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Presented by:  

2021 National Oral Health Conference Poster Abstracts

April 24, 2021

Poster Sessions sponsored in part by Elevate Oral Health



Table of Contents

Poster Session I 11:00 AM - 11:45 AM EDT	1
Title: Acculturation and Dental Visits in Californian Hispanic and Asian Immigrants.....	2
Title: Addition of Electronic Dental Records from a Large Dental Organization into a Data Linkage System	3
Title: Beliefs, Perceptions and Attitudes of Dental Providers and Staff Towards LGBTQIA+ Patients	4
Title: Dental care for pregnant patients: a survey to assess the current practices of Alabama dentists	5
Title: Disparities in Dental Insurance Enrollment Rates among Michigan’s HIV Population	6
Title: Feasibility of Retrospective Dental Chart Review to Assess Caries Risk During Orthodontic Treatment.....	7
Title: GIS mapping of Medicaid-MassHealth ACOs and Community Health Center Dental Clinics in Massachusetts .	8
Title: Oral Health Assessment among Children with and without Intellectual and Developmental Disability	9
Title: Oral Health Providers of Color Face Greater Hardships from the Impact of COVID-19	10
Title: 'Recruit a Smile': Research into the Veterans Population at Tunxis Community College	11
Title: Results and Insights from the 2017 Oregon Smile & Healthy Growth Survey.....	12
Title: Smoking Status of Healthcare Workers and Perception On Tobacco Cessation - A National Survey	13
Title: The Effects of Occluding Pair of Teeth on Oral Health-Related Quality of Life in Dialysis Patients	14
Title: Visualizing county level data to better target dental safety net programs for children	15
Poster Session II 12:00 PM- 12:45 PM ET.....	16
Title: Benefits of Medical-Dental Collaboration for Chronic Disease and Oral Health.....	17
Title: Benefits of Medical-Dental Integration for Medical Residents, Providers, and Patients	18
Title: Catalyzing the Oral Health Workforce in New Hampshire Rural Healthcare Settings: A Needs Assessment ...	19
Title: Evaluating Pre-Implementation Factors Related to Medical-Dental Integration	20
Title: Evaluation of a Comprehensive Program Addressing Oral Health in Multiple, Diverse Community Settings ..	21
Title: Factors Affecting Access to Dental Care for Seniors in Rural Iowa.....	22
Title: How Evidence-Based Is US Dental Workforce Policy for Rural Communities?.....	23
Title: Links between Oral Health-related Quality of Life in US Adults and Type 2 Diabetes: SEM Analysis	24
Title: Medical-Dental Integration Environmental Scan Results of Arizona, Colorado, Montana, and Wyoming.....	25
Title: "No Wrong Door" to Hypertension Control: Interprofessional Service Learning in a Dental Setting	26
Title: Primary Care Dentistry for South Texas: Impacting Oral Health for Vulnerable Populations	27
Title: Put the Mouth Back in the Body: How Quality Improvement Impacted Dental Integration in Medical	28
Title: Social Work and Dentistry: A Systematic Review	29
Title: Socioeconomic Status, Social Support and Oral Health-Risk Behaviors in Canadian Adolescents –.....	30
Title: Tooth Loss and Diabetes Outcomes in Older Adults: A Systematic Review	31

Poster Session III 1:45 PM - 2:30 PM ET	32
Title: Access to Healthcare and the Oral Health Needs of U.S. Children with Developmental Disorders	33
Title: Dental Referral Outcomes for Children Seen on a Mobile Dental Van in Northern Manhattan	34
Title: Dentists Behaviour and Oral Cancer Examination in Real-World Practice: Clinical Observational Study	35
Title: Dentists’ Role in Preventing Human Papillomavirus Related Oropharyngeal Cancer	36
Title: Development of Online Training Module on Obesity	37
Title: Evaluation of Student Telehealth Rotation at Columbia University College of Dental Medicine	38
Title: Fluoride Varnish During Medical Visits Among Privately-Insured Children in 4 New England States.....	39
Title: Impact of COVID-19 on school-based oral health programs	40
Title: Increasing access to optimally fluoridated water for the prevention of tooth decay in West Virginia	41
Title: Relationship between Caregivers' Oral Health Literacy and their Child’s Caries Experience.....	42
Title: The Identification of Factors Associated with Successful School-Based Sealant Programs	43
Title: The Smiles for Life Online Curriculum: A Decade of Transforming Oral Health Education and Practice	44
Title: Towards Equitable Oral Health: A Cultural Competency and Interprofessional Education (IPE) Model	45
Title: Worksite Access to Fluoridated Tap Water and Retail Beverages: An Assessment of the UCSF Campuses	46
Poster Session IV 2:45 PM - 3:30 PM ET	47
Title: Covid-19 Effects on Columbia University 2019 Dental Graduates' Views of the Profession of Dentistry	48
Title: Data Driven Strategy for Prioritizing Policy Change to Support Sustainable Oral Health Integration.....	49
Title: Dental providers return to work in the COVID-19 era: Challenges and Solutions.....	50
Title: Dentist attitudes toward an annual benefit maximum in Iowa Medicaid.....	51
Title: Evaluating Adult Dental Medicaid During Initial Stages of COVID-19.....	52
Title: Expanding the Dental Public Health Workforce: Texas Recruits and Retains	53
Title: Hidden Dental Costs of the Underutilization of Dental Services in the Adult Medicaid Population.....	54
Title: How Dentistry Survived the Early Months of the COVID-19 Pandemic? The Palestinian Experience.....	55
Title: Impact of an Educational Symposium on Opioid Prescribing Knowledge and Practices of Dental Residents ..	56
Title: Iowa Medicaid Member Preferences for Maintaining Full Dental Benefits	57
Title: Perception and Intention of Dental Professionals about Clinical Volunteering for CE Credits	58
Title: Prevalence of HPV Vaccination Among Adolescents and Young Adults, NHANES 2015-2018.....	59
Title: Public Opinion Regarding Dental Care Visits during COVID-19 Outbreak in Saudi Arabia	60
Title: States’ Response to COVID-19 in the Dental Setting	61
Title: Teledentistry Use Gains Traction During COVID-19.....	62

Poster Session I

11:00 AM - 11:45 AM EDT

**Presenting Author*

^S Student/Graduate Student/Resident Presenter

1



The National Oral Health Conference is presented by:
American Association of Public Health Dentistry (AAPHD) &
Association of State and Territorial Dental Directors (ASTDD)



[Back to Table of Contents](#)

Title: Acculturation and Dental Visits in Californian Hispanic and Asian Immigrants

Authors:

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Abstract:

Objectives: California has more immigrants than other states. Oral health disparities among immigrants have been documented, but dental utilization differences by acculturation are unclear. We examined acculturation and dental utilization among California's Latinx and Asian populations.

Methods: Nativity, immigrant generation, and acculturation (English proficiency; US residency length) were characterized for 13,509 Latinx and 5,648 Asian participants in the 2017-2019 California Health Interview Survey. Ethnic enclaves and neighborhoods of income inequality were defined using American Community Survey. Multinomial logistic regression was used to estimate odds ratios (ORs) and 95% confidence intervals (CI) for time since last dental visit while accounting for complex survey design, zip code, age, sex, smoking, diabetes, dental insurance, self-assessed teeth condition, and rural/urban residence.

Results: Lower acculturation was associated with higher irregular (one to five years) and rare (>five years) dental visits compared to regular visits (≤one year). Lower English proficiency was associated with irregular [not well/not at all vs English only: Latinx OR=1.27 (95%CI: 1.04-1.55); Asian OR=2.32 (95%CI: 1.64-3.29)] and rare [Latinx OR=1.90 (95%CI: 1.46-2.47); Asian OR=5.59 (95%CI: 3.51-8.90)] visits. Lower US residency length, especially among Latinx of lower socioeconomic groups, was also associated with irregular and rare visits. Neighborhoods with higher ethnic enclave indexes [Quintile 5 vs 1: Latinx OR=1.22 (95%CI: 1.01-1.48); Asian OR=1.42 (95%CI: 1.10-1.84)] and income inequality [Asian OR=1.53 (95%CI: 1.01-2.30)] were associated with irregular visits.

Conclusions: Results highlight the importance of culturally tailored oral health literacy efforts that considers neighborhood contexts to address health inequities and improve dental utilization among Californian immigrants.

Source of Funding: Proposition 56, the California Healthcare, Research and Prevention Tobacco Tax Act of 2016

Keywords: Disparities; Rural/Vulnerable/Underserved; State

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Addition of Electronic Dental Records from a Large Dental Organization into a Data Linkage System

Author(s)

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Brenda Prosa, BA, BS, Apple Tree Dental/Mayo Clinic

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Abstract:

Objectives: Electronic dental records were linked to a large health record data linkage system in the Mid-West.

Methods: Dental organization partners aligned clinical workflows and electronic dental record infrastructure with research authorization requirements. Health record data linkage system partners identified data merging feasibility and determined variables for inclusion in the data linkage system. The gender/age group, dental treatment, and dental diagnosis codes of the cohort were described.

Results: Research Authorization (RA) was confirmed for 6,675 individuals, 6,252 of whom have a matched record in the health record data linkage system. Females and those aged under 45 years were more likely to be in this matched cohort with confirmed RA. Descriptive comparison of dental treatment category proportions of the novel dental partner with dental data in the existing linkage system show some similarities and some notable differences. The presence of diagnostic codes from the new dental partner is a novel addition to the health record data linkage system.

Conclusions: Participation of dental practices in a health record data linkage system requires clinical work flow, electronic record adaptations, and a designated liaison to facilitate the partnership. Unique challenges exist for practices providing services to publicly-insured individuals due to residential transience. Inclusion of dental diagnostic codes enables innovative comparisons of oral-systemic associations within an existing health record data linkage system but will require an understanding of diagnosis code validation and how to address the absence of this variable among other dental partners represented in the linkage system.

Source of Funding: None

Keywords: Dental Public Health; Rural/Vulnerable/Underserved; Surveillance

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Beliefs, Perceptions and Attitudes of Dental Providers and Staff Towards LGBTQIA+ Patients

Authors:

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Anubhuti Shukla, BDS, MHA, Indiana University School of Dentistry

Abstract:

Objective: In healthcare settings, lesbian, gay, bisexual, transgender, and queer (LGBTQIA+) populations often experience discriminatory environments facilitated by intentional or implicit biases held by healthcare professionals. These environments have been well documented as leading to discomfort, dissatisfaction and declinations of LGBTQIA+ individuals returning to or seeking healthcare services. Previous research focused on ways in which healthcare professionals perceive members of the LGBTQIA+ community; however, limited research has been conducted to understand this phenomenon in oral health settings. The primary aim of this study was to identify the perceptions of oral healthcare providers toward the LGBTQIA+ community and whether these perceptions impact the experiences of LGBTQIA+ patients seeking dental care.

Methods: Oral healthcare professionals at federally qualified health centers, dental school clinics and similar settings that provide low-cost oral healthcare services in Michigan and Indiana were asked to participate in this study. LGBTQIA+ patients were recruited from FQHCs within the same geographic region. Survey participation was voluntary and was to be completed either on paper or online. The survey was administered to the participants after obtaining their consent to participate. The study was reviewed and classified as exempt by the Institutional Review Board at Indiana University School of Dentistry (IUSD). Ordinal regression modeling was used to predict oral health professional's willingness to implement inclusive healthcare practices. Logistic regression analysis techniques were used to understand the role that environmental factors play in determining LGBTQIA+ patient's comfort accessing oral healthcare services.

Results: Data analysis still in process.

Conclusions: Data analysis still in process.

Source of Funding: None

Keywords: Access to care, Rural/Vulnerable/Underserved; Other

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Dental care for pregnant patients: a survey to assess the current practices of Alabama dentists

Authors:

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Abstract:

Objectives: The objective of this study was to develop a survey instrument aimed to investigate dental care practices of Alabama dentists regarding pregnant patients, and to assess the relationships among the survey results.

Methods: A survey instrument was developed and distributed via email to 472 Alabama Academy of General Dentistry (ALAGD) members. Descriptive analyses were conducted to assess the dental care practices, self-reported competence, and barriers in providing dental care. Bivariate analyses were conducted to compare the differences in dentists' receipt of residency training in relation to self-reported competence and dental care practice model of choice.

Results: 82 dentists completed the survey, yielding a response rate of 17.3%. Although 93.9% of respondents reported they provided dental care to pregnant patients in the past year, dentists' lack of education or training was reported at the highest frequency (41.5%) as a barrier for the provision of dental care. The dental care practice model of choice for 63.4% of respondents was to provide emergency, routine hygiene, and preventive dental care while delaying all elective procedures until after pregnancy. Statistically significant associations were found between dentists' self-reported competence and receipt of residency training ($\chi^2=4$; p -value=0.034; $\phi=0.235$).

Conclusions: Dentists who did not receive residency training appeared more likely to report competence in their ability to provide dental care to pregnant patients, however studies with a larger sample are recommended to further investigate the relationships. Continuing education on the provision of dental care to pregnant patients may improve self-reported competence.

Source of Funding : None

Keywords: Models of Care; Peri-natal; Dental care providers

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Disparities in Dental Insurance Enrollment Rates among Michigan’s HIV Population

Authors:

Prudence Kunyangna*, MS, Michigan Department of Health and Human Services
Jaymee Clark, Michigan Department of Health and Human Services

Abstract:

Background: The Michigan Dental Program (MDP) is a comprehensive dental access program for Michigan residents living with HIV/AIDS established in 2000. To qualify for the program applicants must: have HIV/AIDS, have an income below 500% of the federal poverty level, applied for public assistance, and live in Michigan.

