers (Craig, 2010; Hinderer et al., 2014; Thieleman et al., 2014), relief aid workers (Klappa et al., 2013; Klappa et al., 2014; Musa et al., 2008), and psychological counselors (Bush, 2009; Craig, 2010; Elkonin et al., 2011; Musa et al., 2008), but there is a gap in the literature regarding how physiotherapists and physical therapists are influenced by these constructs.

The purpose of this study was to investigate CS and CF among physiotherapists and physical therapists around the world. The results may help raise awareness of the challenges and barriers encountered by physiotherapists in the workforce and enlighten employers and managers on how to best assist clinicians in strengthening CS and in implementing strategies to ease CF. The guiding research questions in this project are:

1. What are the levels of CS, BO, and STS among physiotherapists and physical therapists around the world?
2. How might the environment such as rural or urban work settings influence the levels of CS, BO, and STS?
3. How are CS, BO, and STS levels correlated with work environments affected by civil unrest or war?
4. How aware are physiotherapists and physical therapists of CS, BO, and STS?
5. Finally, what are some coping strategies utilized by these individuals to mitigate CF?

METHODOLOGY

The mixed methods in this study included a survey using a few short answer questions and the Professional Quality of Life (PROQOL) survey with optional phenomenological interviews. The PROQOL survey allowed the researchers to reach a wide population of physiotherapist/physical therapist providers practicing in a variety of settings from many nations in order to obtain a broad awareness of the issues therapists face in their home countries. The PROQOL assessment tool assessed three constructs which included CS, BO, and STS (Stamm, 2010). Further probing was achieved through phenomenological interviews conducted with participants who had completed the survey and wished to further discuss their experiences. These interviews allowed the researchers to gain a deep, rich description of the experience of CS and CF.

Phenomenological research is qualitative in nature examining the lived experiences of participants by listening to their stories in order to derive meaning from these experiences (Dahlberg et al., 2001; Thomas et al., 2002; van Manen, 1997). Here, researchers bracket and set aside their beliefs regarding the phenomenon being studied through bracketing exercises and journaling. In this process, the researchers and others may begin to understand trends that develop from such experiences. Two main assumptions in phenomenological research are: 1) humans seek meaning in their lives; and 2) multiple realities exist that are socially constructed (Dahlberg et al., 2001; Thomas et al., 2002; van Manen, 1997). See Figure1 for a diagram describing the research methods used in this study. The Institutional Review Board (IRB) at the University of St. Mary in Leavenworth, KS, approved this study.

Participants

There were 116 participants in the Phase I survey and nine participants in the Phase 2 phenomenological interviews. Participants met inclusion criteria for the study if they were: 1) a practicing physiotherapist/physical therapist; 2) male or female; 3) able to speak English; and 4) positive about their job despite experiencing BO or STS in the last 30 days.

