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The Effects of Clinical Depression on the Oral Health of College Students

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Effects of Clinical Depression on the Oral Health of College Students

Sarah Peng and Delorias Perkins

Dental Hygiene Program

VCU School of Dentistry

Depression and COVID-19

- Rising awareness for the importance of mental health conditions like depression
- A study found elevated levels of depression among 60.64% among college students ⁴
- Approximately 44% of college students experienced symptoms of depression due to change of lifestyle ⁸



Depression and Oral Health

Depression may lead to poor oral health

- May cause people to neglect their oral hygiene
- Increased risk of developing gingivitis and periodontitis
- Increased presence of *porphyomonas gingivalis*⁵

Research Goal

1

To research and raise awareness about the relationship between clinically diagnosed depression and its effects on the oral health of college students

Methods

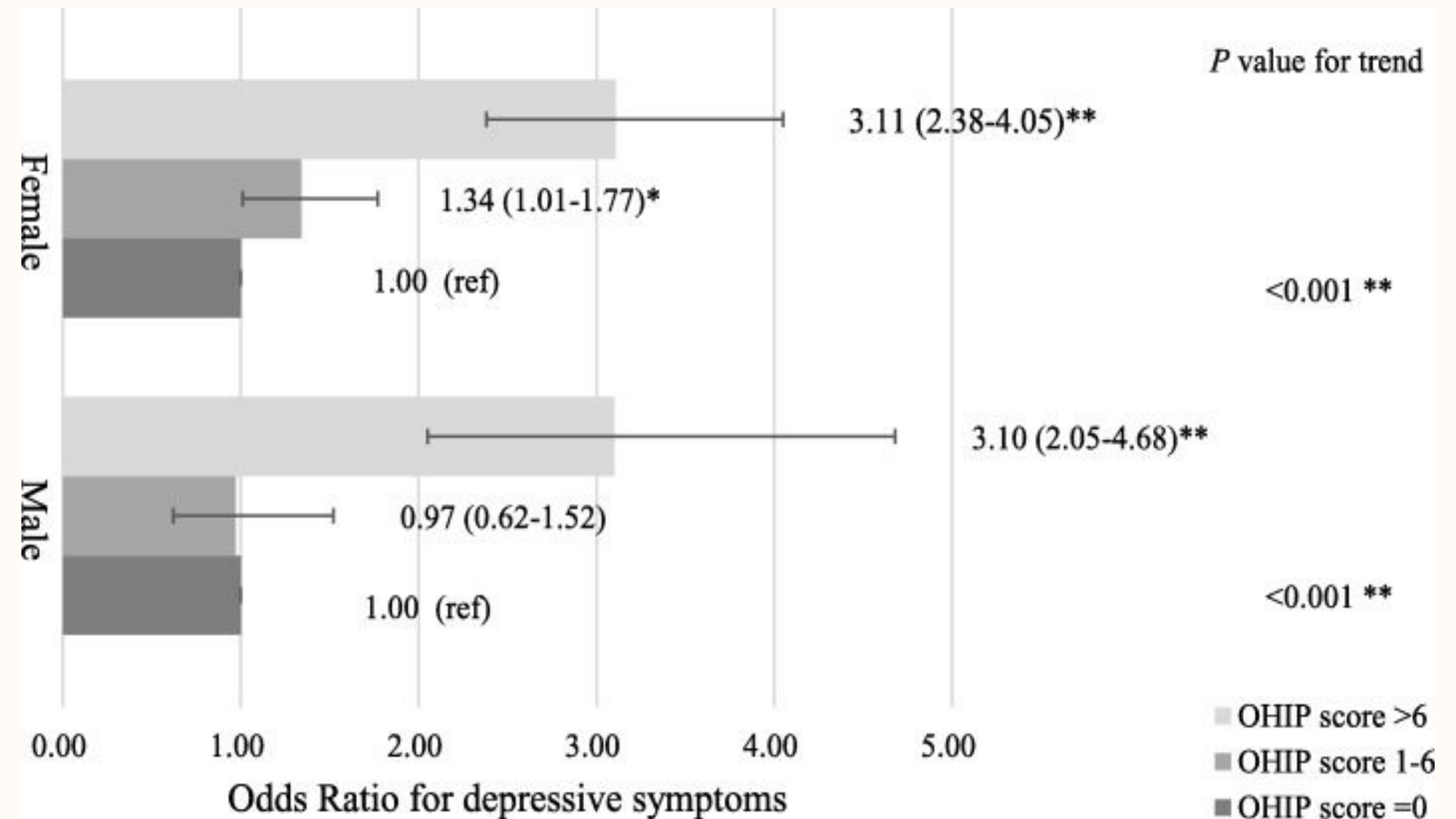
- Databases used for the review of literature:
 - PubMed
 - Google Scholar
- MESH terms/keywords: depression, college students, periodontitis, mental health, and oral health
- Articles reviewed were published after 2017



Zhang et al.

Cross-sectional study

- Evaluate the relationship between oral health related quality of life and depressive symptoms
- Individuals took a 14-item oral health questionnaire (OHRQoL) and self rating depression scale
- Individuals with poorer oral health related quality of life were more likely to experience depressive symptoms



Gholami et al.

