

2019-12-01

Self-compassion and Compassion for others in Physical Therapy Students, Faculty and Clinical Instructors

Justina Valgento

Department of Physical Therapy and Athletic Training, Northern Arizona University, Phoenix, AZ, USA

Karen Mueller

Department of Physical Therapy and Athletic Training, Northern Arizona University, Phoenix, AZ, USA

Petra Williams

Department of Physical Therapy and Athletic Training, Northern Arizona University, Phoenix, AZ, USA

Allie Finch

Department of Physical Therapy and Athletic Training, Northern Arizona University, Phoenix, AZ, USA

Linda Denney

Department of Physical Therapy and Athletic Training, Northern Arizona University, Phoenix, AZ, USA

Follow this and additional works at: <https://hpe.researchcommons.org/journal>

Recommended Citation

Valgento, Justina; Mueller, Karen; Williams, Petra; Finch, Allie; and Denney, Linda (2019) "Self-compassion and Compassion for others in Physical Therapy Students, Faculty and Clinical Instructors," *Health Professions Education*: Vol. 5: Iss. 4, Article 2.

DOI: 10.1016/j.hpe.2018.12.004

Available at: <https://hpe.researchcommons.org/journal/vol5/iss4/2>

This Original Research Reports is brought to you for free and open access by Health Professions Education. It has been accepted for inclusion in Health Professions Education by an authorized editor of Health Professions Education.



Self-compassion and Compassion for others in Physical Therapy Students, Faculty and Clinical Instructors

Justina Valgento*, Karen Mueller, Petra Williams, Allie Finch, Linda Denney

Department of Physical Therapy and Athletic Training, Northern Arizona University, Phoenix, AZ, United States

Received 29 August 2018; received in revised form 14 December 2018; accepted 30 December 2018

Available online 4 January 2019

Abstract

Purpose: In healthcare professions, there has been a need for increased compassion to improve the quality of patient care.^{1,2,3} Yet, in this pursuit, health professionals have heavy workloads and longer working hours resulting in increased burnout and compassion fatigue.^{4,5} This stress is reducing clinicians' attention and concentration, distracting from decision making, decreasing effective communication and increasing fatigue, insomnia, heart disease, depression and obesity.² Even with these sacrifices or "cost of caring" there has been a large decrease in the patient's quality of care and compassion.⁵ Research has shown that health professionals with high self-compassion it correlates with decreased stress, compassion fatigue and burnout.⁷

Method: A total of 158 participants, 90% of students, 51% of faculty, and 30% of clinical instructors, submitted a completed survey. Participants were invited to complete Neff's Self-Compassion Scale and Neff's Compassion for Others Scale. Both scales are a self-report measure comprised of statements which are rated on a 5 level Likert Scale from almost never to almost always and total mean score for 24 items. One-way ANOVA, Paired Samples T-tests and Pearson R correlations were used to explore differences between and within the groups.

Results: Physical therapy students demonstrated significantly lower total self-compassion and compassion for others scores compared to educators and the greatest difference between scales ($p=.000$). Female students demonstrated significantly lower score for self-compassion and greatest difference in scores compared to male students ($p=.000$) and female educators ($p=.003$). Participants over 40 years old had higher scores in self-compassion compared to younger participants and younger participants had the greatest difference scale ratings ($p=.000$).

Discussion: These results suggest that self-compassion curriculum may be helpful only for health professionals but also in the professional education curriculum to increase and possibly sustain self-compassion and decrease risk of compassion fatigue and burnout in new and experienced clinician.

© 2018 King Saud bin AbdulAziz University for Health Sciences. Production and Hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Keywords: Physical therapy; Self-compassion; Compassion for others

*Corresponding author.

E-mail addresses: jmv246@nau.edu (J. Valgento),

Karen.Mueller@nau.edu (K. Mueller),

Petra.Williams@nau.edu (P. Williams), adf55@nau.edu (A. Finch),

Linda.Denney@nau.edu (L. Denney).

