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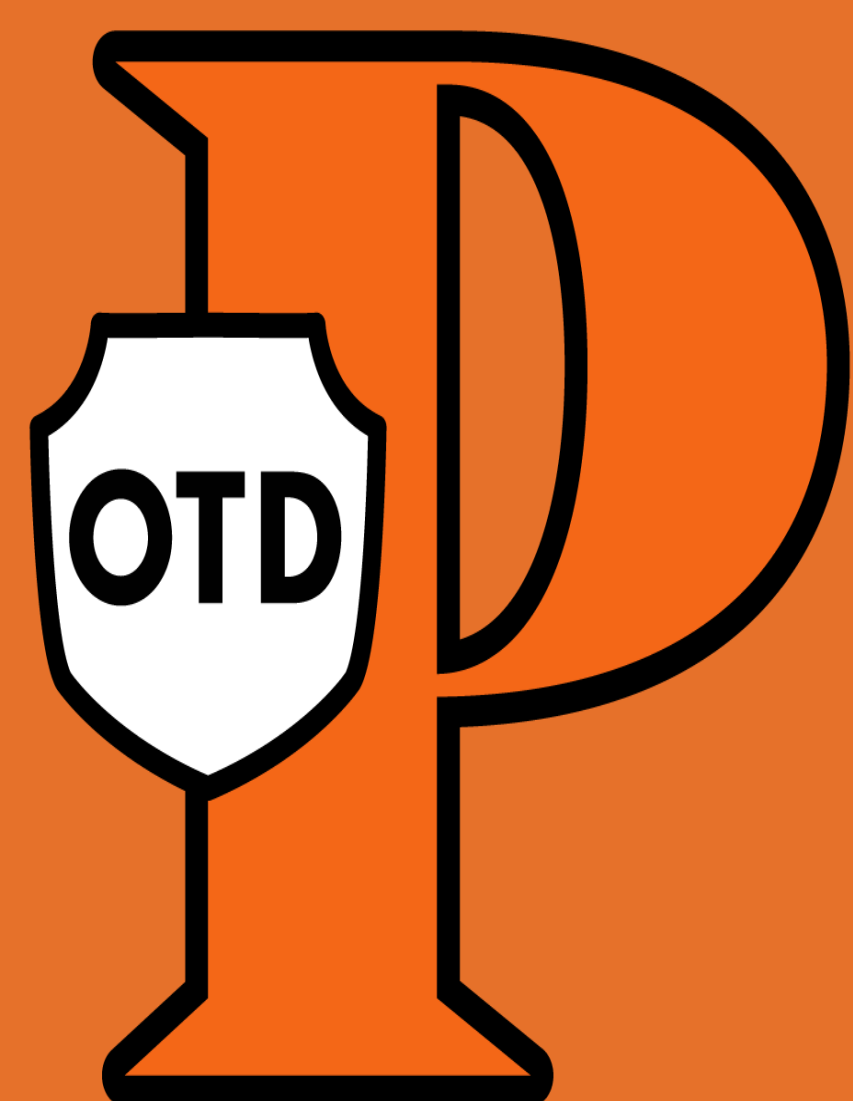
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Exploring Strategies to Improving Awareness for Preventing Musculoskeletal Disorders Within Dental Students

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Site Mentor(s): Dr. Noelle Santucci, DDS; Dr. Justin Jellin, DPT
UOP Mentor: Dr. Kristy Uddin, OTD, OTR/L, CHT, CPRCS



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Background

- Dugoni School of Dentistry at the University of the Pacific.
- There is roughly 150 students in the cohort each year.
- First-year students were introduced to the simulation clinic.
- Ergonomics trainings were provided.
- Increase rates of musculoskeletal disorders (MSDs) occurring within dental students.

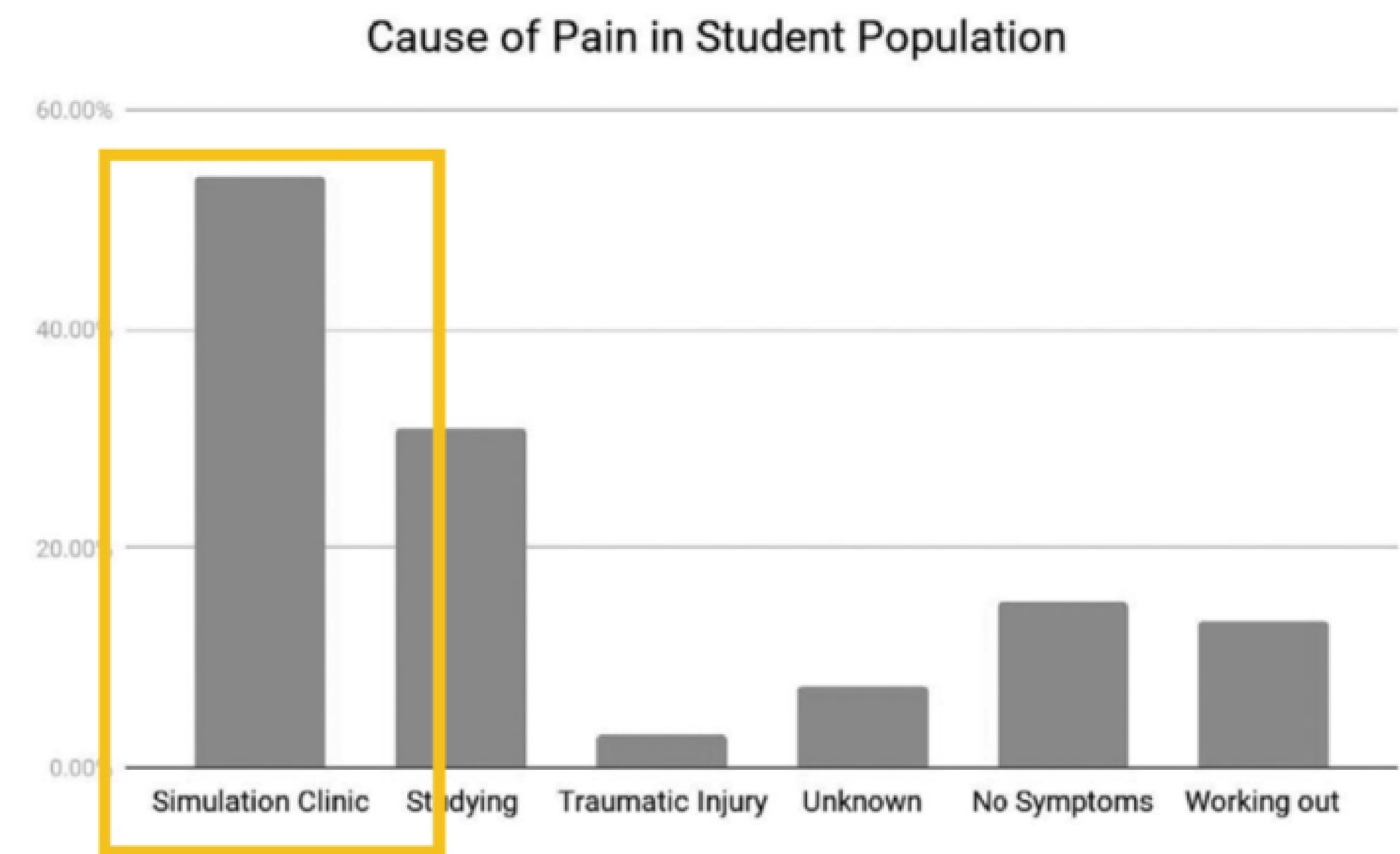
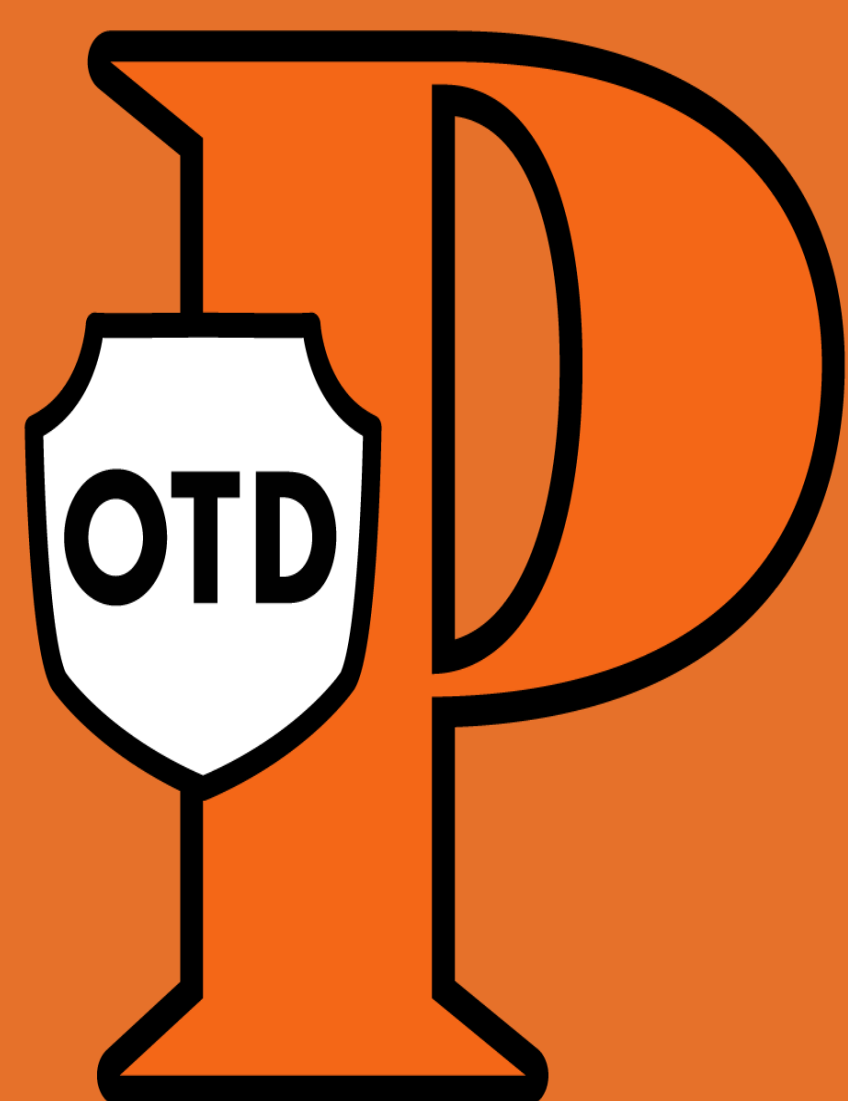