Randomized control trial

- Investigate the association between depression and xerostomia
- Collected salivary samples and completed a depression survey
- Results indicated a significant relationship between depression and xerostomia

Results

- Individuals with depression
 - 31.7% experienced reduced salivary flow and xerostomia
 - 11.7% had reduced salivary flow and no xerostomia
 - 8.5% had normal salivary flow and xerostomia

Namvar et al.

Case-control study

- Investigate the association between depression and temporomandibular dysfunction (TMD)
- Individuals split into two groups - symptomatic and asymptomatic TMD
- Both groups took the Depression, Anxiety, and Stress Scale (DASS-21)
- Individuals with TMD had higher scores in the depression survey

Variables	Case group (%)	Control group (%)
Depression		
Normal	14 (23.33)	46 (76.67)
Mild	9 (15)	6 (10)
Medium	15 (25)	8 (13.33)

Kim and Nam

Cross-sectional study

- Investigate individuals who were diagnosed with depression and self-reported symptoms potentially being a risk factor for periodontitis
 - Individuals completed the Korean National Health and Nutrition Examination Survey
 - Self reported depression symptoms were not associated with periodontitis
 - Diagnosed depression had an association with periodontitis
- Result
 - Individuals diagnosed with depression (OR: 1.443, 95% CI: 1.079-1.898) and self reported symptoms (OR: 1.133, 95% CI: 0.857-1.497) had an increased risk of periodontitis

Strengths and Limitations

Strengths:

- Credible sources
 - Officially published academic journal
 - Peer reviewed articles

Limitations:

- Socio-demographic variables
- Inability to explore the causal relationship between depression and oral disease

Future Directions

- College students should ...
 - Maintain 6 month recalls
 - Seek professional help if needed

Conclusion

- Studies have shown there is a relationship between depression and the declining oral health status of college students
- With the rising cases of depression, it is important to discuss the effects it plays on the oral cavity in a clinical setting
- As such, dental hygienists should focus on the early detection and prevention of oral diseases in college students

References

1. Danielfoster437. "Coronavirus Surgical Masks." *Creative Commons*, <https://wordpress.org/openverse/image/d65519f1-ac43-42a4-a000-0b53072cc9ed/>. Accessed 18 Apr. 2022.
2. DullHunk. *PubMed® Logo*. *Creative Commons*, <https://wordpress.org/openverse/image/1f29fae6-dd42-417a-a673-45f7d56ddba6/>. Accessed 18 Apr. 2022.
3. Gholami N, Hosseini Sabzvari B, Razzaghi A, Salah S. Effect of stress, anxiety and depression on unstimulated salivary flow rate and xerostomia. *J Dent Res Dent Clin Dent Prospects*. 2017 Fall;11(4):247-252. doi: 10.15171/joddd.2017.043. Epub 2017 Dec 13. PMID: 29354252; PMCID: PMC5768958.
4. Hakami Z, Khanagar SB, Vishwanathaiah S, Hakami A, Bokhari AM, Jabali AH, Alasmari D, Aldrees AM. Psychological impact of the coronavirus disease 2019 (COVID-19) pandemic on dental students: A nationwide study. *J Dent Educ*. 2021 Apr;85(4):494-503. doi: 10.1002/jdd.12470. Epub 2020 Oct 31. PMID: 33128397.
5. Hudson J. How mental health affects oral health [Internet]. *Nature News*. Nature Publishing Group; 2021 [cited 2022Mar26]. Available from: <https://www.nature.com/articles/s41406-021-0225-3#citeas>
6. Kim S-R, Nam S-H. Comparison of diagnosed depression and self-reported depression symptom as a risk factor of periodontitis: Analysis of 2016–2018 Korean National Health and Nutrition Examination Survey Data [Internet]. MDPI. Multidisciplinary Digital Publishing Institute; 2021 [cited 2022Mar23]. Available from: <https://www.mdpi.com/1660-4601/18/3/871#cite>
7. Namvar MA, Afkari BF, Moslemkhani C, Mansoori K, Dadashi M. The Relationship between Depression and Anxiety with Temporomandibular Disorder Symptoms in Dental Students. *Maedica (Bucur)*. 2021 Dec;16(4):590-594. doi: 10.26574/maedica.2021.16.4.590. PMID: 35261658; PMCID: PMC8897781.
8. Son C, Hegde S, Smith A, Wang X, Sasangohar F. Effects of COVID-19 on College Students' Mental Health in the United States: Interview Survey Study. *J Med Internet Res*. 2020 Sep 3;22(9):e21279. doi: 10.2196/21279. PMID: 32805704; PMCID: PMC7473764.
9. Zhang Z, Tian Y, Zhong F, Li CF, Dong SM, Huang Y, Liu XE, Huang C. Association between oral health-related quality of life and depressive symptoms in Chinese college students: Fitness Improvement Tactics in Youths (FITYou) project. *Health Qual Life Outcomes*. 2019 Jun 4;17(1):96. doi: 10.1186/s12955-019-1163-4. PMID: 31164136; PMCID: PMC6549254.

The image features a white background with decorative brown shapes in the corners. In the top-left, there is a solid brown curved shape. In the top-right, there is a solid brown curved shape and a thin brown outline of a circle. In the bottom-left, there is a thin brown outline of a circle.

Questions?