Peer review under responsibility of AMEEMR: the Association for Medical Education in the Eastern Mediterranean Region

1. Introduction

1.1. The dilemma in healthcare

In 2007, the Institute for Healthcare Improvement introduced the *Triple Aim*, an overarching vision for a

<https://doi.org/10.1016/j.hpe.2018.12.004>

2452-3011/© 2018 King Saud bin AbdulAziz University for Health Sciences. Production and Hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

healthcare system committed to improving the patient experience and population health while reducing related costs.¹ A laudable initiative, the initial version of the triple aim underscored the importance of health service value while neglecting the importance of healthcare provider wellbeing.^{2,3}

In subsequent years, a growing body of evidence has identified a high prevalence of burnout, compassion fatigue and disengagement among physicians,⁴ nurses,⁵ and other health professionals.⁶ This evidence led to the identification of the triple aim's *phantom limb*, the omission of healthcare workforce wellbeing⁷, and a subsequent call for and expansion of the triple aim to a “quadruple aim” to address this missing element.⁸

A prominent component of healthcare workforce burnout is compassion fatigue, defined as,

*“the final result of a progressive and cumulative process that evolves from compassion stress after a period of unrelieved compassion discomfort, which is caused by prolonged, continuous, and intense contact with patients, the use of self, and exposure to stress”*⁹ (p.239)

Accordingly, the relentless demands of the current healthcare system, or, “the cost of caring”¹⁰ compromises provider health, resulting in a host of physical and psychological complaints such as fatigue, insomnia, heart disease, depression and obesity.^{11–13} Compassion fatigue has been widely recognized among health providers including physicians, physical therapists, nurses and midwives.^{10–13} A prominent antecedent of compassion fatigue is the neglect of self-compassion, which Neff defines as “being as kind to yourself as you are to other people”¹⁴ as a critical element of self-care.¹⁵ Self-compassion appears to be powerful antidote to physical and emotional distress in both health and disease, with recent evidence even supporting its value for mitigating symptoms of a range of disorders including diabetes and post-traumatic stress disorder.^{16,17}

A broader element of self-compassion is compassion for others, defined as the ability to recognize the distress of others and making an attempt to alleviate it.¹⁸ Health care professionals are routinely called to address their patients’ physical and emotional suffering, an endeavor which can deplete their own psychological resources over time. Compassion fatigue results in the healthcare system when compassion for patients is applied solely at the expense of provider self-compassion.^{19–21} In contrast, high levels of health provider self-compassion have been shown to reduce the symptoms of stress, burnout and compassion fatigue.²²

In response to the escalating demands of the current healthcare system, the rigor of professional health

education has increased over the past decade, particularly in lieu of the transition towards doctoral level education. Evidence of burnout and emotional distress has been identified students in graduate health education programs including medicine²³ and physical therapy.²⁴ These findings suggest the need to identify and apply strategies to support effective coping and resilience during the educational preparation of future health care providers. Promoting a balance between self-compassion and compassion for others appears to be such a strategy, however no studies have examined their respective levels and differences in physical therapy students or their faculty and clinical mentors. Therefore, the purpose of this study was to explore differences in compassion and compassion for others among physical therapy students, physical therapy faculty and physical therapy clinical instructors.

1.2. Neff’s self-compassion and compassion for others scales

Dr. Kirstin Neff introduced the concept of self-compassion and compassion for others based on the Buddhist tenets of mindfulness and loving kindness.^{25–27}

In accordance with the Dalai Lama’s conviction that, “caring for others requires caring for oneself”²⁸ Neff defined compassion for others as “being open to and moved by the suffering of others, so that one desires to ease their suffering”²⁰ and self-compassion as, “being open to and moved by one’s own suffering, experiencing feelings of caring and kindness toward oneself”.¹⁴ Neff developed and published the self-compassion scale and compassion for other’s scales in 2003.¹⁴ These self-report scales are essentially identical except for their assessment from a either first or third person perspective (compassion for self and compassion for others, respectively). The similarity between these scales reflects the Buddhist tenet that compassion, either for self or other, requires mindful awareness that suffering and imperfection are part of the human condition, and more importantly, that all persons, including oneself, are worthy of lovingkindness. Accordingly, Neff organized her definition of compassion and self-compassion around three central elements, each of which include positive and negative factors. The first element is one’s emotional reaction to suffering, and includes the subscales of kindness or indifference. The second element includes one’s perception of suffering as a human event. Subscales of this theme include a sense of connection, where suffering is viewed as a common element of humanity, or a sense of separation and isolation from others. The third element comprises ones response to suffering, and includes the

subscales of mindful awareness or disengagement.²⁹ Accordingly, individuals with high compassion typically demonstrated higher levels of kindness, sense of common humanity, and mindfulness combined with lower levels of indifference, isolation, and disengagement. The two scales are available free of charge for research and educational purposes.²⁹