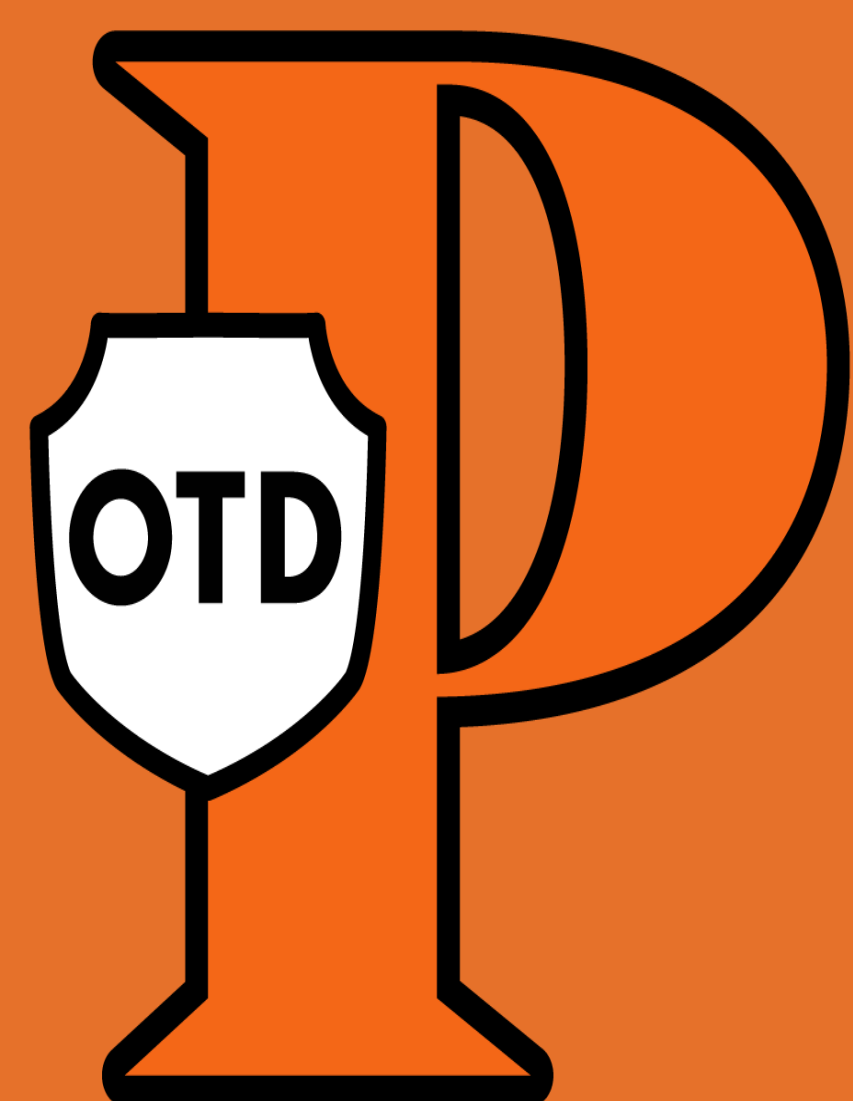
FIGURE 2 Cause of pain in student population

(Lara, 2023)
(Santucci et al., 2021)

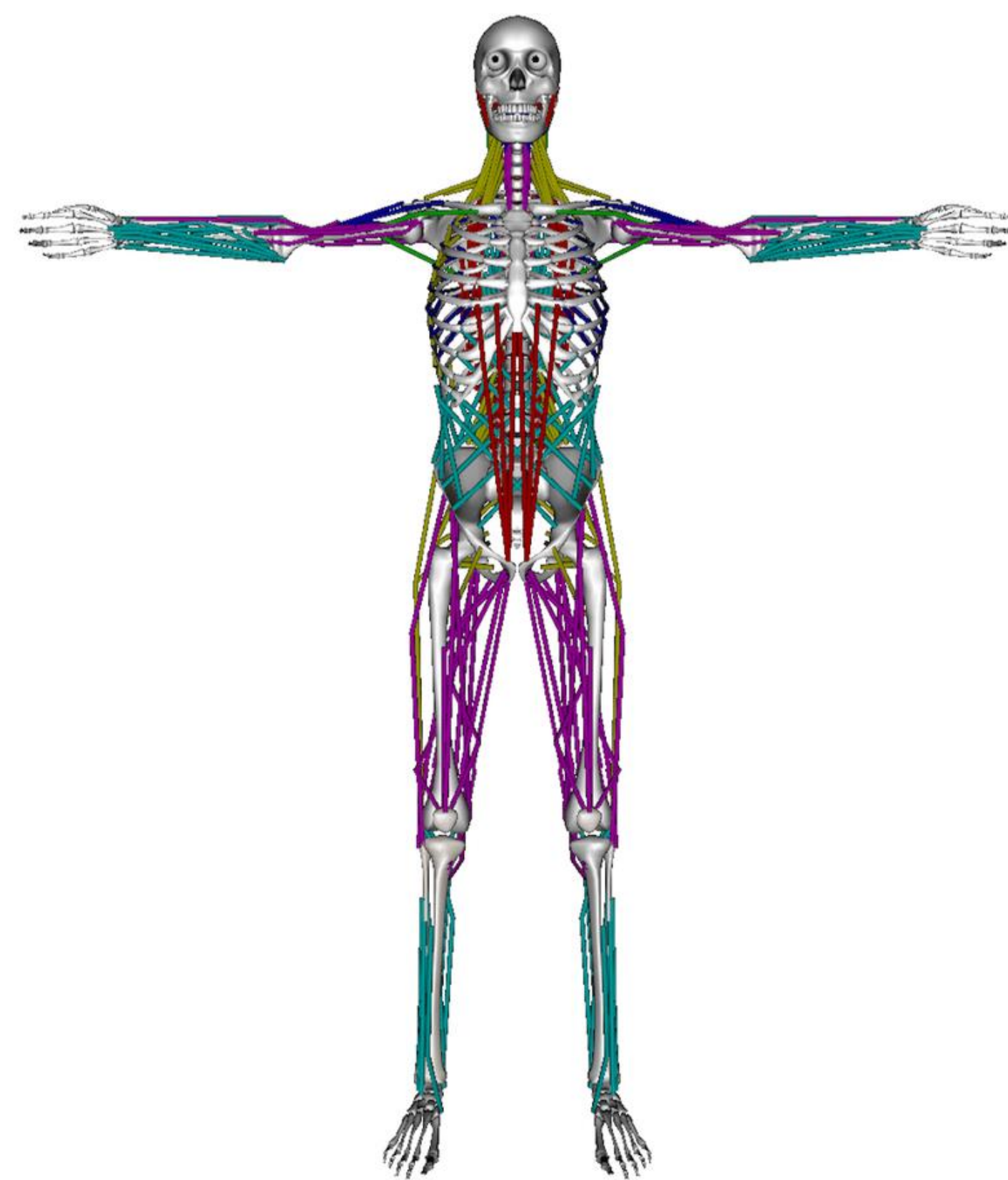


Program Purpose

- To provide multi-modal approaches to increase dental students' self-awareness and improving overall well-being to decrease occurrences of musculoskeletal symptoms.
- Establish the role of occupational therapy in interprofessional collaboration with dental program in providing comprehensive and holistic strategies aimed to minimize the occurrences of MSDs among dental students at the Dugoni School of Dentistry.
- To enhance understanding of students' self-perception regarding their preparedness for graduate studies and explore potential biopsychosocial impact associated with their perception.