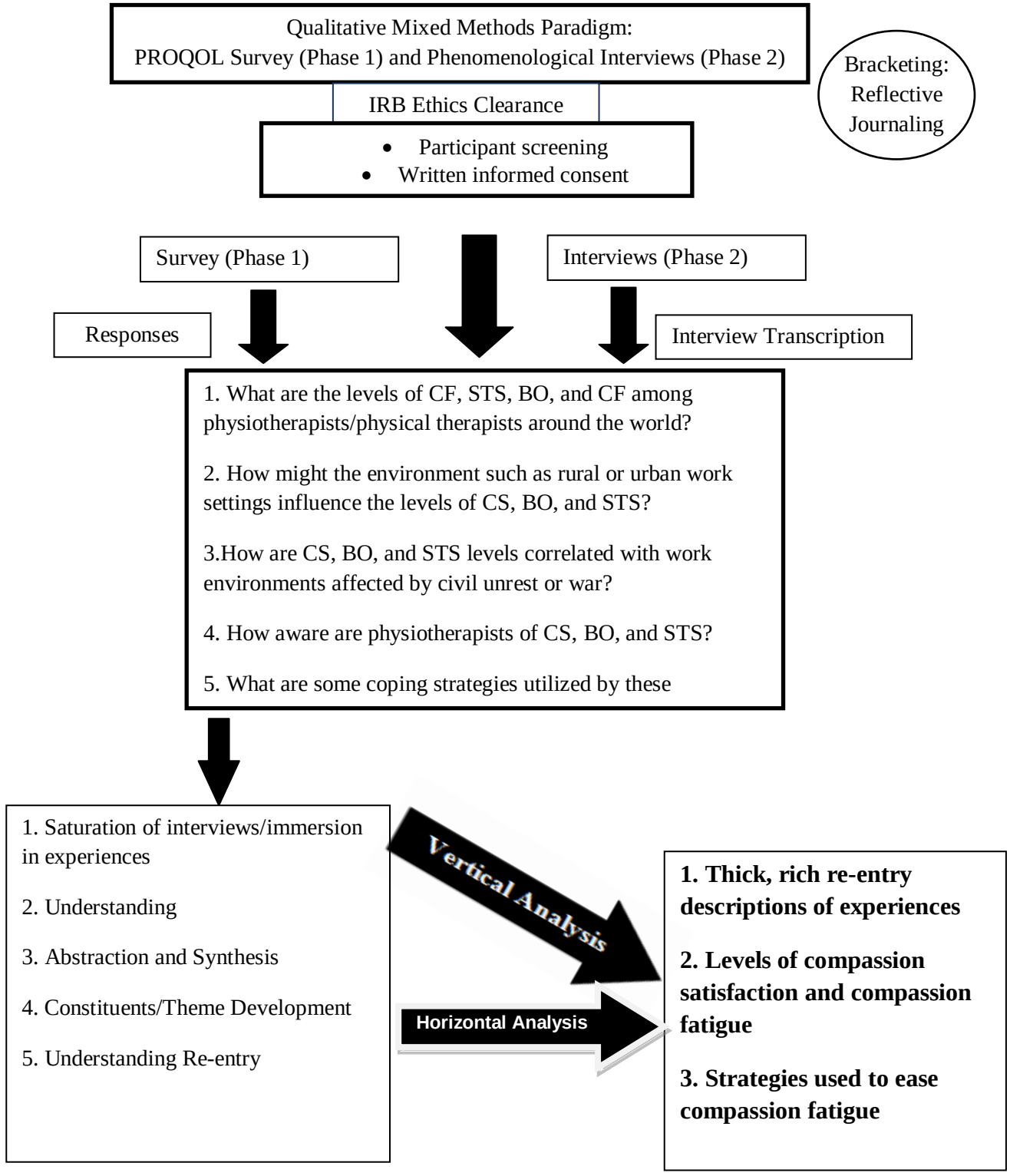
Instruments/Tools

Professional quality of life is defined as, “the quality one feels in relation to their work as a helper” (Stamm, 2010, p. 12). The PROQOL is a tool designed to assess those in helping professions such as health care, social, or police service and has been found to have a reliability between .84-.90 according to Stamm (2010). It is a 30-item self-report measure of the positive and negative aspects of care giving. The PROQOL uses statements graded on a Likert scale which specifically target the three constructs of CS, BO, and STS.

Procedures

Participants were recruited from the Health Policy and Administration (HPA) listserv, the HPA Global Health listserv, and through links on the World Confederation of Physical Therapy (WCPT). Individuals who accepted the invitation to participate in this study were emailed an online link directing them to the PROQOL survey through QualtricsTM Surveys. Completing and submitting the survey implied consent. The survey required 10-15 minutes to complete. The survey was open between December 1, 2014 and September 12, 2015. Additionally, the participants were invited to an optional interview lasting

Figure 1: Research Methods



Legend: arrows represent line of thought in the process.

Table 1: Resonance Round: List of Comments Regarding CF

Thank you for an excellent description of what I have been feeling. It is good to know I am not the only one who goes through this.
As a newer PT, I thought I was prepared for burnout and fatigue, but this description helped me realize that some things cannot be taught. I had to experience CF to really understand the depth of my problem. Luckily, I had a good support group or I might not have remained in this profession.
It is great to have a study on this topic. I realize now that I can do more for me and for my colleagues. It is something a caring profession must be aware of and those in human resources might want to do more.
Wow, you have captured this feeling of CF very clearly. I am glad to know that my satisfaction and love for what I do is very helpful to keeping me energized. I have some great ideas now for how to stay energized.
I really love what I do but sometimes, I just get so tired of my patients. I am glad to know it is normal. Maybe it is unnecessary but at least, now I know what to do and what to call it.
Thanks for the description. I wish participants would have discussed the more real and disastrous strategies used. I know . . . I used sex and alcohol to try to heal my soul.
I get the importance of having fun and a good night out but sometimes we did go too far with our drinking and that was not helpful.

approximately 45-60 minutes in length about their specific experiences of CS and CF.