1.3. Lack of self-compassion education

Although evidence suggests that physical therapists experience compassion fatigue, possibly stemming from a lack of self-compassion,¹³ research exploring compassion and self-compassion in physical therapy graduate programs is lacking. The purpose of this study is to quantify and compare self-compassion and compassion for others scores for doctoral physical therapy (i.e. DPT) students, faculty and clinical instructors. This research explored three questions: 1) Is there a difference in compassion scores between students and educators? 2) Is there a difference in compassion scores between female and male students and educators? 3) Do older participants have higher compassion scores than younger participants?

2. Methods

2.1. Participants

A total of 324 participants were invited to complete the self-compassion and compassion for others scales. The inclusion criteria were: 1) enrollment in the first or second didactic years of a two-campus physical therapy doctoral education program located in the Southwestern United States 2) service as a full-time faculty member from four physical therapy education programs in the Southwestern United States; 3) service as a clinical instructor contracted with four physical therapy doctoral programs located in the Southwestern United States.

The Self-compassion Scale and Compassion for Others Scale were distributed via an online-survey through Qualtrics™ to 324 people: 176 physical therapy students,

Table 2
Neff compassion score range for self and others.

Neff's Self-Compassion and Compassion for Others Scoring	
Low Compassion	1.00–2.49
Moderate Compassion	2.50–3.50
High Compassion	3.51–5.00

49 physical therapy faculty, and 99 physical therapist clinical instructors. The surveys were fully completed by 90% of students (n=158), 51% of faculty (n=25), and 30% of clinical instructors (n=30). The total response rate was 66% (n=213). The total sample was comprised of 74% DPT students (n=158) and 26% DPT educators (n=55). This study was approved by the Northern Arizona University Institutional Review Board. Table 1 illustrates the composition of the respective participant groups.

2.2. Procedures

In the middle of spring semester of 2017, an email with a hyperlink to the survey hosted through the Qualtrics™ online platform was sent to DPT students, faculty, and clinical instructors inviting them to participate in the study. Participants provided consent by submitting their survey. The survey generally required about 10 min to complete, and each participant answered the questions independently using their personal electronic devices (e.g. computers, mobile phone). The survey also included general demographic questions about age group, gender, campus affiliation, and years of experience (for educators). For student participants, consistent with department practice for conducting anonymous course evaluations, one instructor on each campus provided 10 min at the start of one class sessions for students to complete the survey. While students were given class time to complete the survey, they were not monitored during the time allotted for survey completion. The completed surveys were de-identified from participant email addresses for subsequent analysis. Data analysis proceeded during the summer of 2017.

Table 1
Participants and Fully Completed Surveys.

3 Participants Groups	Sent Surveys	Fully Completed Surveys	Response Rate
DPT Students 1st and 2nd year	176	158	90%
DPT Faculty from all programs in Arizona	49	25	51%
DPT Clinical Instructors	99	30	30%
Totals	324	213	66%

Table 3
Subject demographics.

	Gender		Age Group					Didactic Year	
	Female	Male	< 24 years	25–29 years	30–39 years	40–49 years	> 50 years	Year 1	Year 2
DPT Students n=158	108 69%	49 31%	76 48%	56 35%	23 15%	3 2%	0	73 46%	89 54%
	Gender		Age Group					Years Experience	
	Female	Male	< 24 years	25–29 years	30–39 years	40–49 years	> 50 years	1–10 years	> 10 years
DPT Faculty n=25	20 80%	5 20%	0	0	3 12%	11 44%	11 44%	15 60%	10 40%
DPT Clinical Instructors n=30	17 57%	13 43%	0	4 13%	11 37%	5 17%	10 33%	12 40%	18 60%
DPT Educators n=55	37 67%	18 33%	0	4 7%	14 26%	16 29%	21 38%	27 49%	28 51%

