

Perceived Stress and Coping Strategies in Entry-Level Doctor of Physical Therapy Students Enrolled in a Hybrid-Learning Curriculum during the Pandemic

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Abstract

Physical therapy students can experience elevated levels of stress due to the pressure to be successful, changes in the environment, personal concerns, the lack of spare time, increased work, or financial burdens. The purpose of this study was to examine the perceived stress and coping strategies of Doctor of Physical Therapy (DPT) students enrolled in a hybrid-learning curriculum during the COVID-19 pandemic. A total of 73 students enrolled in the DPT hybrid-learning curriculum responded to a survey which consisted of socio-demographics, the 10-item Perceived Stress Scale (PSS), and the 28-item Brief COPE. A general question regarding stress relating to COVID-19 was presented as a sliding percentage. Data analysis included a Spearman correlation, a Kruskal-Wallis test, and a linear regression to evaluate coping mechanisms against PSS scores. The mean (\pm SD) score on the PSS was 22.65 (\pm 10.21) and the Brief COPE was 59.18 (\pm 10.61). A non-significant negative correlation was found between the PSS and Brief COPE ($r = -0.024$). A third of the variation in the perceived stress score could be accounted for by students utilizing coping mechanisms regardless of other factors ($R^2 = 0.35$). No significant differences were found when comparing PSS and Brief COPE to age, hours worked per week and term. Perceived stress was higher in females compared to males, but the results were not significant. Stress related to COVID-19 mean percentage reported by DPT students was 49.03%. During a global pandemic, DPT students enrolled in a hybrid-learning curriculum reported elevated levels of stress but reported higher adaptive versus maladaptive coping strategies. It can be beneficial that universities evaluate the stress and coping methods of students to potentially avoid the negative impacts of stress.

Keywords

Perceived Stress, Coping, Hybrid-Learning, Physical Therapy, Pandemic

1. Introduction

In 2019, the COVID-19 pandemic spread rapidly across the globe causing millions of deaths [1]. As a result of the pandemic healthcare, educational institutions were faced with an abrupt transition from instruction face-to-face to remote. This type of instruction, referred to as hybrid learning, is a combination of blended learning which includes face to face and online learning. It can occur synchronously and asynchronously. Hybrid learning models in physical therapy education are not novel as many students were enrolled in this type of program prior to the pandemic. Consequently, the abrupt transition due to COVID-19 may not have impacted these students as severely. However, many institutions were not prepared for this transition having a significant impact on physical therapy education and institutions [2]. Generally, attending graduate school can be a positive experience, but also stressful. With the addition of a global pandemic, the potential for greater stress for entry-level Doctor of Physical Therapy (DPT) students is possible.

Stress can be understood as a perceived imbalance between the demands encountered in daily living and a person's capability to respond [3]. Stress can disrupt a student's learning experience and success. Stress management is defined as "the ability to identify sources of stress and to develop and implement effecting coping behaviors" [4]. The negative effects of stress can be mediated depending on what coping strategy is utilized. Since coping strategies play an important role in how stress is handled it is an important concept to be explored with perceived stress [5] [6].

Coping strategies can be categorized into active and avoidant. Active coping strategies involve a person taking action to remove or circumvent the stressor, whilst avoidant include actions to reject the reality of the stressful event. Examples of active coping include planning, acceptance, or positive reframing, whereas avoidant coping includes denial, disengagement or venting [7] [8]. In a survey by Van Veld *et al.* [8], students report five themes of coping that DPT students utilize organization of tasks, exercise/health, seeking support, mindfulness, and reflection, while the main avoidant strategy was distraction. The authors noted that coping strategies improved with progression in the program, however a study by Ellison *et al.* [9] reported similar active and avoidant strategies regardless of the year in the curriculum. Coping strategies have been found to play a key role in adaptation to stressful events [2]. Therefore, understanding both stress and coping strategies can be beneficial specifically for graduate students.

High levels of perceived stress have been reported in healthcare students and have been correlated to academics and personal reasons [5] [10]-[16]. Addition-

ally, students do not report adequate coping strategies [15]. Generally, research regarding this topic has been predominantly performed outside of the United States concerning physical therapy students. Consistent with high levels of stress reported by other healthcare students, in Pakistan, 40.1% of 380 DPT students reported severe stress while only 2.1% reported no stress [15]. Further, a study out of Pakistan reported the frequency of stress in undergraduate physical therapy students to be 53.2% [17]. Hodselmans *et al.* [18] reported that 72.5% of physiotherapy students in Sweden and Netherlands reported moderate stress, while 13.7% reported mild stress. In South Africa, 71.2% of physical therapy students report psychological distress, with only 6% receiving psychological interventions and 9% psychiatric medication [19]. Finally, during clinical affiliations, DPT students' stress levels were higher; however, no clinical or socio-demographic factor was associated [20]. However, other demographic factors, such as gender, age, and term, have been explored.