Methods: Delta Dental and HRSA’s Ryan White HIV/AIDS Program are the two main data sources. Comparisons between MDP members and the Michigan HIV population by county, race, gender, and age using data from HRSA’s Ryan White HIV/AIDS Program were completed for 2017 to 2019. Claims data from Delta Dental was analyzed for the types of dental procedures being received by MDP members.

Results: Geographic and racial disparities exist in MDP enrollment. Blacks make up over half (56%) of the HIV population in Michigan, yet only 15% are enrolled in the MDP program. Over half of the HIV population reside in Wayne, Macomb, and Oakland counties, however, their enrollment rates are some of the lowest. Wayne, which has 42% of people living with HIV, had an enrollment rate of 15%, Macomb and Oakland had 13% and 21% enrollment rates, respectively. Results from claims data indicated the top three procedures received by MDP members are diagnostic (39.6%), restorative (20.6%) and preventive (16.5%) services.

Conclusion: The MDP has made tremendous efforts in reaching out to people living with HIV to enroll in the program. However, there remains work to be done in addressing racial disparities of enrollees.

Source of Funding: None

Keywords: Disparities; Rural/Vulnerable/Underserved; State

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Feasibility of Retrospective Dental Chart Review to Assess Caries Risk During Orthodontic Treatment

Author(s)

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Yuan Zhang, MS, MA, Columbia University Mailman School of Public Health

Abstract:

Background: Orthodontic treatments are performed on patients with abnormal alignment of teeth and jaws to optimize masticatory function and esthetics. Despite these benefits, orthodontic treatments have been associated with caries exacerbation. Currently, dental clearance is the accepted method in orthodontics to ascertain that a patient is free of caries at the start of an orthodontic treatment, but it only provides partial information on patient's caries risk level.

Objectives: To assess the feasibility of retrospective dental chart review in predicting caries progression during orthodontic treatment.

Method: Dental charts of 71 patients under age 21 years who initiated orthodontic treatment between 2017 and 2020 at the Columbia University College of Dental Medicine were reviewed to determine pre-orthodontic restorative history and caries risk (19 low, 21 moderate, 31 high) and restorative care during orthodontic treatment. Kruskal–Wallis test and pairwise two-sided multiple comparison analyses compared preventive and restorative dental service utilization during orthodontic treatment between each caries risk group.

Results: Preliminary analyses show that across all risk groups preventive and restorative dental utilization declined during orthodontic treatment from pre-orthodontic treatment levels. Yet low caries risk group's restorative utilization was significantly lower than moderate and high caries risk groups' restorative utilization during orthodontic care ($p < .001$) suggesting that pre-orthodontic caries treatment experience is associated with restorative need during orthodontic care.

Conclusions: Assessment of past restorative dental service utilization and caries risk classification is a feasible approach to informing orthodontists' efforts to tailor preventive measures and recall intervals based on the individual patient's risk profile and needs.

Source of Funding: Columbia University, College of Dental Medicine, Population Oral Health. This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number D85HP20031 "Predoctoral Training in General, Pediatric, and Public Health Dentistry and Dental Hygiene" for the amount of \$1,695,472. None of this endeavor is financed by nongovernmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Keywords: Orthodontics; Children; Other

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: GIS mapping of Medicaid-MassHealth ACOs and Community Health Center Dental Clinics in Massachusetts

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Abstract:

Introduction: The integration of oral health into medical care is an important step in optimizing overall health. The majority of members of the Massachusetts Medicaid program (MassHealth), receive medical care through Accountable Care Organizations (ACOs). Determining the proximity of dental clinics to ACOs is an important step towards integrating the two systems. **Objective:** The objective of this project is to identify the geographic proximity of community health center (CHC) dental clinics to MassHealth ACOs.

Methods: The list of 16 ACOs were obtained from the state government website. The CHC dental clinic locations in MA were obtained from the Massachusetts League of CHCs. Locations of all ACOs and CHC dental clinics were entered into an Excel spreadsheet manually and imported into ArcGIS Geographic Information System, a web-based geographic information system software tool used to create web maps. The addresses of ACOs and Dental CHCs were converted to coordinates (latitude and longitude values) for the purpose of mapping. ACO locations and Dental CHC locations were mapped in two separate layers to visualize the distribution.

Results: There are 488 primary care locations within 16 ACOs and 56 Dental CHCs throughout the state of MA. Of the 56 Dental CHCs, 39 are affiliated with MassHealth ACOs (70%) and the remaining dental centers are located in close proximity to ACOs.

Conclusion: The majority of MassHealth ACOs have a dental clinic either connected to them or within close proximity thereby better facilitating the integration of medical and dental care within the MA Medicaid program.

Source of Funding: None

Keywords: Access to care; Children; Medicaid

**Presenting Author*

^S Student/Graduate Student/Resident Presenter

Title: Oral Health Assessment among Children with and without Intellectual and Developmental Disability

Authors:

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Beau Meyer, DDS, MPH, Ohio State University College of Dentistry

Abstract:

Objective: Our primary objective was to compare the oral health behaviors and status of children with and without intellectual and developmental disability (IDD) using a nationally representative sample.

Methods: In this cross-sectional analysis, we used publicly available data from the 2017-18 National Health and Nutrition Examination Survey (NHANES). Demographic, medical condition, oral health behavior, and oral health examination data were included. We identified IDD according to the survey's audiometry questionnaire, which limited the dataset to children 6 to 15 years old. Oral exam data yielded decayed, missing, filled tooth (DMFT) and surfaces (DMFS) for each subject. Analysis included univariate and bivariate comparisons between children with and without IDD.

Results: There were 1,715 subjects included in analysis, 359 with IDD and 1,356 without IDD. Children with IDD were significantly more frequently males (64.9%, $p < 0.001$), white (41.5%, $p < 0.001$), and had public insurance (52.3%, $p=0.003$) compared to children without IDD (46.3%, 26.7%, 43.7%, respectively). Additionally, children with IDD had higher frequency of asthma (22.3% vs. 15.9%, $p=0.015$) and ear infections (64.4% vs. 48.6%, $p < 0.001$). Fewer children with IDD reported twice a day toothbrushing compared to children without IDD (57% vs. 67.7%, $p=0.003$). Overall DMFT (with IDD=1.92, without IDD=1.94, 95% confidence interval (CI) for difference: -.36 to .32) and DMFS (with IDD=4.41, without IDD=4.33, 95% CI for difference: -.84 to 1.00) did not significantly differ between groups.

Conclusions: Understanding the disparities in oral health behaviors among children with IDD provides context for dental public health programs targeting utilization and outcomes for this vulnerable population.

Source of Funding: None

Keywords Disparities; Children; National

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Oral Health Providers of Color Face Greater Hardships from the Impact of COVID-19

Authors:

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Julie Frantsve-Hawley, PhD, DentaQuest Partnership for Oral Health Advancement

Abstract:

Objective: This study evaluates the operational and financial impact of COVID-19 on oral health providers of color.

Methods: The DentaQuest Partnership for Oral Health Advancement conducted an electronic survey of 21,617 DentaQuest-enrolled dental providers from August 13th to September 1st. Our sample was limited to providers who passed screening questions, answered the question on racial identification, and excluded public health dental providers to obtain a subsample of 1,568 dental providers with 758 providers identifying as white, 332 identifying as Asian, 156 as Hispanic, 103 as Black, 19 as American Indian, and 300 as “other.” Together, those who identified as non-white are referred to as “providers of color.”

Findings: The survey’s findings show that pandemic-related changes have disproportionately affected oral health providers of color in terms of patient and payment volumes. About 71% of oral health providers of color reported significant reduction in patient volumes since the COVID-19 pandemic began compared to 57% white providers. In addition, about 53% of oral health providers of color are seeing fewer new patients than before the COVID-19 pandemic, compared to 40% of white providers. However, despite increased burdens that resulted from COVID-19, oral health providers of color more likely to place high importance on noncontact dentistry, oral health services through telehealth, and alternative payment models.

Conclusion: Oral health providers of color have been hit hard by COVID-19, but they are ready to embrace a new normal in oral health that includes enhanced infection control, minimally invasive care, teledentistry and alternative payment models.

Source of Funding: None

Keywords: Disparities; Rural/Vulnerable/Underserved; Dental care providers

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: 'Recruit a Smile': Research into the Veterans Population at Tunxis Community College
2019 AAPHD Small Grant Award Recipient

Author:

Amber L. Humphrey*, RDH

Abstract:

We are performing a research project of the student veteran community at Tunxis Community College called "Recruit a Smile" using surveys, focus groups and educational materials.

Objective: The objective of the project is to assess the availability of student veteran population's access to dental hygiene and dental services, the level of oral health literacy, and value in the importance of regularly scheduled dental hygiene services.

Methods: Our methods use focus groups, primary and secondary data analysis, and an anonymous online survey sent out to the veteran students currently enrolled at Tunxis.

Results: Our results of the survey included 28 respondents between the ages of 18-74; 22 male and 6 female. It was performed from November 1st 2019 to August 15th, 2020. 32.14% of the respondents answered that they had dental discomfort, 39.29% had unmet dental needs, 50% reported cost as a major factor and 42.86% reported having no insurance. A focus group was performed January 17th 2020 which included concerns about insurance and cost of treatment as well as finding providers.

Conclusions: Our conclusion is that the veterans do value regularly scheduled dental cleanings but do not have proper access to dental care nor do they have the means to afford the care. Due to this it has decreased the veterans oral health literacy from not being able to attend regularly scheduled cleanings and maintain their oral health.

Source of Funding: American Association of Public Health Dentistry Foundation Small Grant Award

Keywords: Access to care; Rural/Vulnerable/Underserved; Literacy

*Presenting Author

^S Student/Graduate Student/Resident Presenter

Title: Results and Insights from the 2017 Oregon Smile & Healthy Growth Survey

Author:

Kelly Hansen*, BA, Oregon Health Authority

Abstract:

Objective: This poster presentation will describe the methods used and results from the 2017 Oregon Smile & Healthy Growth Survey. The survey is conducted every five years to determine the overall burden of oral health issues related to tooth decay and prevalence of overweight and obesity among Oregon children in first, second and third grades.

Methods: The survey was conducted during the 2016-17 and 2017-18 school years. Specially trained dental hygienists screened 8,024 children from a statewide representative sample of 134 elementary schools. The hygienists performed a brief, simple visual screening of each child's mouth and recorded the height and weight of each child for a body mass index (BMI) calculation. Previous iterations of the Oregon Smile Survey obtained demographic information during screening. In this iteration, however, demographic information, including grade, gender, birth date, race/ethnicity, participation in the National School Lunch Program, disability and language spoken at home was obtained through deterministic linkage with data from the Oregon Department of Education.

Results: Results show a significant reduction in the prevalence of rampant decay, defined as decay in seven or more teeth of any kind, from previous survey years. Other results show prevalence of caries experience in primary and permanent teeth by race/ethnicity, age, disability status, rural/urban location and

Conclusions: The 2017 Oregon Smile & Healthy Growth Survey provides an important opportunity to understand and address tooth decay and childhood obesity in Oregon. Results identify populations at greatest risk and disparities based on race and ethnicity, household income and geographic residence.

Source of Funding: None

Keywords: Dental Public Health; Children; Surveillance

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Smoking Status of Healthcare Workers and Perception On Tobacco Cessation - A National Survey

Authors:

Amrita Geevarghese*[§], UCSF School of Dentistry

Israel Agaku, Professor, Harvard T.H. Chan School of Public Health

Abstract:

Objectives: To assess the association between smoking status of faculty members from the different US dental/allied dental schools and their self-efficacy and perception of preparedness towards providing tobacco cessation counselling at workplace.

Methods: This research used data from Tobacco Survey of Personnel in Dental and Allied academic Programs survey (TSPDAP). The IRB approval was obtained the Center for Disease Control and Prevention's Institutional Review Board (IRB). The data of 1896 subjects were analyzed.

Results: Higher percentage of dental school faculty were never smoker (71.2%) compared to ever smokers (69.5%). Significantly higher proportion of never smokers compared with ever smokers considered e-cigarettes (36.0%, 30.4% resp., $p = 0.04$) and quit lines (50.5%, 44.7% respectively, $p = 0.04$) to be effective tobacco cessation interventions. In comparison to ever smokers (8.8%), a higher proportion of never smokers believed that medical doctors were better than dentists at providing tobacco cessation counselling to their patients (15.0%, $p=0.01$). Both never (36.1%) and ever smokers (35.1%) were reported to be less confident in prescribing tobacco cessation medications. No significant difference was reported in any of the 10 components of 5-As strategy between never and ever smokers, across self-efficacy and perception of preparedness domains. Though there was no statistical significance, health professionals who were never smokers expressed a more positive attitudes towards provision of smoking cessation interventions.

Conclusion: Smoking status of the Health professional did not have any influence on perception of tobacco cessation.

Source of Funding: Not Applicable

Keywords: Patient education; Adults; Community-based intervention

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: The Effects of Occluding Pair of Teeth on Oral Health-Related Quality of Life in Dialysis Patients

Author:

Payal Kahar*, PhD, MPH, Florida Gulf Coast University

Abstract:

Objective: The aim of the study was to assess oral health-related quality of life (OHRQoL) among dialysis patients and determine if location and distribution of teeth affected perceived oral health.

Methods: Face-to-face interviews and oral examinations were conducted chairside among 96 dialysis patients in Southwest Florida. Data were collected on sociodemographic characteristics and existing medical conditions. OHRQoL was assessed using Oral Health Impact Profile (OHIP-14) questionnaire. The presence of decayed, missing teeth, anterior occluding pairs (AOP), posterior occluding pairs (POP), periodontal condition were determined through oral examinations. Mann–Whitney U test was used to compare each OHIP-14 item score with AOP and POP groups.