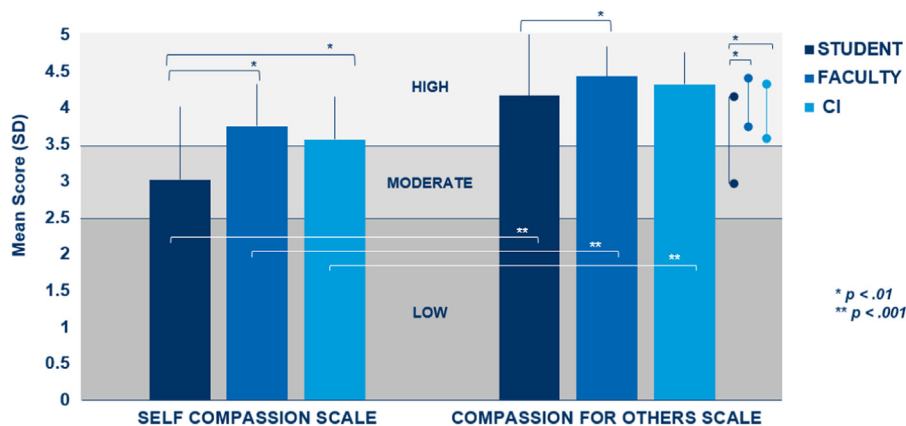


Fig. 1. Compassion scale scores for DPT students, faculty and clinical instructors.

2.3. Analysis

The 26-item Self-Compassion Scale and the 24-item Compassion for Others Scale are both self-report measures comprised of statements which are rated on a 5 level Likert Scale from “Almost Never” to “Almost Always.” As stated previously, each scale measures the positive and negative aspects of the three components of compassion for a total of six factors. Total mean scores (range 1.0–5.0) for self-compassion and compassion for others were calculated from the means for the six factors after reverse coding negative items. Please see Table 2 for how mean scores for both self-compassion and compassion for others are interpreted to represent “Low,” “Moderate” or “High” levels of compassion.³⁰ Descriptive statistics were used to characterize subject demo-

graphic data. To facilitate some comparisons between groups, DPT Faculty and DPT Clinical Instructors were combined to form the group DPT Educators. One-way ANOVA, Paired Samples t-tests and Pearson r correlations were used to explore differences and associations between and within the groups. SPSS version 24.0 (SPSS Inc., Chicago, IL) was used for all analyses. The level of significance was set at .01.

3. Results

3.1. Demographics

Table 3 provides the demographic profiles of the student, faculty and clinical instructor participant groups. As can be expected, the DPT Student group was younger than DPT Educators ($X^2_{(4, 213)} = 134.88$,

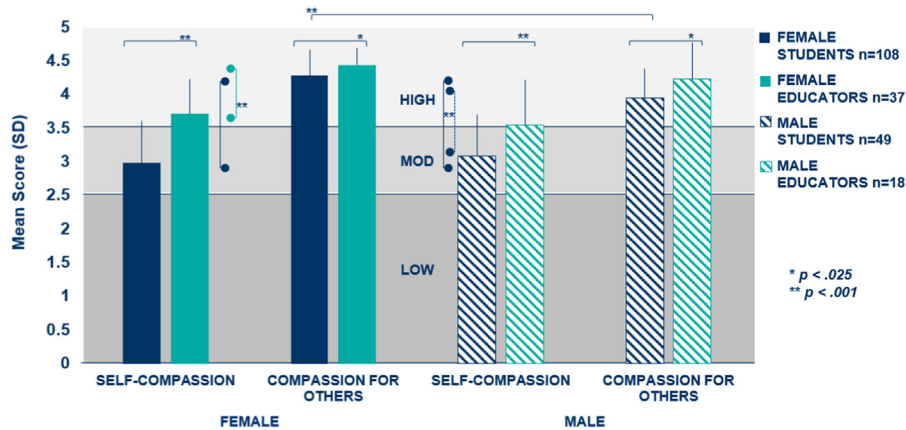


Fig. 2. Compassion scale scores for female and male DPT students and educators.

$p < .000$) and DPT Faculty were older than DPT Clinical Instructors ($X^2_{(3, 55)} = 10.50, p < .015$). A total of 98% of DPT Students were under 40 years old, with the largest proportion ages 24 and younger (48%). A total of 93% of DPT Educators were over 30 years old, with 67% ages 40 and older. The proportion of females and males were similar for DPT Students and DPT Educators (females: 67–69%; males 31–33%). Finally, there was nearly an equivalent number of DPT Educators who reported being a Physical Therapist for 1–10 years (49%) and those who had more than 10 years of experience (51%).