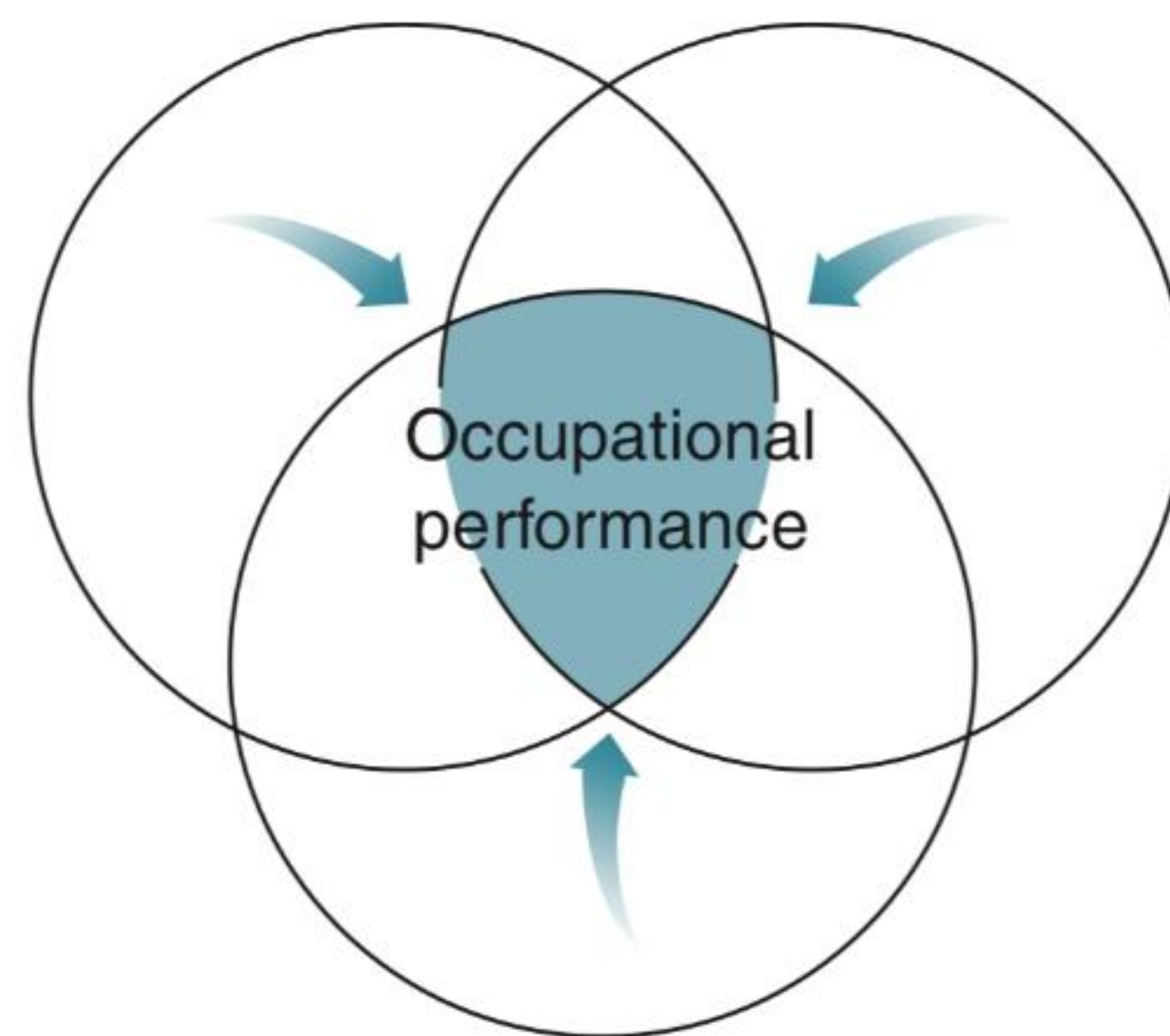


Guiding Theories



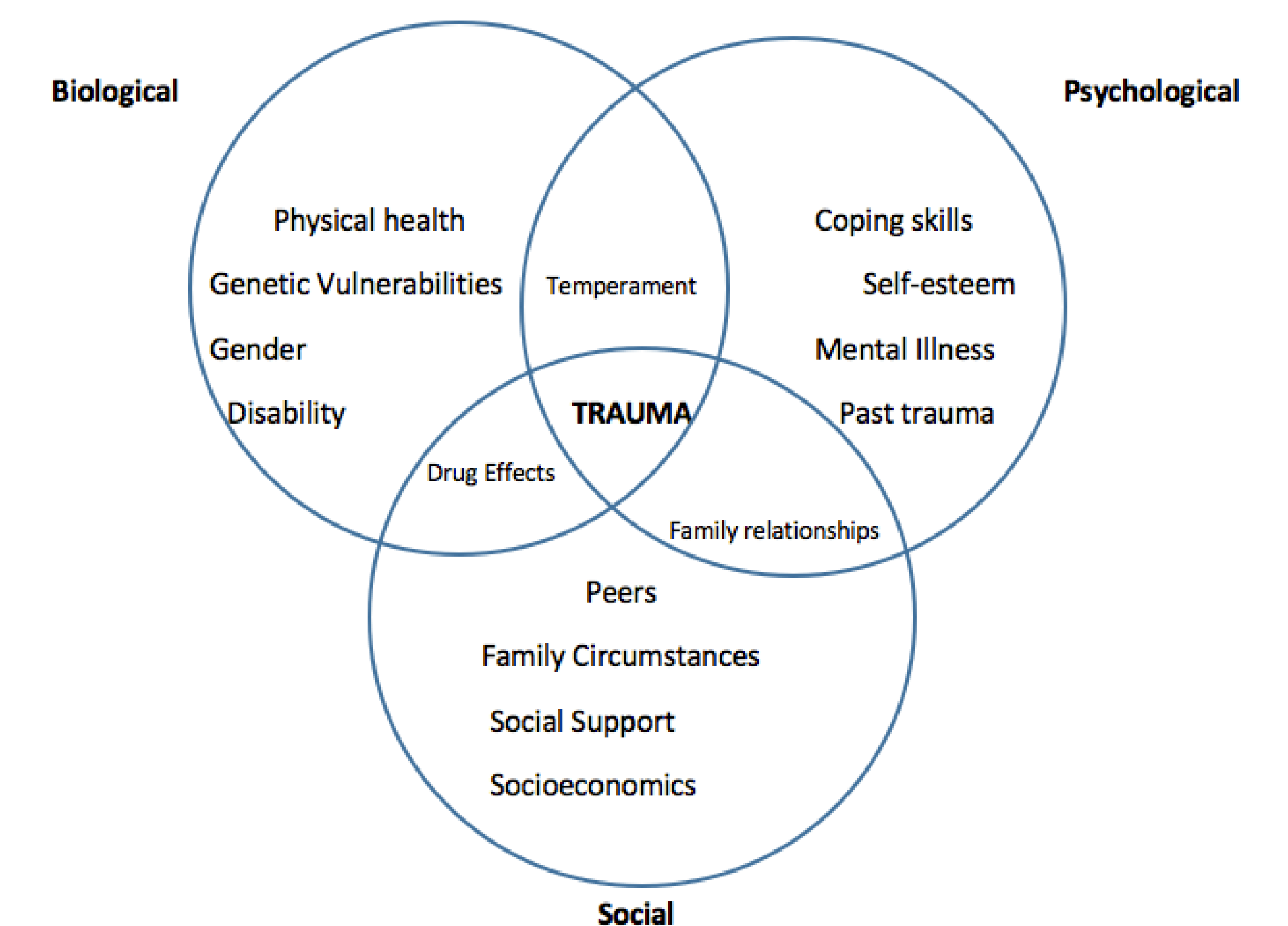
Biomechanical Model

(Law et al., 1996)