Results: Mean age of patients was 64.8±13 years; 40% females and 60% males; 48% Whites, 38% African Americans, 14% Hispanics. Mean number of natural teeth present was 20.1±10.8. Among 80 dentate patients, 56% had at least one decayed tooth and 86% had periodontal disease. Median OHIP-14 add score was 6.0. Median OHIP-14 scores (perceived oral health impacts) were statistically significant higher for AOP 0-2 than AOP 3-6 for items: uncomfortable eating (p=0.034), unsatisfactory diet (p=0.011), had to interrupt meals (p=0.043), felt life is less satisfying (p=0.047). Item with significantly higher score was unsatisfactory diet (p=0.015) for POP 0-3 as compared to POP 4-8.

Conclusion: Higher number of perceived oral impacts were reported with fewer anterior teeth. Strategic replacement and repair of teeth in addition to oral health prevention and promotion programs in dialysis patients lend to the need for comprehensive subjective assessment along with objective measures.

Source of Funding: The study was funded by Florida Gulf Coast University, Marieb College of Health & Human Sciences, Inter-Professional Grant 2016-2017.

Keywords: Dental Public Health Rural/Vulnerable/Underserved

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Visualizing county level data to better target dental safety net programs for children

Authors:

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Susan O. Griffin, PhD, CDC, Division of Oral Health
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Gina Thornton-Evans, DDS, MPH, CDC, Division of Oral Health
*Jorge Bernal^{*5}, DDS, MPH, CDC*

Abstract:

Background: Dental caries if left untreated can cause pain, infection, missed school days and lower academic performance. There are effective clinical interventions to prevent and control dental caries. Most intervention programs are implemented at the local level. An estimated 19% of Georgia 3rd graders have untreated dental caries (UDC). A visualization of county level estimates of need for dental safety net programs (DSN) overlaid with current DSN could help Georgia in allocating dental public health resources.

Methods: We used publicly available Georgia county-level estimates of UDC prevalence (median=20%) and dental workforce shortage severity to categorize county need for DSN. Counties were assigned one of 4 categories: 4 if UDC and workforce shortage>median; 3 if UDC>median and workforce shortagemedian; and 1 if UDC and workforce shortage

Source of Funding: None

Keywords: Access to care; Children; Dental sealants

**Presenting Author*

⁵ Student/Graduate Student/Resident Presenter

Poster Session II

12:00 PM- 12:45 PM ET

**Presenting Author*

^S Student/Graduate Student/Resident Presenter

Title: Benefits of Medical-Dental Collaboration for Chronic Disease and Oral Health

Author(s)

Sandra Biller*, MS, Wyoming Survey & Analysis Center
Melissa Kainz, RN, MSN, North Dakota Oral Health Program
Cheri Kiefer, RN,BSN,RDN,RD, North Dakota Oral Health Program
Laran Despain, PhD, Wyoming Survey & Analysis Center

Abstract:

Objective: In North Dakota, 30% of adults are diagnosed with hypertension. Due to the interconnected nature of oral health and overall health, public health programs promote coordination between dental and medical providers. CDC funding allows the North Dakota Oral Health Program (OHP) to support blood pressure screening and referral processes that address hypertension in dental offices.

Methods: The OHP partners with dental providers to provide blood pressure screenings and bidirectional referrals for adults. Participating dental offices receive blood pressure measurement training, then screen patients for high blood pressure and refer people with a high reading to medical providers. Dental providers track four key indicators: the number of screenings provided, the number of screenings indicating high blood pressure, the number of referrals to a medical provider, and the number of referrals receiving follow-up.

Results: In the first two years of the grant, the OHP worked with eight dental offices and trained 75 dental providers on blood pressure screening and referral procedures. Dental providers conducted 27,634 screenings, detected 1,975 high blood pressures, made 456 referrals, and followed up on 209 of those referrals.

Conclusions: This project has effectively increased blood pressure screening of North Dakota residents, enabling detection of hypertension and referral to treatment. Similar approaches could benefit other rural populations as dental providers can have a significant impact on the reduction of hypertension by providing blood pressure screenings at dental visits. A more considerable impact can be made when dental and medical professionals collaborate with a reliable referral system in place.

Source of Funding: Centers for Disease Control and Prevention, DP18-1810, Component 2

Keywords: Oral health integration; Rural/Vulnerable/Underserved; Systems approach

*Presenting Author

^S Student/Graduate Student/Resident Presenter

Title: Benefits of Medical-Dental Integration for Medical Residents, Providers, and Patients

Authors:

Shawnda M. Schroeder, PhD, MA, Center for Rural Health, University of North Dakota School of Medicine and Health Sciences

Vanessa Bopp*, RDH, PHH, Health Promotion/Oral Health Program

Abstract:

Objective: Integration of dental providers into primary care improves access to dental care for underserved populations, and reinforces that oral health is not separate from overall health. The North Dakota Oral Health Program placed a public health hygienist (PHH) into a family residency program to address patients' oral health needs, and to educate medical residents on the importance of clinical dental screening and referral.

Methods: Medical residents were surveyed on oral health knowledge and training evaluations to assess the PHH's curriculum. Patient data measured the reach of the program by tracking patients screened and referred.

Results: The PHH screened 298 patients, provided fluoride varnish to 152 (51%), provided dental education to 282 (95%), gave dental supplies to 230, and referred 107 patients to a dentist in the 6.5-month timeframe. Medical residents indicated that the PHH's seminars provided them with new information about oral health that they had not previously been exposed to. Third-year residents indicated they were either confident or somewhat confident in their ability to now identify cavities, gingivitis, periodontal disease, and gingival hyperplasia. The PHH responded to the global health pandemic by working with the medical center to serve as a resource when dental services could not be provided.

Conclusions: Integrating a member of the dental team into primary care offered screening, education, referral, and fluoride application for at-risk populations while simultaneously preparing providers to identify oral health concerns. There is still a need to increase dental visit rates post referral. Poster will include updated data.

Source of Funding: The Oral Health Program under evaluation was funded by both the Centers for Disease Control and Prevention and the Health Resources and Services Administration. The evaluation activities were conducted by the Center for Rural Health as a subcontract to both federal awards.

Keywords: Oral health integration; Rural/Vulnerable/Underserved; Evaluation

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Catalyzing the Oral Health Workforce in New Hampshire Rural Healthcare Settings: A Needs Assessment

Authors:

Kobie Gordon*[§], DDS, Harvard School of Dental Medicine
Tejasvita Chandel, BDS, Harvard School of Dental Medicine
Jane Barrow, MS, Harvard School of Dental Medicine
Christine Riedy, PhD, MPH, Harvard School of Dental Medicine
Steffany Chamut, DDS, MPH, Harvard School of Dental Medicine

Abstract:

Objective: Harvard School of Dental Medicine, Bi-State Primary Care Association in New Hampshire, and proposed NH training sites (PTS) are collaborating on a response to create new models to improve training, education, access, and delivery of dental care in rural communities. In preparing for implementation of the new model at the PTS, a needs assessment was conducted to “evaluate systems of care that impact oral health” as part of the public health core functions.

Methods: A needs assessment was performed through a phone interview with each PTS (n=5). Questions included information regarding workforce, health services, access to care, and COVID-19 impact. Interviews were followed by an online survey evaluating the PTS’ readiness for telehealth delivery of oral health services.

Results: PTS reported a dental workforce shortage, especially trained dental assistants, and limited Medicaid and Medicare dental coverage resulted in patients not receiving comprehensive oral health services. While the majority of PTS are committed to telehealth development efforts and reported having the infrastructure (60%), they reported that their patients either have not expressed interest (80%) or have an interest but not the equipment to receive teleservices (40%). Additionally, all PTS expressed the need to improve telehealth coordination aspects (i.e. training, protocols).

Conclusion: These findings will inform the next steps of this project to expand oral health care capacity, access, and telehealth delivery services in NH. Continued collaborative efforts will be necessary to improve health outcomes for underserved and vulnerable individuals living in rural areas in NH.

Source of Funding

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$2,993,671 with 0 percentage financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

Keywords: Disparities; Rural/Vulnerable/Underserved; Community-based intervention

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Evaluating Pre-Implementation Factors Related to Medical-Dental Integration

Authors:

Patricia A. Braun, MD, MPH, University of Colorado

*Cherith Flowerday**, BS, Denver Health

Catia Chavez, MPH, ACCORDS | University of Colorado

Juliana G. Barnard, MA, ACCORDS | University of Colorado

Abstract:

Background: The Rocky Mountain Network for Oral Health Integration (RoMoNOH) is funded by the Maternal and Child Health Bureau to develop, implement, and evaluate a model for the delivery of preventive oral health services (POHS) within community health centers (CHCs) across Arizona, Colorado, Montana, and Wyoming. RoMoNOH supports POHS delivery at medical visits by the medical team and/or integrated dental hygienists. RoMoNOH's approach includes using: 1) an online eLearning to educate staff; 2) state primary care association coaches to support implementation within CHCs; 3) monthly quality improvement metrics to inform implementation progress; 4) population health management and 5) incentive payments to motivate CHCs to reach POHS benchmarks.

Objective: Evaluate CHCs' pre-RoMoNOH implementation factors: oral-health-need, capacity-to-participate, and leaders' perceptions.

Methods: RoMoNOH assessed CHCs' pre-implementation oral-health-need and capacity-to-participate with a quantitative survey, and leader's perceptions with qualitative semi-structured interviews. One person/CHC completed the oral-health-need assessment, multiple staff/CHC were invited to complete capacity-to-participate assessments, and two researchers interviewed 1-2 leaders/CHC and summarized interviews within a structured instrument.

Results: Twenty three CHCs have been enrolled. CHC staff completed 23 oral-health-need and 34 capacity-to-participate assessments. Thirty-six leaders were interviewed. CHCs are urban (12 (52%)), rural (9 (39%)), and frontier (2 (9%)). Thirteen (56%) have co-located dental clinics. Six (26%) provide fluoride varnish at some medical visits. CHC's capacity-to-participate assessment responses varied. Overall, leaders were enthusiastic about participating and perceived benefits to RoMoNOH's approaches; however, leaders also perceived potential barriers.

Conclusion: Understanding pre-RoMoNOH implementation factors will inform both the CHC and RoMoNOH project's model and approaches.

Source of Funding: Maternal and Child Health Bureau | Health Resource and Services Administration

Keywords: Oral health integration; Children; Evaluation

**Presenting Author*

⁵ Student/Graduate Student/Resident Presenter

Title: Evaluation of a Comprehensive Program Addressing Oral Health in Multiple, Diverse Community Settings

Authors:

Shawnda M. Schroeder*, PhD, MA, Center for Rural Health, University of North Dakota School of Medicine and Health Sciences

Blake Greiner, MS, Center for Rural Health, University of North Dakota School of Medicine and Health Sciences

Abstract:

Objective: This evaluation measured efficacy of one statewide Oral Health Program identifying barriers, successes, and lessons learned.

Methods: The evaluated program addresses oral health equity through school-based dental sealant programs, case management, medical-dental integration, dental student rotations in federally qualified health centers, and water fluoridation education. The evaluation is multifaceted and employs review of statewide data systems, patient data, interviews, training evaluations, surveys of medical residents, dentists, and school personnel, and review of products developed for education.

Results: Combining the efforts of SEAL!ND and the Ronald McDonald Care Mobile, 100 schools participated in a school-based sealant program during the 2019-2020 school year; 4,106 students had a dental screen and 6,917 teeth were protected with dental sealants. The biggest barrier to providing care was initial return of consent forms. Dental students completing rotations in a federally qualified health center identified positive experiences with integrated care and complex case management, but indicated future salary and low dental loan repayment rates would weigh into their decision about where to practice in the future. Through the medical-dental integration program, 298 individuals received a dental screen in a family medical setting. Medical residents also received oral health training and evaluation data indicated that third-year medical residents left the program with greater knowledge of oral health and how to conduct basic oral health screens.

Conclusions: The program has had significant reach even amid the global health pandemic, and has identified opportunities to improve the program and share best practices with other statewide programs.

Source of Funding: The Oral Health Program under evaluation was funded by both the Centers for Disease Control and Prevention and the Health Resources and Services Administration. The evaluation activities were conducted by the Center for Rural Health as a subcontract to both federal awards.

Keywords: Health Promotion; Rural/Vulnerable/Underserved; Evaluation

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Factors Affecting Access to Dental Care for Seniors in Rural Iowa

Authors:

Charlie Rupp^{*5}, University of Iowa College of Dentistry
Peter Damiano, DDS, University of Iowa College of Dentistry

Abstract:

Objective: Rural communities face unique challenges accessing dental care services, such as provider shortages and insurance coverage. Seniors, who comprise a large proportion of the rural population, face their own unique challenges accessing dental care. Some of these challenges include lack of insurance coverage and transportation. The purpose of this research study is to investigate the following research questions: What barriers to dental care are persisting in rural Iowa communities for seniors? What roles do existing programs and resources play in alleviating the barriers seniors face with accessing dental care?

Methods: Researchers conducted structured interviews with organizations supporting rural seniors including the members from Iowa Department of Public Health, I-Smile Silver Coordinators, and other agencies. Nine interviews were completed with fourteen people in either group or individual discussions. Audio data collected from the interviews were verbatim transcribed using Rev transcription service and analyzed in Nvivo.

Results: Providers accepting Medicaid, transportation, and lack of insurance coverage were the most cited obstacles for the elderly. I-Smile Silver and Area Agency on Aging were some of the identified existing programs helping seniors overcome barriers. Expanding I-Silver to become statewide program and increased oral health education of seniors were commonly identified ways to improve access to dental care.

Conclusion: Our interviews with community organizations indicated improving access to dental care is multifaceted and difficulties for seniors persist in our Iowa communities. Assistance in finding providers who accept Medicaid, transportation to dental clinics, and increased awareness of oral health resources would help alleviate these barriers.