Severe stress has been found to be higher in females compared to males in clinical practice for physical therapy students in Japan [21]. Similarly, females physical therapy students in Hungary demonstrated increased stress compared to males and peers in the general population. An explanation for this finding is that females are more impacted by the lack of social support which was also noted to decrease as the female students progressed through a program [22]. An academic institution in the United States reported stress in entry-level DPT students was higher when compared to age and gender-matched peers, with female students reporting greater stress than males [23]. Similarly, Bogardus *et al.* [23] reported that DPT students had significantly higher stress scores when compared to age-matched peers and that first-year students were at a higher risk for developing stress. Likewise, a study by Ellison *et al.* [9] explored the mental and physical health behaviors of DPT students. A total of 136 students from one DPT program reported moderate to severe stress. However, the authors reported there was no correlation with gender. Interestingly, the students reported their awareness of healthy physical and mental health strategies but did not use them on a consistent basis.

During the COVID-19 pandemic limited studies have researched perceived stress and coping, however of those available, high perceived stress has been reported. In a study by Al Ateeq *et al.* [24] 55% of students in the virtual classroom in Saudi Arabia reported moderate perceived stress, while 30% reported high stress. The mean (\pm SD) perceived stress score was 22.12 (\pm 7.33). In Columbia, students during the COVID-19 pandemic reported a mean (\pm SD) perceived stress score of 16.5 (\pm 7.3) [25]. Finally, Bachelors of Science Nursing (B.Sc.) students have reported mean perceived stress scores of 22.73 with over 83% reported moderate stress [26]. There are minimal studies on perceived stress and coping strategies in DPT students during the COVID-19 pandemic. However, in 2019, the first year of the pandemic, Richardson *et al.* [27] reported mild to moderate stress that increased from year one to year three. However, in the aforementioned study, the delivery mode of the DPT curriculum was not de-

scribed. Currently, there are no studies that evaluated students that were enrolled in a hybrid-learning curriculum prior to the pandemic. Therefore, it is possible to assume that these students may not have been impacted compared to others in which the transition to online learning was more drastic.

Overall, stress and coping strategies are not well documented in DPT students compared to other allied healthcare students, specifically in the United States. Generally, health sciences graduate students are aware of the importance of healthy eating, physical activity and other positive coping strategies but have difficulty maintaining these behaviors [9] [28]. It may be beneficial that university administrators and faculty evaluate stress and coping methods of students to provide appropriate resources and preventive methods to potentially avoid the negative impacts of stress. The purpose of this study was to examine the perceived stress and coping strategies of DPT students enrolled in a hybrid-learning curriculum during the COVID-19 pandemic.

2. Objects and Methods

2.1. Objects

After Institutional Review Board (IRB) approval, participants were recruited from a convenience sample of 194 students enrolled in a 4-year hybrid-learning DPT curriculum at the start of the Spring 2021 term. Inclusion criteria: 1) full-time DPT students enrolled in hybrid-learning curriculum terms one through twelve; 2) voluntary participation in the study. The exclusion criteria for the study were students on leave of absence (LOA) from the program.

2.2. Methods

This was a single site, cross-sectional non-experimental study. A self-administrated anonymous electronic survey link through SurveyMonkey (SurveyMonkey Inc., San Mateo, CA, USA) was completed voluntarily. The time for distributing the survey was planned to avoid periods of exam schedules. The survey was open for two weeks. One week after deployment, a reminder email was sent to improve the overall response rate [29].

The survey consisted of socio-demographics, the 10-item Perceived Stress Scale (PSS), and the 28-item Brief COPE. Additionally, a general question regarding stress relating to COVID-19 was presented as a sliding percentage. Socio-demographic data collected included gender, age, current term/year in the program, and the number of hours worked per week in employment.