Participants consenting to interviews were screened by the principal researcher via telephone to confirm that they were indeed PTs and met inclusion criteria. Participants received an informed consent document prior to their interview. Upon return of this form, interview appointments were scheduled. Participants chose an alias to keep their identity confidential. The principle researcher transcribed the interviews within one week. A transcribed copy was returned to the participant by email to check for content accuracy of the information. Any concerns of the participant were addressed by the researcher and corrected for the final transcript analysis. Furthermore, the lead researcher conducted interviews using the strategy of processual consent described by Rosenblatt (1995). By means of this process, the intensity of interview questions was decreased when participants appeared distressed and were allowed to take time for silent reflection.

Data Analysis

Quantitative data were analyzed by SPSS 20 (IBM). Cronbach's α was used to determine the internal consistency of the PROQOL tool for this study. Pearson correlation coefficient was used to examine associations between the constructs of CS, BO, and STS.

Interview transcripts were analyzed using a descriptive phenomenological approach described by Giorgi (1997, 1975) and Dahlberg et al. (2001). This process involved a whole-parts-whole type of holistic examination of the interview texts to reveal the constituents or themes of the experience for each participant interviewed. This process served as the vertical analysis. A horizontal analysis across all interviews developed the common description of CF among all interviewed participants in this study. Upon completion, a summary of the common themes was sent to each participant for review to ensure dependability and credibility. To further determine credibility and trustworthiness of the final description, a completed summary of the themes for the CF experience was shared with providers who were PTs but who were not a part of this study. These comments were used to solidify the credibility and trustworthiness of the final description though resonance with the experiences of the participating individuals. See Table1 for a list of these comments which composed the resonance rounds.

RESULTS

Although 140 participants started the survey only 116 completed it for an approximate 83% completion rate. The demographics for the participants for the Phase I PROQOL Survey included 116 participants (83 females and 33 males). The age range of participants in the survey was from 21-65 years of age. Mean years practicing as a physiotherapist/physical therapist was 20 + 5.2 years with a range years of practice from 1-45 years as a therapist. Educational levels of the therapists participating in Phase I ranged from certificate level through

Table 2: Home Countries of Participants in Phase I Survey

Number of Participants by Home Countries who Completed the Survey	
Afghanistan	1
Australia	3
Bangladesh	2
Belgium	1
Brazil	1
Canada	9
Costa Rica	1
Côte d'Ivoire	1
Dominican Republic	2
Estonia	1
Germany	3
Guatemala	1
Guyana	1
Hungary	1
India	6
Iraq	1
Ireland	1
Israel	1
Italy	1
Jamaica	4
Jordan	1
Malaysia	1
Nepal	1
Netherlands	1
New Zealand	2
Nigeria	4
Romania	1
Russian Federation	1
Rwanda	14
Singapore	3
South Africa	9

Table 2 continued

Sweden	1
Trinidad and Tobago	2
Turkey	1
United Kingdom of Great Britain & Northern Ireland	2
USA	30
TOTAL	116

Table 3: Participant Information: Phase I Survey

Phase I: Survey	
Number of Participants	116
Sex:	
Males	28.4%
Females	71.6%
Mean Age (years)	43 (± 9.1)
Mean Years Practicing	20 (± 5.2)
Education Levels	
Certificate	4%
Bachelor's Degree	47%
Master's Degree	21%
Doctoral Degree	19%
Other	9%
Total	100%
Advanced PT Certifications	
Yes	65%
No	35%
Productivity Standards:	
Yes	69%
No	31%
Practice Settings:	
Acute Care	28%
Education	10%
Home Health	5%
Geriatrics	6%
Outpatient Orthopedics	23%
Prosthetics Center	8%
Private Practice	5%
Neurological Rehabilitation	10%
Pediatrics	2%
Other (Research, Global Health)	2%
TOTAL	100%

Table 3 Continued

doctoral training. Additional training beyond the physical therapy degree was noted among 65% of the participants. See Tables 2 and 3 for the descriptive characteristics of these participants, the practice settings they represented, and the countries where they lived. Therapists in this study practiced in urban (71%), rural (23%), and other (6%) settings. Exposure to armed conflict in the country of practice affected 12% of our participants. Participants in the Phase II interviews included nine participants (5 females and 4 males) from Phase I who had previously completed our survey. Average age of participants in Phase II was 45 years with an average of 20 years of practice as a PT. These individuals also represented a variety of practice settings. See Table4 for further details on the participants who engaged in interviews.