Source of Funding: The Iowa Dental Research Grant

Keywords: Access to care; Seniors; State

**Presenting Author*

⁵ Student/Graduate Student/Resident Presenter

Title: How Evidence-Based Is US Dental Workforce Policy for Rural Communities?

Authors:

Miranda Werts*, UCSF School of Dentistry

Ginachukwu Amah, Philip R. Lee Institute for Health Policy Studies and Healthforce Center at UCSF

Elizabeth Mertz, PhD, MA, UCSF School of Dentistry

Abstract

OBJECTIVES. This study examines evidence-based workforce strategies employed across US states to increase access to oral health services for rural populations, the strength of the evidence on outcomes, and the alignment of policy and infrastructure to enable success.

METHODS. A literature search identified 10 global strategies to enhance the rural dental workforce. We categorized each as retention-, recruitment-, or redesign-focused and assessed the prevalence and effectiveness of each identified strategy in the US. Each strategy was graded as low, medium, or high evidence (few, mixed, or strong studies/outcomes, respectively). State and federal policies were assessed against the evidence base.

RESULTS. The strongest evidence for rural recruitment efforts was found in efforts combining multiple approaches into rural-focused pipeline programs. Retention strategies focused on recruiting rural students and building training rotations in rural communities, which has considerable evidence of success over the past two decades. Largely absent from the suite of evidence-based solutions are structural approaches to change the model of care delivery, such as incorporating new providers and expanding the scope and existing team members, which have been extensively studied and found to be beneficial.

CONCLUSIONS. In the US, current programs and policy primarily focus on understanding and trying to modify personal factors related to dentists' individual choice. However, we found strong evidence around the changing nature of the care delivery system ripe for state and federal investment. There are clear policy implications for improving evidence-based resource allocation and programs to improve rural dental workforce and access.

Source of Funding: This research was conducted for the Oral Health Workforce Research Center (OHWRC) and funded by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS).

Keywords: Workforce; Rural/Vulnerable/Underserved; Policy

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Links between Oral Health-related Quality of Life in US Adults and Type 2 Diabetes: SEM Analysis

Authors

Giang T. Vu*, D.D.S., M.S., Ph.D., University of Louisville
Bert B. Little, M.A., Ph.D., University of Louisville
Robert Esterhay, M.D., University of Louisville
J'Aime Jennings, Ph.D., M.P.A., University of Louisville
Liza Creel, Ph.D., M.P.H., University of Louisville
Lawrence Gettleman, D.M.D, M.S.D, University of Louisville

Abstract:

Objectives: The objective of this study was to analyze the causal effects of type 2 diabetes mellitus (T2DM), need of dental care, and personal health practices and use of service factors on perceived oral health outcomes measured by oral health-related quality of life (OHRQoL) in US adults.

Methods: The study sample included 2,945 participants (aged ≥ 20) selected from the National Health and Nutrition Examination Survey (NHANES) 2003-2004 stratified probability sample that represented 124,525,899 million individuals in the weighted sample. Two-stage structural equation modeling (SEM) was used to assess interrelationships between T2DM regressions on factors associated with OHRQoL in the simplified three-factor Andersen Behavioral Model (ABM).

Results: SEM supported the hypotheses modeled in the simplified ABM that T2DM directly influenced need (perceived need, evaluated need, general health condition) with a significant path coefficient of 0.49 ($\beta = 0.49, p < 0.05$). Need had direct (77%) and indirect (23%) effects on OHRQoL ($\beta_{\text{direct}} = 0.30, \beta_{\text{indirect}} = 0.09, p < 0.001$). Need influenced personal health practices and use of services (reason for dental visit, frequency of dental visits, smoking status) ($\beta = 0.46, p < 0.001$). Need, in turn, predicted OHRQoL ($\beta = 0.19, p < 0.001$). In the simplified ABM model, 23.8%, 59.7%, and 18.1% of the variance was explained by need, personal health practices and use of services, and OHRQoL, respectively.

Conclusions: The results confirmed T2DM impact on need, which in sequence had direct and indirect effects on OHRQoL.

Source of Funding: None

Keywords: Dental Public Health; Adults; Policy

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Medical-Dental Integration Environmental Scan Results of Arizona, Colorado, Montana, and Wyoming

Authors:

Kera Beskin*, MPH, MBA, American Academy of Pediatrics
Lauren Barone, MPH, American Academy of Pediatrics
Da-Nell Pedersen, MPA, Arizona Alliance for Community Health Centers
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Kate Kennedy, MPH, CPH, Colorado Community Health Network
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Tara Callaghan, MPH, LPN, Montana Primary Care Association
Carolyn Conlin, M Psych, Wyoming Primary Care Association
Cherith Flowerday, BS, Denver Health
Patricia A. Braun, MD, MPH, Denver Health | University of Colorado

Abstract:

Objectives: The Rocky Mountain Network of Oral Health (RoMoNOH) is an oral health learning network comprised of Arizona, Colorado, Montana, & Wyoming Primary Care Associations (PCAs). PCAs have recruited Federally Qualified Health Centers (FQHCs) from each state to focus on the integration of oral health services into primary care. An environmental scan was conducted around the scope of practice laws, reimbursement, and policy to inform this project.

Methods: The American Academy of Pediatrics (AAP) worked with the Center for Oral Health Systems Integration and Improvement (COHSII) and three regions (East Coast, Midwest, and Rocky Mountain) to develop an environmental scan tool focused on scopes of practice of medical and dental providers, Medicaid payment for oral health services, and state policies. To complete the scan, AAP staff conducted online research and interviewed Primary Care Association staff, Medicaid officials, and state dental offices.

Results: Arizona, Colorado, Montana, & Wyoming vary widely by population, racial demographics, scopes of practice for different providers, and approved reimbursement codes. For example, Wyoming FQHCs interested in embedding a dental provider in a medical setting are challenged by dental hygienists not able to bill Medicaid directly. Colorado, in contrast, dental hygienists can bill Medicaid directly, own their own dental hygiene practice, and have a broad scope of practice.

Conclusions: Policies related to medical-dental integration vary from state to state. Each state showed unique barriers and facilitators for oral health integration. Interpretation of state-level policies is complex and at times unclear which can create hindrances to successful medical-dental integration.

Source of Funding: U.S. Department of Health and Human Services (HHS) as part of Cooperative Agreement Number HRSA-UK7MC33230.

Keywords: Oral health integration; Children; Policy

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: "No Wrong Door" to Hypertension Control: Interprofessional Service Learning in a Dental Setting

Authors:

Amanda K. Swanson*⁵, Adams School of Dentistry, University of North Carolina at Chapel Hill

Micayla Jones, School of Medicine, University of North Carolina at Chapel Hill

Ryan Lewis, MSN, RN, FNP-BC, School of Nursing, University of North Carolina at Chapel Hill

Paul Chelminski, MD, MPH, FACP, School of Medicine, University of North Carolina at Chapel Hill

Jennifer Brame, RDH, MS, Adams School of Dentistry, University of North Carolina Adams School of Dentistry

Abstract:

Background: Many patients at the University of North Carolina Adams School of Dentistry present with complex and undiagnosed medical needs. Twenty-two percent report not visiting a primary care provider within 2 years; 55% have hypertension. Uncontrolled hypertension can create significant barriers to dental care, increasing risk of poor oral-systemic health. **Objective:** Explore viability of an interprofessional health intervention in dentistry by establishing a pilot program for at-home hypertension management among dental patients.

Methods: Patients diagnosed with hypertension or multiple recent elevated blood pressure readings were identified from the Admissions Clinic and referrals from an on-site social worker. Eligible participants were invited to enroll in an 8-week program including four virtual meetings and daily blood pressure tracking. Monitors were provided. Meetings were conducted by an interprofessional team (one dental student, one medical student) and included a verbal 10-question survey assessing behaviors, perceived health status, and barriers to care, followed by hypertension education and lifestyle counseling. Community referrals were provided to those lacking medical care. A followup survey was sent 4 weeks after program completion.

Results: Twelve patients are currently enrolled; 36 virtual patient encounters have been completed. Preliminary feedback has been positive with high engagement and compliance. Subsequent enrollment and data collection are ongoing.

Conclusions: The dental setting provides a unique opportunity to identify at-risk patients and facilitate engagement with the healthcare system through interprofessional collaboration. Providing educational counseling with follow-up support is a strategy to improve patient-reported outcomes and self-efficacy; this presents a rich service-learning environment for interprofessional student education.

Source of Funding: North Carolina Albert Schweitzer Fellowship; University of North Carolina Health Foundation; University of North Carolina Office of Interprofessional Education and Practice

Keywords: Oral health integration; Rural/Vulnerable/Underserved; Dental school

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Primary Care Dentistry for South Texas: Impacting Oral Health for Vulnerable Populations

Authors:

Suman Challa*, BDS, MSPH, UT Health San Antonio, School of Dentistry

Jeffery Hicks, DDS, UT Health San Antonio, School of Dentistry

Rochisha S. Marwaha, BDS, MPH, UT Health San Antonio, School of Dentistry

William Hendricson, MS, MA, UT Health San Antonio

Magda A. de la Torre, RDH, MPH, University of Texas Health Science Center at San Antonio, School of Dentistry

Abstract:

Objectives: There are 330 dental health professional shortage areas (DPSAs) across 99 Texas counties, and only one general dentist for every 2,764 Texans in these counties. There are 4.7 pediatric dentists in Texas for every 100 pediatricians, one of the lowest ratios in the nation. The objectives of the Primary Care Dentistry for South Texas program (PCDST) are to provide comprehensive dental care for rural populations, transform the dental workforce with enhanced training experiences pertinent to serving vulnerable populations and build a collaborating network of FQHCs in DPSA counties for health care and training.

Methods: With HRSA funding, three primary care dental residency programs at UT Health San Antonio are participating in an interdisciplinary rural dentistry curriculum: Advanced Education in General Dentistry, Dental Public Health, and Pediatric Dentistry. The program recruits rural trainees and provides residents with opportunities to care for patients who are aged, underserved, vulnerable and with special health care needs at FQHC dental clinics in 13 rural communities. All learning activities are experiential, triggered by self-assessment and cemented by skill practice and peer feedback.

Results: Data gathered by a daily Resident's Online Activity Report and Evaluation indicate that working in rural FQHCs is an eye-opening experience for residents as they learn barriers to oral health care and see the lack of health care resources in these communities.

Conclusions: The PCDST demonstrates that community-based interdisciplinary education for primary care residents promotes awareness of oral health care deficits in rural Texas and enhances interest in rural dental practice.

Source of Funding: This program is supported by a grant from Health Resources and Services Administration (D88HP37558) Post-Doctoral Training in General, Pediatric and Public Health Dentistry.

Keywords: Access to care; Rural/Vulnerable/Underserved; Community-based intervention

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Put the Mouth Back in the Body: How Quality Improvement Impacted Dental Integration in Medical

Author:

Madlen Caplow*, MPH, Arcora Foundation

Abstract:

Objective: Medical providers are at the forefront of pediatric health but receive little training on the leading chronic condition of childhood – dental disease. They are responsible for the overall-health of children and likely faced with morbidity associated with dental caries. Young children visit medical providers much more often and earlier than dentists making it critical that they are knowledgeable about dental disease process and prevention. To support medical provider’s oral health integration, this poster shares a quality improvement methodology, Maintenance of Certification (MOC) that significantly increased integration. In the medical setting even with focused oral health provider training, technical assistance, significant reimbursement from Medicaid program, and USPSTF grade B fluoride varnish recommendation, the number of children receiving oral health services remain low.

Methods: In 2009, Arcora Foundation began work with a medical clinic in Olympia, Washington, to integrate oral health services into well-child visits. In subsequent years there was intermittent discussions about integration progress/challenges. Barriers identified included: 1) billing issues; 2) lack of consistency across providers in delivering the services; 3) provider belief in prevalence/significance of oral disease in their patient population (4) their ability to make an impact.

Results: Qualitative and quantitative data from the MOC quality improvement project documents significant increase in the integration of oral health services. In review of patients ages < 6 seen over one-year period, fluoride varnish increased from 6% to 29%; oral health education 28% to 41%; oral exam 29% to 43% across the team.

Conclusion: The MOC process had significant impact on increasing oral health services.

Source of Funding: None

Keywords: Oral health integration; Children; Medical care providers

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Social Work and Dentistry: A Systematic Review

Authors:

Melanie Morris^{*5}, MSSW, Boston University

Ramya Chunduri, BA, Columbia University

Daniel P. Miller, PhD, Boston University

Abstract:

Objectives: Social workers are valuable members of interdisciplinary health teams as they employ a biopsychosocial approach to delivering quality patient-centered care. While the dental field has been slow to adopt social workers, there is an increased need for the interprofessional collaboration. The aim of this study is to identify the role and benefit of social work integration into the dental field.

Methods: We conducted a systematic review of the literature. The articles included in the review were published in peer-reviewed journals in English, based in the United States, and examined at least one role or benefit of social work in dentistry. Included articles were further analyzed using the ecological model for health promotion.

Results: Twenty-two articles met the inclusion criteria. Of those, social work was integrated in oral surgery clinics (4.5%), dental schools (45.5%), and in the general dental profession (50%). Seven roles were identified for social work's role in dentistry across four of the five levels of the ecological model. They include 1) psychosocial support (interpersonal) 2) care coordination (interpersonal) 3) psychoeducation for patients (interpersonal) 4) cultural humility (institutional) 5) dental education (institutional) 6) addressing barriers to care (community) 7) oral health policy (policy).

Conclusions: Our findings underscore the salient role social work can play in dental health and oral health promotion across various ecological levels. To better understand the benefit of this interprofessional collaboration original research is needed to examine whether and how social work in dentistry will contribute to improved outcomes for dental providers and patients.

