

# Integrating Psychology Into Dental Education

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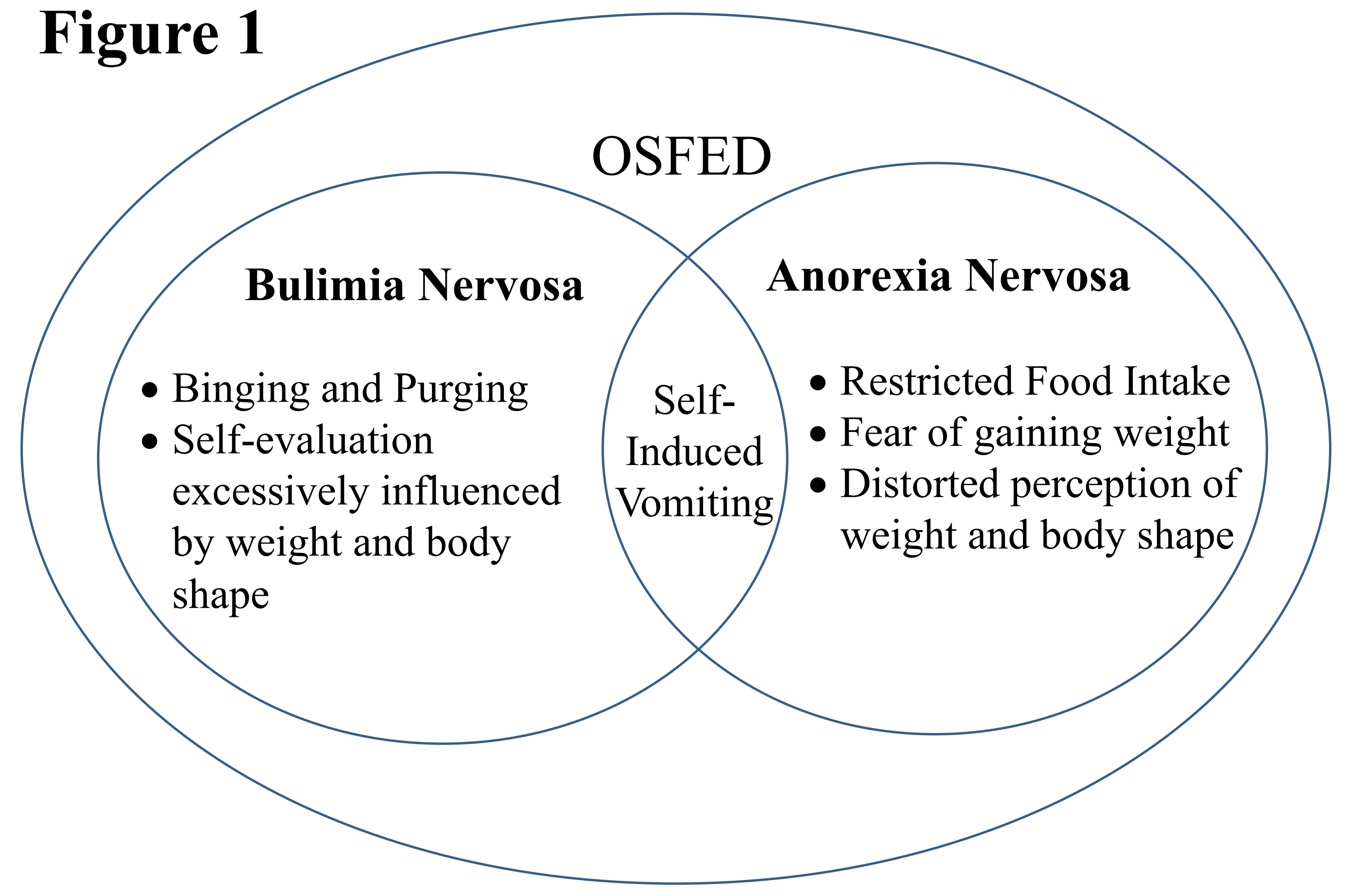
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## Introduction

Self-induced vomiting (SIV) is a symptom of several eating disorders. Due to this symptom's impact on oral health, dentists are often the first practitioners to encounter patients engaging in this behavior. Despite this, only 58% of dental programs teach their students how to speak with patients regarding eating disorders (DeBate et al., 2007). Additionally, most practicing dentists are not proficient in identifying the oral and physical signs of eating disorders (DeBate et al., 2005). This study aimed to assess the impact of psychology-student provided additional instruction in the areas of eating disorders and communication skills in third-year Doctor of Dental Medicine students.

