



Comparison of Alexithymia and Empathy Levels Between Medical Students and Engineering Students

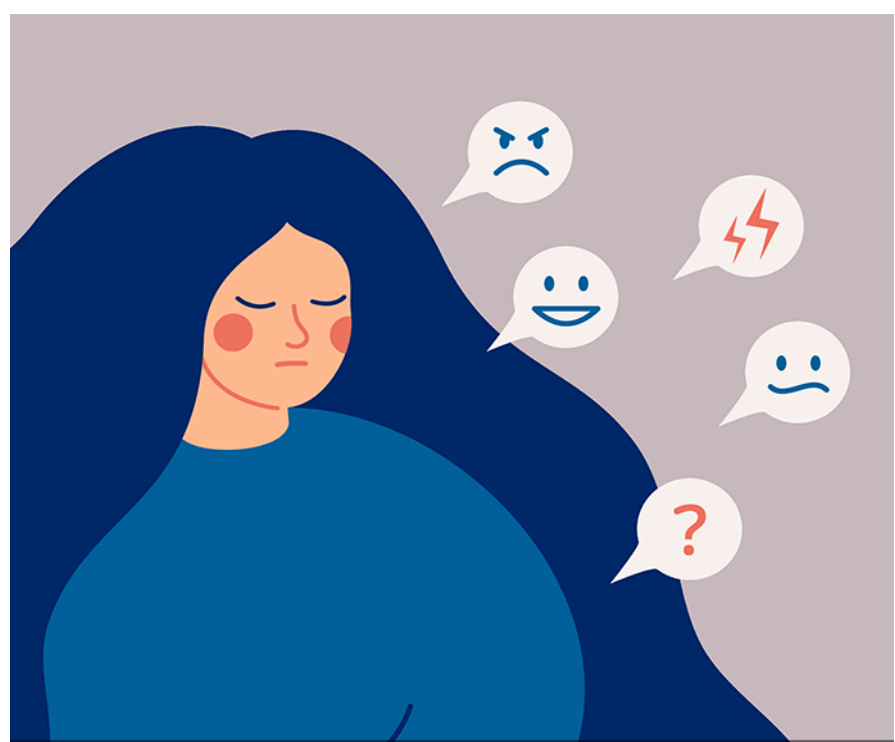
