# Prevalence of Eating Disorder Risk Among Medical Students in a United States Medical School


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## Introduction

Eating disorders (EDs) are among the most severe psychiatric illnesses, often conferring increased mortality compared to other psychiatric disorders. The high-stress environment of medical school makes medical students more vulnerable to the development of various psychiatric conditions, including eating disorders[1]. Few studies have included eating disorder risk in assessing medical student wellness, and few have measured the prevalence of eating disorder risk in United States medical schools.

The purpose of this research is to assess the prevalence of ED risk in United States (US) medical students at a single institution. Results provided by this study have the potential to lay the groundwork for earlier diagnosis of and intervention for EDs in this population, supporting the health and well-being of future physicians during their medical education and beyond. It was hypothesized that medical students at the studied institution would display a similar prevalence of ED risk to medical students in international studies, and a higher risk compared to the general population, with female-identifying medical students disproportionately affected.

## Aims and Objectives

The overall objective of this study is to address the paucity of information that currently exists about prevalence of ED risk in US medical students, in order to open new horizons for researching, understanding and improving medical student well-being as it relates to eating behaviors. We will accomplish this objective, guided by the following three specific aims:

Aim 1. Estimate the prevalence of medical students at risk for disordered eating behaviors at Oakland University William Beaumont School of Medicine (OUWB).

Aim 2. Identify social, psychological and/or other associated factors impacting medical students' eating behaviors.

Aim 3. Compare prevalence of disordered eating behaviors in medical students at OUWB across two validated screening tools, the EAT-26 (Eating Attitudes Test)[2] and SCOFF 6.0 (Sick, Control, One, Fat, Food)[3].

## Methods

All OUWB medical students received anonymous, voluntary online surveys via email. IRB approval was obtained (IRB-FY2023-335). Surveys included a demographic questionnaire, two validated tools to assess eating disorder risk including the EAT-26[2] and SCOFF 6.0[3], and 14 supplemental questions written by the authors in Qualtrics. Supplemental questions were written to assess current mental healthcare seeking and treatment, and factors potentially related to increased eating disorder risk in respondents.

## Results

A total of 69 medical students responded completely to the survey, yielding a response rate of 13.8%. The majority of respondents identified as female, White, heterosexual, and cisgender, and third-year medical students were the most-represented class.

A total of 21 (30%) respondents were determined to be at high risk for an ED by either SCOFF or EAT-26. Female-identifying medical students made up a larger proportion of those likely to be at risk based on EAT-26 and SCOFF questionnaires compared to their male-identifying counterparts, though this difference was only statistically significant on EAT-26 [Figure 1].

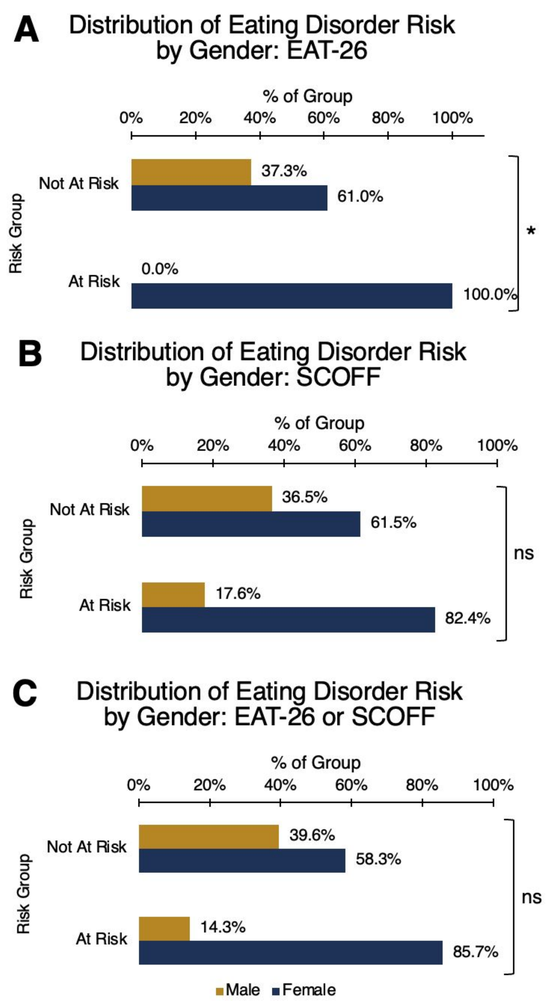


**Figure 1.** Distribution of eating disorder risk by gender for medical students determined to be at risk and not at risk for an eating disorder based on (A) EAT-26, (B) SCOFF, and (C) EAT-26 or SCOFF. All P values reflect Fisher's exact test. *P = .03; ns = not statistically significant.