The Perceived Stress Scale (PSS) is a widely used survey of the student population and measures the degrees to which situations in one's life are appraised as stressful [30]. It is a 10-item questionnaire and a sample item is "How often have you been upset because of something that happened unexpectedly?" A 5-point Likers scale is used with "1" representing "never" and "5" representing "very often." Scores can range from 0 to 40 on this questionnaire and are calculated by adding the score to each question. Higher scores indicate higher perceived stress.

Scores are calculated by reverse coding on questions 4, 5, 7 and 8. Scores between 0 and 13 are considered low stress, 14 - 26 moderate stress and 27 - 40 high stress. The PSS has acceptable psychometric properties and is an easy and widely used tool [31] [32] [33]. A norm score in college students in the United States is 13.1 [34].

The Brief COPE is used to evaluate a broad range of coping behaviors with and without clinical conditions. The questionnaire consists of 28 items and is rated on a 4-point Likert scale with a score of "1" indicating "I have not been doing this at all" and a score of "4" indicating "I have been doing this a lot." A higher score indicates a greater utilization of a specific coping strategy. The items scored create 14 dimensions that reflect the coping strategy. These include active coping, planning, acceptance, denial, self-distraction, use of the substance, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive reframing, humor, religion, and self-blame. The higher score indicates greater coping by the respondents. The Brief COPE is a validated instrument, although no gold standard exists [7] [35]. To conclude, a sliding scale, 0 to 100 percent, with 100 being the maximum, was presented to the participating DPT students to rate their level of stress they perceived due to the COVID-19 pandemic.

2.3. Statistical Analysis

A Kolmogorov-Smirnov analysis was used to test for normality of data and guide analysis. Data analysis included a Spearman correlation between PSS and Brief COPE, while a Kruskal-Wallis test was employed to determine differences between the PSS and Brief COPE regarding age, hours worked per week, and term. An independent t-test was used in the analysis of differences in Brief Cope and PSS and gender. Linear regression was used to evaluate specific coping mechanisms against the student's perceived stress scores. For all the analyses, P values of <0.05 were considered statistically significant. All statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS) version 26.0 software (SPSS Inc., Chicago, IL, USA).

3. Results

3.1. General Conditions

Seventy-three DPT students responded resulting in a response rate of 38%. Participants included 47 females (64%) and 26 males (36%). Hours worked per week were greatest at 29%, while 51% of participants were between the ages of 26 and 30 years old (Table 1).

3.2. Results of PSS and Brief COPE

The overall mean (\pm SD) of the PSS was 22.65 (\pm 10.21) and a 95% CI of 20.27 - 25.04. The mean (\pm SD) of the Brief COPE was 59.18 (\pm 10.61) and 95% CI of 56.70 - 62.65. Females reported higher perceived stress with a mean (\pm SD) PSS score of 22.87 (10.66) and 95% CI of 19.74 - 20.00, while males were slightly

Table 1. Descriptive characteristics of participants (n = 73).

Variable	No. (%)*
Gender	
• Female	47 (64%)
• Male	26 (36%)
Age	
• 20 - 25	15 (21%)
• 26 - 30	37 (51%)
• 31 - 35	12 (16%)
• 36 - 40	6 (8%)
• 41 - 45	2 (3%)
• 46 - 50	1 (1%)
Hours worked per week	
• 0	15 (21%)
• 1 - 10	8 (11%)
• 11 - 20	12 (16%)
• 21 - 30	10 (14%)
• 31 - 40	21 (29%)
• 41 or more	7 (10%)
Term	
• 1	14 (19%)
• 2	6 (8%)
• 4	14 (19%)
• 5	6 (8%)
• 7	4 (5%)
• 8	8 (11%)
• 10	11 (15%)
• 11	10 (14%)

*May not add up to 100% due to rounding.

lower at 22.27 (\pm 9.55) and a 95% CI of 18.41 - 26.12. Brief COPE mean (\pm SD) scores for females were higher at 59.36 (\pm 11.38) and a 95% CI of 56.02 - 67.70, while male scores were 58.85 (\pm 9.25) and a 95% CI of 55.11 - 62.58. No significant difference was noted in comparing PSS ($P = 0.811$) and Brief COPE to gender ($P = 0.844$). Results were not significant for differences in means on the PSS when comparing age ($P = 0.28$), term ($P = 0.58$) and hours worked ($P = 0.61$). Brief COPE differences were non-significant when comparing age ($P =$

0.92), term ($P = 0.48$) and hours worked ($P = 0.65$). Spearman correlation of the PSS to Brief COPE was negative and non-significant, $r = -0.02$ ($P = 0.84$), indicating a weak inverse relationship between perceived stress and coping (Table 2). The highest PSS score was noted in Term 2 at $35.75 (\pm 16.09)$, while the lowest was in Term 5 at $17.50 (\pm 7.93)$. The Brief COPE was highest in Term 1 at $61.21 (\pm 12.79)$, while lowest in Term 5 at $18.33 (\pm 6.77)$ (Table 3).

