Evaluating an Educational Module for Training Predoctoral Dental Students in Pediatric Dentistry

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Abstract

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Abstract

Purpose: To develop and evaluate the effectiveness of a video educational module and educational notecard on toddler and preschool oral health care for training dental students.

Methods: A video educational module and educational notecard were developed as tools to teach dental students to provide oral health information for families with young children. Five key points - oral hygiene instruction, dietary counseling, "lift the lip" training, fluoride supplementation, and caries risk assessment - were discussed in the video educational module. A laminated notecard was provided in conjunction with the video module to be used chairside during examinations; the notecard listed the 5 key points from the video along with topic related pictures. These items were based on Washington's Apple Health: Access to Baby and Child Dentistry (ABCD) Program and the American Academy of Pediatric Dentistry's (AAPD) Guidelines on anticipatory guidance. Oral hygiene instruction was shown in a knee-to-knee position and in the dental chair for children 5 years and under. Descriptive statistics were calculated for student and patient demographic characteristics. Descriptive statistics were also calculated for the students' perceptions of

the video educational module, educational notecard and on their comfort levels in treating pediatric patients pre and post-module. Video recordings were viewed and scored for the students' ability to delivery the 5 key points from the video educational module and notecard to the families during their appointment. Chi-square and Fisher's Exact tests were used to evaluate the association between the data collected from the pre and post-module video recordings.

Results: Twenty-two students participated in this study and 100% reported a willingness to treat children in their future dental practices. Post-module, more students demonstrated or discussed "lift the lip" ($p<0.001$) and dietary counseling on beverages in the home ($p=0.009$). Most of students (95%) found the video module to be helpful and 86% reported the notecard helpful. The majority (77%) of the students reported that the video module increased their comfort level in treating pediatric patients in their future practices.

Conclusion: This video educational module and educational notecard is an effective adjunct tool for training dental students on infant and toddler oral health. After watching the video module, dental students showed increased delivery of oral health information topics to families. As a result of the video module, dental students reported improved comfort levels when treating young pediatric patients.

INTRODUCTION

Access to Oral Health Care

Oral health is an important factor in a child's overall health and well-being. Having access to preventive dental services has been linked to fewer dental caries.[1] Access to oral health care is a concern in many parts of the United States of America (USA), and in 2014 the Department of Health and Human Services released Healthy People 2020, listing multiple objectives to help increase access to preventive dental services.[2] However, with a shortage of dental health professionals who are willing to see young patients, children from low socioeconomic backgrounds still have unmet needs. With a shortage of dental health professionals, who are willing to see young patients, it continues to be a challenge to overcome unmet needs in the pediatric population. [3,4]

Dental Caries as it Relates to Access to Oral Health Care

Children from dentally underserved areas often lack access to oral health care.[5] Newacheck at al. reported that the most prevalent unmet health care need for children in the USA is dental care.[6] According to Fein et al., only 10% of children five years old and younger in the United States have received some type of preventive dental care.[7] The American Academy of Pediatric Dentistry (AAPD) and the American Academy of Pediatrics (AAP) recommend that children have their initial dental visit within six months after eruption of the first tooth or by age one.[8] The goal of the 'age one' dental visit is to establish a dental home for the family and to promote oral health. The early visit allows the dentist to provide an initial dental examination, identify any oral disease present, discuss the frequency for recall visits, and provide anticipatory guidance and oral health information.[8] Children who receive early preventive dental care are more likely to continue to receive regular preventive care.[9]

However, a great majority of children 0-5 years old do not, and dental caries remains the most common chronic disease of childhood.[10]

Dental Care by General Dentists for Children

To improve access to care for children ages 0-5 years old it is important to encourage general dentists to see more young children.[11] As of April 2016, only 3% of dental practioners are pediatric dentists, with 80% listed as general dentists. The majority of children in the USA are seen in general dental offices[12] In a study conducted by Seale and Casamassimo, general dentists were surveyed about the age of patients they accepted in their practice. [13] Only 27% saw patients 18 months and younger, with 72% willing to see patients 18 months to 3 years old, and 98% seeing children between the ages 4 to 6 years old; 9% of the respondents reported they did not see any children under the age of 15. A majority of the respondents were unaware of the current AAP/AAPD guidelines for a child's first dental visit.[13] In 1991, Hanes et al. reported that 22% of 2,000 general dentists surveyed from the American Dental Associations data base, did not see children less than age 3 in their practices. [14] When considering rising birthrates and the small percentage of pediatric dentists in the United States, it is impossible for pediatric dentists to accommodate all children.[13,15] General dentists received very little exposure to infants and toddlers in dental school and few are willing to see infant and toddler aged children. It was hypothesized that providing enhanced training in toddler and preschool oral health to dental students could help increase their confidence and attitude towards seeing patients age 0-5 years old after graduation.