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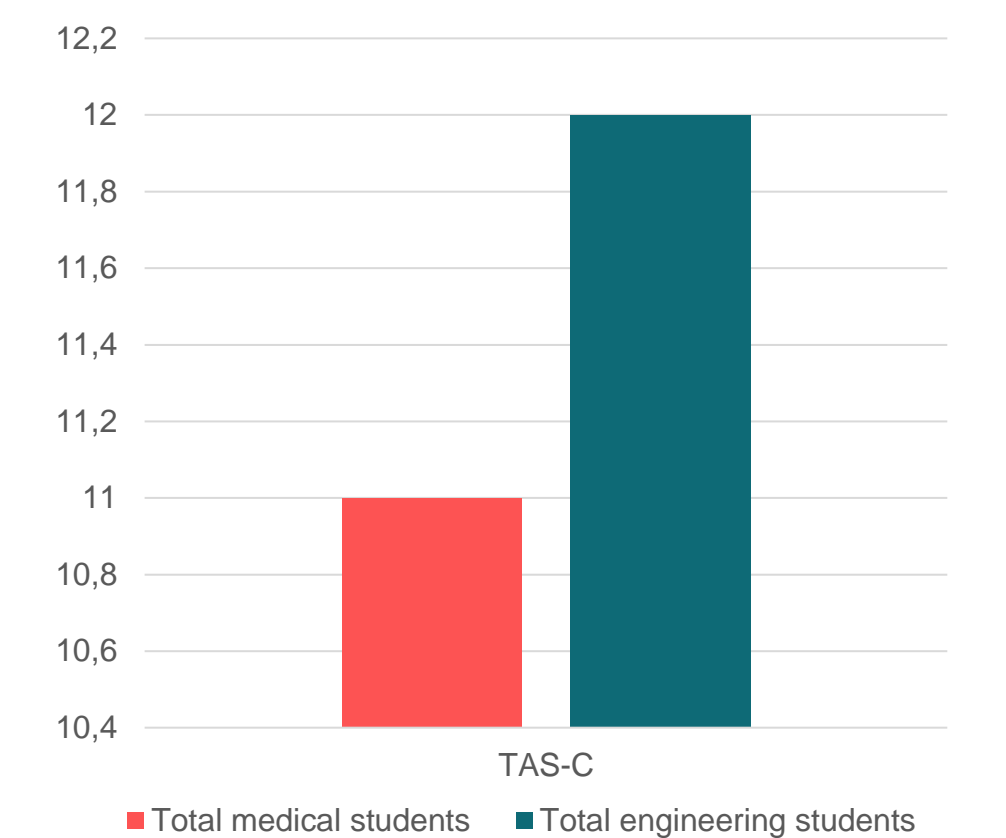