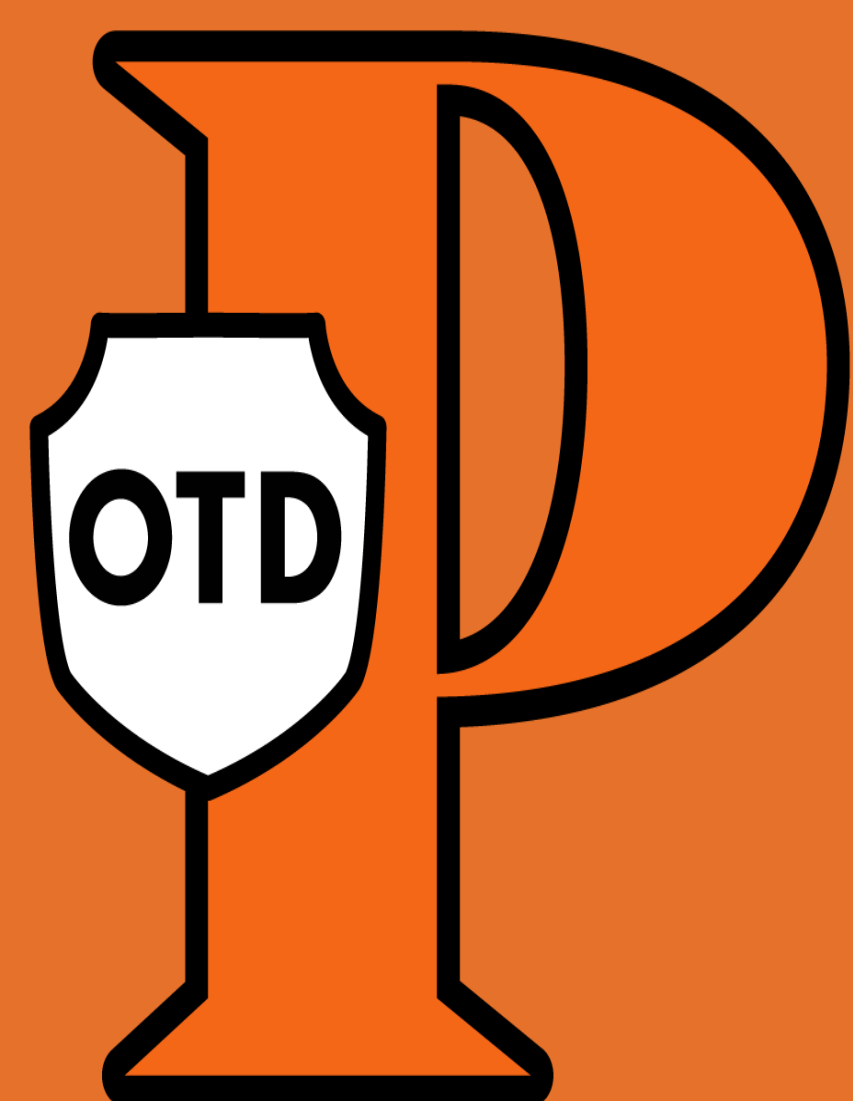
PEO

(Law et al., 1996)



Biopsychosocial Model

(Gentry et al., 2018)
(Lehman et al., 2017)



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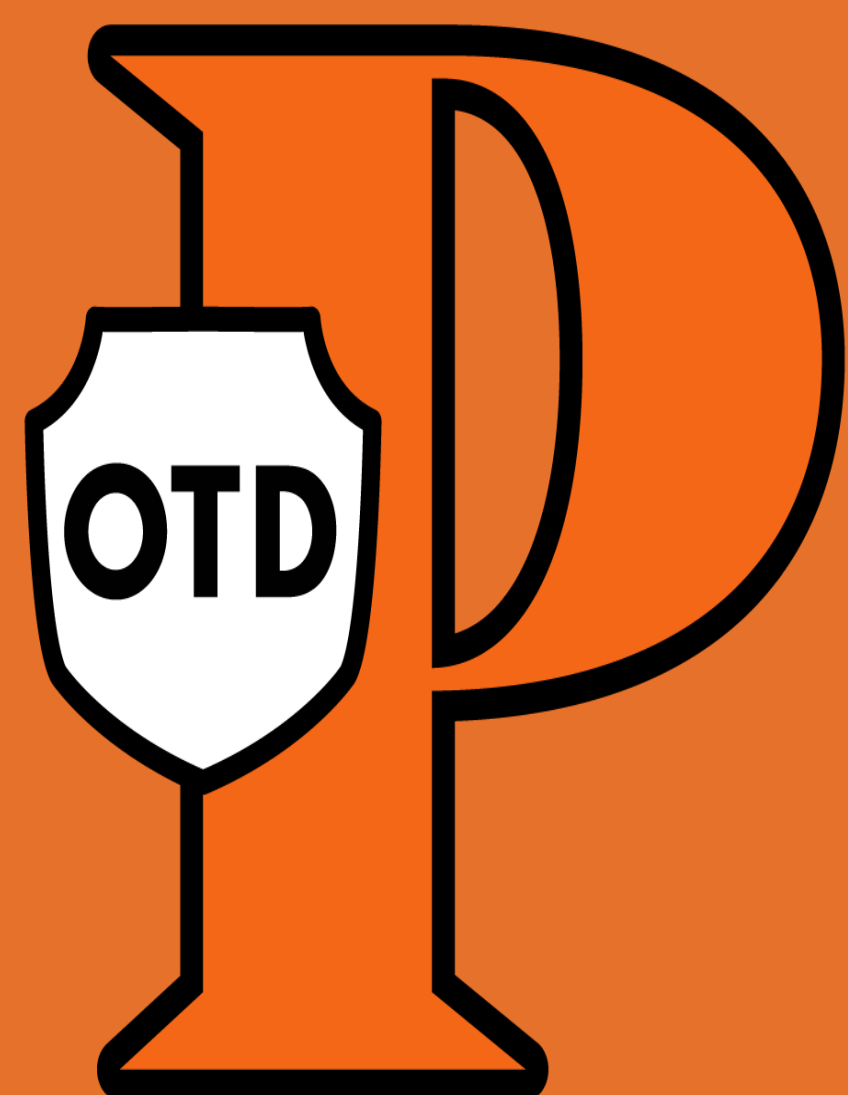
Literature Review

Several key themes identified:

- Pain associated with psychosocial factors such as stress, poor sleep quality among dental students may also negatively affect self-awareness.
- Increasing self-awareness and routine preventative exercises imperative to minimize occurrences of MSDs.



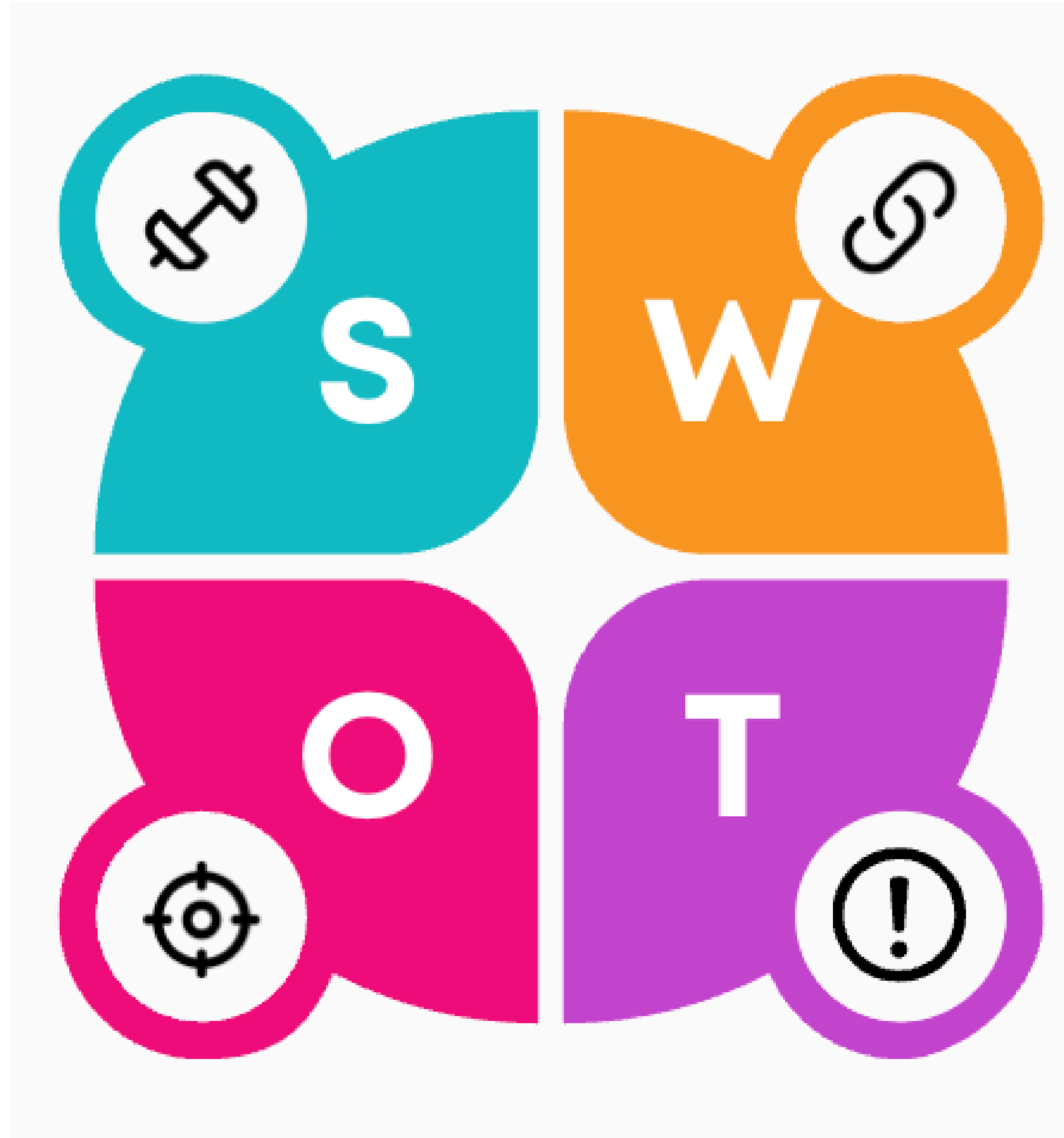
(Hashim et al., 2021)
(Kumar et al., 2014)