Group means for the PROQOL constructs are presented in Table5. Values for CS (M = 41.33, SD = 5.60) placed participants in the average category for CS. Values for BO (M = 22.42, SD = 5.06) placed participants in the average level with regard to BO. Values for STS (M = 21.58, SD = 6.05) placed participants in the high level category for STS. When scores for BO and STS were grouped together to form CF, the mean score for CF was

Table 4: Phase II Interview Participants

Phase II: Interviews	
Number of Participants	9
Sex:	
Males	4
Females	5
Mean Age (years)	45 (±8.2)
Mean Years Practicing	20 (± 3.6)
Home Countries:	
Belgium	1
Dominican Republic	1
Germany	1
Guatemala	1
Netherlands	1
Rwanda	1
USA	2
Practice Settings:	
Acute Care	2
Emergency Department/Hospital	1
Out Patient Clinic	1
Private Practice	3
Sports Medicine	1

average (M = 44, SD = 9.73). Cronbach's α for the constructs of CS (.898), BO (.732), and STS (.849) indicated that the PROQOL tool had high internal consistency when measuring each of those three constructs. See Table5 for mean scores for CS, BO, and STS and how they related to the normal population of caregivers.

Correlations between the constructs of CS, BO, and STS were examined using Pearson product correlation coefficient to reveal relationships between constructs. CS and BO were negatively correlated ($r = -0.535$, $p < .001$) meaning that individuals with higher CS values had lower values of BO and vice versa. It appeared that higher levels of CS may be protective against BO levels. Burnout and STS were positively correlated ($r = 0.530$, $p < .001$). As BO and STS increased so did the CF level based on the conceptualization provided by Stamm (2010). Since CF involves a combination of both BO and STS, CF was higher among therapists experiencing a combination of BO and STS. No significant correlations were found between CS and STS ($r = .016$, $p = .863$). It may be that therapists exposed to STS had appropriate coping strategies to deal with that exposure or CS operates as a protective factor against STS in this population. In this study when BO and STS scores were grouped together, the mean value for CF was high and indicated that the participants did indeed experience CF through a combination of BO and STS. For this sample, it could be interpreted that these participants were able adaptively cope with CF by speaking with others and using their perception of CS to decrease the effects of STS and BO on CF. Finally, an interesting relationship was found with therapists in areas with no, or unclear, exposure to armed conflict tended to have higher levels of CS ($r = .186$, $p = .046$).

Less than 50% of the therapists in this study indicated that they had an awareness of what CF was and how it affected individuals. The therapists in this study were able to articulate symptoms they had experienced even when not knowing about CF. They were able to sense something was wrong and developed strategies to mitigate those feelings. Participants reported using more constructive strategies at times such as using exercise or talking with others. Other times, participants used more self-destructive strategies such as drinking to inebriation, use of drugs, and sex outside of committed relationships. See Table6 for more details on what therapists knew about CF and strategies used to renew their spirit.

Qualitative Analysis

Qualitative analysis revealed that three main themes emerged from interviews and included: 1) work environment stress; 2) the need for protective coping strategies; and 3) the effects of CS in mitigating CF. Therapists described personal strategies used to mitigate CF, BO, and STS. See Table7 for exemplars of these themes.

Work Environment Stress

Physical therapists around the world work in challenging environments with many demands, whether from patients, work setting, or administration. All therapists in this study loved their work with patients and colleagues; however, there are times when the burdens of the job seemed to outweigh the pleasures of being a physiotherapist or physical therapist. Feeling a lack of support from management and administration added to the work stress felt by the therapists. A lack of time or resources compounded the pressures felt by the therapists and added to the frustration of not being able to meet the needs of every patient. Finally, the pressure