Pediatric Dentistry Training for Predoctoral Dental Students

Many studies have reported that general dentists decide to treat or not treat pediatric patients in their dental practice based on what they were taught in dental school.[13,16] Only one out of every four predoctoral dental students has exposure to hands-on infant oral examinations during their predoctoral training.[7] Limited time is dedicated in most predoctoral dental curricula for Pediatric Dentistry or infant and toddler oral health. Seale and Casamassimo reported that predoctoral students who had clinical experiences in providing infant oral health examinations in dental school were more likely to continue this practice once they have graduated.[17] In 2009, predoctoral students enrolled in a study by Fein et al., received both didactic information and clinical experience with infant oral health and examinations through the Baby Oral Health Program (bHOP) first established at University of North Carolina Chapel Hill. After completion of the experience, predoctoral students reported that they would be more likely to provide care to young children in practice.[7] In addition, the exposure to specific training on infant and toddler oral health increased the students' knowledge, confidence and attitudes when treating young patients.[7]

Integration of Video Modules into Pediatric Dentistry Curriculum

In 2010, the Commission on Dental Accreditation (CODA) published new standards for predoctoral dental programs, placing an emphasis on integration of technology in the curriculum to enhance the educational experience.[18] While the use of technology in classroom settings is becoming well accepted, with video-based teaching having a considerable influence on clinical behavior, there are few studies reporting use of video modules in pediatric dental education. [19] In a study evaluating acceptance of videos for

dental education, by Kalwitzki et al., students preferred video based teaching in Pediatric Dentistry.[20] Kalwitzki et al. conducted a subsequent study comparing lecture and video methods for teaching in Pediatric Dentistry. They reported statistically significant results in favor of video-based teaching, with 58% of students indicating that videos were a preferred form of teaching and that 48% would prefer being taught through video tapes rather than traditional lecture format.[21] Integration of video modules depicting oral health care for infants and toddlers in conjunction with hands on experiences for the dental students may help increase willingness for general dentists to treat young children in their practices.

Study Objectives

The purpose of this project was to develop and test the effectiveness of a video educational module and educational notecard targeted at dental students and focused on infant and toddler oral health care for the general dentist. We hypothesized that there would be an improvement in delivery of oral health information as well as an increase in the dental students' confidence levels and attitudes toward treating pediatric patients post-video module.

METHODS

Study Participants: Third year dental students enrolled at the University of Washington School of Dentistry (UW SOD) and scheduled for a six week Pediatric Dentistry Clerkship at the UW Center for Pediatric Dentistry (CPD) from November 2nd, 2015 through May 6th, 2016 (N = 34) were approached to enroll in this prospective cohort study. This study was approved by the University of Washington's Human Subject Division of the Institutional Review Board (#50218).

Study Overview: This pilot study was conducted over the students' six-week pediatric dental rotation at the CPD. During week one, students were approached and informed about the study.

Week 1: Pre-Module Assessment: When a student opted to enroll (N = 22), they provided written consent, signed a model release form and completed a pre-module survey. The pre-module survey included the predoctoral students' demographics and questions related to their experiences with children and dentistry.

Week 2 and Week 3: Pre-Module Video Recordings: During weeks two and three, enrolled students were video recorded during a new patient or recall visit with a child 5 years old or younger. Once the parent/guardian of the child provided verbal consent for them and their child to participate in the video and signed a model release form, a video camera was placed in the operatory for the entire length of the appointment to capture all information exchanged between the dental student, patient and family.

Mid-Week 3: Intervention - Video Educational Module and Notecard: During week 3, after the students' first oral hygiene education visits were recorded, the students watched a ten-minute educational video module depicting infant and toddler oral health education. After watching the educational video module, students received a laminated notecard that covered the key points of the video, which they could use in the clinic during the remaining time of their clerkship rotation. *Week 4 and 5 - Post-Module Video Recordings:* During weeks four and five, all enrolled students were again video recorded during a new patient or recall visit with a child 5 years old or younger. Once the parent/guardian of the child provided verbal consent for them and their child to participate in the video and signed a model release form, a video camera was placed in the operatory for the entire length of the

appointment to capture all information exchanged between the dental student, patient and family.

Week 6: Post-Module Survey: During week six, the students completed a post-module survey to evaluate the effectiveness of the video educational module and notecard. The survey also assessed their comfort level and attitude towards treating pediatric patients after graduation. Students were asked to return the notecard when the post-module survey was completed.

Data Collection: Data were collected for each participating dental student from four data sources: the demographic survey, pre-module examination videos, post-module examination videos, and post-module survey.

Pre-Module Survey: Data collected from the pre-module the survey include demographic information, future practice data, and procedures the student would be willing to provide (Appendix A).

