

# High Civic-Mindedness Reduces Compassion Fatigue in the First 3 Years of Professional Physical Therapist Practice: A Pilot Study

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## Abstract

**Introduction:** Clinicians with compassion fatigue (CF) experience behavioral, cognitive, and emotional changes due to repeated exposure to second-hand trauma from the clients with whom they are working. A civic-minded professional possesses the core value of social responsibility. Physical therapy (PT) education programs must balance a focus on developing social responsibility and compassion against the risk of CF. **Objective:** The objectives of this study were to (1) describe the prevalence of CF in a sample of physical therapists in the early years of practice and (2) to determine whether higher civic-mindedness leads to the development of CF in physical therapists. **Method:** Three cohorts of recent graduates were administered the Professional Quality of Life (Pro-QOL) survey to measure CF. Thirty-five of 127 surveys sent (27.6% response rate) were completed. **Results:** A Mann-Whitney *U* was run to determine differences in the Pro-QOL survey between those scoring high or low in civic-mindedness at graduation. Higher civic-mindedness scores exhibited significantly lower burnout and higher compassion satisfaction. **Conclusion:** Higher levels of civic-mindedness appear to have a protective effect against developing CF.

## Keywords

civic-mindedness, compassion fatigue, community engagement, clinician–patient relationship, empathy, patient/relationship centered skills, physical therapy

## Introduction

Compassion fatigue (CF) is a phenomenon in which clinicians experience behavioral, cognitive, and emotional changes due to repeated exposure to second-hand trauma from the clients with whom they are working (1). Physical therapists are one cohort of health-care professionals who are at risk for developing CF.

The American Physical Therapy Association has identified a set of core values central to practice. Social responsibility is one and has associated sample indicators that include community volunteerism and leadership and forming collaborative relationships with other clinicians and the public (2). Physical therapy (PT) education programs are interested in developing social responsibility but *must consider* factors that both influence risk for CF and are associated with social responsibility.

Civic-mindedness is a construct in which individuals are active participants in their community; individuals cannot

be civic-minded without knowledge of their community and valuing their role in that community (3). A civic-minded professional is someone with professional skills acquired through formal education who acts ethically and works collaboratively to achieve the common good (4,5). Developing graduates who embody the qualities of a civic-minded professional *is often* emphasized in health professions programs (6).

Civic-engagement and service-learning activities assist in the development of students who are civic-minded (6). One key component of service-learning and civic engagement is

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reflection (7). Reflective practice has carryover into professional realms, enhancing a sense of civic-mindedness (7). Movement from reflection on action in entry-level PT practice to reflection in action in expert practice has been documented in the literature (8,9). Reflective service-learning and community engagement activities may assist in the development of professional skills and civic-mindedness.

The definition of a civic-minded professional aligns with the core value of social responsibility. In addition to social responsibility, the Core Values and Code of Ethics of the PT profession emphasize advocacy, altruism, and compassion/caring (2,10). The inclusion of civic engagement and service-learning in PT program curricula address these core values while simultaneously developing professionalism (11). Service-learning in PT practice can foster development of professional ethics and an understanding of professional roles and help students integrate course material and core values (12,13).

Students at the Institute for Physical Therapy Education (IPTE) at Widener University engage in multiple service-learning opportunities throughout the curriculum. Some are single-day events such as our Martin Luther King, Jr Day of Service and brain safety fairs (14). Others are woven throughout the curriculum such as regularly scheduled community physical activity programming and the pro bono clinic (14). Students from the IPTE experience increase in civic-mindedness as they move through this service-learning intensive curriculum, with students involved in the leadership of the pro bono clinic experience greater increases in civic-mindedness by the end of the curriculum (15,16).

Entry-level PT education programs desire to promote core values including compassion. Compassion satisfaction is a construct that describes the positive feelings one experiences from being able to help others (17). Developing entry-level clinicians who integrate the core value of compassion/caring should result in physical therapists that are high in compassion satisfaction. Persons with low compassion satisfaction may exhibit symptoms consistent with CF. The stress someone experiences from caring for persons who are traumatized or suffering can result in CF (18-20). Hallmarks of CF include burnout and secondary traumatic stress. Burnout is characterized by emotional exhaustion, feelings of low personal accomplishment, and depersonalization (21, 22). Secondary traumatic stress is a negative feeling that is a result of fear and work-related trauma (17).