**Figure 1**



## Participants

Participants were 93 Midwestern University Doctor of Dental Medicine students in their third year of study. Fifty-two participants identified as male, and 41 identified as female.

**Table 1**

Topic Addressed	Content Provided
Overview of Eating Disorders	<ul style="list-style-type: none"> <li>Bulimia Nervosa</li> <li>Anorexia Nervosa</li> <li>Other Specified Feeding or Eating Disorder</li> </ul>
Dental Manifestations	<ul style="list-style-type: none"> <li>Hypersensitivity</li> <li>Spontaneous Tooth Pain</li> <li>Dental Caries (*conflicting research)</li> <li>Enamel erosion</li> <li>Perimylolysis/Perimolysis</li> </ul>
Mucosal Manifestations	<ul style="list-style-type: none"> <li>Mucosal Atrophy</li> <li>Glossitis</li> <li>Erythematous Lesions</li> </ul>
Labial Manifestations	<ul style="list-style-type: none"> <li>Labial Erythema</li> <li>Cheilitis/Cheilosis</li> </ul>
Other Oral Manifestations	<ul style="list-style-type: none"> <li>Gingival Inflammation</li> <li>Xerostomia and Hyposalivation</li> <li>Periodontal Disease (*conflicting research)</li> </ul>
Physical Signs/ Other Health Concerns	<ul style="list-style-type: none"> <li>Bilateral Parotid Enlargement</li> <li>Cathartic Colon Syndrome</li> <li>Esophageal Damage</li> <li>Hypokalemia</li> <li>Hypovolemia</li> <li>Metabolic Alkalosis</li> <li>Comorbid Mental Health Disorders</li> <li>Russell's Sign</li> </ul>
Steps to Take When Addressing SIV With Patients	<ul style="list-style-type: none"> <li>Evaluate Oral and Physical Signs</li> <li>Communicate Sensitive Findings</li> <li>Assess Patient Readiness</li> <li>Determine Patient-Specific Treatment</li> <li>Provide Resources</li> </ul>