3.2. Compassion scale scores for DPT students, DPT faculty, and DPT educators

The entire subject group ($n=213$) differed significantly in their scores for self-compassion and compassion for others ($p < .000$) with “High” compassion for others (4.22 ± 0.44) and “Moderate” self-compassion (3.18 ± 0.67). DPT students had significantly lower scores for self-compassion (“Moderate” 3.02 ± 0.62) than DPT Faculty (“High” 3.75 ± 0.57) and DPT Clinical Educators (“High” 3.57 ± 0.58). While both DPT Students, Faculty and Clinical Instructors all had “High” scores for compassion for others, the DPT Students score (4.17 ± 0.43) was significantly lower than the DPT Faculty (4.43 ± 0.41). There were no significant differences for either compassion scale score found between DPT Faculty and DPT Clinical Instructors. Additionally, the DPT Students had the greatest difference between their self-compassion and compassion for others scores ($-1.15 \pm 0.74, p < .000$) compared to both DPT Faculty (-0.68 ± 0.71) and DPT Clinical Instructors (-0.74 ± 0.68). Please see Fig. 1.

3.3. Compassion scale scores by gender

Males ($n=67$) and females ($n=145$) within the entire subject group had similar and “Moderate” scores for self-compassion (male: 3.21 ± 0.66 ; female: 3.17 ± 0.68). Both had “High” scores for compassion for others (male: 4.02 ± 0.48 ; female: 4.31 ± 0.38); however, women scored significantly higher than men ($p < 0.025$). There were no significant differences found between male and female DPT Educators for either compassion scale score. For the DPT Student group, male and female students did not differ in self-compassion scores (“Moderate” male: 3.08 ± 0.62 ; female: $2.99 \pm 0.62, p = .308$). Both male and female students demonstrated high levels of compassion for others, but male students scored significantly lower than their female classmates (male: 3.94 ± 0.44 ; female: $4.28 \pm 0.38, p < .000$). Female students and male students had significantly lower values for both self-compassion and compassion for others compared to female DPT Educators (Self: $3.65 \pm 0.58, p < .02$; Others: $4.44 \pm 0.35, p < .001$) and male educators (Self: $3.54 \pm 0.68, p < .02$; Others: $4.23 \pm 0.54, p < .01$). Finally, females students had a significantly greater difference between their compassion scale scores compared to both their male classmates and also female DPT Educators. Please see Fig. 2.

3.4. Compassion scale scores by age group and years of clinical experience

There was only a significant difference found for self-compassion scores by age group with participants in age groups 40–49 years and > 50 years having significantly greater self-compassion scores than participants in all three age groups under 40 years old ($p < .001$). Mean self-compassion scores for the two

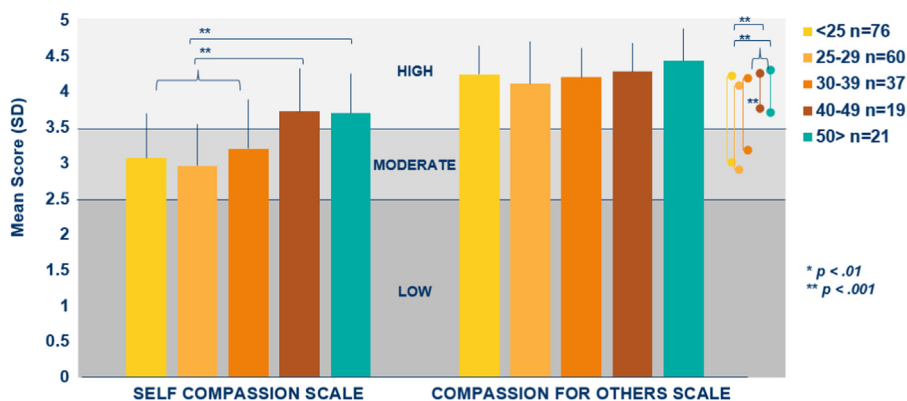


Fig. 3. Compassion scale scores by age group.

over-40 groups were “High” (> 3.70) and “Moderate” (between 2.96 and 3.20) for the three under-40 groups. No significant differences were found between age groups for compassion of others ($p = .056$). Participants in the two youngest group (< 24 years old: -1.16 ± 0.69 ; 25–29 years old: -1.16 ± 0.81) had the greatest difference between scores for self-compassion and compassion for others compared to those who were in the two oldest groups (40–49 years old: -0.55 ± 0.60 ; over 50 years old: -0.73 ± 0.77 ; $p < .01$). Please see Fig. 3. Recall that 98% of DPT Students were under 40 years old, while 93% of DPT Educators are over 30. Please see Table 3.