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Needs Assessment



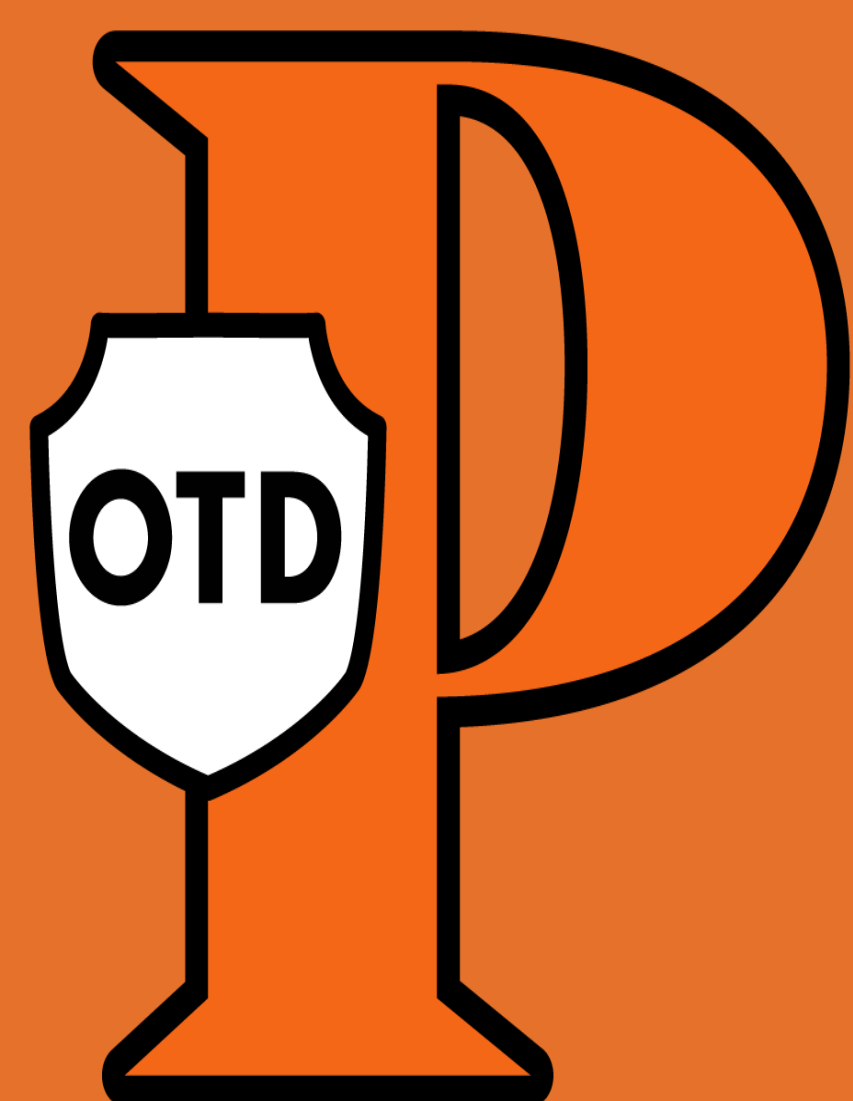
SWOT Analysis

S: Resources are readily available for all students. Each student has their own instruments, chairs, clinical simulations, mannequins, etc. Guidance from instructors.

W: Workstations are standardized in height.

O: OT can be involved in areas improving self-awareness and self-care.

T: Neglecting or forgetting safety protocols and ergonomics when participating in clinical simulations.



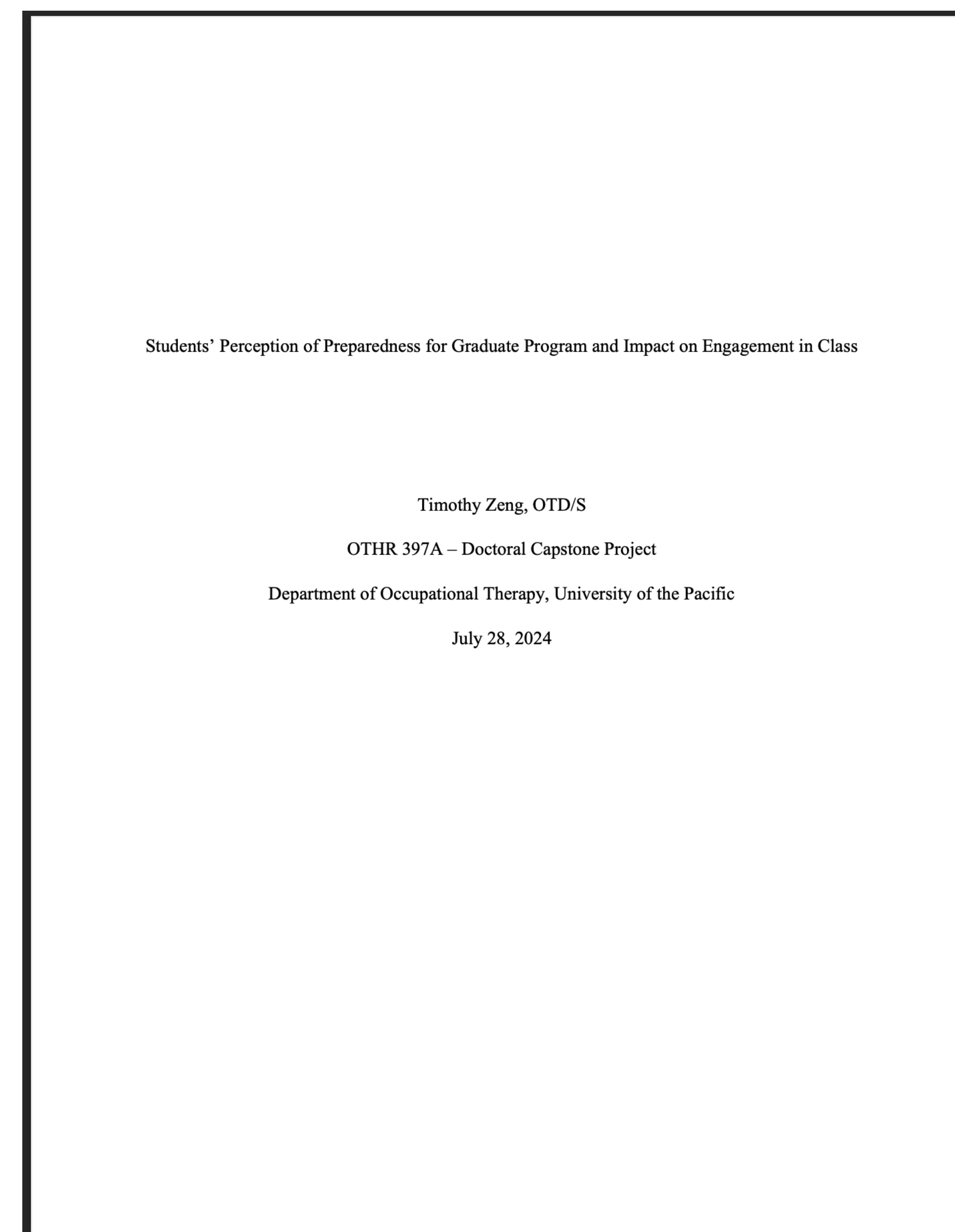
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Outcomes