Health-care professionals are at risk for CF (23). Compassion fatigue and the associated variables of burnout and secondary traumatic stress are noted in diverse populations such as critical care nurses, social workers, physicians from a range of medical and surgical specialties, physical therapists working in disaster areas, and health-care students (24-28). However, a recent review of the literature noted the lack of research on physical, occupational, and respiratory therapists (29).

Physical therapy education programs must consider factors that relate to CF in their students. Medical students who

experienced academic stressors are at risk for burnout, and those who exhibit unprofessional behaviors are more likely to exhibit CF (30,31). Conversely, health-care professional students with greater empathy and compassion satisfaction are less likely to experience CF (28). Both entry-level PT education programs and the PT profession are placing increasing emphasis on pro bono services and community engagement, which could serve to increase empathy. Alternatively, students who score higher on measures of civic engagement may be more likely to continue to donate their time via pro bono services or community volunteerism after graduation. While this may support empathy, this could also lead to a decrease in time for self-care, which could in turn increase the risk of CF. The purposes of this study were to (1) describe the prevalence of CF in a sample of physical therapists who were in the first 3 years of clinical practice and (2) to determine whether higher civic-mindedness leads to the development of CF in physical therapists.

## Methods

### Study Design

This was a cohort study using convenience sampling.

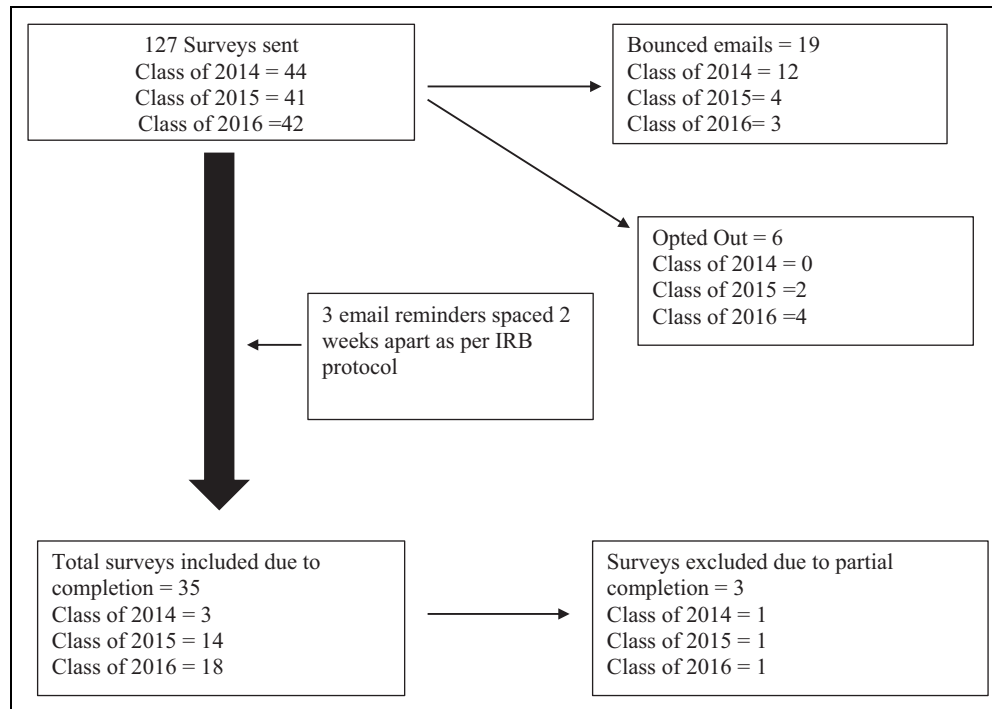
### Participants and Setting

Participants were recruited from Widener University's IPTE Classes of 2014, 2015, and 2016. All IPTE alumni from the classes of 2014 to 2016 received an e-mail invitation to participate in a survey on Qualtrics, with 3 follow-up reminder e-mails sent every 2 weeks as per the Institutional Review Board (IRB) protocol. A total of 127 survey invitations were e-mailed (Figure 1).