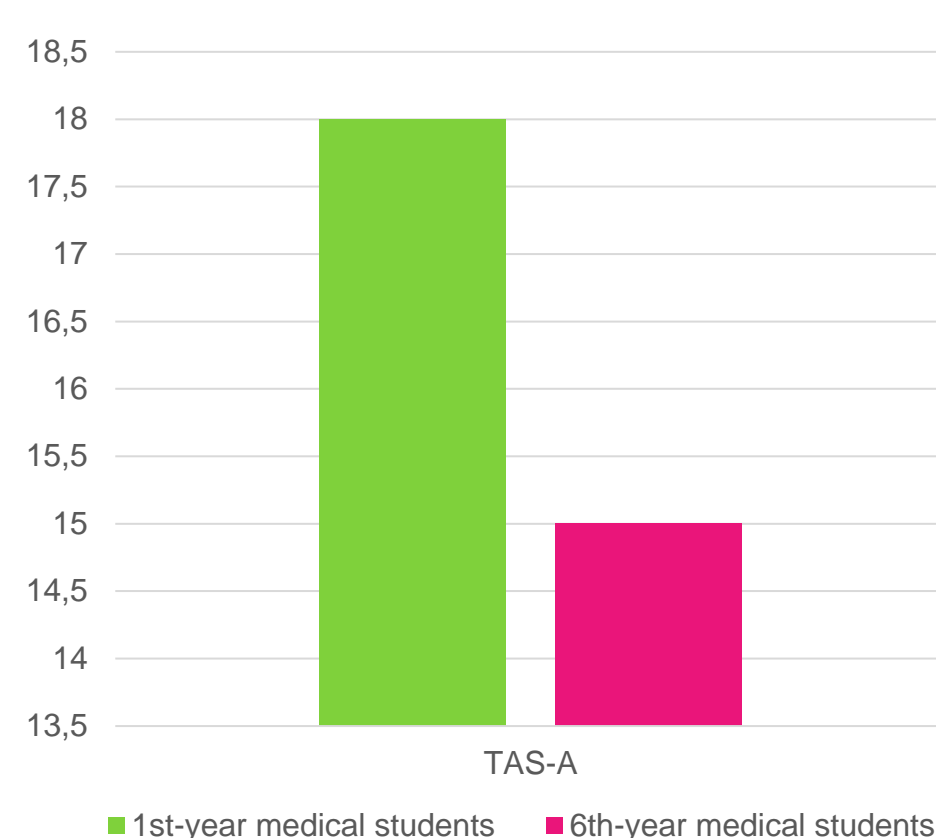
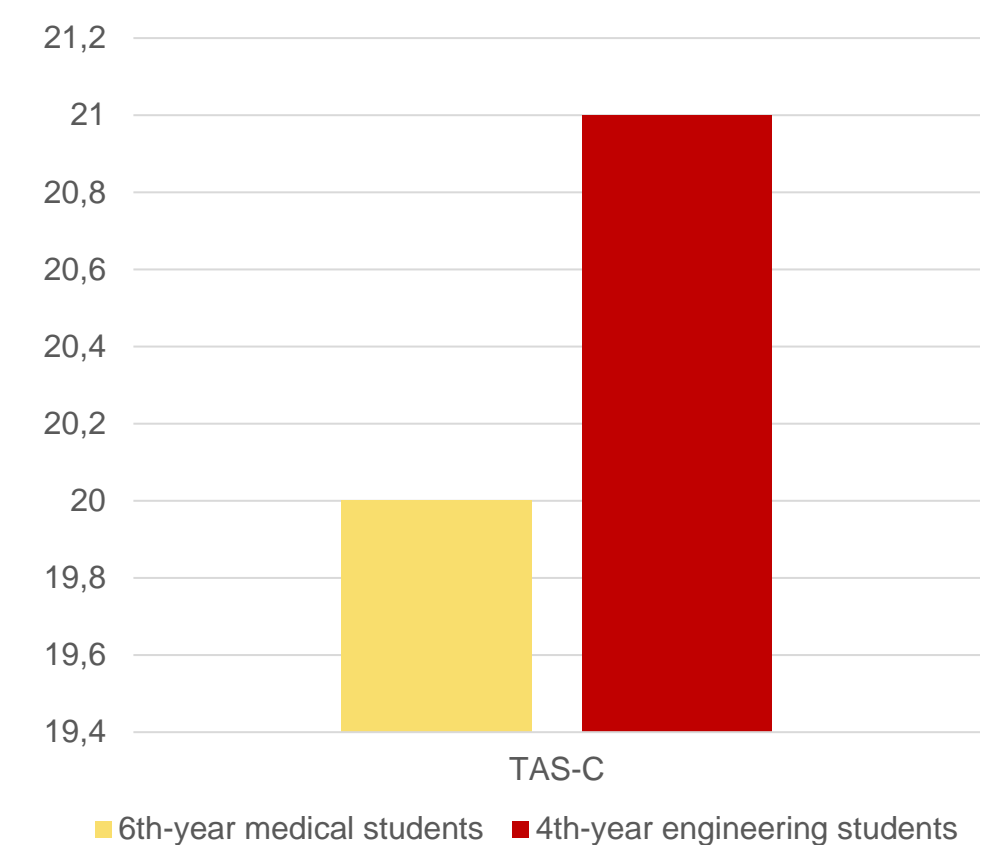
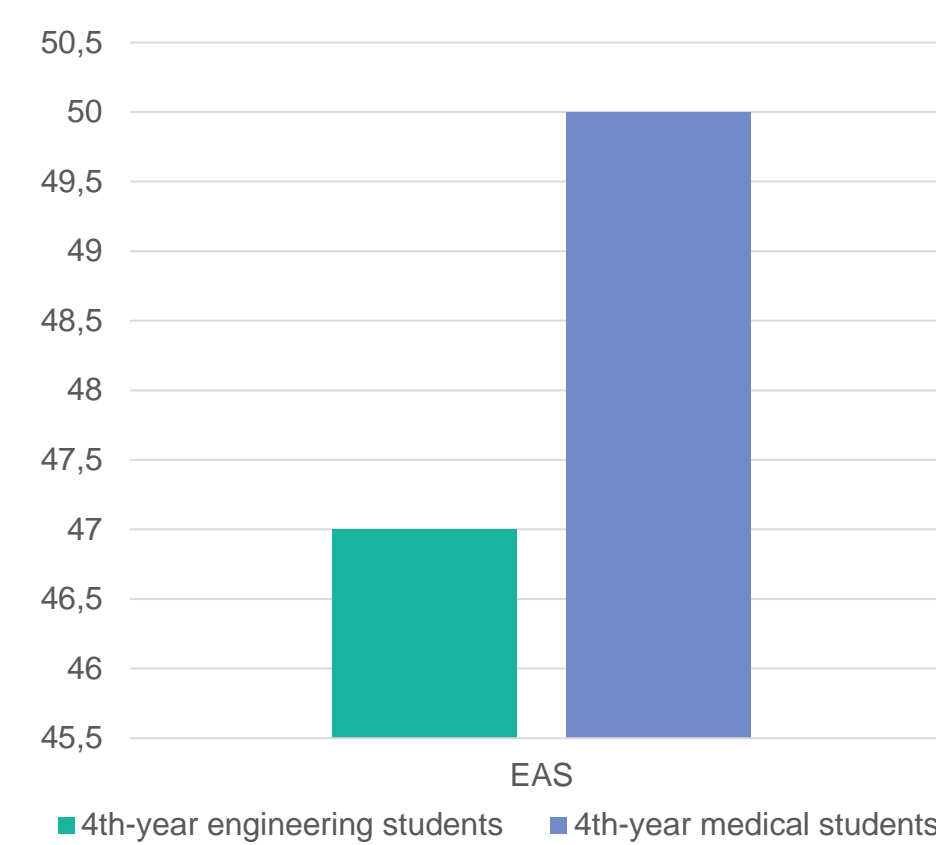
Introduction