Source of Funding: None

Keywords: Health Promotion; Rural/Vulnerable/Underserved; Systems approach

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Socioeconomic Status, Social Support and Oral Health-Risk Behaviors in Canadian Adolescents –
Leverett Graduate Student Merit Award for Outstanding Achievement in Dental Public Health – Honorable Mention

Authors:

Arwa Z. Gazzaz, BDS MPH FRCD(C)*, Faculty of Dentistry, University of British Columbia
Richard M. Carpiano, PhD, MPH, School of Public Policy, University of California, Riverside
Jolanta Aleksejuniene, DDS MSc Ph.D, Faculty of Dentistry, University of British Columbia

Abstract:

Objectives: This study tested hypotheses regarding how adolescent oral health-related behaviors are associated with family socioeconomic status (SES) and family and peer social support, including the extent to which such associations differ for boys and girls.

Methods: We analyzed data obtained from n=20,357 adolescents in the 2013/2014 Canadian Health Behavior in School-Aged Children Study (HBSC). Family Affluence Scale was used to assess SES. Family and peer social support was assessed using the Multidimensional Scale of Perceived Social Support. We estimated average marginal effects (AMEs) from multivariable binary logistic regression models for three oral health-risk behaviors outcomes: infrequent toothbrushing, high sugar-sweetened beverage (SSB) intake, and high sweets consumption across both genders.

Results: Adolescents from low SES households had lower probability of family and peer social support, and were significantly more likely to engage in infrequent toothbrushing and high SSB consumption, both before and after controlling for both types of support. Lower family support was associated with higher probability of infrequent toothbrushing and high SSB intake, while lower peer support was associated with higher probability of infrequent toothbrushing and lower probability of high SSB consumption. The associations of family and peer support with toothbrushing and SSB consumption were somewhat stronger for boys than girls.

Conclusions: Low SES and family social support were associated with a higher frequency of oral health-risk behaviors (infrequent brushing and SSB consumption) in Canadian adolescents. Regardless of adolescents' gender, parental support exerted a protective effect, but peer support had countervailing risk and protective influences on oral health-risk behaviors.

Source of Funding: None

Keywords: HBSC, adolescents, oral health-risk behaviors, toothbrushing, diet, SES, social support

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Tooth Loss and Diabetes Outcomes in Older Adults: A Systematic Review

Authors:

Karen Raju*, BDS, MPH, DPH, University of California, San Francisco, School of Dentistry
George W. Taylor, DMD, MPH, DrPH, University of California, San Francisco, School of Dentistry
Peggy Tahir, MLIS, MA, University of California, San Francisco, School of Dentistry
Susan Hyde, DDS, MPH, PhD, University of California, San Francisco, School of Dentistry

Abstract:

Objective: This systematic review assesses the association of tooth loss (TL), as the exposure, with morbidity and mortality by diabetes mellitus (DM) status, as the outcome, in older adults. **Background:** Individuals with DM have a higher prevalence of severe TL and an increased risk of developing morbidities and mortality. No systematic review has evaluated the association between TL with morbidity and mortality by DM status. **Material and**

Methods: Comprehensive searches used multiple publication databases containing reports published between 01/01/2000 and 12/11/2019. Two authors independently evaluated included studies using the Critical Appraisal Skills Programme (CASP) checklist for cohort and Center for Evidence-Based Management (CEBM) critical appraisal sheet for cross-sectional studies, while a third author arbitrated decisions to resolve disagreements.

Results: Twelve studies met the inclusion criteria: eight cross-sectional and four cohort. Qualitative review of the included studies indicated TL is associated with increased incidence and prevalence of DM. TL is also associated with DM-related morbidities including greater prevalence of heart disease, diabetic retinopathy, metabolic syndrome; poorer health-related quality of life; and poorer survival of participants with chronic kidney disease. Overall, the quality of the evidence reviewed was medium, as per the Oxford Centre for Evidence-Based Medicine 2011 Levels of Evidence.

Conclusions/Practical Implications: This review found significant associations of TL with prevalence and incidence of DM and adverse DM-related outcomes. An interprofessional team-care approach that includes an oral health component could benefit the prevention and management of DM. **Keywords:** tooth loss, tooth retention, number of teeth, edentulism, diabetes, morbidity, mortality, older adults.

Source of Funding: None

Keywords: Periodontal diseases; Seniors; Organized dentistry

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Poster Session III

1:45 PM - 2:30 PM ET

**Presenting Author*

^S Student/Graduate Student/Resident Presenter

Title: Access to Healthcare and the Oral Health Needs of U.S. Children with Developmental Disorders
Leverett Graduate Student Merit Award for Outstanding Achievement in Dental Public Health – 3rd Place

Authors:

Raghad Obeidat*⁵, BDS, MPH, Texas A&M University College of Dentistry
Amal Noureldin, BDS, MSD, MS, PhD, Texas A&M University College of Dentistry
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Abstract:

Objectives: This study aims to describe the oral health needs (OHN), utilization of dental services, and unmet dental needs of children with developmental disorders (DD) compared to children without DD; and to assess the impact of access to healthcare factors on the oral health of children with DD.

Methods: This cross-sectional study utilized a sample of 30,530 noninstitutionalized children from the 2018 National Survey of Children’s Health (NSCH). Descriptive and inferential statistics were used to compare and analyze access to healthcare barriers in children with and without OHN.

Results: Overall, there were 6,501 children with DD compared to 24,029 children without DD. A significantly higher proportion of children with DD relative to children without DD were found with OHN (18.3% vs. 10%, respectively), unmet dental needs (2.4% vs 0.9%), utilization of preventive dental visits (86.7% vs 77.9%) and utilization of any dental visits (89.1% vs 80.5%), (P-value < .000). Adjusted logistic model found that poverty (< 100% FPL) (AOR= 1.81, CI: 1.36 – 2.42), being uninsured (AOR=1.79, 95% CI: 1.17-2.73), great disability (AOR=1.78, CI: 1.37 – 2.31), and living in the West (AOR=1.36, CI: 1.06 – 1.75) contributed to the largest odds of OHN among children with DD.

Conclusion: Despite the high utilization of dental services, children with DD had poor oral health and more unmet dental needs compared to children without DD. Advocacy efforts and policy changes are needed for development of an integrated model of care that addresses health insurance, poverty and considers children’s levels of disability.

Source of Funding: None

Keywords: Access to dental care Children with developmental disorders Oral needs

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Dental Referral Outcomes for Children Seen on a Mobile Dental Van in Northern Manhattan

Author(s)

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Yasameen Pirooz, DMD, Columbia University College of Dental Medicine

Marcie Rubin, DrPH, MPH, MPA, Columbia University College of Dental Medicine

Abstract:

OBJECTIVE: To evaluate dental referral outcomes among young children referred for early childhood caries by a community-based mobile dental van screening program in Northern Manhattan.

METHODS: A retrospective chart review was completed for children 3 to 5 years of age with an initial mobile dental van visit between 2016 and 2018. Patients presenting with caries and no previous restorations at initial exam were identified. Patient demographics, caries, dates of visits, and procedure types were collected. Descriptive and frequency distribution analyses were conducted; Fisher's test and ANOVA were performed to explore potential associations.

RESULTS: 125 (74%) out of 168 patients who were referred for dental care had a follow-up appointment. Of the 125 patients who had a follow-up visit, 28 (22%) occurred in less than 3 months, 46 (37%) occurred in less than 6 months, and 116 (93%) occurred within 12 months of initial visit. There was no difference in likelihood of follow-up or average time to follow-up among children with anterior caries only, posterior caries only, or caries in both regions. The majority of patients who received follow-up care, received preventative services (63%). Among those who received restorative care (37%), the average time to the first appointment was 251 days.

CONCLUSION: While the majority of children identified as having early childhood caries on the dental van did receive follow-up care, it mostly consisted of preventative services months after the initial visit. For the dental van to adequately serve this vulnerable population, improvements in the referral process are necessary.

Source of Funding: Columbia University, College of Dental Medicine, Population Oral Health. This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number D88HP20109 "Postdoctoral Training in General, Pediatric, and Public Health Dentistry and Dental Hygiene" for the amount of \$3,742,998. None of this endeavor is financed by nongovernmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Keywords: Dental caries; Children; Community-based intervention

*Presenting Author

§ Student/Graduate Student/Resident Presenter

Title: Dentists Behaviour and Oral Cancer Examination in Real-World Practice: Clinical Observational Study

Author:

*Ibtisam Moafa**, BDS, MSc, PhD candidate, Maastricht University

Abstract:

Objective: Previous studies showed adequate knowledge and favourable perceptions among dentists related to oral cancer examination (OCE). This study aimed to assess the actual behaviour of dentists relating to OCE in dental clinics.

Methods: Ninety-five direct clinical observation sessions – utilising an instrument of 19 observational criteria for OCE – were observed by four calibrated dentists. Thirty-two final year students, 32 interns and 31 faculty members of Jazan Dental School were examined between April 9 and May 4, 2017. The performed observing-criteria was assessed using frequencies/percentages. ANOVA and Tukey tests were carried out to investigate the difference between the examiner groups.

Results: Each of the participating 32 patients was examined by three different examiners of each group and by the attending observer/s. Fewer than 50% of the examiners performed the clinical steps necessary for OCE – for example, asking about tobacco use. More than 90% of the examiners examined hard tissue, whereas fewer than 30% educated patients about possible risk factors. A significant difference found between examiner groups in favour of faculty members $P = 0.007$, 95% CI [3.08 - 23.53].

Conclusions: A gap between knowledge and actual practice of OCE was evident: majority of participants failed to perform the necessary steps for OCE although they had adequate OC knowledge. Previous experience and confidence in performing OCE are possible explanations for the observed behaviour. Dental schools and decision-makers should be aware of these determinants' influence on OCE and benefit from integrating them in future interventions to improve OCE practice.

Source of Funding: None

Keywords: Oral cancer; Adults; International

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Dentists' Role in Preventing Human Papillomavirus Related Oropharyngeal Cancer
Leverett Graduate Student Merit Award for Outstanding Achievement in Dental Public Health – 2nd Place

Author:

Sweta Mathur^{*S}, BDS, MPH, PhD, , School of Dental Medicine, Case Western Reserve University

Abstract:

Objective: There is an increasing recognition of human papillomavirus (HPV) as an etiological agent of oropharyngeal cancer (OPC). The purposes of this study were to examine dentists' awareness about HPV-OPC link and identify any barriers and facilitators for them discussing HPV-OPC prevention with their patients.

Methods: A web-based survey, that included 26 items, collected data from all 5019 registered primary care dentists in Ohio. The questionnaire assessed respondents' awareness about oral HPV, clinical practices, and perceived barriers and facilitators for providing HPV-related OPC education. Data analyses included descriptive, Chi-Squared, and Logistic Regression tests.

Results: Most responding dentists (82.2%) correctly identified the sexual route of oral-HPV transmission, while 56.7% had an overall good knowledge about the HPV-OPC link and only 43% discussed the same with their patients. The level of experience was negatively associated with the lack of awareness about oral HPV transmission (OR= 4.80, 95% CI= 2.11, 10.93), and low confidence levels in discussing HPV-OPC link with patients (OR= 2.36, 95% CI= 1.35, 4.15). Dentists indicated their willingness to address the above challenges with additional training (56.6%) and securing resources such as printed educational materials (58.3%).

Conclusions: Findings are encouraging in that with additional training and resources dentists seem willing to address the challenge of discussing HPV-OPC prevention with their patients. Future research should focus on developing and testing approaches (such as motivational interviewing) to help dentists in their recommendation and referral of the HPV vaccine.

Source of Funding: None

Keywords: Human Papillomavirus Oropharyngeal Cancer HPV Vaccination Primary Care Dentists

*Presenting Author

^S Student/Graduate Student/Resident Presenter

Title: Development of Online Training Module on Obesity

Authors:

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Shirley Lewis-Miranda, BDS, CAGS, MScD, Texas A&M College of Dentistry
Carmina Castro, MS, TAMU College of Dentistry
Jeffrey Lowry, M.Ed, TAMU College of Dentistry
Peggy Timothe, DDS, MPH, TAMU College of Dentistry

Abstract:

Objectives: To describe the development, testing and evaluation of a new optional training module in public health. This project provides evidence-based information on obesity and its sequelae to dental students.

Methods: The current curriculum was reviewed for content related to nutrition, obesity treatment and management. A literature search specific to obesity identified topics, content and references including publicly available videos. This information was compiled into a PowerPoint presentation. Collaboration with the college's instructional designer team produced an interactive module using ArticulateStoryline360 software. Pre and post-tests were created to measure participants' baseline knowledge and changes after training completion. All questions were adapted and modified from both national and international instruments. Formative evaluation included how well the module met the Illinois Online Network (ION) Quality Online Course Initiative (QOCI) rubric criteria. The final product was uploaded in eCampus/Blackboard for voluntary access. This project was approved as exempt (TAMUCOD IRB ID: 2019-0240-CD-EXM).

Results: Current curriculum provides limited didactic instruction on obesity. Further, there are few available opportunities for students to engage in obesity screenings, education and referrals in the clinics. The final product is one hour long including an interactive module and questionnaires. Of the six content areas of the ION QOCI, five were applicable and used to evaluate content and modify structure of the new module.

Conclusion: Educational materials related to clinical applications of obesity and dentistry are insufficient. Dentists must be prepared to meet public health challenges and thus, obesity interventions should be part of the dental curriculum .

Source of Funding: Funding was provided by the Office of the Dean, TAMU College of Dentistry.