Female participants 40 over years old had significantly higher values of self-compassion compared to females in each age group under 40 years old ($p = < .001$). However, none of the female students were over the age of 40. Finally, there was no statistical differences found for either compassion scale score between DPT Educators with 1–10 years of clinical experience compared to those with more than 10 years of experience.

4. Discussion

4.1. Impact of the results

Prior studies exploring gender differences in the Self-Compassion and Compassion for Others Scales found that females had lower scores for self-compassion compared to males, but higher scores for compassion for others compared to males. In addition, higher self-compassion scores were positively correlated with increasing age.^{12,13} Therefore, age and gender differences were explored in this study. As expected, faculty were significantly older than students and clinical instructors. In addition there were twice as many female faculty and clinical instructors compared to

males. These differences reflect the current status of the physical therapy profession, where 64% of the workforce is female, and the average ages of students and faculty are 23.6 and 53 years, respectively.³¹

In this study, physical therapy students demonstrated significantly lower levels of self-compassion and compassion for others in comparison to their educators. These findings are consistent with studies of physicians, nurses and midwives. These results suggest the value of providing compassion-based strategies during the physical therapy education process to enhance the meaning of their future work. Such strategies may help new clinicians to avoid burnout and compassion fatigue upon their entrance into the healthcare workforce. Moreover, female students demonstrated lower self-compassion and the greatest difference in scores compared to male students and female educators. This outcome shows the importance for education specifically to the female gender with a growing female dominated fields. Finally, participants over 40 years old demonstrated higher scores in self-compassion compared to younger participants. The younger participants had the greatest difference in the scale ratings. These results may be developmental in nature, as compassion is related to executive function capacities that may not yet be fully evolved in younger individuals.³²

Nevertheless, evidence supports the effectiveness of compassion training among health professions students, suggesting that strategies should be an integral element of their respective educational programs.³³

4.2. Recognized limitations and strengths to the study

The results of this study demonstrated sufficient participant heterogeneity due to the sample of students and non-students. The smaller sample size of faculty and clinical instructors compared to students was a

limitation of this study. Further research should include larger sample sizes of these individuals, perhaps through a multi-site cohort study. Another limitation of this study was the failure to include physical therapists in their first years of practice, as these individuals are typically not yet ready to serve as clinical instructors. The process of transitioning from the student to clinician role may have a significant impact on new clinician compassion and self-compassion, making this group an important group for further investigation.

4.3. Implementing self-compassion

In the other health professions, programs have been developed to educate health professionals on how to increase and maintain self-compassion. Neff and Germer created several pathways to foster self-compassion through physical, mental, emotional, relational and spiritual interventions.²⁰ In 1991, as a response to the growing prevalence of burnout among physicians and medical students, Rachel Naomi Remen, a physician, developed *The Healer's Art*, a 15-h course devoted to the exploration of service, healing relationships and compassionate care.³⁴ This course is currently offered in over 120 medical schools across the United States. More recently, the course has been offered to other health professions including nursing, veterinary medicine, and physician assistant programs. The first *Healer's art* course will be offered to physical therapy doctoral programs in 2019. Initiatives such as these have highlighted the importance of self-compassion as a means of enhancing practitioner meaning and resilience, both of which improve health care interactions and patient outcomes.³⁵

Given the relationship between mindful awareness and compassion, interventions to support the former may be of tremendous value in healthcare education. A recent literature review exploring the impact of mindfulness meditation among nurses and nursing students supports its value for improving empathy and resilience; both important resources for preventing workplace stress and burnout.³⁶

4.4. Future study recommendations

Future research on the addition of mindfulness in physical therapy educational programs should be considered to determine the impact on students' self-compassion. Moreover, longitudinal studies of student self-compassion and compassion for others as they progress into the first years of practice could provide

useful information and the development of initiatives to reduce the challenges of this transition. This study centered on members of the physical therapist profession. Studies of other health professions would provide useful strategies for inter-professional initiatives to reduce compassion fatigue among a larger group of providers.