The most often reported coping mechanisms are presented at the top, active coping, while the least at the bottom, denial. The Brief COPE divides coping mechanisms into adaptive and maladaptive strategies. The highest scoring questions on the Brief COPE were 7, 14, 17, 25 consisting of adaptive coping mechanisms, while the lowest scoring were 2, 3, 6, 11, 16, all consisting of maladaptive coping mechanisms. The adaptive strategies are noted with an asterisk. Utilizing a linear regression, all 16 coping mechanisms were examined against reported PSS scores. Overall findings were non-significant, however, a R^2 of 0.35 does indicate that a third of the variation in the perceived stress score could be accounted for by students utilizing coping mechanisms regardless of other factors (Table 4). The mean self-reported stress due to the COVID-19 pandemic on a sliding scale from 1 to 100 percent which was reported to be 49% (Figure 1).

Table 2. PSS and brief COPE mean/median, SD, 95% CI, r-value and P-values.

Outcome/Analysis	Mean/Median (SD)	95% Confidence Interval	r-value	P-value
PSS	22.65 (10.21)/20	20.27 - 25.04		
• Female	22.87 (10.66)/20	19.74 - 26.00		0.811
• Male	22.26 (9.55)/19	18.41 - 26.12		
• Kruskal-Wallis				
• Age				0.276
• Term				0.479
• Hours Worked				0.608
Brief COPE	59.17 (10.61)/59	56.70 - 61.65		
• Female	59.36 (11.38)/59	56.02 - 62.70		0.844
• Male	58.85 (9.24)/59	55.11 - 62.58		
• Kruskal-Wallis				
• Age				0.918
• Term				0.479
• Hours Worked				0.646
PSS to Brief COPE Spearman Correlation			$r = -0.02$	0.84



Figure 1. Student self-reported perceived stress due to pandemic.

Table 3. PSS and brief COPE by term mean/median and SD.

Term	PSS Mean (SD), Median (IQR)	Brief COPE Mean (SD), Median (IQR)
1	23.75 (11.84)	61.21 (12.79)
	20.50 (21.75)	61.50 (17.25)
2	35.75 (16.09)	31.00 (15.04)
	35.50 (29.75)	26.00 (29.75)
4	19.75 (5.18)	22.35 (9.43)
	18.00 (9.25)	18.5 (9.25)
5	17.50 (7.93)	18.33 (6.77)
	20.00 (14.0)	20.00 (14.00)
7	29.50 (14.93)	29.50 (14.93)
	31.50 (28.50)	31.50 (28.50)
8	23.75 (12.23)	24.12 (11.02)
	18.50 (19.75)	21.00 (19.75)
10	19.75 (11.58)	20.81 (10.52)
	15.00 (18.75)	15.00 (18.75)
11	22.55 (8.69)	21.10 (7.29)
	21.00 (15.75)	20.50 (16.25)

Table 4. Reported coping mechanisms means and SD, beta coefficient and P-value ($R^2 = 0.35$).

Coping Mechanism	Mean (SD)	Beta Coefficient	P-value
Active Coping*	6.38 (0.81)	-0.08	0.41
Planning*	6.19 (0.93)	0.02	0.23
Positive Reframing*	6.03 (0.88)	-0.14	0.43
Acceptance*	5.78 (0.97)	0.10	0.77
Use of Emotional Support*	5.55 (1.04)	0.10	0.24
Self-Distraction	5.32 (0.95)	0.02	0.90
Use of Instrumental Support*	5.05 (0.96)	-0.02	0.24
Self-Blame	4.67 (1.01)	0.10	0.66
Venting	4.41 (0.97)	0.07	0.72
Humor*	4.02 (1.02)	-0.01	0.99
Religion*	3.84 (1.10)	0.01	0.46
Substance Abuse	2.70 (0.59)	-0.02	0.12
Behavioral Disengagement	2.62 (0.61)	-0.11	0.60
Denial	2.38 (0.50)	-0.01	0.05

*Adaptive coping strategies.

