

# The Relationship between Food Addiction, Health-Promoting Lifestyles, and Academic Achievement among University Students

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## Background

• University students are in a critical transitional stage characterized by lifestyle changes, academic stress, and heightened vulnerability to risky health behaviors, including food addiction. Previous research has demonstrated that food addiction is associated with adverse physical and psychological outcomes, as well as reduced academic performance. However, the potential protective role of health-promoting lifestyles in mitigating food addiction risk remains unclear. Clarifying these associations is essential for the development of evidence-based prevention strategies and campus-level interventions, in line with ISSUP's mission to strengthen addiction prevention and policy worldwide.

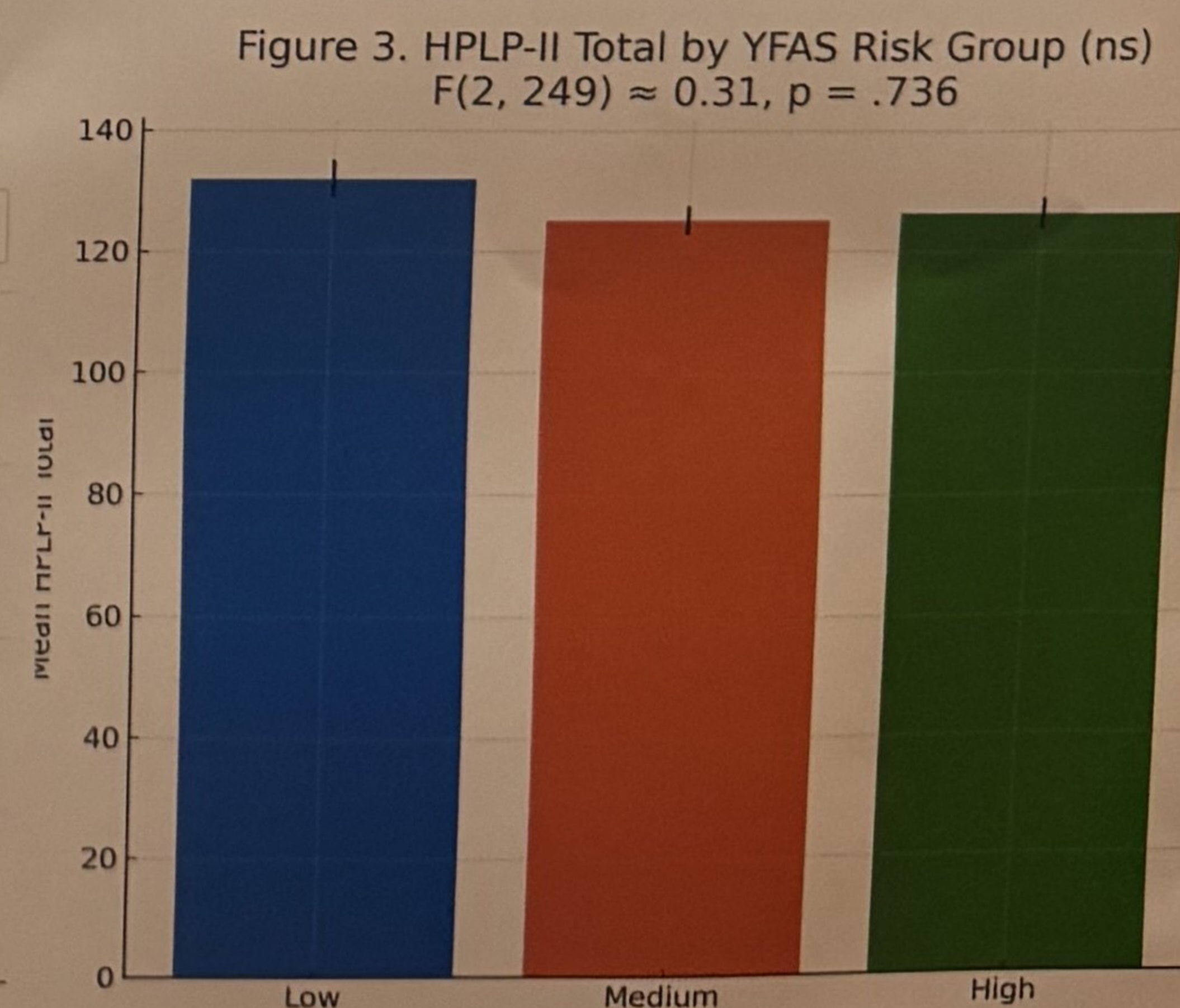
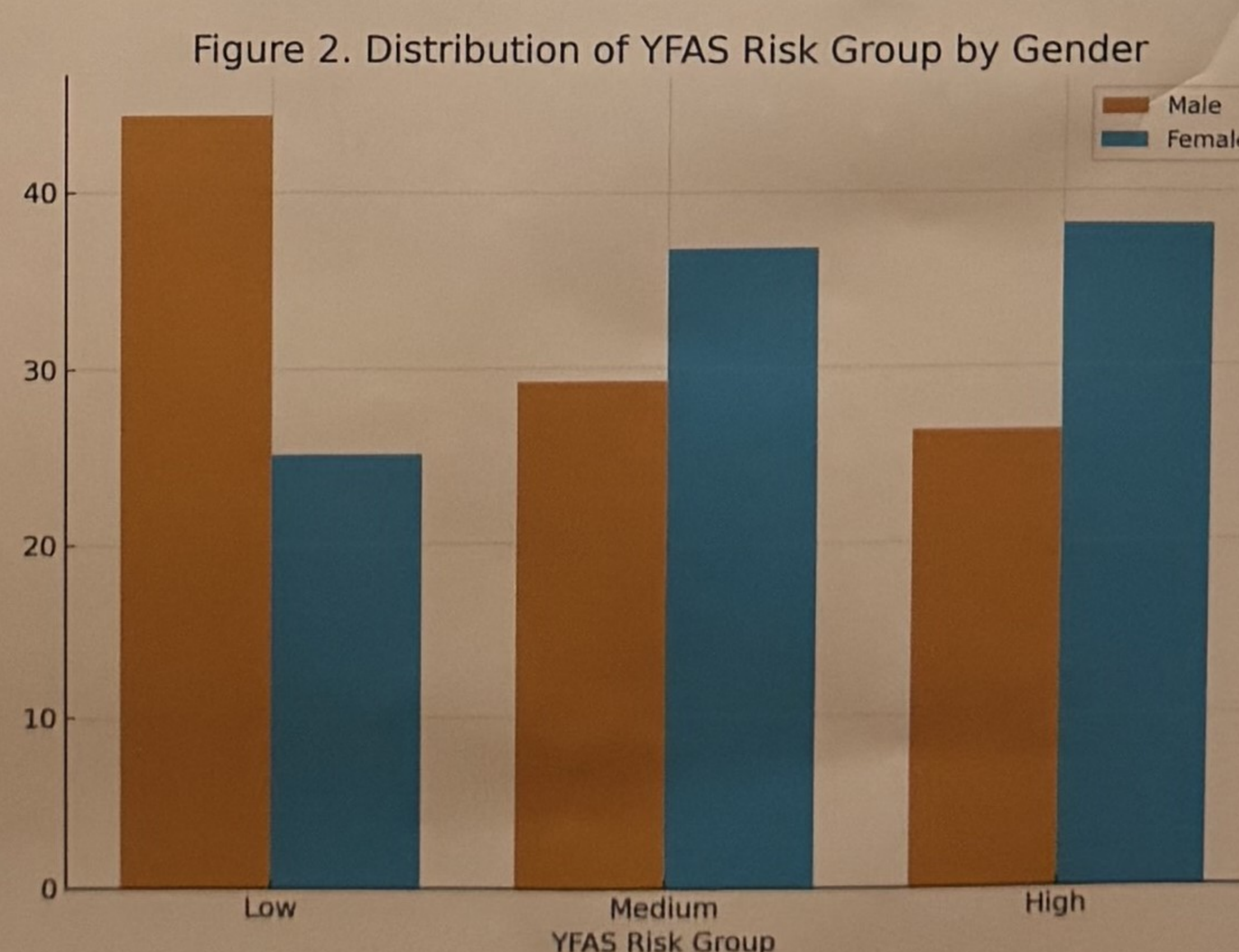
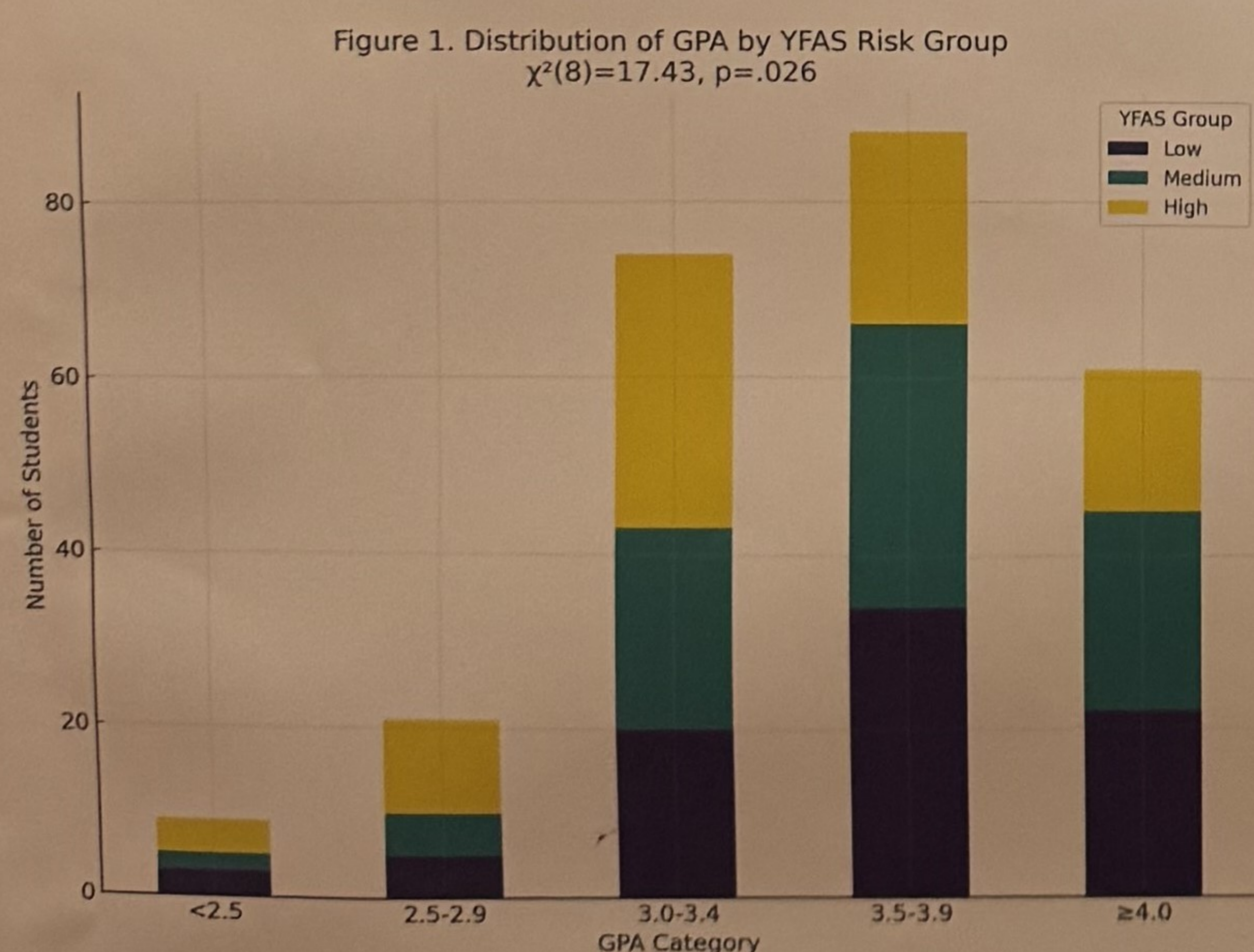
## Methods