The supplemental questionnaire revealed that students identified as at risk for an ED based on either EAT-26 or SCOFF were significantly more likely to have had a recent life stressor outside of school (P = .04), personal history of a mental health condition (P = .03), and family history of anxiety (P = .03). Depression was the only personal mental health diagnosis that was significantly increased in the high-risk group (P = .02) [Table 2]. The majority of at-risk respondents reported currently receiving mental health treatment 15 (71.4%), however 12 (57.1%) reported not currently receiving treatment in the form of therapy and 14 (66.7%) reported not currently being treated with psychiatric medication. Of the respondents in the high-risk group, 11 (55%) reported not currently feeling they are struggling with their mental health [Table 2].

**Table 1.** Characteristics of at-risk respondents. All P values reflect Fisher's exact test. Bolded P values indicate statistical significance.

| | | At risk based on EAT-26 or SCOFF | | |
|---|---|---|---|---|
| | | No (N=48) | Yes (N=21) | P value |
| | | N (%) | | |
| Presence of recent life stressor | Yes | 16 (33.3) | 13 (61.9) | **.04** |
| | No | 32 (66.7) | 8 (38.1) | |
| Personal history of mental health condition | Yes | 14 (29.2) | 11 (52.4) | **.03** |
| | No | 34 (70.8) | 9 (42.9) | |
| Personal history of mental health condition: Anxiety | Yes | 11 (22.9) | 9 (45.0) | .08 |
| | No | 37 (77.1) | 11 (55.0) | |
| Personal history of mental health condition: Depression | Yes | 9 (18.8) | 10 (50.0) | **.02** |
| | No | 39 (81.3) | 10 (50.0) | |
| Personal history of mental health condition: Eating Disorder | Yes | 2 (4.2) | 3 (15.0) | .15 |
| | No | 46 (95.8) | 17 (85.0) | |
| Personal history of non-mental health diagnosis currently impacting daily life | Yes | 11 (22.9) | 8 (40.0) | .39 |
| | No | 36 (75.0) | 12 (60.0) | |
| | Prefer not to say | 1 (2.1) | 0 (0.0) | |
| Family history of depression | Yes | 19 (40.4) | 13 (65.0) | .12 |
| | No | 28 (59.6) | 7 (35.0) | |
| Family history of anxiety | Yes | 18 (38.3) | 14 (70.0) | **.03** |
| | No | 29 (61.7) | 6 (30.0) | |
| Family history of eating disorder | Yes | 2 (4.3) | 3 (15.0) | .15 |
| | No | 45 (95.7) | 17 (85.0) | |
| Currently receiving mental health treatment | Yes | 17 (35.4) | 15 (71.4) | **.009** |
| | No | 31 (64.6) | 6 (28.6) | |
| Currently seeking mental health provider | Yes | 7 (14.6) | 6 (30.0) | .18 |
| | No | 41 (85.4) | 14 (70.0) | |

Each screening tool separately yielded different results, with the SCOFF questionnaire ultimately identifying a greater number of respondents as at high risk [Figure 2].

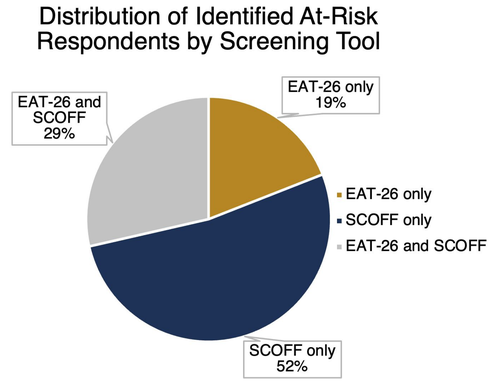


**Figure 2.** Distribution of medical student respondents identified as at high risk for an eating disorder (N=21) based on EAT-26 only (N=4), SCOFF only (N=11), or both EAT-26 and SCOFF (N=6).

## Conclusions

Medical students at OUWB are an at-risk population for eating disorders, with females disproportionately affected. Multiple screening tools, such as use of EAT-26 and SCOFF, may be necessary to detect those at risk. Limitations include small sample size, low response rate, and the possibility of symptom under-reporting due to various factors such as stigma and concern of incomplete anonymity. Despite limitations, this study presents ED risk among medical students as a major concern, and emphasizes the urgent need for targeted interventions to address ED risk and promote student well-being, cultivating a generation of physicians better equipped to care for their patients and themselves.

## References


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