### Instrumentation

The first part of the survey was a consent form. The main survey was displayed after respondents indicated consent. The survey consisted of demographic questions for sex, race, current employment, practice setting, number of hours worked, current and prior professional community service, current and past nonprofessional community service, and self-care.

The survey also included the Professional Quality of Life (Pro-QOL) survey, which is a 30-item Likert-scale survey that assesses CF through composite subscale scores of compassion satisfaction, burnout, and secondary traumatic stress subscales (17). Subscale scores are not combined into a total score. Subscale scores are ranked as low if 22 or less, moderate between 23 and 41, and high if 42 or higher (17). This scale is available in multiple languages and has been used across multiple age cohorts, racial groups, income levels, years of experience, and can be used for both paid and volunteer workers (17). The Cronbach's  $\alpha$  for internal consistency is reported as ranging from .84 to .90 (17). Construct validity is documented as high in the literature due to low



**Figure 1.** Survey invitation and response.

interscale correlations. There is a 2% shared variance ( $r = -.23$ ;  $\text{co-}\sigma = 5\%$ ) between Compassion Satisfaction and Secondary Traumatic Stress and a 5% shared variance ( $r = -.14$ ;  $\text{co-}\sigma = 2$ ) between Compassion Satisfaction and Burnout. A 34% shared variance exists between Burnout and Secondary Traumatic Stress ( $r = .58$ ;  $\text{co-}\sigma = 34\%$ ); however, the scale creators content that the scales measure separate constructs that have the feature of distress in common (17).

The Civic-Minded Professional Scale (CMP) is a 23-item Likert scale that assesses the areas of self-identity, work, career and profession, and civic attitudes, civic action, and civic purpose (4,5). Specifically, this scale measures the factors of voluntary action, identity and calling, citizenship, social trustee, and consensus building (4,5). The Cronbach's  $\alpha$  for internal consistency is reported as .91. Convergent validity for a variety of scales has been reported (Civic Engagement Index range  $r = .13$  to  $.60$ ,  $P \leq .001$ ; NERCHE scale range  $r = .16$  to  $.54$ ,  $P \leq .001$ ; the Public Service Interest Subscale range  $r = .25$  to  $.69$ ,  $P \leq .001$ .) and thus is reliable and valid (4,5). No norms or cut scores have been established; prior research has used the median of the sample to establish high and low scores for a particular sample (15,16).

### Data Collection

The Widener University Institutional Review Board approved this study (protocol #92-17). The CMP scores were collected at the completion of the didactic portion of the IPTE's curriculum under a previous research

protocol (IRB protocol #124-13). All alumni from the classes of 2014 to 2016 were issued an e-mail in which their unique identifying codes and graduation year from research protocol 124-13 were imbedded. Those who consented to participate in the CF survey had their Pro-QoL data linked with their exit CMP scores.

### Data Analysis

Data were analyzed using SPSS version 23. Frequencies and percentages for all demographic variables were calculated. Descriptive statistics were calculated for scores on both the CMP and the Pro-QoL. A Mann-Whitney  $U$  was run on Pro-QoL data using the independent variable of high or low scores on the CMP. High and low scores on the CMP were dichotomized in order to use it as the independent variable. High scores were defined as scoring at or above participants' median score on the CMP; low scores were defined as being below the median.

### Results

Thirty-eight respondents started the survey, with 35 surveys recorded (27.6% response rate; Figure 1). Respondents indicated their class year, sex, race, employment status, number of hours worked per week, employment setting, and whether they had engaged in professional and/or nonprofessional community service (Table 1). All respondents were currently employed; 26 (74%) respondents were still in their first position as a licensed physical therapist.

**Table 1.** Frequencies of Respondents' Demographic Data.

Demographic Characteristic	Frequency
Graduating class	
2014	5
2015	13
2016	17
Sex	
Males	10
Females	25
Race	
African American	0
Asian/Pacific Islander	2
Caucasian	33
Latino	0
Community service	
Professional	11
Nonprofessional	14
Hours worked	
0-9	0
10-20	1
21-30	0
31-40	10
41-50	21
51-60	1
>60	2
Practice setting	
Acute care	7
Burn intensive care unit	1
Home health	3
Inpatient rehabilitation	5
L-tach	1
Outpatient	20
Outpatient neuro	1
Residential facility for children with developmental disabilities	1
School-based pediatrics	3
Skilled nursing	6

Eleven (31.4%) respondents had engaged in professional PT service at some point in their PT career. Fourteen (40.0%) respondents answered that they had engaged in nonprofessional community service at some point in their PT career.