Alexithymia, or emotional blindness, refers to difficulties in recognizing and expressing emotions, impacting social interactions and relationships. In contrast, empathy enables individuals to understand and respond to others' emotions, playing a key role in communication. This study compares alexithymia and empathy levels between medical and engineering students, examining their changes throughout education and the influence of different academic disciplines. Understanding the development of these emotional traits may provide insights for improving educational approaches and supporting professional growth.



Results

The EI scores of 4th-year engineering students were statistically significantly higher than those of 1st-year engineering students ($p = 0.017$). There were no statistically significant differences in alexithymia and empathy scores between 1st-year medical and engineering students. The CB and total EAS scores of 4th-year engineering students were statistically significantly lower than those of 4th-year medical students ($p = 0.025$, $p = 0.018$), while their TAS-C scores were statistically significantly higher than those of 6th-year medical students ($p = 0.04$). TAS-A scores of 1st-year medical students were statistically significantly higher than those of 6th-year medical students ($p = 0.025$). Medical students had statistically significantly lower TAS-C scores than engineering students ($p = 0.046$).



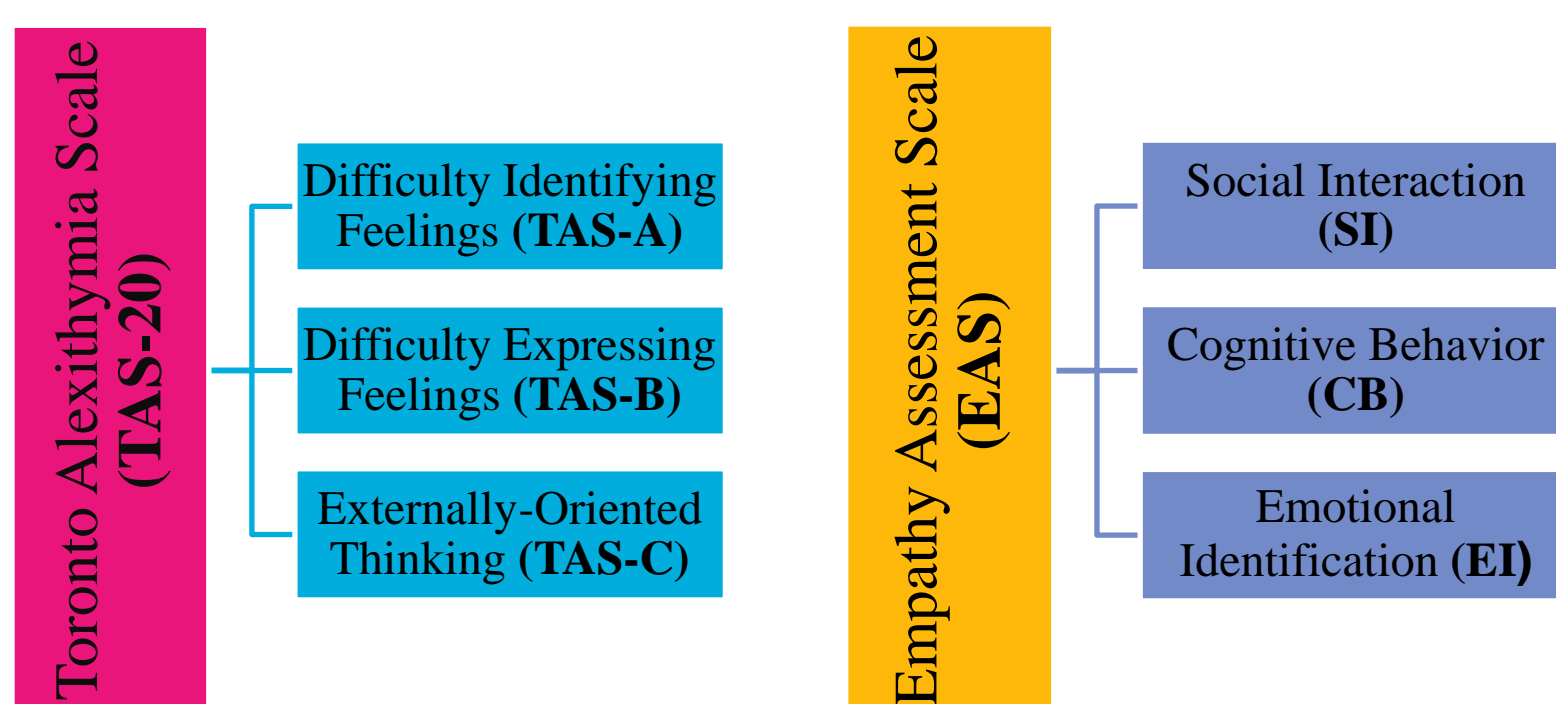
Methods

A total of 395 students from Bezmialem Vakif University (BVU) Faculty of Medicine and Istanbul Technical University (ITU) Faculty of Engineering participated in this cross-sectional study. The sample included:

- Medical students:** 1st-year (n=64), 4th-year (n=64), and 6th-year (n=63)
- Engineering students:** 1st-year (n=106), 4th-year (n=98)

Participants completed the **Toronto Alexithymia Scale (TAS-20)** and the **Empathy Assessment Scale (EAS)**. TAS-20 was analyzed using subscales: Difficulty Identifying Feelings (**TAS-A**), Difficulty Expressing Feelings (**TAS-B**), and Externally-Oriented Thinking (**TAS-C**). The EAS was evaluated with subscales: Social Interaction (**SI**), Cognitive Behavior (**CB**), and Emotional Identification (**EI**).

Statistical analyses were performed using t-tests and ANOVA. SPSS package program was used for statistical analysis.



Conclusion

Based on these results, medical education may play a role in developing empathy skills compared to engineering education, as understanding patients' emotions is essential in clinical practice. Additionally, medical education may help reduce difficulties in identifying emotions, potentially fostering better doctor-patient communication.

References

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