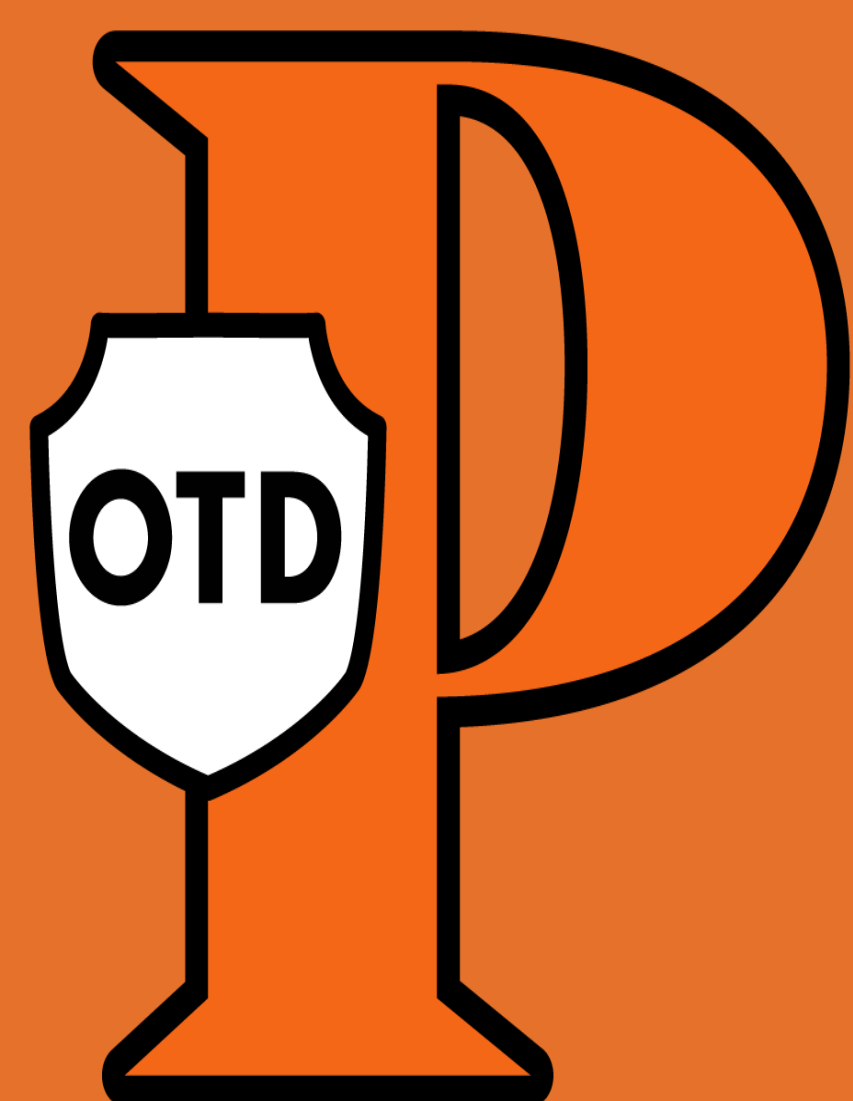
Index Manual

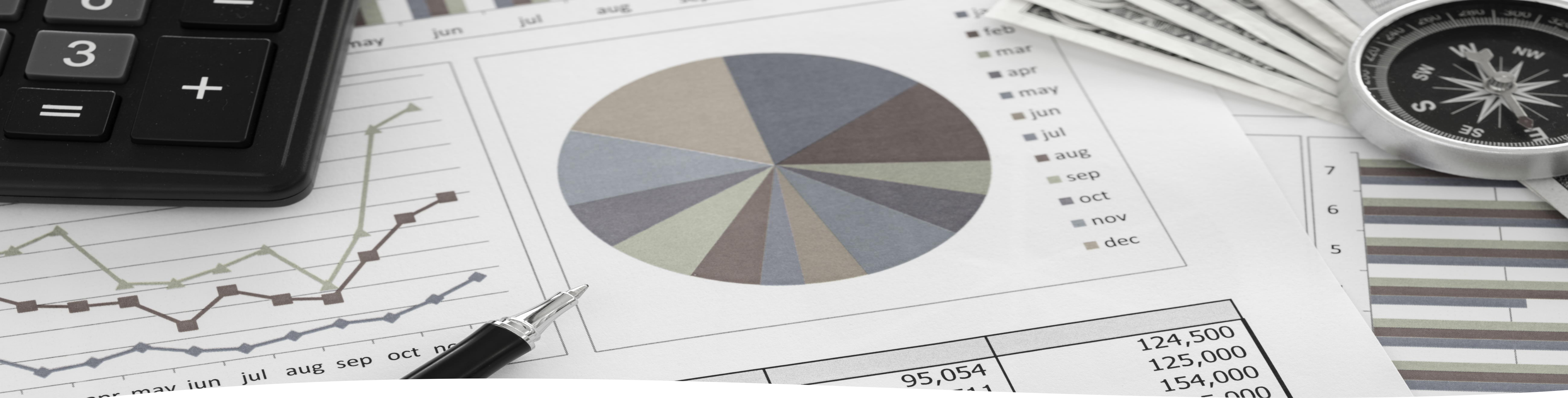


Qualitative Analysis



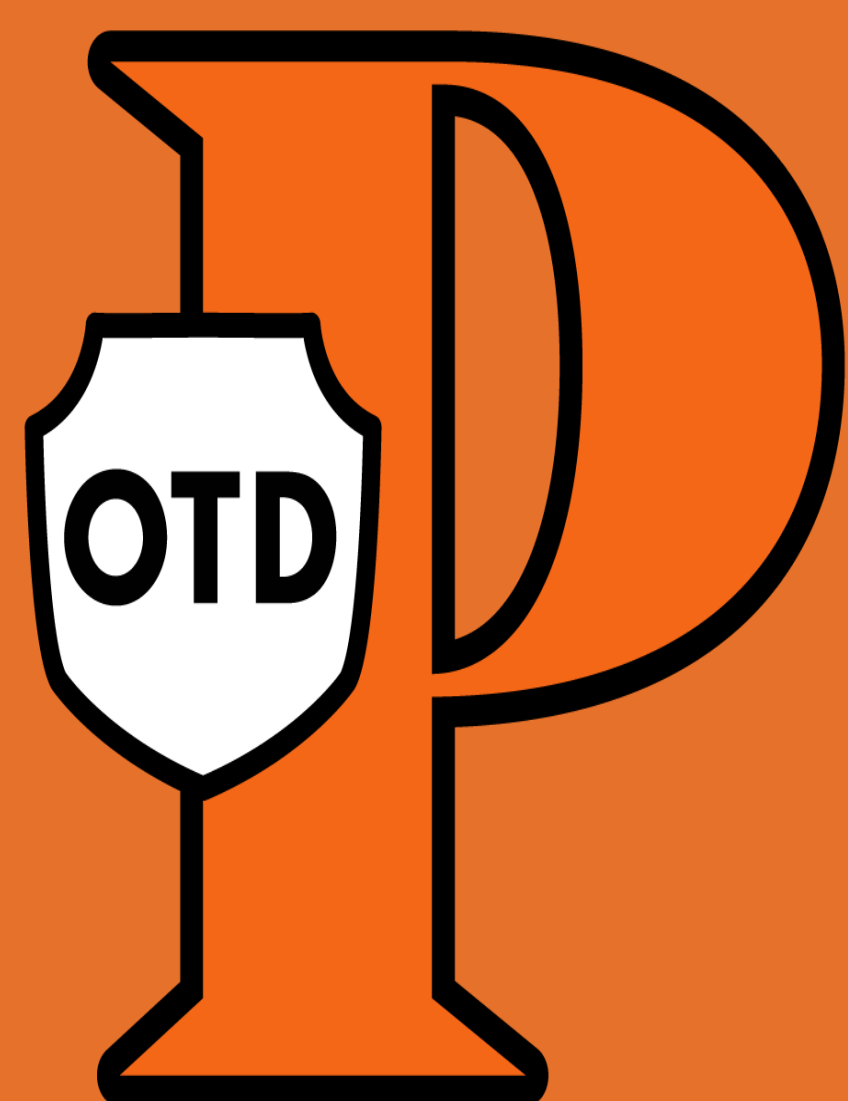
Inservice Presentation:
Sleep Hygiene





Discussion

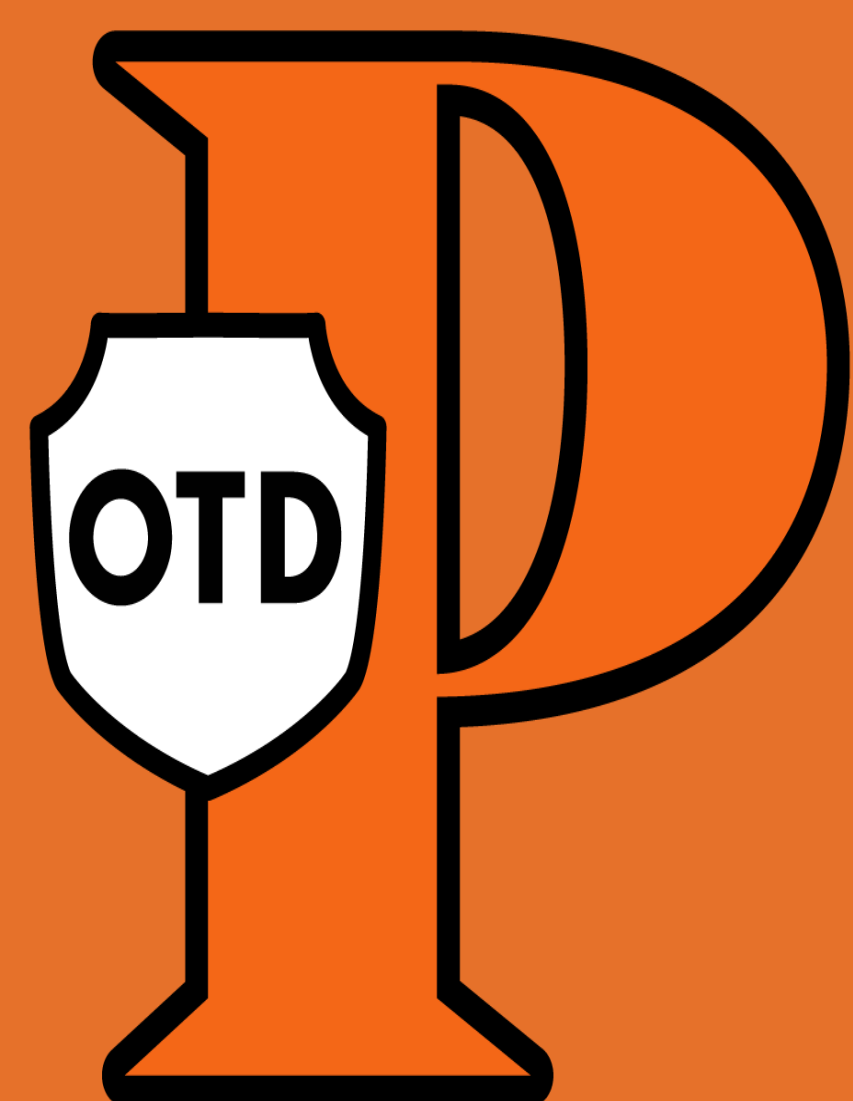
- Many research within the last 10 years indicating the increasing prevalence of musculoskeletal disorders among dental students.
- Self-awareness training may prove helpful for students to identify possible underlying causes for symptoms.
 - Observations show that students forget or neglect using proper foundational ergonomics during simulations.
- There are still many questions to be answered on how to best mitigate musculoskeletal symptoms from occurring in dental students.
 - How to generalize the findings, but also be mindful of specific individuality.



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Impact

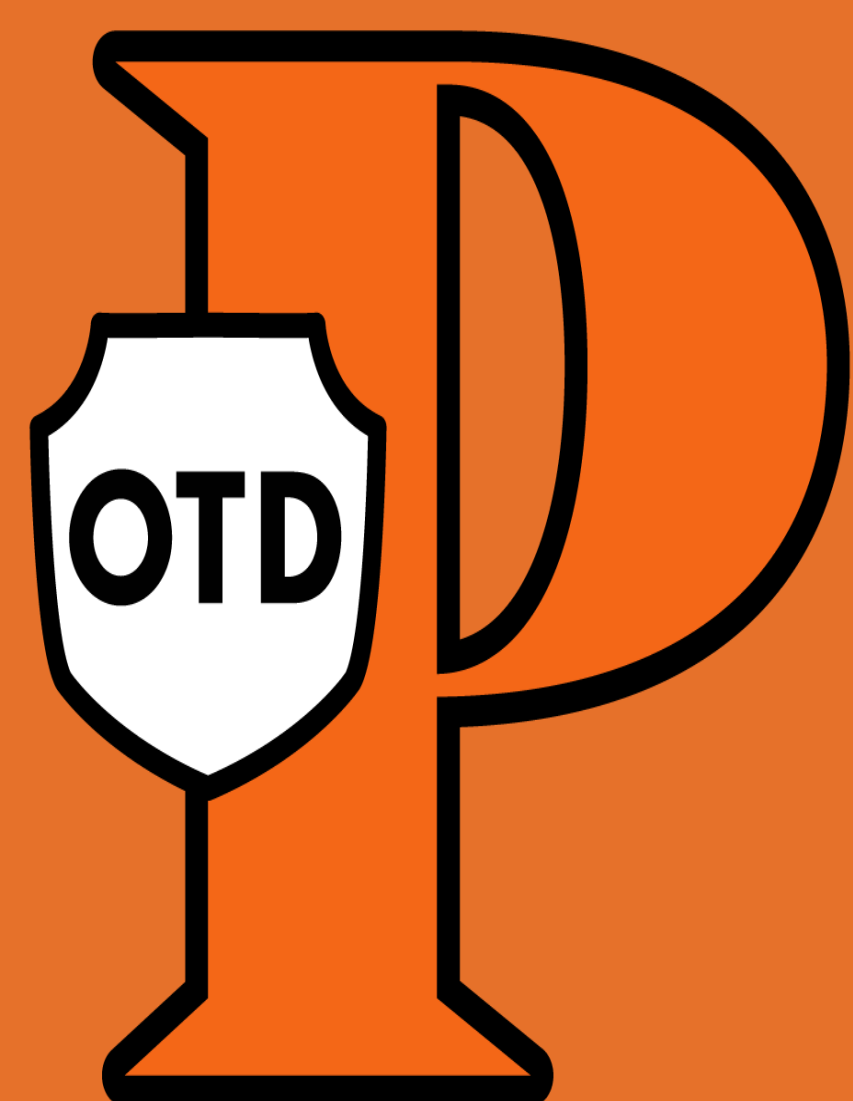
- Decrease occurrences of musculoskeletal symptoms upon use of the index for the students at the Dugoni School of Dentistry.
- Increase self-awareness in students through occupational therapy scope of practice and improve overall well-being, thus decreasing musculoskeletal pain.
- Resource and deliverables (Index, and in-service PowerPoint presentation to be included in the dental student's Canvas module to access whenever needed).



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Future Implications

- A great opportunity and potential for occupational therapy to be a part of the interprofessional team with the dental profession.
 - Holistic student support grounded in the biopsychosocial model to address not only the physical health in students, but also their psychosocial well-being (stress management, social support, work-life balance, etc.).
 - Potential participation in the development of a curriculum for early interventions
 - Evidence-based research initiatives between dental, physical therapy, and occupational therapy for interventions that is tailored to the unique needs for dental practice.
 - Overall improving interprofessional collaboration (students can better understand what each profession can offer. Improving interprofessional event (IPE) experiences).