4.5. Conclusion

The results of this study demonstrated an imbalance between self-compassion and compassion for others in physical therapy students, faculty and clinical instructors. Moreover, these results suggest the need to provide educational support for increased student self-compassion to prevent future burnout. Such support could not only improve the physical therapists' mental health, but also improve the quality of care for patients and increase the longevity of the profession.

Acknowledgements

The researchers thank the participants from Northern Arizona University, A.T. Still University, Franklin Pierce University and Midwestern University.

Disclosures

Ethical Approval: This project was approved by the Institutional Review Board for the Human Research Subject Protection at Northern Arizona University (February 2017).

Funding

None.

Other disclosures

None.

References

- Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Aff* 2008;27(3):759–769.
- West C. Physician well-being: expanding the triple aim. *J Gen Intern Med* 2016;31(5):458–459.
- Wuest TK, Goldberg MJ, Kelly 4th JD. Clinical faceoff: physician burnout—fact, fantasy, or the fourth component of the triple aim?. *Clin Orthop Relat Res* 2017;475(5):1309–1314 <https://doi.org/10.1007/s11999-016-5193-5>.

4. Rothenberger DA. Physician burnout and well-being: a systematic review and framework for action. *Dis Colon Rectum* 2017;60(6):567–576 <https://doi.org/10.1097/DCR.0000000000000844>.
5. Zhang YY, Han WL, Qin W, Yin HX, Zhang CF, Kong C, Wang YL. Extent of compassion satisfaction, compassion fatigue and burnout in nursing: a meta-analysis. *J Nurs Manag* 2018;26(7):810–819 <https://doi.org/10.1111/jonm.12589>. [Epub 2018 Aug 20].
6. Zeidner M, Hadar D, Matthews G, Roberts RD. Personal factors related to compassion fatigue in health professionals. *Anxiety, Stress Coping* 2013;26(6):595–609 <https://doi.org/10.1080/10615806.2013.777045>.
7. Spinelli WM. The phantom limb of the triple aim. *Mayo Clin Proc* 2013;88(12):1356–1357.
8. Bodenheimer T, Sinsky. From triple to quadruple aim: care of the patient requires care of the provider [November/December]. *Ann Fam Med* 2014;12(6):573–576.
9. Coetzee H Klopper. Compassion fatigue within nursing practice: a concept analysis. *Nurs Health Sci* 2010;12:235–243.
10. Figley CR. Compassion fatigue: psychotherapists' chronic lack of self-care. *J Clin Psychol* 2002;58(11):1433–1441.
11. Sorenson C, Bolick B, Wright K, Hamilton R. Understanding compassion fatigue in healthcare providers: a review of current literature. *J Nurs Scholarsh* 2016;48:456–465.
12. Durkin M, Beaumont E, Martin CJH, Carson J. A pilot study exploring the relationship between self-compassion, self-judgement, self-kindness, compassion, professional quality of life and wellbeing among UK community nurses. *Nurse Educ Today* 2016;46:109–114.
13. Klappa SG, Fulton LE, Cerier L, Pena A, Sibenaller A, Klappa SP. Compassion fatigue among physiotherapists and physical therapists around the world. *Glob J Med, Phys Health Educ* 2015;3(5):124–137.
14. Neff KD. Development and validation of a scale to measure self-compassion. *Self Identity* 2003;2:223–259.
15. Grise-Owens E, Miller J, Eaves M. *The A to Z Self-Care Handbook for Social Workers and Other Helping Professionals*. Harrisburg, PA: The New Social Worker Press; 2016.
16. Kane NS, Tanenbaum ML, Hoogendoorn CJ, Gonzalez JS. Physical symptom complaints, cognitive emotion regulation strategies, self-compassion and diabetes distress among adults with Type 2 diabetes. *Diabet Med* 2018 28 <https://doi.org/10.1111/dme.13830>. [Epub ahead of print].
17. Karatzias T, Hyland P, Bradley, A, et al. Is self-compassion a worthwhile therapeutic target for ICD-11 complex PTSD (CPTSD)? *Behav Cogn Psychother* 2018 2:1–13 <https://doi.org/10.1017/S1352465818000577>. [Epub ahead of print].
18. Beaumont E, Durkin M, Hollins CJ, Carson J. Compassion for others, self-compassion, quality of life and mental well-being measures and their association with compassion fatigue and burnout in student midwives: A quantitative survey. *Midwifery* 2016;34:239–244.