4. Discussion

4.1. Perceived Stress

The results of this study revealed DPT students enrolled in a hybrid-learning curriculum during the COVID-19 pandemic reported elevated levels of perceived stress and adaptive coping strategies. The mean PSS score (\pm SD) was 22.65 (10.21) which is less than pharmacy and medical students' scores which have ranged from 25.64 to 51.3 [5] [10]. However, a study by Garber [6] noted that the mean perceived stress in pharmacy students was lower at 18.2. Specifically referring to the physical therapy students, pre-pandemic research has reported a mean score of perceived stress between 13.5 to 19.0 with the latter being reported while students were on clinical experiences [20] [36]. The lowest mean score of 13.5 was reported in physical therapy students while in the didactic portion of the curriculum and was measured across three programs and three countries [20]. However, the current study's scores are consistent with other perceived stress scores reported during the COVID-19 pandemic ranging from 16.5 to 22.73 [24] [25] [26]. Despite the prior studies not involving DPT students for comparison, it is not surprising that despite the current study's participants being enrolled in a hybrid-learning curriculum originally, the perceived stress during the pandemic was generally higher and potentially due to other factors rather than purely a change in educational delivery.

Generally, physical therapy students have reported that academic and personal factors have been noted as significant influences on levels of perceived stress [20]. More specifically, physical therapy students may experience high levels of stress due to the pressures of educational demands for success, changes in the environment for clinical work, personal concerns, lack of spare time and increased work and financial burdens [37]. A qualitative study reported that increased stress, anxiety and depression in DPT students may be attributed to academics, access to resources, finding a trusted confidant and transition from undergraduate to graduate school and fear of failure [38]. In a more recent qualitative study completed during the pandemic, physical therapy students described sources of stress were related to academics, uncertainty, personal and financial situations. Interestingly, the student's reported stress with the transition to an online learning environment was related to workload, engagement, and decreased hands-on practice of skills [39]. Although these particular factors were not explored in this study directly, students reported that 49% of stress was related to COVID-19. Direct cause and effect cannot be determined, but the pandemic may have been a factor. Furthermore, the DPT students in this study were enrolled in a hybrid-learning curricular format prior to the pandemic and the transition may not have been as extreme compared to students enrolled in face-to-face curricular formats. This characteristic of the participants may explain why the PSS scores were not as high as pharmacy or medical students reported in the literature.

4.2. Coping and Strategies

The overall mean Brief COPE score (\pm SD) in this study was 59.17 (10.61) which is lower than that reported of B.Sc. students during the COVID-19 pandemic of 74.38 (\pm 12.30) [26]. Similar to the pharmacy and medical students, DPT students enrolled in a hybrid-learning curriculum demonstrated more adaptive than maladaptive coping skills with better scores in all dimensions except religion, behavioral disengagement, humor, denial and substance abuse [6] [11]. Like pharmacy students, denial was the least utilized maladaptive coping mechanism utilized by DPT students in this study with mean and SD of 2.5 (\pm 1.30) and 2.38 (\pm 0.50) respectively. Whereas alcohol was least utilized in medical students with a mean and SD of 2.50 (\pm 1.06) [6] [11]. The maladaptive coping strategy of substance abuse, such as prescribed medication or alcohol, were also similarly low in pharmacy and DPT students in this study with means of 2.38 (\pm 0.59) and 2.4 (\pm 1.2) [6] [11]. Active coping was reported highest with a mean score of 6.38 (\pm 0.81) which is similar to pharmacy students with a mean score of 5.9 (\pm 1.5) [6]. Contrastingly, medical students reported positive reframing as the highest adaptive coping strategy with a mean and SD of 5.85 (\pm 1.49) [11].

The current study resulted in over one-third of the variation in perceived stress to be accounted for in DPT students by utilizing coping mechanisms. The results are similar to findings in pharmacy students [6]. However, no specific coping mechanism was significantly associated with increasing or decreasing perceived stress in DPT students. This is in contrast to Garber *et al.* [6] who noted that particular coping skill, exercise, was a significant factor for pharmacy students in lowering their perceived stress scores. Approximately 75% of pharmacy students reported the use of exercise as a coping strategy. Specifically, the pharmacy students reported that activities such as biking, working out and running were effective ways to decrease stress. Exercise is a form of active coping which was highest for pharmacy students, but also for DPT students in this study. This finding would align with a study by Ellison *et al.* [9] which reported that DPT students generally report good physical health behaviors including eating, sleeping and exercise. Yet, the authors did report that DPT students fall below the recommendation, particularly, for exercise. Additionally, it is unclear of how the pandemic may have impacted the student's use of active coping strategies. A longitudinal study that explores coping strategies would better assist in providing data on this specific facet.