Keywords: Health Promotion; Adults

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Evaluation of Student Telehealth Rotation at Columbia University College of Dental Medicine

Authors:

*Elena S. McCormick^{*5}, Columbia University College of Dental Medicine*

Roseanna Graham, DDS, PhD, Columbia University College of Dental Medicine

Hosam M. Alraiqi, BDS, MSD, MA, Columbia University College of Dental Medicine

Abstract:

OBJECTIVE: This study aims to assess the impact of a telehealth rotation on attitudes and opinions towards telehealth among third-year dental students (DDS-III) at Columbia University College of Dental Medicine (CDM).

METHODS: A newly implemented weeklong telehealth rotation at CDM engages all 95 DDS-III students through assigned readings and virtual interaction with patients for screening and triage. Students submit post-rotation feedback and a final rotation evaluation upon completion of the rotation. The study uses an ongoing retrospective analysis of the students' feedback and evaluation to qualitatively identify emerging themes and quantitatively describe students' experiences with different aspects of the rotation.

RESULTS: To date, post-rotation feedback from 33 students has been submitted and analyzed. Students reported various perceived benefits and challenges to using telehealth. The most frequently cited benefit of telehealth was decreased geographic barriers to care (n=31), while the most frequently reported challenge was patient access to and ability to navigate the technology required for telehealth visits (n=20). A theme emerged suggesting improvements in the patient experience when asked how to improve the rotation. The most common theme related to improvements with the rotation was the recommendation that patients receive assistance in advance of the telehealth visit to ensure access to technological devices and familiarity with the applications needed for the telehealth visit.

CONCLUSIONS: Initial analysis of students' responses provided valuable insight into their attitudes and opinions toward using telehealth after a telehealth rotation. Further analysis will help inform curriculum design and care delivery at CDM.

Source of Funding: Columbia University, College of Dental Medicine, Population Oral Health. This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number D85HP20031 "Predoctoral Training in General, Pediatric, and Public Health Dentistry and Dental Hygiene" for the amount of \$1,695,472. None of this endeavor is financed by nongovernmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Keywords: Models of Care; Rural/Vulnerable/Underserved; Dental school

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Fluoride Varnish During Medical Visits Among Privately-Insured Children in 4 New England States

Authors:

Ashley M. Kranz*, PhD, RAND

Grace Gahlon, RAND

Brenna O'Neill, RAND

Andrew Dick, PhD, RAND

Sarah Goff, MD, PhD, University of Massachusetts Amherst

Christopher Whaley, PhD, RAND

Kimberley Geissler, PhD, University of Massachusetts-Amherst

Abstract:

Objective: To determine rates of medical visits with fluoride varnish for privately-insured children in four states during 2016-2018.

Methods: Using 2016-2018 private health insurance claims data from Connecticut, Maine, New Hampshire, and Rhode Island, we examined 326,791 well-child medical visits paid by privately insurance for children aged 1 to 5 years. We used logistic regression models to estimate the odds of a well-child medical visit including fluoride varnish. Models controlled for age, sex, insurance-type, county-level characteristics, state, and year.

Results: Rates of visits with fluoride varnish increased from 3.6% in 2016, to 5.0% in 2017, to 5.7% in 2018. Rates of fluoride varnish during well-child medical visits increased across all age groups, with the largest average annual increases observed for 1 year of age (1.5 percentage point increase) and 2 years of age (1.4 percentage point increase). Rates were highest in Maine and Rhode Island (3-year average rates of 8.0% and 8.3%, respectively). The odds of a visit including fluoride varnish were 2.0 and 3.6 times higher in metro-adjacent and not metro-adjacent counties than metro counties ($P < 0.0001$). Living in a county with a larger non-White population was associated with 0.4 times lower odds of a visit including fluoride varnish ($P=0.02$).

Conclusions: The Affordable Care Act requires private health insurers to cover fluoride varnish during medical visits. We found low, but increasing rates of medical visits with fluoride varnish in four New England states during 2016-2018. Our findings suggest efforts are needed to increase pediatric medical providers' delivery of fluoride varnish.

Source of Funding: This research was supported by the National Institute of Dental and Craniofacial Research [grant number R01 DE028530-01A1]. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Dental and Craniofacial Research or the National Institutes of Health. The funding source had no involvement in study design; collection, analysis, and interpretation of data; the writing of the report; nor in the decision to submit the article for publication.

Keywords: Access to care; Children; Medical care providers

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Impact of COVID-19 on school-based oral health programs

Authors:

Tamanna Tiwari*, MPH, MDS, BDS, University of Colorado School of Dental Medicine
Lori Kepler, RDH, BSDH, ASTDD
Julie Frantsve-Hawley, PhD, DentaQuest Partnership for Oral Health Advancement
Christine Wood, RDS, BS, ASTDD
Julia Walocff, RDS, MS, Arizona Department of Health Services

Abstract:

Objective: This study aims to understand how COVID-19 is impacting the implementation of school-based oral health programs.

Methods: A team of experts from the Association of State and Territorial Dental Directors and the DentaQuest Partnership for Oral Health Advancement developed baseline and follow-up surveys. The survey respondents were state/territorial dental directors. The baseline survey was conducted in July 2020, and the follow-up survey will be conducted at the beginning of February 2021.

Results: The initial results provided a baseline of the state/territorial dental directors' time allocated for COVID-19 dental and non-dental related duties. The results also provided an insight into the planning process for school-based oral health programs for the 2020- 2021 school year. Survey respondents said that they were planning to provide oral health screening (55%), dental sealant applications (84%), and fluoride varnish applications (55%). Results from the follow-up survey will describe challenges and successes faced in the implementation of the programs during the 2020-2021 school year.

Conclusion: This study will support the identification of successful strategies and policy implications to implement school-based programs during the Covid-19 era.

Source of Funding: DentaQuest Partnership for Oral Health Advancement

Keywords: Models of Care; Children; Evaluation

*Presenting Author

^S Student/Graduate Student/Resident Presenter

Title: Increasing access to optimally fluoridated water for the prevention of tooth decay in West Virginia

Authors:

Lily Dinh*, MPH, West Virginia Department of Health and Human Resources
Nickole Taylor, MBA, West Virginia Department of Health and Human Resources
Ravi Parker, BSDH, West Virginia Department of Health and Human Resources

Abstract:

Objective: To prevent the risk of tooth decay by increasing consumption of optimally fluoridated water from community water systems. The intervention allows all residents access to free and safe drinking water from systems adjusted and monitored for the desired concentration of fluoride.

Methods: Data are collected and reported on the CDC Water Fluoridation Reporting System and managed by the West Virginia Office of Environmental Health Services. Reports reflect monthly and annual fluoridation status for each county in the state. Information is retrieved from various sources such as the Fluoridation Census, Environmental Protection Agency, U.S. Census Bureau, and data collected from surveying states' water systems. Data reported are further analyzed and reported by programs to monitor annual changes in proportion of people being served by fluoridated water and water systems adjusted for optimally fluoridated water.

Results: The percentage of people served by fluoridated water systems have not changed between the first two years of the project where 91.20% were exposed to water fluoridation. Data were also collected for those served by optimally fluoridated water. There is a percentage point increase of 8.7% for those exposed to optimally fluoridated water from 84.90% in 2018 to 93.60% in 2019.

Conclusions: The state is working to adjust these systems at the desired range of fluoride for the next few years to understand how increased exposure can improve overall outcomes for oral health. The program will be studying prevalence of dental caries among many priority groups exposed to this multicomponent approach for preventing tooth decay.

Source of Funding: Cooperative Agreement, CDC DP13-1307, State Actions to Improve Oral Health Outcomes

Keywords: Access to care; Rural/Vulnerable/Underserved; Fluorides

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Relationship between Caregivers' Oral Health Literacy and their Child's Caries Experience

Authors:

Jagan K. Baskaradoss*, Kuwait University
Amrita Geevarghese, UCSF School of Dentistry

Abstract:

Assess the association between caregivers' oral health literacy (OHL) and the dental caries experience of their child.

Methods: This cross-sectional study was conducted among 300 caregiver/child dyads at a Pediatric dental center in Saudi Arabia. The OHL was assessed using a translated and validated Arabic version of Comprehensive Measure of Oral Health Knowledge (CMOHK-A) questionnaire. Test-retest reliability and internal consistency was assessed using the appropriate statistical methods. Their children's dental caries experience was assessed using DMFT and deft index (decayed, missing/extracted, filled teeth) for permanent and primary teeth respectively.

Results: The mean age of the caregivers' was 37.9 ± 7.9 years old and that of the child was 8.3 ± 3.1 years. The mean DMFT/deft scores for the sample was 5.2 ± 4.0 . Education, gender of the caregivers' and oral health literacy scores were significantly associated with the child's caries status. Children of caregivers' with poor OHL levels had significantly higher caries experience compared to children of caregivers' with adequate OHL levels ($p=0.02$). There was significant correlation between caregiver's assessment of their child's oral health and the DMFT/deft scores of the child ($p=0.004$). Multivariate linear regression model showed that caregivers' educational levels and OHL scores were independently associated with the caries experience of the child ($p=0.009$ and $p=0.005$ respectively).

Conclusion: This study found better caregiver OHL levels to be associated with lower caries experience for their child. Dental professionals working with pediatric population have to recognize and appreciate the key role played by caregivers' in determining their child's oral health.

Source of Funding: None

Keywords: Dental Public Health; Children; Literacy

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: The Identification of Factors Associated with Successful School-Based Sealant Programs

Author:

Antonina Capurro*⁵, DMD,MPH,MBA, UNLV and Nevada DHHS

Abstract:

The Identification of Factors Associated with Successful School-Based Sealant Programs Objective: The principal goal of this research project is to identify the factors that commonly led to a successful school-based sealant project and then theorize how those elements can be developed into a template that can be used to increase access to care for all school-age children.

Method: The study design is a cross sectional survey from a convenience sample of states and sealant programs. Data was collected through an electronic questionnaire. Participants for this study were recruited based on their affiliation with a school-based sealant program that occurs entirely within a school setting.

Results: Final results will be included in the poster with associated statistical visuals. This project evaluates school-based sealant programs in an attempt to identify traits/factors that are part of successful programs. Factors for analysis will include: a)funding source(s), (b) the role of Medicaid reimbursement, (c) state policies for sealant placement, (d) Centers for Disease Control and Prevention (CDC) funding both currently or historically and (e) the design and structure of school-based sealant programs.

Conclusion: Clinical implication and significance for state programs will be presented. School-based sealant programs provide education and preventive dental services to elementary students to reduce the burden of dental disease in the state. By identifying common factors of sustainable school-based sealant programs, individual sealant programs and state oral health programs will be equipped with information to make knowledgeable decisions to design and evaluate school-based sealant programs.

Source of Funding: None but support from the Nevada Oral Health Program

Keywords: Access to care; Children; School-based

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: The Smiles for Life Online Curriculum: A Decade of Transforming Oral Health Education and Practice

Authors:

Melinda Clark, MD, Albany Med Department of Pediatrics

Anita Glicken*, MSW, National Interprofessional Initiative on Oral Health

Abstract:

Evolving delivery models call for integrated, patient-centered care provided by a diverse interprofessional workforce. This is especially true in oral health (OH). Readyng the workforce for new roles requires a shared knowledge base, understanding and skill set. Smiles for Life (SFL) is a free, online interprofessional OH curriculum providing educational resources that facilitate the integration of OH and primary care. SFL has 8 modules teaching OH across the lifespan with free CE available to many health professions. SFL builds provider, educator and student OH knowledge, skills & attitudes. Endorsed by >20 professional organizations SFL Includes instruction in team-based, interprofessional care and an app supporting clinical decision-making. Separate modules are available for frontline health workers.

Objectives: Describe 10 years of data documenting the distribution and impact of SFL on OH education and practice including impact on provider practice behaviors

Methods: SFL tracks registered user data on accessed content, module completion and user profession, state and/or institution • A follow up survey mailed to registered users in 2015 to understand the impact of the curriculum on OH practice

Results: > 83K courses completed in 2020 CE credit and >2.75 million total site visits • Follow-up data documents changes in key OH behaviors

Conclusions:

- SFL resources support national policy recommendations for healthy equity by integrating OH competencies into primary care
- Providers report SFL influenced OH practice, especially in domains of caries risk assessment and annual oral examinations
- Fluoride varnish application was the most commonly initiated practice behavior

Source of Funding: Arcora Foundation and DentaQuest Partnership for Oral Health Advancement

Keywords: Oral health integration; Rural/Vulnerable/Underserved; National

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Towards Equitable Oral Health: A Cultural Competency and Interprofessional Education (IPE) Model
Leverett Graduate Student Merit Award for Outstanding Achievement in Dental Public Health – 1st Place

Authors:

Salma Elwazeer*, BDS, MDS, MPH, Oral Health Section, American Public Health Association
Leticia Bland, DHSc, MPAS, PA-C, School of Health Professions, UT Health San Antonio
Thomas J. Stokes Jr., MEd, RRT, School of Health Professions, UT Health San Antonio
Megan Carreon, MHA, RRT, School of Health Professions, UT Health San Antonio
Rochisha S. Marwaha, BDS, MPH, UT Health San Antonio, School of Dentistry
Suman Challa, BDS, MSPH, UT Health San Antonio, School of Dentistry
Magda A. de la Torre, RDH, MPH, University of Texas Health Science Center at San Antonio, School of Dentistry

Abstract:

Objectives: This project assesses the influence of the interprofessional poverty simulation on Social Determinants of Health (SDH) and Interprofessional Education (IPE) outcomes among dental and allied health care students at UT Health San Antonio.

Methods: Three electronic surveys were administered to the students who participated in the poverty simulation (n = 165): before, immediately after, and six-week after the activity using validated instruments. Descriptive statistics summarized the students' characteristics and the mean levels of their understanding of poverty, attitudes towards poverty, confidence in treating patients experiencing poverty, and readiness for interprofessional learning. Linear Mixed Model was used for the longitudinal assessment of the simulation for each of the four outcome variables.

