Academic Achievement in Foundational Anatomy Course Differs According to DPT Students' Learning and Study Strategies

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Background and Objective

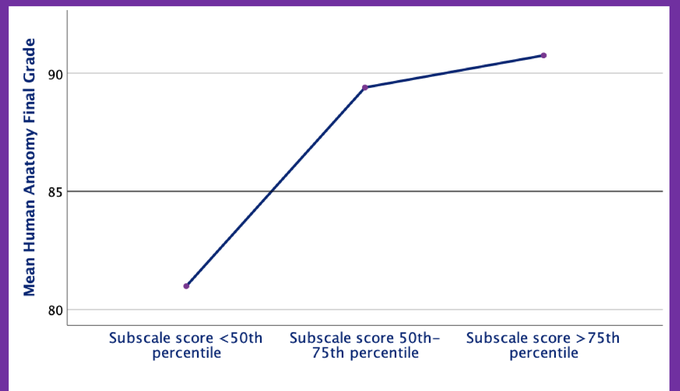
Self-reported awareness and use of learning and study strategies correlate with the academic achievement of health care students.[1-3] Studies reported that healthcare students with lower self-reported levels of specific learning and study strategies experience lower academic achievement.[4-5] Research has shown that Doctor of Physical Therapy (DPT) students possess a wide-range of learning and study strategies upon program entry; however, it is unknown how academic achievement of DPT students differs according to their self-reported awareness and application of specific learning and study strategies.[6-7]

The objective of this study is to investigate the differences in final grade achieved in a foundational anatomy course amongst DPT students grouped according to percentile scores on the ten subscales of the Learning and Study Strategies Inventory (LASSI).

Methods

- This study received exempt status from the Institutional Review Board at the University of Mary Hardin-Baylor.
- **Study Design**: retrospective, quantitative design
- **Participants**: non-random, sample of convenience of thirty-eight students from one cohort of an entry-level DPT program.
- **Data Collection**: The LASSI was completed at the beginning of the first, professional semester, and final grades in a foundational anatomy course were collected at the end of the first, professional semester.
- **Data Analysis**:
  - LASSI percentile scores were categorized into three groups on each of the ten subscales: score <50th percentile, score between 50th-75th percentiles, and score >75th percentile.
  - One-way ANOVAs and independent-samples t-tests were performed to investigate differences in final grades amongst the percentile groups

DPT students with lower coping strategies for anxiety achieved a mean final grade at least 8 points lower than peers in foundational anatomy course.



Mean Human Anatomy Final Grade by LASSI ANX Subscale Groups

Results

Significant differences existed in the mean final grade achieved in the foundational anatomy course for DPT students grouped with a subscale score <50th percentile when compared to students grouped with higher percentile scores on the Anxiety (ANX), Selecting Main Ideas (SMI), Self-Testing (SFT), Test Strategies (TST), and Time Management (TMT) subscales of the LASSI.

Differences in Mean Final Grade in Anatomy Course by Subscale Group

LASSI Subscale	Subscale score <50th percentile	Subscale score 50-75th percentile	Subscale score >75th percentile	p-value
Anxiety (ANX)	81	89	91	.002
Selecting Main Ideas(SMI)	82	—	88	.026
Self-Testing (SFT)	82	91	85	.045
Test Strategies (TST)	81	87	89	.039
Time Management (TMT)	83	84	89	.042

Conclusion

- Students who scored <50th percentile on the Anxiety (ANX), Selecting Main Ideas (SMI), Self-Testing (SFT), Test Strategies (TST), and Time Management (TMT) subscales of the LASSI received lower final course grades than their peers with higher percentile scores.
- The Learning and Study Strategies Inventory (LASSI) can help DPT educators identify students who may struggle academically in a foundational anatomy course and facilitate targeted remedial actions to improve academic achievement.

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Acknowledgments

- Funding for this research project was provided by the University of Mary Hardin-Baylor Faculty Development Grant.
- This work was supported in whole or in part by a grant from the Texas Higher Education Coordination Board (THECB). The opinions and conclusions expressed in this document are those of the author(s) and do not necessarily represent the opinions or policy of the THECB.

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