Table 5: Summary of PROQOL Findings

Variable	Mean Score	Standard Deviation	Level Relative to Normal	Cronbach's Alpha
Compassion Satisfaction	41.33	±5.60	Average	.898
Secondary Trauma	21.58	±6.05	High	.849
Burnout	22.42	±5.06	Average	.732

p = .001

Table 6: Participant Awareness of CF & Strategies to Mitigate CF

Participants who have heard of CF:	
Yes	48%
No	52%
% of Participants in Phase I Experiencing Symptoms of CF	
Extreme fatigue	66%
Hopelessness	25%
Irritability	64%
Sadness	37%
Difficulty with colleagues	49%
Decreased productivity	45%
Isolation from others	35%
Strategies Used by Participants to Mitigate Symptoms of CF	
Talk to family member or friend	74%
Talk to supervisor, colleagues	51%
Talk with counselor	10%
Faith, prayer	46%
Aerobic exercise	70%
Exercise such as yoga, Pilates, etc.	39%
Read	54%
Dine out with friends	57%
Listen to music	47%
Visit an art museum	7%

Table 6 continued.

Take a day off	55%
Take a vacation	54%
Alcohol, nicotine or other substance	20%
Other: (spend time with animals, continuing education, knit, play instruments, chocolate & coffee, practice mindfulness)	14%

Table 7: Qualitative Themes and Exemplars

Work Environment Stress: Unsupportive Managers/Administration; Being Overworked, Pressure for Results
Feeling Unsupported by Management & Administrators
I compare it to a can of water, where it's a mixture of good and bad things. If you put too many bad things in that can, you can't make room for the good things…And you have the feeling like you can't fill the can anymore with the good things because you can't empty it from the bad things. And then you realize at that moment that you're not working properly anymore So you try to force yourself and isolate yourself more in your working issues, except then you face the organizational issues. And you try to act normal, but it is impossible. It is like a struggle, because you realize that your compassion for your patients gets lower and you become like a machine. Orlando, Belgium
Overworked/Understaffed & Lack of Time or Resources
So there are those patients who really need you and when you look at the numbers you can't really help some at all. You can't get to them. Robert, Rwanda
Pressure for Results
There is also the challenge of working one on one with the patients who are in just a really difficult circumstance. Their lives are so in surmounting or so just hard. It's like, oh I have this and their capacity to meet their full needs is not met. And so their pressures and lack of resources come to play in all of that. Sally, USA
Protective Coping Strategies: Maintaining Boundaries & Importance of Self-Care
Maintaining Boundaries with Patients & Difficult Work Settings
Then it hit me and I started thinking about it because I treated a man who was about my age and he had a family but had severe neurological problems and I thought well, that got to me that was where I knew I had to protect myself. Joanna, Germany
Now at this age [Laughter] I can separate the emotions. But at that time [as an early therapist] I could not so maybe I was thinking about them [my patients] maybe all of the time at home and on my holidays and on weekends. Fisiokine, Guatemala
Self-Care
You do something like exercise or maybe if you can't you go and do something else. You just move around and do something creative, something that gives you energy. Robert, Rwanda

Table 7 Continued

Compassion Satisfaction as a Protective Factor: Sense of Fulfillment & Making a Difference
Sense of Fulfilment
What I like most about my job is meeting all the people and the majority of them get well. Sue, USA
Making a Difference in Patients' Lives
The exciting thing is that you can actually improve peoples' lives as a holistic point of view. We impact them on not only their physical condition, but also on their social and emotional status, and even financially because you're able to get them back to work. Orlando, Belgium

for results or meeting productivity standards were also a frustration expressed by the therapists in this study.

Protective Coping Strategies

All therapists in this study commented about the importance of using protective strategies to maintain energy and a love for their profession. Participants commented on the close relationships existing between patients and therapists but also identified the need to set boundaries. If therapists did not separate themselves from work and patients, they may be emotionally and mentally consumed by the plight of patients. It was crucial for therapists to identify when they needed to step back and make time for self-care activities. The chosen self-care activities were varied in nature and involved both individual and group strategies. See Table6 for data on protective coping strategies used by therapists in this study.

Compassion Satisfaction in Mitigating CF

Love of one's work and role as a therapist provided a sense of fulfilment to the participants in this study. Participants loved caring for others and improving the lives of their patients. Therapists were excited to see progress in the skills and accomplishments of patients but it was also difficult to deal with challenges in the health care systems. Many therapists were resourceful and able to maintain a positive outlook on the situation reflecting on the satisfaction they felt in their role as a physiotherapist. The ability to connect in a genuine way with others made the challenges of work less stressful. Despite challenging work environments and interpersonal issues, the ability to focus on positive influences the therapists had on patients seemed to mitigate CF.