Results: The understanding of poverty and the confidence estimates significantly increased post-simulation for all students by 2.35 and 1.44 score points respectively as compared to their pre-survey levels ($\beta= 2.35$, $p = .001$; and $\beta= 1.44$, $p < .001$). These significant improvements were maintained for six weeks after the simulation activity ($p < .001$). Dental students' understanding of poverty and their confidence score estimates were significantly lower than those of allied health care students by 1.42 and 1.02 points respectively ($\beta= -1.42$, $p = .001$; and $\beta= -1.02$, $p < .001$).

Conclusions: This study introduces a promising and innovative interprofessional experiential learning model to enhance SDH-based learning in the health care field. It highlights the importance of expanding the interprofessional learning opportunities for health care students and the need to revitalize the dental curricula with SDH-based didactic and field experiences.

Source of Funding: This project was funded by a grant from Human Resources and Services Administration (HRSA) (T12HP31894) - Grants to States to Support Oral Health Workforce Activities.

Keywords: Social Determinants of Health Interprofessional Education Poverty Simulation Cultural Competency

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Worksite Access to Fluoridated Tap Water and Retail Beverages: An Assessment of the UCSF Campuses

Authors:

Navita Kalair*, BDS, MPH, DPHS, University of California, San Francisco

Cristin Kearns, DDS, MBA, Philip R. Lee Institute of Health Policy Studies, University of California, San Francisco

Laura Schmidt, PhD, Philip R. Lee Institute of Health Policy Studies, University of California, San Francisco

Abstract:

Objectives: To conduct an assessment of the availability, appeal, and promotion of fluoridated tap water in publicly accessible spaces on UCSF campuses that could serve as a model for other worksites to encourage the replacement of sugar-sweetened beverage consumption with water.

Methods: Information on beverages available in publicly accessible spaces on UCSF hospitals and campuses in San Francisco, CA was collected from December 2019 to February 2020 using a web-based survey tool. Data collected included fluoridated water station and retail beverage locations, type of water or retail beverage source, number of water sources per station, cleanliness, flow, and any obstruction of water sources, proximity of water stations to retail beverage locations, signage near the beverage locations about water/beverage consumption, and type of retail beverages available.

Results: The ratio of fluoridated water stations to student/employees was 1:80. Water stations were identified in 230 locations, most were in a lobby, common space or hallway. Out of 377 water sources identified, 25% were obstructed, dirty or had unsatisfactory flow. Approximately 1 in 5 water coolers lacked disposable cups. Out of 41 retail beverage locations identified, 29% had a water station within sight. Only 11% of beverage locations had signage encouraging healthier beverage choices.

Conclusions: The UCSF sites evaluated had adequate fluoridated water sources for its employees and students, but this is complicated by a quarter of water sources lacking appeal. Improved maintenance, ensuring cup availability, and increased promotion in the form of signage can further encourage fluoridated tap water consumption.

Source of Funding: None

Keywords: Health Promotion; Adults; Fluorides

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Poster Session IV

2:45 PM - 3:30 PM ET

**Presenting Author*

[§] Student/Graduate Student/Resident Presenter

47



The National Oral Health Conference is presented by:
American Association of Public Health Dentistry (AAPHD) &
Association of State and Territorial Dental Directors (ASTDD)



[Back to Table of Contents](#)

Title: Covid-19 Effects on Columbia University 2019 Dental Graduates' Views of the Profession of Dentistry

Authors:

*Brittany McCrorey*⁵, DDS, Columbia University College of Dental Medicine

Mari Millery, Columbia University College of Dental Medicine

Emily Byington, LMSW, Columbia University College of Dental Medicine

Abstract:

OBJECTIVE: To assess how Covid-19 has impacted recent dental school graduates' career plans and perceived financial stability. It is worthwhile to assess how new dental providers perceive any changes in their views towards the profession, as related to the pandemic, so that dental education providers may be proactive in accommodating trends in dentistry.

METHODS: One-time cross-sectional surveys were sent to the Columbia University College of Dental Medicine 2019 alumni via email. Regular follow-up emails were sent to non-responders.

RESULTS: Among the 42 respondents (61% survey response rate), 75% reported being affected by Covid-19 in the professional domain in some way. 26% reported financial security being affected a fair amount, and none reported financial security being affected a great deal. 31% reported having their career plans affected by Covid-19, and one third of this subgroup reported having their career plans affected a great deal. 75% of those that reported their career plans were affected a great deal also reported that Covid-19 affected their views on public health.

CONCLUSIONS: There was relatively little report of impact of Covid-19 in regards to financial security among newer dentists. Many expressed some effect of Covid-19 on their career plans. The results suggest that what has caused some recent graduates to re-evaluate their career plans is an increased awareness of the significance of public health during this time.

Source of Funding: Columbia University, College of Dental Medicine, Population Oral Health. This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number D88HP37554 "Postdoctoral Training in General, Pediatric, and Public Health Dentistry and Dental Hygiene" for the amount of \$3,286,676. None of this endeavor is financed by nongovernmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Keywords: Dental Public Health; Adults; Dental care providers

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Data Driven Strategy for Prioritizing Policy Change to Support Sustainable Oral Health Integration

Authors:

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Supriya Doshi, BDS, MPH, PMP, MBA, LSSGBHP, HealthEfficient
Brita Allen, MPH, Virginia Health Catalyst
Zoe Stopak Behr, MPH, MIA, HealthEfficient
Ericca Facetti, BS, Virginia Health Catalyst
Kathleen Luma, MSN, FNP-C, HealthEfficient
Bridget A. Walsh, MPH, Schuyler Center for Analysis and Advocacy
Sharon Zalewski, BA, Regional Primary Care Coalition

Abstract:

Objectives: Utilize results of an environmental scan of oral health policies and regulations to develop a strategic framework for local, regional, and national policy and advocacy efforts to promote integration of oral health care into primary care settings to increase access to preventive oral health services for children 0-40 months.

Methods: Transforming Oral Health for Families (TOHF) is one of three Maternal and Child Health Bureau-funded Networks for Oral Health Integration (NOHI) projects. It aims to use a team-based family-centered model of care to deliver preventive oral health services within primary care settings of participating health centers. TOHF recruited teams in Virginia, New York, Maryland, and Washington, DC to conduct searches related to oral health policy and regulation using a novel environmental scan tool developed by NOHI.

Results: Analysis identified several factors impacting the integration of oral health care into the primary care setting; these included provider scope of practice, reimbursement regulation, Medicaid covered services, allowed provider types, workforce capacity, and parameters of tele-dentistry.

Conclusions: Opportunities exist for project partners to collaborate to enhance access to preventive oral health services through efforts at the health center, state, and national levels. Approaches include focusing on optimization of practice and cost-effectiveness of care, generation of state advocacy frameworks to support evidence-based models for delivery and coverage of oral health services, and identification of successful practices to sustain and grow capabilities of oral health integration efforts nationally.

Source of Funding: This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under the Maternal and Child Health Bureau cooperative agreement number UK7MC33231.

Keywords: Oral health integration; Children; Policy

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Dental providers return to work in the COVID-19 era: Challenges and Solutions

Authors:

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Julie Frantsve-Hawley, PhD, DentaQuest Partnership for Oral Health Advancement
Eric Tranby, PhD, DentaQuest Partnership for Oral Health Advancement

Abstract:

Objective: This study aims to understand the challenges faced by dental providers in returning to work and continuing to provide care for their patients.

Methods: A mixed-method study design was used to conduct this study. Multiple surveys were conducted in May and August 2020. Followed by a series of in-depth interviews with dental providers and administration staff in the fall to understand the initial and continue challenges faced by dental practices in reopening the dental offices and continue to provide patient care during the COVID pandemic.

Results: The survey demonstrates that while most dental practices are seeing patient, the pandemic remains a source of stress and uncertainty for providers, with potential long-term implications for the financial foundation for dentistry. The interviews were recently completed and are undergoing data analysis. However, the preliminary analysis indicates that dental practices faced several challenges in reopening in April from a misunderstanding in state guidelines, financial challenges, and emotional stress. Dentists discussed that since reopening, their capacity to treat patients has increased, and patients are returning to their dental practice.

Conclusion: The results of this study provide an insight into the impact of the pandemic on dental care, its impact on the financial health of dental practices, and the future of dental care.

Source of Funding: None

Keywords: Access to care; Rural/Vulnerable/Underserved; Medicaid

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Dentist attitudes toward an annual benefit maximum in Iowa Medicaid

Authors:

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Abstract:

Objectives: The Dental Wellness Plan (DWP) provides dental coverage for adult Medicaid enrollees in Iowa. In September 2018, a \$1,000 annual benefit maximum (ABM) was implemented. The aim of this study was to explore private dentists' attitudes toward the ABM.

Methods: The data source was a mailed survey administered in spring 2019 to all private practice dentists in Iowa. Two dependent variables were attitude toward the \$1000 ABM and attitude toward any ABM. Independent variables were demographic and practice-related factors, and attitudes toward other aspects of the DWP. Quantitative analyses (descriptive and bivariate) and qualitative analyses (coding open-ended comments) were conducted.

Results: Approximately 37% of dentists had a positive attitude toward the \$1000 ABM, 54% had a negative attitude. Over half (52%) of providers reported a positive attitude toward any ABM, 36% were negative, and 13% had no opinion. Among providers with an opinion, the independent variables with the strongest association with both dependent variables were attitudes toward the DWP overall ($p < .001$), and attitude toward healthy behavior requirements ($p < .001$). Providers with a negative attitude toward the ABM were more likely to have negative attitudes toward other aspects of the DWP. The most common qualitative theme among provider comments was that the maximum is too low.

Conclusion: While a majority of providers had a negative attitude toward \$1000 ABM, a majority also had a positive attitude toward any ABM. There were strong associations between attitudes toward ABM and attitudes toward other aspects of the DWP.

Source of Funding: The University of Iowa College of Dentistry

Keywords: Dental Public Health; Adults; Medicaid

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Evaluating Adult Dental Medicaid During Initial Stages of COVID-19

Authors:

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Abstract:

Objective: To evaluate how each state in the U.S. assisted the Adult Dental Medicaid program during the COVID-19 pandemic, specifically from May to October, 2020.

Methods: This project investigated the coverage of state Medicaid programs, state policies, changes implemented by states during the pandemic, and recommendations to help improve Medicaid dental coverage for adults. An excel table was created that categorized state policies and responses into yes, no, no information, or non-applicable. A simple descriptive analysis was used to arrive at the following results.

Results: 48 out of 50 states provided their adults with emergency dental care; however, 35 states provided non-emergent coverage that varied from state to state. 14 states offered a maximum per-person spending for dental services compared with 22 states that had no maximum for spending. Teledentistry has demonstrated to be an important source of access to dental care. During this period, at least 38 states covered teledentistry, an increase from only 13 states that had prior coverage. 39 states did not directly reimburse for PPE, although 5 states did provide other forms of cost coverage to help providers with increased expenses.

Conclusion: In case of a future pandemic or emergency declaration, states should have temporary policy change readily available. The shortfalls from states dealing with the COVID-19 pandemic highlight the need for a more comprehensive adult dental Medicaid program. Without the implementation of necessary changes to Medicaid, adults will continue to face issues with their oral health.

Source of Funding: Health Resources and Services Administration

Keywords: Dental Public Health; Adults; Medicaid

*Presenting Author

§ Student/Graduate Student/Resident Presenter

Title: Expanding the Dental Public Health Workforce: Texas Recruits and Retains

Authors:

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Abstract:

Objectives: To develop and enhance the dental public health workforce in Texas. The three dental schools partnered with the Texas Department of State Health Services with the goal of improving access to oral health by recruiting, guiding and retaining dental trainees to work in underserved areas upon graduation.

Methods: With federal grant support, this project allows each dental school to develop their respective educational interventions using measurable process and outcomes, relevant for their locality and educational mission. Each school located approximately 300 miles apart in distinct academic health systems, specifically focused on: interprofessional education (IPE), student-assisted summer research, and scholarships for students who commit to dental public health or to practice in underserved areas.

Results: For the 2019-2020 academic year, approximately, 200 health professional students including dental, dental hygiene, dietetic, and pharmacy participated in IPE activities sponsored by this project. Despite the pandemic, 12 dental hygiene/ dental students and residents completed summer research projects, of which 6 presented at two separate state-wide oral health coalition webinars. Seventeen students of the three Texas dental schools received scholarships totaling \$101,000.

Conclusions: This funding opportunity that allows for only one applicant per state, is fostering the first collaborative effort of the Texas dental schools. Targeted interventions are needed to meet the complex matters related to improving access to oral health. Leveraging the knowledge of local experts at each school allowed for different approaches to a common goal. The exchange of experiences is also important to enhance programs for training a diverse workforce.

Source of Funding

Health Resources and Services Administration Grant: T12HP31894

Keywords: Dental Public Health; Rural/Vulnerable/Underserved; Workforce

**Presenting Author*

⁵ Student/Graduate Student/Resident Presenter

Title: Hidden Dental Costs of the Underutilization of Dental Services in the Adult Medicaid Population

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Abstract:

Objective: To ascertain the hidden costs associated with the underutilization of preventive dental care for adult dental patients enrolled in Medicaid.

Methods: We used adult claims data for patients aged 21 to 64 in the IBM Watson MarketScan Medicaid database. Enrollees were included if they had at least one dental claim in 2018 and were continuously enrolled between 2013 and 2018. We then evaluated the costs of their dental care in 2018, based on the number of years of preventive dental care they received between 2013 and 2017. We also assessed Emergency Department (ED) utilization for dental conditions, oral surgeries and dental-related opioid prescriptions.