Pre and Post-Module Video Recordings: All videos were standardized and viewed by an unblinded single individual (MAD) to evaluate the presence or absence of pre-established set criteria. Data collected from the pre and post-module video recordings included whether or not the dental student delivered any to all of the 5 key points related to oral health information during the examination. It also included information on the patient examination characteristics including the type of examination (knee-to-knee versus in the dental chair) and the patient's Frankl behavior score during the appointment. Frankl's Behavior Rating Scale, developed in 1962, is widely used in evaluation of behavior in pediatric dental research.[22] It classifies the child's behavior into four main groups based on cooperative or lack of cooperation during dental treatment.[22] The four main categories are

++: definitely positive, +: positive, -: negative and --: definitely negative.[22] For the purpose of this study ++/+ was combined for an overall positive appointment score and -/-- was combined for an overall negative appointment score (Appendix B).

Post-Module Survey: Data collected from the post-module survey included satisfaction with the video education module, educational notecard updated information about future practice and procedures were collected from the post-module survey (Appendix C).

Patient Demographics: Data were also collected from the electronic dental records of those patients included in the video recordings. The information collected included: the patient's date of birth, date of treatment rendered, patient's gender, and the examination type (new patient or recall examination). The date of treatment and the date of the birth of the patient were used to calculate the age of the patient at the time of treatment (Appendix D). All of the data were compiled individually and a random number was assigned to each student. Study data were collected and managed using REDCap (Research Electronic Data Capture), a secure, web-based application designed to support data capture for research studies hosted by the University of Washington.

Data Analysis: The mean, standard deviation, count and percentages were calculated for all variables. Differences between variables pre and post-module were tested using Chi-square tests or Fisher's Exact tests. Data analysis was completed using Stata/IC 13.1 (StataCorp LP, College Station, Texas). A p-value of less than 0.05 was considered to be statistically significant.

RESULTS

Twenty-two of the 34 (65%) third year dental students who were approached about this study, elected to participate. The majority of the participating students was between the ages of 21 and 30 years old (82%), male (72%), and did not have children in the household (77%). Eighty-two percent of the dental students had held a previous job or hobby working with children (i.e., nanny/babysitter) and 32% had previous experiences in dentistry (i.e., dental assistant) before starting dental school. While 100% of the students were willing to treat pediatric dental patients after graduation, no student reported they planned to attend a post-graduate residency program in Pediatric Dentistry (Table 1).

The ages of the pediatric patients ($p = 0.721$), type of visit ($p = 0.750$), visit position ($p = 0.322$) and Frankl scores during the clinical exam ($p = 0.310$) were similar both pre and post-module and did not influence the delivery of oral health information (Table 2).

There was a statistically significant increase between numbers of students who discussed or demonstrated "lift the lip" training pre and post-module, with 50% more of the students completing this key point during the post-module recording ($p < 0.001$). There was also a statistically significant increase in the number of students who discussed dietary counseling of beverages in the home, with 36% more of the students completing this key point during the post-module recording ($p = 0.009$). Although there was not a statistically significant association difference in pre and post-module discussions/demonstrations of brushing ($p = 0.488$) and flossing ($p = 0.066$), dietary counseling of meals ($p = 0.281$) and snacks ($p = 0.412$) during dietary counseling, caries risk assessment ($p = 0.664$), or

discussion of fluoride exposure/supplementation ($p = 0.281$), these key points all showed trends towards an increase in number of students completing the points post-module than pre-module (Table 3).

All dental students reported they would be willing to treat pediatric patients pre and post-module. Though it was not a statistically significant, there was an increase in the number of dental students willing to treat children age 5 years and younger post-module ($p = 0.221$). There was not a statistically significant difference pre and post-module between the procedures the dental students were willing to provide to pediatric patients after graduation, although all students did report a willingness to provide pediatric patients and their families with dental examinations, dental cleanings, fluoride treatments and oral hygiene instructions or a referral if needed (all p-values >0.05 There were slight increases in students' willingness to also provide restorative care ($p > 0.05$ and urgent care ($p = 0.340$) post-module, but this was not statistically significant (Table 4).

Ninety-six percent of the dental students found the video module to be extremely helpful or helpful stating that the step-by-step instructions and the visual examples of the knee-to-knee, dental examination, and "lift the lip" training were what they found the most helpful. Nineteen students (86%) found the notecard to be extremely helpful or helpful because it was a good visual reminder during the examination, it was short and concise and the pictures on the notecard were good examples to show parents. Seventeen of the twenty-two students (77%) felt that the extra training provided in the video module helped them

to feel more comfortable in treating pediatric patients in their future offices (Tables 5 and 6).