Many therapists in this study were familiar with the terms CS, CF, BO, and STS. Among participants in Phase I of this study nearly half knew of CF. Many participants who had heard of CF were able to describe symptoms they felt when under the influence of CF. Those who were not familiar with CF were also able to describe personal feelings that needed to be corrected. The participants described feelings of extreme fatigue, irritability, decreased productivity, difficulty with colleagues, and frustrations when working with patients. The participants were also able to articulate strategies utilized to decrease their CF and bad feelings toward work. Therapists in Phase II of this study shared many examples of how they learned over the years to self-identify their feelings of CF as well as strategies for mitigating CF in their professional practice of physical therapy.

DISCUSSION

The findings in this research project suggested that mean values for CS were high. Levels of BO among therapists in this study were low in general and agrees with findings in the literature. When a therapist is more experienced, they tend to have a greater variety of positive coping strategies compared to novice therapists (Klappa et al., 2014; Klappa et al., 2015) or health care workers (Bhutani et al., 2012; Craig, 2010; Elkonin et al., 2100; Musa et al., 2008).

Compassion satisfaction and BO were negatively correlated for physical therapists and concurred with what is found in previous studies (Klappa et al., 2014; Klappa et al., 2015). The therapists may have successfully utilized strategies to mitigate the effects of BO on CF. Although previous studies suggest there is a negative correlation between CS and STS for therapists, this study failed to demonstrate any significant relationship between CS and STS (Klappa et al., 2015; Klappa et al., 2016; Stamm, 2010). Previous studies reported a moderate negative correlation between CS and STS, and CS and BO among new graduates and disaster relief workers; hence, as STS or BO increase, CS decreases (Klappa et al., 2012; Klappa et al.,2014). Conversely, CS may be protective against the BO and STS constructs of CF (Craig, 2014; Klappa et al., 2012; Klappa et al., 2014; Klappa et al., 2015; Smart et al., 2014).

A mild negative correlation existed for levels of CS and practice in an area of armed conflict in a region among physical therapists. This may be related to the amount of stress these individuals experience while in these regions, as described in a study by Musa et al. (2008), in which individuals working in the Darfur war zone were surveyed. Thus, therapists in areas of armed conflict tended to have lower levels of CS. The more rural regions, representing 26% of our patient group, were correlated with higher levels of STS among physical therapists. These individuals described instances of STS

in these regions because there was a lack of expertise in the geographic regions that they were working in. This added pressure, despite training in trauma, may have increased the potential for STS to influence CF for the participants in this study.

A majority of our participants, 74%, used talking to a friend or family member as one coping strategy to manage their stress levels. Various other coping techniques included: 1) talking to a friend or family member; 2) engaging in aerobic exercise; and 3) dining out with friends. See Table6 for more details on strategies used by participants. Several authors suggest adequate stress management and positive coping strategies are linked to lower CF and BO scores (Klappa et al., 2015; Voss Horrell et al., 2015; Weidlich et al., 2015). In addition, individuals with high STS levels were more likely to have lower BO scores if they have effective coping skills (Klappa et al., 2015). Our participants had low or low average scores of CS, STS, and BO compared to normal, suggesting they likely used effective coping strategies.

The majority of our patients were not aware of CF (52%) and how it affects individuals. Some of the participants described past experiences of CF and their symptoms. The literature suggests that individuals may display a variety of symptoms associated with CF which include fatigue and sleep difficulty, irritability, higher mistakes, depersonalization of self and others, changes in personal relationships, lack of joy, and physical symptoms (Peterson, et al., 2014; Owen, et al., 2014; Potter et al., 2013). A majority of participants in this study reported experiencing extreme fatigue (66%). Participants also felt symptoms of increased irritability, decreased productivity, increased isolation, increased difficulty with colleagues, and sadness or hopelessness. An awareness of CF among participants in this study or an ability to recognize early personal stress symptoms, may have allowed participants to utilize helpful coping strategies because they knew something was not right even if they were not aware of CF and how to prevent it.