Results: The average dental patient with five continuous years of preventive care prior to 2018 experienced 43% lower costs than a patient who received no preventive dental care at all. Most of the savings resulted from fewer oral surgeries. A dental patient with no prevention was eight times more likely to have a nontraumatic dental condition (NTDC) ED visit, seven times more likely to have oral surgery and six times more likely to receive a dental-related opioid as a dental patient with prevention every year in the five year lookback period.

Conclusions: Regular preventive dental care in the lookback period is associated with significant savings in overall dental care when compared to patients who received no or few preventive visits. Prior preventive dental care is also associated with lower rates of ED NTDC utilization, oral surgery, and dental-related opioid prescriptions.

Source of Funding: None

Keywords: Access to care; Adults; Medicaid

**Presenting Author*

⁵ Student/Graduate Student/Resident Presenter

Title: How Dentistry Survived the Early Months of the COVID-19 Pandemic? The Palestinian Experience

Author

Elham Kateeb*, DDS MPH PhD, Al-Quds University

Abstract:

Objectives: Dentists provide care in a proximity with patients and most of dental procedures generate aerosols and droplets. Under these conditions, dentistry had unique challenges to operate safely during the COVID-19 pandemic. This study assessed how Palestinian dentists survived the early months of the COVID-19.

Methods: A cross-sectional study targeted dentists in the West Bank area of Palestine using an on-line survey during the first two weeks of May, 2020. Questions mainly asked about dentists' perception of the risks of COVID-19, readiness to reopen their clinics for routine care, and the level of confidence in dealing with suspected COVID-19 patients.

Results: 448 dentists completed the survey. Almost 60% believed that they were not ready to re-open their practices. Thirteen percent had "no confidence" in dealing with COVID-19 patients, while 64% had "little to moderate" confidence. Confidence was correlated negatively with increased fear of getting infected ($\rho=-0.317$, $p < 0.0001$) and positively with years of practice ($\rho=1.7$, $p < 0.0001$). Dentists who received updated training on infection control or on COVID-19 reported higher levels of confidence ($X^2 =53.8$, $p < 0.0001$, $X^2=26.8$, $p < 0.0001$ respectively). Although 88% preferred not to treat COVID-19 patients, 40% were willing to provide care to them. Almost 75% reported that they were already facing financial hardships and couldn't survive financially until the end of the current month.

Conclusions: Data from this study highlights the fragility of private dental practice in emergency situations. Ethical, health and financial challenges that emerged during COVID-19 require dentists to adapt and be better prepared to face future crises.

Source of Funding

None

Keywords: Workforce; Adults; Organized dentistry

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Impact of an Educational Symposium on Opioid Prescribing Knowledge and Practices of Dental Residents

Authors:

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Abstract:

Objective: To assess the impact of an educational symposium on opioid-related prescribing knowledge and practices among dental residents at UT Health San Antonio, School of Dentistry.

Methods: A one-day symposium was conducted for dental residents where national experts presented on topics related to prescription opioid crisis and management of acute pain following dental procedures. This mixed-methods study used pre- and post-assessment surveys to assess the prescription opioid-related knowledge of dental residents before and after the educational symposium. Additionally, data were retrieved from the University's electronic health records (EHR) to assess the opioid prescribing practices of dental residents two months before and two months after the symposium.

Results: The analyses of the survey revealed that prior to the symposium, 45.7% of dental residents believed that they required training to feel confident in minimizing opioid prescriptions following acute dental pain, however, after the symposium it declined to 34.2%. Moreover, dental residents who consider the use of Non-steroidal anti-inflammatory drugs (NSAIDs) as the first line therapy for management of acute dental pain increased from 85.7% in the pre-assessment survey to 97.3% in the post-assessment survey. The analyses of data retrieved from the EHR suggests that overall opioid prescriptions for surgical dental procedures decreased from 27% to 25% after the symposium.

Conclusions: The educational symposium improved the opioid related prescribing knowledge among dental residents while subsequently reducing the overall opioid prescriptions filled for acute pain management following surgical dental procedures.

Source of Funding: This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under T93HP30397, Dental Faculty Development and Loan Repayment Program, \$1.4 million, 100% federally funded. The information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Keywords: Dental Public Health; Adults; Dental school

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Iowa Medicaid Member Preferences for Maintaining Full Dental Benefits

Authors:

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Abstract:

OBJECTIVES: Within Iowa's Dental Wellness Plan (DWP) for Medicaid-enrolled adults, members must complete two healthy behavior requirements (HBRs) annually to keep full dental benefits: a preventive dental visit and oral health self-assessment. If HBRs are not completed, they must pay a \$3 monthly premium or risk a reduction in coverage to basic benefits. The aim of this study was to examine member preferences about whether, and how, members want to maintain full benefits.

METHODS: The data source was a 2019 survey of DWP members. The dependent variable was member preference for maintaining full benefits, with response options: (1) Complete the healthy behaviors, (2) Pay \$3 per month, or (3) Neither; I don't need/want full benefits. Independent variables included measures of plan awareness, access, and individual characteristics. Univariate and Chi-square analyses were completed.

RESULTS: The survey response rate was 15.2% (n=2727). Among respondents, 82% preferred to complete the healthy behaviors, 12.8% preferred to pay premiums, and 5.2% preferred neither. Member preference to keep full benefits was significantly associated with measures of awareness, access, and individual characteristics. Those most likely to prefer completing HBRs were aware of the oral health self-assessment requirement (89.1%). Those most likely to prefer paying premiums were definitely able to pay \$3 per month (22.8%). Those most likely to prefer neither were edentulous (19.0%).

CONCLUSIONS: Most members prefer to keep full benefits, and the majority would prefer to complete the HBRs. Member preference was strongly associated with numerous indicators of plan awareness and access.

Source of Funding: Dental Student Research Award, University of Iowa College of Dentistry; The Iowa Department of Human Services

Keywords: Access to care; Adults; Medicaid

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Perception and Intention of Dental Professionals about Clinical Volunteering for CE Credits

Authors:

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Abstract:

Objectives: The purpose of this study was to determine the intention and perception of dental professionals about continuing education credits towards licensure renewal through clinical volunteerism.

Methods: The study sample was 13,967 dental professionals: 6281 dentists and 7686 hygienists. A 16-item internet questionnaire collected data on demographics, professional/practice attributes, and attitude towards community service. A Likert scale item measured respondents' agreement on behavioral, normative, and control beliefs about dental volunteerism. Data analyses included descriptives, t-test, Spearman correlation, chi-squared test, and logistic regression. Any associations between the intention to volunteer and certain predictors were investigated by logistic models.

Results: The survey response rate was 5.6%; 52.7% dentists and 47.3% hygienists. Some 81% of respondents believed volunteering dental services was important. More than 70% were willing to help underserved communities through clinical volunteer services. Dental professionals' intention to clinically volunteer was significantly associated with their age, provision of pro bono dental care, and memberships in professional organizations ($p \leq 0.05$). Pro bono care hours in the previous two years were positively correlated with perceived behavioral control and years in practice ($p < 0.01$). Dentists who had been in practice for more than 20 years provided significantly higher amount of pro bono care than those with less experience ($p = 0.01$). While hygienists' years in practice were related to their intention to volunteer, that of dentists were not ($p = 0.002$).

Conclusions: Dental professionals perceived clinical volunteerism positively. Despite high levels of intention to volunteer, a majority of respondents were unaware that clinical volunteerism entailed continuing education credits towards license renewal.

Source of Funding: None

Keywords: Access to care; Adults; Dental care providers

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Prevalence of HPV Vaccination Among Adolescents and Young Adults, NHANES 2015-2018

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Abstract:

Background: Human papillomavirus (HPV) is the most common sexually transmitted disease and causes 70% of oropharyngeal cancers in the U.S. The HPV vaccine is recommended by the Centers for Disease Control and Prevention (CDC) for most individuals between ages 9-26 years. **Objectives:** • Identify key demographics that are related to HPV vaccination status in adolescents and young adults • Identify a target population who would benefit from dental provider vaccination efforts

Methods: A cross-sectional study was conducted using the National Health and Nutrition Examination Survey (NHANES) surveillance data from 2015 to 2018 for ages 9-26. Descriptive statistics and logistic regression analyses were performed to examine the association of HPV vaccination status and multiple covariates, including the frequency of dental and medical visits.

Results: Statistically significant differences were found between HPV-vaccinated and non-HPV-vaccinated groups when stratified by age, sex, education level, health insurance status, last medical visit, last dental visit, and receipt of Hepatitis A and B vaccines. Individuals who had their last medical or dental visit in the last year were found to have, respectively, 1.87 [95% CI 1.31-2.66; $p < 0.001$] and 1.69 [95% CI 1.26-2.28; $p < 0.001$] increased odds of receiving the HPV vaccine.

Conclusions: Our findings were consistent with previous research that reports lower vaccination rates among certain populations, such as males, the uninsured, and low healthcare consumers. Efforts to improve dental provider-driven HPV vaccination and prevention should be directed at providers that serve populations who are uninsured and have limited access to care.

Source of Funding: None

Keywords: Health Promotion; Children; Primary prevention

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: Public Opinion Regarding Dental Care Visits during COVID-19 Outbreak in Saudi Arabia

Authors:

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Ghaliah M. Alharbi, BDS, Ministry of Health

Ahad M. Alsolami, BDS, Ministry of Health

Abstract:

Objectives: The objective was to understand the public's opinion regarding dental visits during the COVID-19 pandemic in Saudi Arabia.

Methods: A cross-sectional study was conducted during the quarantine phase of the COVID-19 pandemic. An electronic survey targeting residents of Saudi Arabia was distributed through social media using a snowball sampling technique. The survey contained questions about demographics and a list of dental situations that may require dental care during this outbreak. These situations included emergency and non-urgent routine dental procedures driven from the American Dental Association guidelines.

Results: In this study, there were 3,443 responders. Sixty-three percent of respondents were female and around 44.9% of participants regularly visited dental clinics. Regarding emergencies, the majority of responders chose to go to a dental clinic in the case of facial bone trauma (94.5%). However, only two-thirds of participants chose to go for dental care for cellulitis. In the multiple logistic regression model, females, those who never visited a dentist, and rural region residents had lower odds for seeking dental care for urgent dental care during COVID-19 ($P < 0.0001$). For routine non-urgent dental procedures, on average 15% of respondents were still willing to go to the dental clinic during COVID-19 outbreak.

Conclusions: Emergency life-threatening conditions as cellulitis necessitate seeking emergency dental care, however in our study, some participants were afraid to seek dental care for emergencies during the COVID-19 pandemic. Therefore, educating the public about what constitutes an emergency dental condition is recommended.

Source of Funding: None

Keywords: Disparities; Rural/Vulnerable/Underserved; International

*Presenting Author

⁵ Student/Graduate Student/Resident Presenter

Title: States' Response to COVID-19 in the Dental Setting

Authors:

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Abstract:

Objective: To describe individual states' response to the COVID-19 pandemic in terms of access to dental care.

Methods: In early July 2020, COVID-19 related guidelines by the ADA, CDC and OSHA, were reviewed. Key topics were identified and organized into a six-category list. Individual states' Department of Health, Dental Association and/or Dental Board guidelines were documented and compared to the aforementioned list. The association between geographical region, state's governor political affiliation and national guidelines compliance was explored.

Results: National guidelines consisted of six main topics: pre-appointment (4 items); office readiness (10 items); procedure guidelines (5 items); post-appointment (2 items); personal protective equipment (10 items); and other (6 items). Out of the 50 states, 42 published guidelines for dentistry. All states followed the national office readiness recommendations. Abidance for pre-appointment, procedure guidelines, PPE and other was 93%, 83%, 98%, and 81% respectively. Only 38% of states adhered to the post-appointment guidelines, while 43% offered additional recommendations. There was no significant association between geographical US region (South, Midwest, West, and Northeast) and abidance (low/high) to each topic of national guidelines. However, statistical significant association was found between states' governor political party affiliation (republican/democratic) and abidance to pre-appointment and PPE national guidelines ($p < 0.024$ and $p < 0.031$, respectively).

Conclusion: While most states offer healthcare/dental COVID-19 guidelines, not all states follow all recommendations set by national organizations. States should continue to monitor and increase adherence to national guidelines to ensure patient safety and access to care.

Source of Funding: Health Resources and Services Administration Grant: T12HP31894

Keywords: Access to care; Adults; State

*Presenting Author

[§] Student/Graduate Student/Resident Presenter

Title: Teledentistry Use Gains Traction During COVID-19

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Eric Tranby, PhD, The DentaQuest Partnership for Oral Health Advancement

Abstract:

Objective: With the pandemic affecting dental service delivery, telehealth has become a path to provide safe, efficient and accessible dental care. The purpose of the survey was to understand provider utilization of teledentistry as dental offices reopened for comprehensive dental services.

Methods: The DentaQuest Partnership for Oral Health Advancement conducted an electronic survey from August 13 to September 1, 2020 by sending an emailed link to 21,617 DentaQuest-enrolled dental providers in more than 20 states. 7 survey questions asked about teledentistry. A total of 2,767 dental providers partially or fully completed the survey, for a response rate of 13%, and 2,299 passed the screening questions.

Results: Results showed that 34% of providers have seen patients via telehealth platforms or plan to use it in the near future. Regarding modality, 60% of providers that use telehealth used telephone calls and 42% used free virtual meeting software. The top provided services via telehealth were to prescription writing, patient triage, referral facilitation and a visual exam. Additionally, 75% of providers who use telehealth services expect telehealth encounter volume to increase or stay the same during the next 12 months. Among providers who did not use teledentistry, policy restrictions and a lack of reimbursement were named as major barriers to implementation.

Conclusions: While this survey reveals providers' positive attitudes about the continued growth of telehealth, permanent policy changes are vital to allow for widespread access to and reimbursement of quality telehealth services, including prevention.

Source of Funding : The project was self-funded.

Keywords: Models of Care; Adults; National

*Presenting Author

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