The median scores and ranges for the compassion satisfaction, burnout, and secondary traumatic stress subscales on the Pro-QOL can be found in Table 2. Median was used as a point estimate as several scores had a skewness of  $\geq \pm 1$ . Calculations on each of the subscales were performed to determine the percentage of the sample falling in the low, medium, and high range; 57.6% were medium and 42.4% were high on the compassion satisfaction, 57.6% were low and 42.4% were medium on the burnout, and 78.1% were low and 21.9% were medium on the secondary traumatic stress subscales (17). A Mann-Whitney *U* test revealed significant differences between those scoring at or above the median for CMP and those below the median for the compassion satisfaction subscale ( $P = .039$ ), with those with higher scores on the CMP having higher compassion

**Table 2.** Median and Range for Subscales on the Pro-QOL.

	Overall Sample	High CMP	Low CMP
Compassion Satisfaction	40.0 (30.0-49.0)	56.3 (38.8-69.4)	45.4 (10.1-49.7) <sup>a</sup>
Burnout	22.0 (14.0-32.0)	45.9 (32.3-61.6)	56.4 (38.6-70.0) <sup>b</sup>
Secondary Traumatic Stress	18.0 (12.0-36.0)	46.9 (35.1-82.3)	46.9 (39.0-60.7)

Abbreviation: CMP, Civic-Minded Professional Scale.

<sup>a</sup> $P = .039$ .

<sup>b</sup> $P = .015$ .

satisfaction scores, and on the burnout subscale ( $P = .015$ ), with those having higher scores on the CMP having lower burnout scores (Table 2).

## Discussion

The first purpose of this study was to describe the prevalence of CF through measures of compassion satisfaction, burnout, and secondary traumatic stress in a sample of physical therapists in the first 3 years of clinical practice. Respondents were fairly evenly split between high and medium levels for compassion satisfaction and low and medium levels for burnout; the majority of respondents were low in measures of secondary traumatic stress. While no respondents scored low in measures of compassion satisfaction or high in burnout, the results of this survey indicate that for this cohort in the early years of practice, there is already an appreciable portion of respondents who are not scoring high in compassion satisfaction or low in burnout. *This finding* may be suggestive of CF risk in later clinical practice. The second purpose was to determine whether higher civic-mindedness leads to the development of CF in physical therapists. Contrary to the hypothesis, respondents with higher CMP scores exhibited significantly higher compassion satisfaction and significantly lower burnout than those who scored below the median on the CMP.

Taking the results of the 2 purposes in tandem, it may be worthwhile to consider the development of civic-mindedness as having a protective effect to improve or support compassion satisfaction and to decrease levels of burnout. As such, increasing civic-mindedness through service-learning may actually decrease the risk of CF in the early years of practice. A recent qualitative study examined a service-learning course in which senior undergraduate psychology majors worked with a refugee community. Many students were able to realize that this community partnership provided them an opportunity for professional and interpersonal growth as well as an understanding of the community they were serving (32). Studies have found that service-learning makes a positive impact on students' civic responsibility; increases the core values of the PT profession, including compassion/caring; and fosters leadership

(11,33,34). One study found both an embrace of social justice and positive attitudes toward service persisted for 6 years postgraduation after participation in undergraduate service-learning courses (33). Service-learning fosters professionalism and civic mindedness, which in turn may have a protective effect on the development of CF (16).

However, in the aforementioned study of undergraduate psychology majors working with refugees, some students overidentified with the refugee community and began to develop symptoms of CF such as irritability and avoidance of their community site (32). The author notes that these students felt both responsible toward the refugee community and powerless as students to fully help them and that as students, they did not have the privilege of a mentor or immediate supervisor to identify the developing symptoms of CF (32). This is an interesting point, and faculty developing service-learning courses can apply the implications of this finding to their service-learning courses. Recent research at a student-led PT clinic found that the increased responsibility students had at the clinic allowed them to practice their skill set within a context of safety, as the supervising physical therapists did not carry their own patient caseload (35). Thus, students were able to consistently access mentorship from the supervising physical therapists in a way that may be absent from more traditional service-learning community sites.

