



جامعة مصر للمعلوماتية
EGYPT UNIVERSITY
OF INFORMATICS



Examining University students on Mental Health



EGYPT UNIVERSITY OF INFORMATICS
FACULTY OF COMPUTING
& INFORMATION SCIENCES

INTRODUCTION

University students are facing rising challenges like anxiety, depression, and appetite issues, driven by academic pressures and life changes. With over 17 years spent in education, these demands increase over time. Understanding these challenges is key to developing strategies that support their mental and overall success.

RESEARCH QUESTION

Do gender differences contribute to varying levels of anxiety, and how do appetite issues, such as poor appetite or overeating, impact the severity of depression among university students?

HYPOTHESIS

First Hypothesis:

- Null Hypothesis (H0): There is no significant difference in anxiety levels between male and female students..
- Alternative Hypothesis (H1): There is significant difference in anxiety levels between male and female students.

Second Hypothesis:

- Null Hypothesis (H0): Appetite issues do not significantly impact depression levels in students.
- Alternative Hypothesis (H1): Appetite issues significantly impact depression levels in students.

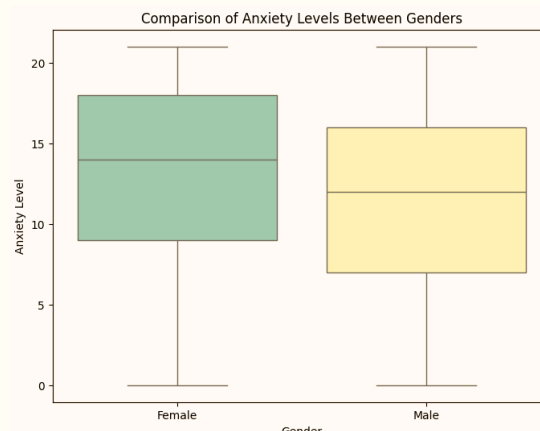
CONCLUSION

The results of our hypothesis testing show a clear distinction in anxiety levels between male and female students, as well as a significant impact of gender, appetite issues, and their interaction on depression levels. Both tests led to rejecting the null hypotheses, confirming that gender plays a critical role in influencing both anxiety and depression among students.

SUBMITTED BY:
BASMALA YASSER (22-101098)
ABEER SHERIF (22-101136)
SHAHD AYMAN (22-101045)
BADR MOHAMED (22-101178)

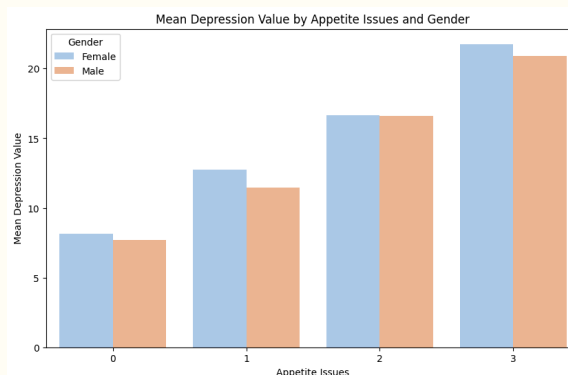
SUPERVISED BY:
DR. MOHAMED TAHER
ENG. NADINE ELSAEED

ANALYSIS



This box plot visualizes the distribution of anxiety levels between females and males. The data indicates that, on average, females report higher anxiety levels than males, with a slightly wider range of variation. This suggests that gender differences in anxiety should be considered when developing mental health interventions for students.

A Z-test comparing anxiety levels between genders found a Z-statistic of -5.63 and a p-value of $1.80e-08$, leading to the rejection of the null hypothesis. This confirms a statistically significant difference, with females reporting higher anxiety levels than males.



This bar chart displays the average depression scores by gender across different levels of appetite issues. The data shows that women consistently report higher depression scores than men, regardless of the severity of appetite issues. These findings suggest a significant interaction between gender, appetite disturbances, and depression levels.

An ANOVA test shows a significant effect of gender and appetite issues on depression scores ($F = 287.52$, $p = 2.05e-294 < 0.05$). We reject the null hypothesis, confirming these factors significantly impact depression levels.