Oral Health- A Window to Overall Health

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ORAL HEALTH is for Overall Health

BACKGROUND

- According to American Academy of Pediatric Dentistry, tooth decay is the most common chronic childhood disease.
- According to Community Needs Assessment (2017),in Cincinnati,17.2% of children had a toothache and 23% had dental caries
- African American children (11.1%) were more likely to have a toothache than Hispanic (9.6%) or Non-Hispanic, white children (7.6%)
- Toothache and cavities were reported highest among the 6-12-year-old children and children enrolled in Medicaid or Children's Health Insurance Program (CHIP)
- In Cincinnati Public School District (CPS)
  - Dental problems were the second most prevalent chronic condition among these students.
  - More than half of the population among the CPS district are African Americans and Hispanics.
  - 81.9% of students are economically disadvantaged, making these students a high risk population for oral diseases

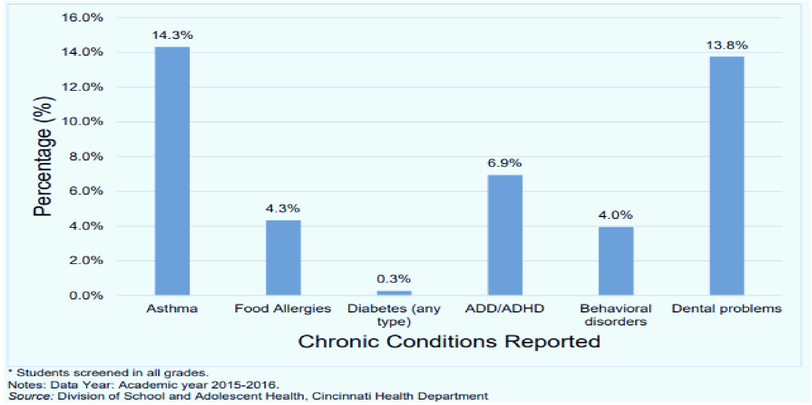


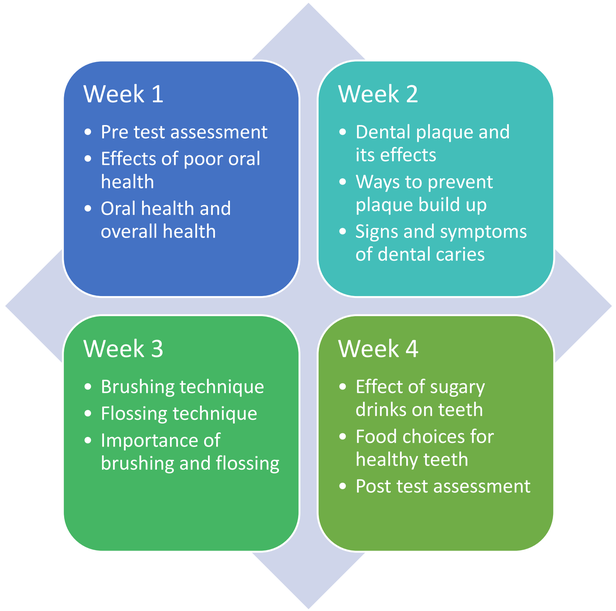
Figure 1. Prevalence of major chronic conditions among Cincinnati Public School students for 2015-16 academic year .Source: Division of School and Adolescent Health, Cincinnati

RESEARCH AIM

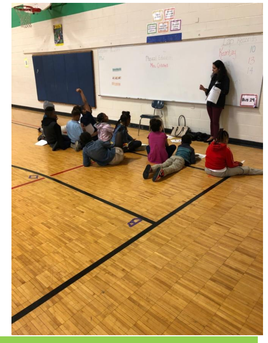
- Aim: To investigate the effectiveness of oral health education program on oral health knowledge, attitude and behaviors among children who are at a higher risk for oral diseases.

DESIGN and METHODS

Targeted Population: 4th grade students in Elementary school within CPS.
Design: A four week oral health lesson plan was developed and implemented from 24th September 2019 to 15th October 2019.



- Measures of oral health knowledge, attitude and behavior were observed through questionnaires administrated both before and after oral health lessons.
- McMenar's tests and paired t test were used to compare rates and means of outcome measures before and after oral health lessons.



RESULTS

Variables	Pretest scores	Posttest scores	P value
Total overall score	66.67%	79.33%	0.0024
Knowledge of duration of brushing	69.23%	100.00%	<0.0001
Knowledge of importance of flossing	46.15%	76.92%	0.1573
Attitude towards brushing and flossing	69.23%	69.23%	1.00
Attitude towards effect of sugary food	84.16%	100.00%	<0.0001
Brushing behavior (Recommended times to brush)	69.23%	76.92%	0.6547
Flossing behavior (Recommended times to floss)	61.53%	61.53%	1.00

- The results showed a statistically significant increase in the overall oral health knowledge, attitude and behavior among the students after the completion of the four week program.
- The results showed a statistically significant increase in the knowledge of the appropriate duration of brushing among the students after the completion of the four week program.
- The results showed a statistically significant improvement in the attitude of students towards sugary drinks after the completion of the four week program.

CONCLUSION

- It is important to recognize oral health as a part of your overall health
- The school based educational program had an overall positive impact in improving the oral hygiene knowledge, attitude and behavior among the participants
- These school based programs can be a valuable tool in bringing about a change in oral health status

REFERENCES

"Basics | Division Of Oral Health | CDC". *Cdc.Gov*, 2019, https://www.cdc.gov/oralhealth/basics/index.html

Cincinnati-oh.gov. (2017). *Community Health Assessment*. [online] Available at: https://www.cincinnati-oh.gov/health/assets/File/EDIT%20THIS%20CHA_12_21_17%20FINAL.pdf.

National Center for, Education Statistics. (2018). District directory information: Cincinnati city. Retrieved from https://nces.ed.gov/ccd/districtsearch/district_detail.asp?ID2=3904375 https://nces.ed.gov/ccd/districtsearch/district_detail.asp?ID2=3904375

Ohio Department, o. E. (2018). District details. (). Ohio: Retrieved from https://reportcard.education.ohio.gov/district/detail/043752 https://reportcard.education.ohio.gov/district/detail/043752

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