19. Mills J, Chapman M. Compassion and self-compassion In medicine. *Australas Med J* 2016;09(05) <https://doi.org/10.21767/amj.2016.2583>.
20. Neff KD, Germer C. Self-compassion and psychological well-being. In: Doty J, editor. *Oxford Handbook of Compassion Science*. Oxford, UK: Oxford University Press; 2017.
21. Neff KD, Pommier E. The relationship between self-compassion and other-focused concern among college undergraduates, community adults, and practicing meditators. *Self Identity* 2013;12(2): 160–176 <https://doi.org/10.1080/15298868.2011.649546>.
22. Montero-Marin J, Zubiaga F, Cereceda M, Piva Demarzo MM, Trenc, P, et al. Burnout subtypes and absence of self-compassion in primary healthcare professionals: a cross-sectional study. *PLoS One* 2016;11(6):e0157499 <https://doi.org/10.1371/journal.pone.0157499>.
23. Edwards Nathan, Saady-Habib Andrew, Ilufoye Deborah, Cheng Joyce, Lynch Sarah, Nguyen Khoan, and Hammoudi Danil. The prevalence of stress, depression and anxiety in medical students.” *SJSscience* 2014; 21 (Summer): <https://www.sjsm.org/research/sjscience/issue-21-summer-2014>.
24. Williams P, Mueller K, Carroll H, Cornwall M, Denney L, Kroneberger L. Patterns of academic burnout, emotional distress and coping in physical therapy students. *Int J Health, Wellness Soc* 2018;8(3):31–46 <https://doi.org/10.18848/2156-8960/CGP/v08i03/31-46>.
25. Fortney L, Luchterhand C, Zakletskaia L, Zgierska A, Rakel D. Abbreviated mindfulness intervention for job satisfaction, quality of life, and compassion in primary care clinicians: a pilot study. *Glob Adv Health Med* 2013;2(Suppl):05 <https://doi.org/10.7453/gahmj.2013.097cp.s05>.
26. Raab K. Mindfulness, self-compassion, and empathy among health care professionals: a review of the literature. *J Health Care Chaplain* 2014;20:95–108 <https://doi.org/10.1080/08854726.2014.913876>.
27. Barratt C. Exploring how mindfulness and self-compassion can enhance compassionate care. *Nurs Stand* 2017;31(21):55–63 <https://doi.org/10.7748/ns.2017.e10671>.
28. Gyatso T Compassion and the individual. Address by Tenzin Gyatso, the 14th Dalai Lama. Available: <https://www.dalailama.com/messages/compassion-and-human-values/compassion> (Accessed 6 November 2018).
29. Self-compassion. Dr. Kristin Neff. Available: <https://self-compassion.org/>.
30. Dr. Kristin Neff. How self-compassionate are you? <https://self-compassion.org/test-how-self-compassionate-you-are/>.
31. Commission on Accreditation in Physical Therapy Education (CAPTE). Aggregate Program data, Physical Therapy Educational Programs, 2017–2018. Available: <http://www.capteonline.org/AggregateProgramData/> (Accessed 13 November 2018).
32. Mota M, Chaves E, Antunes M, Borges R, Paiva A, Santos V. Contextualized contribution of kindness to favorable goal- and circumstantial-driven neuropsychological regulation. *Front Psychol* 2017;26 <https://doi.org/10.3389/fpsyg.2017.01643>.
33. Carson NE, Wise HH, Jacques PF. Caregivers are heroes: an innovative educational strategy designed to promote compassion/caring in health professional students. *J Allied Health* 2017;46(2): 117–123. [Summer].
34. Remen Institute for the Study of Health and Illness at Wright State University Boonshoft School of Medicine. The Healer's Art Course Description. Available: <http://www.rishiprograms.org/healers-art/the-healers-art-course-description/>.
35. Wang H, Kline JA, Jackson BE, Laureano-Phillips J, Robinson RD, Cowden, CD, et al. Association between emergency physician self-reported empathy and patient satisfaction. *PLoS One* 2018;13(9): e0204113 <https://doi.org/10.1371/journal.pone.0204113>.
36. van der Riet P, Levett-Jones T, Aquino-Russell C. The effectiveness of mindfulness meditation for nurses and nursing students: an integrated literature review. *Nurse Educ Today* 2018;65:201–211 <https://doi.org/10.1016/j.nedt.2018.03.018>. [Epub 2018 Mar 24].