4.3. PSS and Coping Comparing Term and Gender

The first and second term students in this study reported higher mean PSS scores at 23.75 (\pm 11.84) and 35.75 (\pm 16.09) respectively. Higher first term perceived stress would be consistent with the findings by Bogardus *et al.* [38] in which the authors noted that first term students had higher perceived stress and were more vulnerable compared to students in other terms in the curriculum. In contrast, Richardson *et al.* [27] noted mean PSS scores greater in year three

(16.0) compared to year one (13.5) and were lower than the results of the current study. As noted previously, the type of curricular delivery was not noted in the study. Further, higher scores in this study may be due to slight changes in their learning environment despite being already enrolled in a hybrid-learning program. However, DPT students during the pandemic have reported academics, uncertainty, personal and financial situations as sources of stress [39]. Many of these factors were not directly explored in this study.

Interestingly, coping strategy scores were higher in the first term at 61.21 (\pm 12.79) compared to all other terms. This result may be explained by students not having to yet experience some common stressors reported by physical therapy students such as the educational demands, lack of spare time or increased work or financial burdens [38]. Finally, course credits are lower in term one (year 1) versus term five (year 2) which may have resulted in better coping scores in this study. Courses in term one (year 1) are introductory in nature compared to term five (year 2), therefore a longitudinal study to examine the changes in both perceived stress and coping would provide more robust data.

Current research is conflicting research if gender plays a role in perceived stress and coping strategies [10] [13] [20] [21] [22] [23] [24] [26] [31]. The results of this study revealed no significant difference in PSS or Brief COPE scores between males and females. However, females were higher in both scores compared to males. These results are consistent with prior research as perceived stress has been shown to be higher in females [21] [22] [23] [31]. However, more recently during the COVID-19 pandemic, Sheroun *et al.* [26] noted higher perceived stress in male Bachelor of Science nursing students. Although females had higher Brief Cope scores, Biro *et al.* [22] noted that physiotherapy students, particularly females, are impacted by a lack of social support which could increase perceived stress. Further, the social support declined as the students progressed through the curriculum [22]. The overall conflicting results regarding differences in perceived stress and coping strategies may be explained by the broad amount of healthcare professionals explored, level of education and geographical location.

4.4. Limitations and Future Research

Additional studies with larger samples sizes from various programs, delivery formats and geographical locations would improve the generalizability of the findings since these findings may be unique to the institution's curricular design and delivery. Further, a longitudinal study design could explore changes in perceived stress, coping strategies, and sociodemographic factors to be explored throughout the curriculum. This type of study design would allow a more targeted approach for institutions to decrease stress and assist in improving coping strategies throughout the curriculum. Further, targeted stress management interventions could be provided to students based on the institution's original findings allowing an evaluation of which approach is most effective based on gender, term or other sociodemographic characteristics. Generally, comparisons

in research are limited by the fact that various outcome measures are utilized to measure stress and coping. If a uniform measure for stress and coping in DPT students were developed, direct outcome comparisons would be optimal in guiding institutions. Finally, qualitative studies to explore the lived experience of DPT students relating to stress and coping could add to the richness of data in guiding institutions.

5. Conclusions

Stress and coping of students enrolled in a hybrid-learning curriculum have yet to be investigated, not to mention during a pandemic. DPT students enrolled in a hybrid-learning curriculum reported elevated levels of stress and more adaptive versus maladaptive coping strategies. Although there were no significant differences in gender and sociodemographic factors, females did present with higher perceived stress.

In DPT education, it is essential that administrators and faculty evaluate the stress and coping strategies of students to promote solutions and preventive methods to avoid its negative impacts on students. With half of the students stating current stress levels are due to the COVID-19 pandemic, institutions must continue to explore resources to assist students but also initiate targeted interventions for specific coping mechanisms. To assist in a more targeted approach, further research is needed by individual institutions. Research by individual institutions is needed to not only explore levels of stress and what activities students are utilizing as coping strategies but can provide the specifics needed for each institution's curriculum and delivery format which can vary.

Conflicts of Interest

The author declares no conflict of interest regarding the publication of this paper.

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