

## Introduction

According to the Commission on Dental Accreditation (CODA) Standards 2-25, predoctoral graduates must be competent in the care and treatment of patients with special health care (SHCN) needs. Texas has the second highest population of individuals with disabilities among all states yet there is a notable shortage of general dentists providing care for SHCNs patients, highlighting a significant demand for dental services, increasing access to care, and strengthening the educational foundation of dentists in predoctoral programs. Enhancing dental education and ongoing training are crucial elements in cultivating a workforce equipped to serve diverse and vulnerable populations. In parallel with the development of a new special needs dental clinic designed to serve the community, we introduced a new Preparing for Special Care Dentistry (PSCD) preclinical course in the dental curriculum at the UT Health San Antonio School of Dentistry.

## Objectives

The objective of this study was to evaluate the PSCD course and the important components of professional practice that support students' capacity to deliver patient-centered oral health care for individuals with SHCNs. PSCD development took place in 2022 through faculty meetings and case-based scenarios were designed to encourage active learning during the didactic sessions. The foundational course was developed to train dental students in preparation for their upcoming clinical rotation in the specialized clinic. Educational modules included legal, ethical and social context to disability, relationships between disability and oral health, knowledge of the spectrum of medical conditions, impairments and disorders such as intellectual disability, Down syndrome, Autism Spectrum Disorders, Cerebral Palsy, Hydrocephalus, Seizures, etc.

## Methods

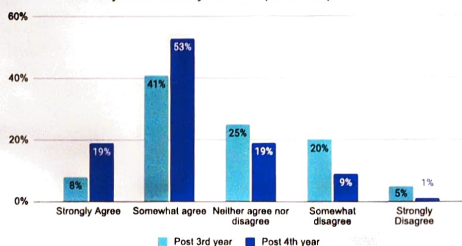
- Third- and fourth-year DDs program students completed seven-hour preclinical training, including two introductory sessions, five in-depth topics, specific disorders and case-based scenario class exercises and one hour of a final examination.
- Mixed-methods was used for this study. Qualitative and quantitative data was collected in parallel and data analysis was conducted separated.
- A modified KAP questionnaire was used to assess knowledge, attitudes, and practices of dental students for individuals with SHCNs was administered pre- and post- completion of the PSCD. The open-ended questions were to ask for student feedback on the course quality and future developments.

## Results

- 218 dental students (n=218) completed the PSCD course
- Response rate: Pre-assessment– 99% (215/218 students) and post-assessment– 93% (202/218 students).

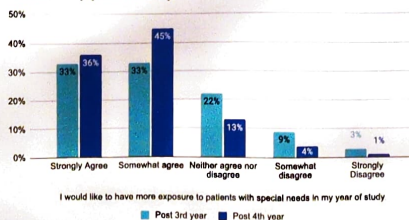
**Chart 1: Changes in Knowledge and Confidence**

Student's confident including/treating patients with special needs in their year of study/current practice/professional life



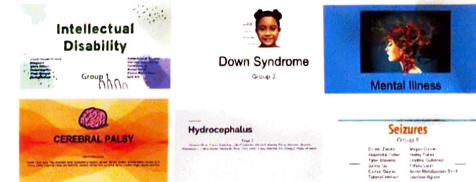
**Chart 2: Future Practice Intentions**

Student's desire to have more exposure to patients with special needs in my year of study.



**Table 1: Year 4 students' level of strong agreement on challenges while working with patients with disabilities**

| Statement  | Pre N=111 | Post N=102 | *Variance |
|--|-----------|------------|-----------|
| I feel comfortable treating patients with special needs                                  | 5%        | 14%        | +9%       |
| I feel comfortable having patients with special needs as a part of my patient population | 11%       | 22%        | +11%      |



**Picture 1: PSCD Educational Modules**

**Table 3: Qualitative Findings**

| Themes           |   |
|------------------|---|
| Time             | "Increasing time will allow for more case discussions, group presentations", "More disorders" |
| Case Discussions | "Most beneficial for clinical skills"   |

## Conclusions

- The PSCD course findings suggest that third- year dental students show a greater interest in incorporating special care dentistry topics into the curriculum. This may be attributed to their relative flexibility and the opportunity for broader exploration at this stage in their dental education. In contrast, the fourth-year students demonstrated a stronger preference for core dental care topics due to their experience in current clinical practice and board examinations.
- These differences in curricular preferences should be considered when introducing and designing educational preclinical interventions to ensure alignment with the academic and professional development needs of students at different stages in their dental training. For both years, in-depth PSCD topics included in the course provided an increase in confidence when working with SHCN patients, however there is a need for more didactic and clinical training to prepare future dentists for special care dentistry.
- PSCD course assessments and project team discussions consider increasing the allotted time for more in-depth case-based scenario discussions and group presentations. The current evaluation methods will be maintained, ensuring continuity while enhancing student engagement and practical application through extended interactive learning sessions.

## References

- 1 Commission on Dental Accreditation. Accreditation standards for dental education programs. (2022). Available at: [https://codadata.org/\\_media/pdfs/codadata.org/codadata/codadata/pdfs/standards.pdf?rev=20200422%3A4c24a2d0f5b6c5ea2c0f8b0e0812BBA2FAF6D99F37703EE0B1B4BE58](https://codadata.org/_media/pdfs/codadata.org/codadata/codadata/pdfs/standards.pdf?rev=20200422%3A4c24a2d0f5b6c5ea2c0f8b0e0812BBA2FAF6D99F37703EE0B1B4BE58) (Accessed September 17th, 2024)
- 2 US Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General. Acknowledgement: This program 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 \$1.5 million with 0% financed with nongovernmental sources. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.