Acknowledgements

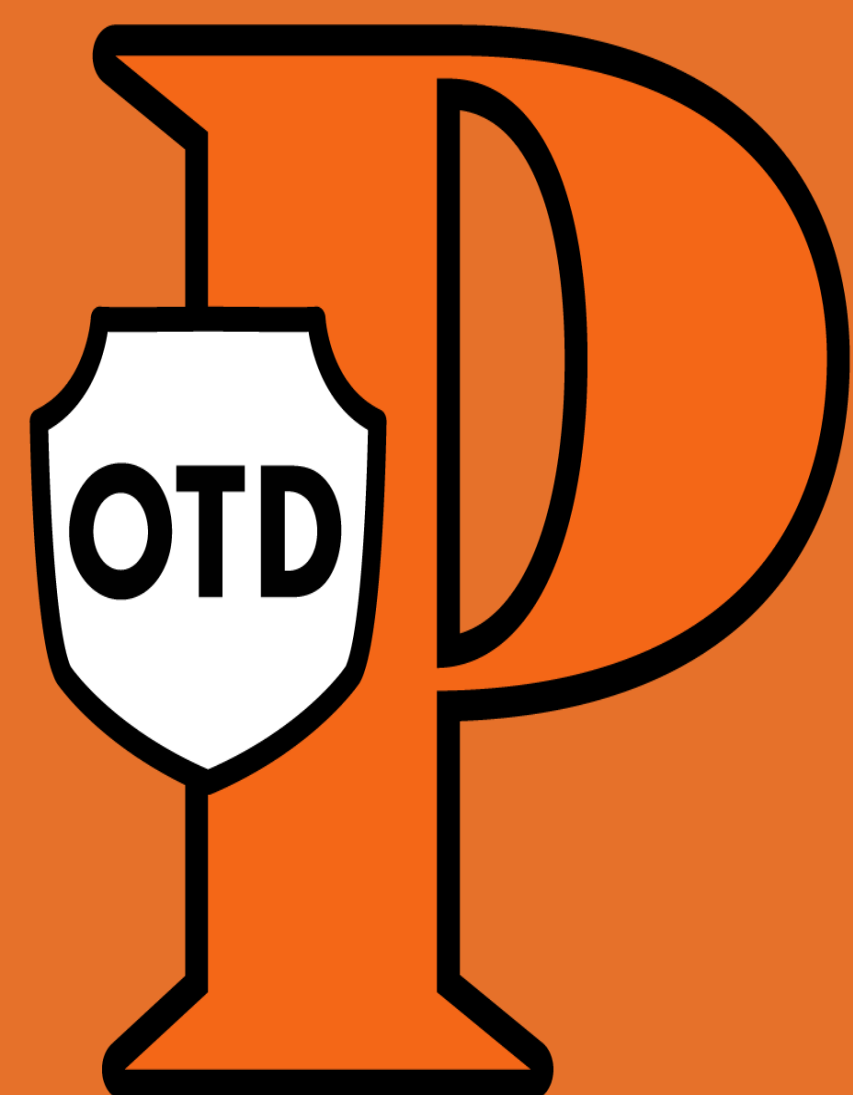
Capstone Site Mentors: Dr. Noelle Santucci and Dr. Justin Jellin

UOP Mentor: Dr. Kristy Uddin

Capstone Coordinator: Professor Noelle Haight

UOP OTD Faculty

2024 OTD Cohort, Family and Friends

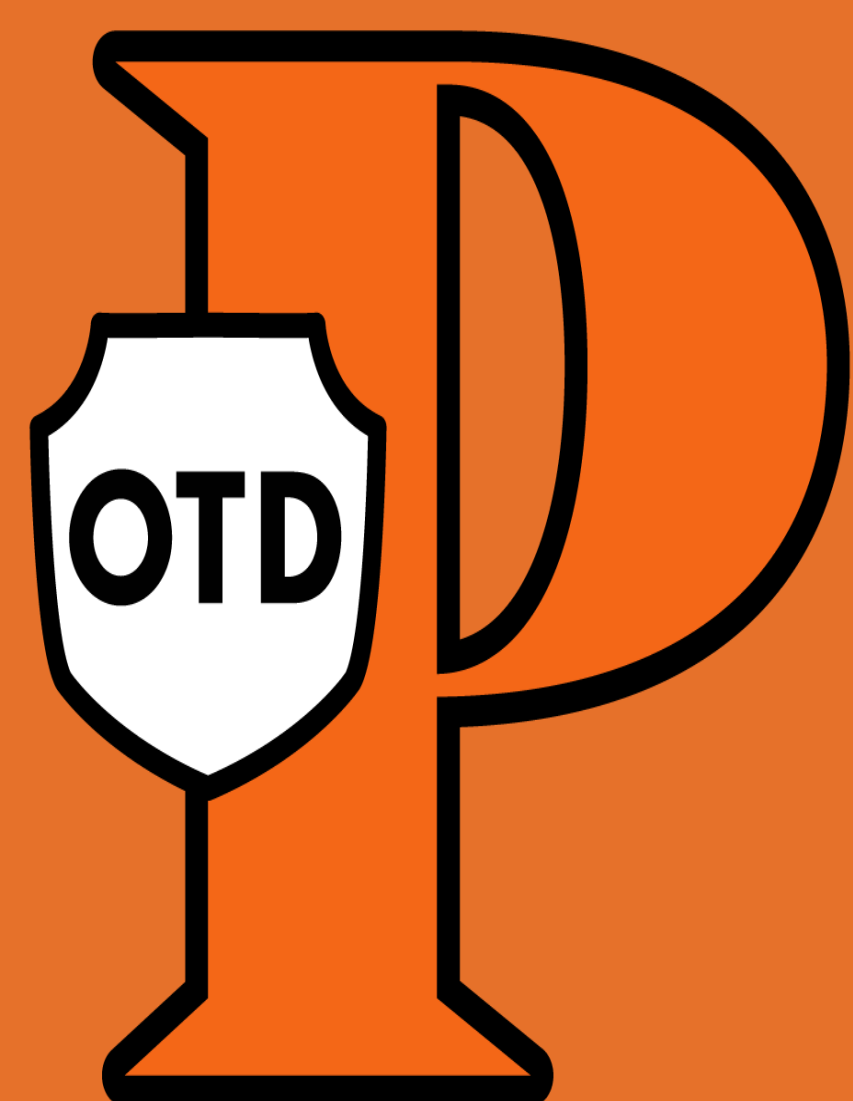


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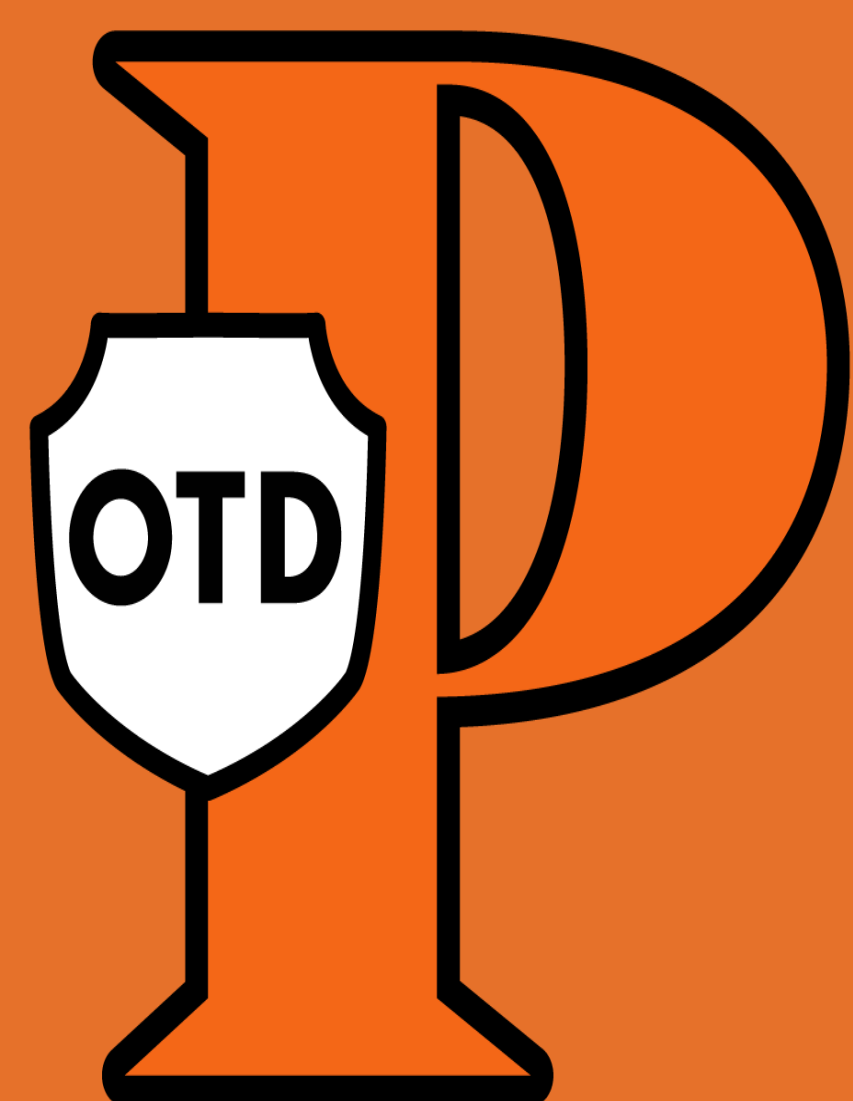
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