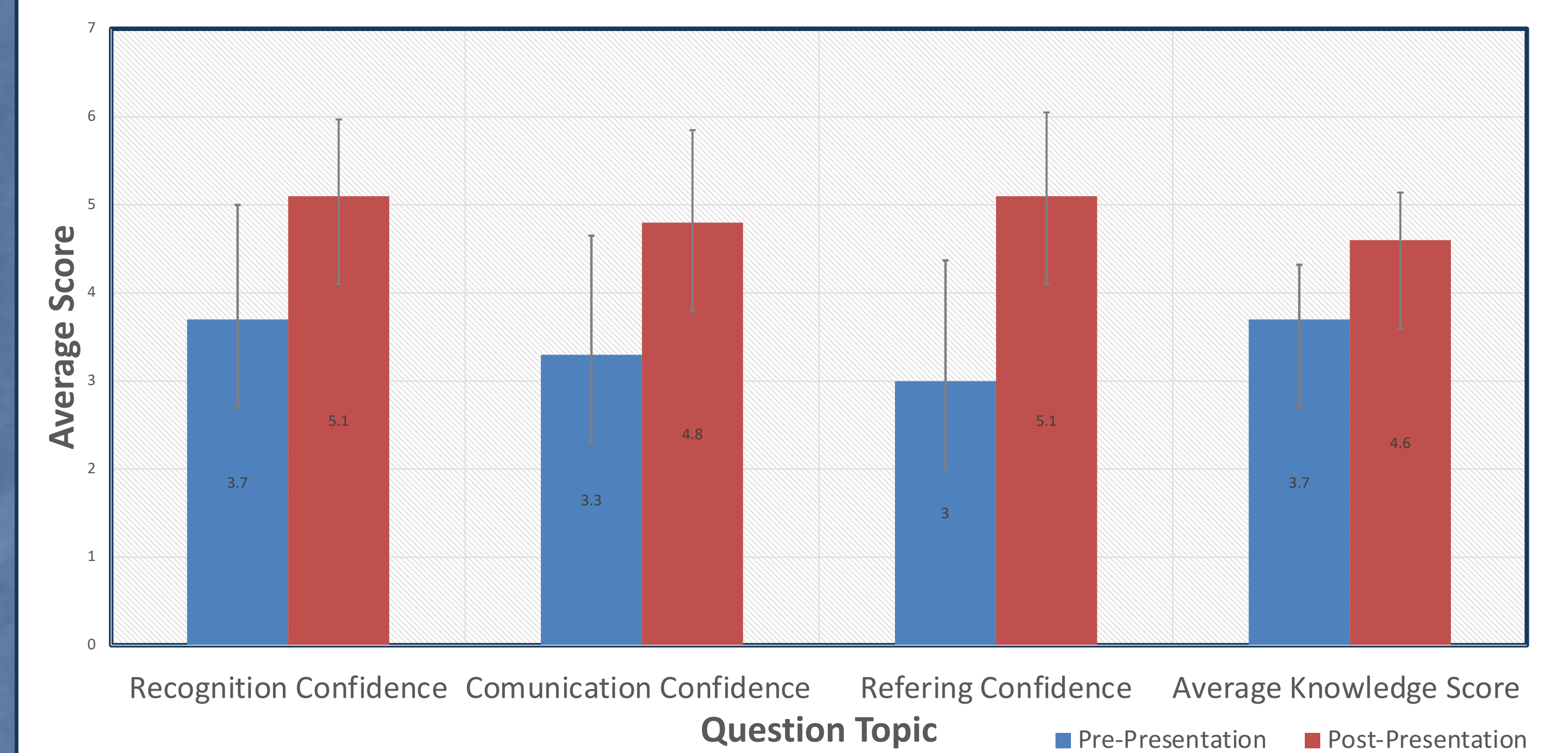
## Methods

Participants were provided with a 1-hour presentation by a graduate student in clinical psychology that addressed the orofacial manifestations of self-induced vomiting, communication techniques, and eating disorder resources. Participants completed a baseline and post-presentation measure to assess their knowledge of the signs of self-induced vomiting. The measure also included questions regarding participants' confidence in recognizing symptoms, communicating with patients, and providing appropriate resources. Responses were measured on a Likert-type scale, where one equals not confident at all and six equals extremely confident.

## Results

Results indicated that there was a significant gain in participant knowledge of the orofacial manifestations of self-induced vomiting post-presentation,  $t(92) = -12.93$ ,  $p < .001$ ,  $d = 7.50$ , 95% CI [-11.60, -8.51]. Furthermore, participants' confidence in recognizing signs of self-induced vomiting also increased from an average of 3.68 (SD = 1.30) to 5.11 (SD = 0.87). Participants' confidence in their ability to communicate with patients about these symptoms increased from 3.30 (SD = 1.35) to 4.80 (SD = 1.05). Lastly, Participants' confidence in their ability to refer patients to appropriate mental health resources increased from an average score of 3.04 (SD=1.37) to 5.09 (SD=0.95). This study suggests that psychologists must be more active in dental education.

**Figure 2** Average Score Comparison

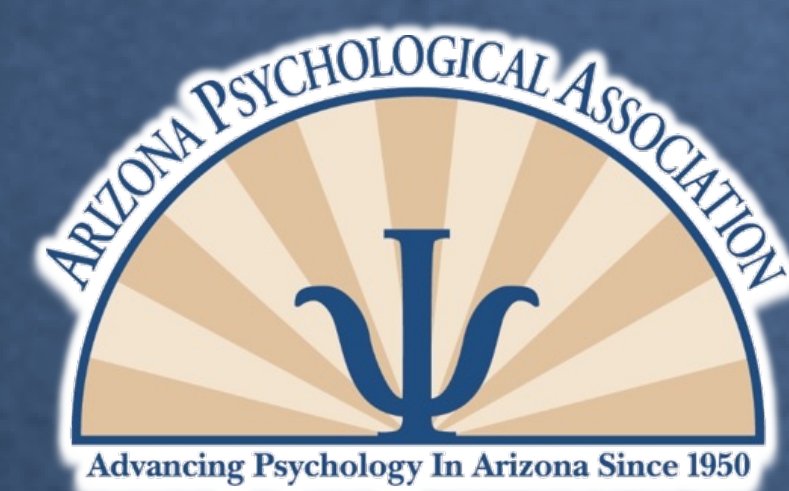


## Conclusion

This study suggests that psychologists must take a more active role in dental education. Even 1-hour of additional training in the areas of eating disorders and patient communication can help improve dental students' ability to recognize signs of SIV. Furthermore, the training improved the student's confidence in addressing eating disorder symptoms and referring patients to needed psychological resources.

## Recommendations

Psychologists should look for opportunities to collaborate with dental professionals, particularly in educational settings. Universities that offer both dental and psychology programs are well-suited for such collaboration. Psychologist- or psychology student-led classes and peer mentorship programs could enhance both professions' ability to ensure patients receive appropriate care.



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