Multiple participants discussed a perceived a lack of managerial support in the workforce and being overworked as contributing to their CF level. The literature suggests that CF increases with lack of managerial support, lack of staffing, and being exposed to stressful environments (Horrell et al., 2011; Hunsaker et al., 2015; Klappa et al., 2013, Klappa et al., 2014; Klappa et al., 2015). Even though participants perceived a lack of managerial support in the workforce at times and reported feeling overworked, they had low STS and BO levels compared to normal values. This phenomenon may be due to the protective aspects of CS and love of what one does as a professional.

Scales such as the PROQOL (Stamm, 2010) and Mindful Attention Awareness Scale (Thieleman et al., 2014) may be used to better help identify the effects of BO or STS on CF since there was some overlap in the influence of both BO and STS to CF. Specific training involving coping strategies, as well as stress management, may provide useful tools to mitigate effects of CF (Bhutani et al., 2012; Klappa et al., 2014; Klappa et al., 2015).

When prompted about other coping strategies, those that involved drugs or alcohol, the response from the interview participants suggested they didn't use drugs, and that if they did consume alcohol, it was more as a social matter rather than drinking to avoid their stresses. It was interesting that all participants described stories of successful management of CF, yet later in the resonance rounds, participants revealed occasional situations where coping strategies were not as constructive.

Strengths and Limitations

Strengths of this mixed-methods study included the sample size for Phase I (n = 116) and for the interviews for Phase II (n = 9). The Phase I survey provided both breadth and depth of experiences among the participants due to the number of countries and practice settings represented. The survey also had good reliability and validity. In Phase II, saturation was reached with regard to participant experiences after seven interviews which again provided a thick, rich description of CS, BO, STS, and CF among the physiotherapists and physical therapists interviewed. The primary researcher conducting the interviews was experienced in phenomenological interview skills and appropriately bracketed out previous experiences prior to the interviews. Finally, the primary researcher who interviewed the participants was not involved in the identification and analysis of themes in order to limit bias of results.

Several limitations exist in this study. The researchers acknowledge that the results of this study do not apply to every physiotherapist or physical therapist. Participants tended to report healthy coping strategies in the interviews but then reported more details about unhealthy coping strategies in the resonance rounds. Perhaps this biases our results towards physiotherapist and physical therapists always choosing healthy coping strategies. Another limitation lies in our survey tool. The PROQOL tool is meant to be distributed within 30 days of a traumatic event. In this study, participants were screened to determine if they had experienced a stressful or traumatic event and were asked to think about that time when they experienced BO or a trauma at work. It is possible that some of the participants did not experience BO or a traumatic experience within the last 30 days. Nevertheless, the values for Cronbach α for the constructs of CS, BO, and STS were very high, indicating that the survey tool did measure what was intended for these three constructs.

Future Study Recommendations

Future studies may shed a brighter light on the topics of CS, BO, and STS if there were other tools to measure BO

and STS. This project experienced some overlap of constructs among our participants for BO and STS. By using an additional tool to discern BO & STS, clarity on the influence of BO, STS, and CF may more clearly be teased out of new data. This process may also allow for a deeper understanding of the role of CS on decreasing CF. Perhaps a tracer study on therapists who are doing work in disasters or areas of armed conflict would be helpful in shedding light on CS, CF, and the strategies used to overcome CF.

CONCLUSION

Compassion fatigue may be present at any point in a therapist's career and may result regardless of the work setting. When experiencing CF, participants reported having difficulty demonstrating compassion to their patients while facing the stresses of productivity and other job strains. The participants in this study tended to be skewed toward the satisfaction anchor of the compassion continuum on the PROQOL. Despite the high compassion satisfaction among the participants, many were pulled into feelings of CF due to personal or environmental situations. The lived experiences of our participants indicated that many therapists were aware of the stress of CF and utilized helpful strategies to alleviate their symptoms. The PROQOL helped detect CF by examining subscales focusing on CS, BO, and STS. Interviews and resonance rounds provided opportunities for participants to further explore their coping strategies. Some coping strategies mentioned by participants appeared to be more protective than others in helping regain higher levels of CS and decreasing levels of CF. Coping strategies used by the participants primarily revolved around physical activity and focusing on hobbies that took them away from the workplace. Supportive supervisors at work, mentors, or colleagues were also helpful. The importance of understanding the support system needed to deal with STS and avoid BO is crucial for workplace supervisors, families, and therapists themselves to maintain sustainable and healthy life-work balance.

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