- **Participants.** A total of 253 Korean undergraduates participated in the study (58.1% female).
- **Measures.** Food addiction was assessed using the Yale Food Addiction Scale 2.0 (YFAS 2.0; 35 items, scored on a 0–7 scale). Health-promoting lifestyles were measured with the Health-Promoting Lifestyle Profile II (HPLP-II; 52 items, encompassing six subdomains). Academic achievement was measured by self-reported grade point average (GPA), categorized into five groups: <2.5, 2.5–2.9, 3.0–3.4, 3.5–3.9, and ≥4.0.
- **Scoring and Classification.** YFAS total scores were divided into tertiles to classify participants into low-, medium-, and high-risk groups. HPLP-II scores were calculated on a 1–4 Likert scale, with both subdomain and total scores computed.
- **Analyses.** Statistical analyses included Cronbach's  $\alpha$  for reliability, analysis of variance (ANOVA), Pearson correlations, chi-square tests, and independent-samples t-tests.

## Results

- The Yale Food Addiction Scale 2.0 demonstrated excellent internal consistency (Cronbach's  $\alpha = .995$ ). Approximately one-third of students were classified as being in the high-risk food addiction group. Neither the total score nor any of the six subdomains of the Health-Promoting Lifestyle Profile II were significantly associated with food addiction (total:  $r = .03$ ,  $p = .641$ ; subdomains:  $|r| = .02-.09$ , all ns). Academic achievement was significantly associated with food addiction risk-group distribution,  $\chi^2(8) = 17.43$ ,  $p = .026$ , Cramér's  $V = .19$ , indicating that students with lower grade point averages were more likely to be classified in the high-risk group. Gender differences were also observed: female students reported significantly higher food addiction scores than male students ( $M = 47.86$ ,  $SD = 41.44$  vs.  $M = 34.16$ ,  $SD = 38.88$ ),  $t(244) = -2.69$ ,  $p = .007$ .

## Figures



## Conclusions

• Approximately one-third of students were classified in the high-risk food addiction group, underscoring the importance of early detection and prevention in university settings. Food addiction was significantly associated with lower academic achievement, as students with lower grade point average were disproportionately represented in the high-risk group, suggesting that compulsive eating behaviors may undermine concentration, self-regulation, and academic performance. Contrary to expectations, neither the total nor the subdomain scores of the Health-Promoting Lifestyle Profile II were significantly associated with food addiction, which may indicate that food addiction reflects entrenched behavioral dysregulation not easily mitigated by positive lifestyle practices. Gender differences were also observed, with female students reporting higher food addiction scores than males, highlighting potential sociocultural and psychological vulnerabilities that warrant gender-sensitive interventions. Taken together, these findings suggest that universities should integrate academic counseling with comprehensive health promotion in student services, while public health authorities should link lifestyle initiatives with academic support to provide a holistic framework for early screening and tailored interventions. Nonetheless, the cross-sectional design and reliance on self-reported GPA limit causal inference, and the focus on Korean undergraduates restricts generalizability. Future longitudinal and cross-cultural studies are needed to clarify causal mechanisms and evaluate the effectiveness of integrated prevention strategies.

## References

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