There may be solutions to address challenges with more traditional service-learning coursework that takes place outside of a supervising therapist purview. Providing education early on in a curriculum regarding CF and its symptoms may be one remedy, which would allow students to recognize symptoms in themselves and seek assistance from their course instructor. While providing useful information for future clinical practice, this places the onus of recognizing CF completely on the students.

Reflection is an essential element of service-learning coursework (7). Structured reflection questions provide more targeted information related to service-learning experiences. Occupational therapy students completing structured reflection questions were found to increase personal growth and self-efficacy as compared to those completing unstructured ones (36). Increasing self-efficacy would help increase students feeling of mastery over their environment, which could reduce the risk of CF by increasing compassion satisfaction. Structured reflection questions with prompts related to CF would also be useful to help faculty members identify students developing CF. In addition to reflection, faculty could have debriefing sessions or activities interspersed throughout the in-class portion of the course.

Meaningful service-learning programs support civic-mindedness in students as civic knowledge, skills, and identity evolve (15,16,37). Our prior research has found that continuous community engagement through professionally linked, service-learning increases scores on the CMP (15,16). However, while scores increased across the

curriculum, some students remained at the lower range of CMP scores. Structured reflection questions related to the CMP might be used to help further develop civic-mindedness (37). Faculty could monitor students scoring at the lower end of the range. Students who fall at the lower range of scores typical for their classmates at graduation could be counseled of their potential risk for CF.

One potential mechanism through which service-learning and its resultant increase in civic-mindedness may help to prevent CF is through the support of empathy across a professional PT curriculum. Someone with empathy can understand and experience the feelings of another (38). Empathy typically declines during professional health-care programs (39). However, our preliminary research indicates that empathy scores remained unchanged in one cohort of PT students, while their CMP scores increased (40,41). Empathy has both a cognitive and affective/emotional component (42). Research on social workers suggests that the ability to set boundaries and regulate emotions, both cognitive aspects of empathy, and affective response, an emotional component of empathy, are related to decreased CF, burnout, and secondary traumatic stress, and increased compassion satisfaction (42). It is possible that the sustained service-learning inherent in the IPTE curriculum provides opportunity for students to practice the skills of boundary setting and emotional regulation, while emotionally connecting with the individuals they are serving. Wagaman et al suggest training in mindfulness techniques and boundary setting at both the academic level and for continuing professional education for social workers; this approach could be adopted for PT education as well (42).

This *pilot* study had several limitations. The first is that this study represents a sample taken from one entry-level PT program, and thus may not be generalizable to physical therapists in the early years of practice who graduated from other programs. Future research should include other PT programs to determine whether the results of this study are consistent across programs. *An additional step could be undertaking factor analysis to elucidate the role that increasing civic-mindedness has in reducing CF in the context of other curricular activities that may also play a role in CF reduction.* Additionally, only a few respondents provided information regarding professional and nonprofessional community service. Having this information for the entire sample may have provided information that would clarify the role of civic mindedness in CF. Another limitation is that this study only examined CF in the early years of clinical practice. Future research with this cohort later in their career is needed to determine whether those with higher CMP scores at graduation persist in exhibiting higher compassion satisfaction and lower burnout. Additionally, preliminary data from another study suggests that CMP may prevent the dip in empathy seen during a PT curriculum (40). The sample in this study did not have empathy scores, leaving uncertainty of the role that empathy may play in compassion satisfaction and burnout scores. Future

research examining the role of exit empathy scores in graduating PT cohorts and its relationship to CF in the early years of clinical practice is warranted.

## Conclusion

This study is the first to describe CF development in the early years of clinical PT practice. Higher levels of civic-mindedness appear to be protective against developing CF in physical therapists in the early years of clinical practice. Entry-level PT programs should seek opportunities to both teach students about CF and its risk factors and to monitor students at risk for developing CF.


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