DISCUSSION

This study was conducted to test the effectiveness of a video educational module targeted at dental students and focused on toddler and preschool oral health care. The goal was to determine if the integration of a video module into predoctoral Pediatric Dentistry curriculum would improve the delivery of oral health information for patients ages 0-5 years old; this module was in addition to the ABCD Program training and didactic training in pediatric dentistry the students had already received as part of their curriculum

Students reported that it was very helpful to see the visual example of "lifting the lip" depicted in the video educational module. There was a statistically significant post-module finding with delivery/discussion of "lift the lip" training, with an increase in the number of students providing "lift the lip" training to parents. There was also a statistically significant finding with dietary counseling on beverages in the home. Though the data were not statistically significant with the other key points mentioned in the video (discussion/demonstrations of brushing and flossing, dietary discussions of meals and snacking, fluoride supplementation or caries risk assessment), all points all showed trends towards improvements with more students completing the tasks post-module than pre-module. This supports the hypothesis that there would be an improvement in delivery of oral health information post-video module. This is similar to the findings of Fein et al., after they introduced the Baby Oral Health Program (bOHP) into the dental students'

curriculum, showing that the rotation and extra hands on training had significant influence on increasing knowledge of Pediatric Dentistry as it relates to infant and toddler oral health. Their program was well received by 89% of the students who reported they would be more apt to treat patients under age 5.[7]

This study found a high acceptance rate of the video module, with 96% of the students enrolled finding the video to be extremely helpful/helpful, similar to a study done by Kalwitzki et al., that videos are a well accepted form of teaching and that students prefer them to traditional lecture format.[20] While most students found that the video was helpful, many did report they would have liked to watch the video educational module and receive notecard during week one of their clerkship prior to patient care, as opposed to during week three when it was provided. They also commented that they were unclear on how to discuss caries risk assessment or fluoride supplementation even after the module, which may be an indicator why there was not statistically significant improvement with those key points. Lastly, they would have liked to helpful tips on behavior management during knee-to-knee and dental chair examinations for behaviorally challenging patients.

This study provides evidence that supports the use of a video educational module in the UW SOD predoctoral Pediatric Dentistry curriculum at the CPD. Exposure to this younger patient population for the dental students has considerably improved since 2010, where the average age of patients seen by both dental students and residents in the pediatric department was 11 years old.[23] Interactions with infants and toddlers under 5 years old, in conjunction with helpful demonstrations/training through video educational modules,

could lead to a greater willingness of general dentists to treat young children in their practices after graduation.

Study Limitations

Only 65% of the third year dental students asked to participate in the study actually enrolled. With six week-long rotations, there were limited numbers of students to enroll in the time frame for data collection (n = 34). If the study were repeated, the enrollment process would start with the new incoming class therefore increasing the number of potential participants.

Another limitation was the small number of patients ages 0-2 years old and patients with negative behaviors. This reflects the clinic practice for pre-screening patients for the third year dental students, with very young and/or poorly behaved children moved to the resident or faculty practice clinics.

Lastly, all videos were standardized and viewed by a single unblinded individual.

CONCLUSION

The results of this study indicate that this video educational module and the educational notecard showed promise as effective adjunct tools for training dental students on infant and toddler oral health care. After watching the video module, dental students showed increased delivery of oral health information to families. As a result of the video module, dental students reported improved comfort levels when treating pediatric patients. The video educational module could be a useful adjunct tool to the pre-doctoral Pediatric Dentistry curriculum.

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Table 1: Sample Characteristics of Dental Students and (N = sample size)

	N (%)
Gender	
Male	16 (72.7)
Female	6 (27.3)
Race	
White	15 (68.2)
Asian	3 (13.6)
Black or African American	1 (4.6)
Other	3 (13.6)
Age	
21-25 years old	12 (54.5)
26 – 30 years old	7 (31.8)
31+ years old	2 (9.1)
Unanswered	1 (4.6)
Marital Status	
Never Married	14 (63.6)
Married/Living with Partner	6 (27.3)
Other	2 (9.1)
Persons under 18 in household	
No	17 (77.3)
Yes	5 (22.7)
Job/Hobby Working With Children	
No	4 (18.2)
Yes	18 (81.8)
Previous Dental Job	
No	15 (68.2)
Yes	7 (31.8)
Plan to Treat Children Post-Graduation	
No	0 (0.0)
Yes	22 (100.0)
Pediatric Residency	
No	22 (100.0)
Yes	0 (0.0)

Table 2: Sample Characteristics of and Patients (N = sample size)

	Pre-Module N (%)	Post-module N (%)	p-value
Age			
0-2 years old	4 (18.2)	6 (27.3)	0.721*
3-5 years old	18 (81.8)	16 (72.7)	
Gender			
Male	12 (54.6)	14 (63.6)	0.376**
Female	10 (45.4)	8 (36.4)	
Examination Type			
New Patient Examination	7 (31.8)	8 (36.4)	0.750**
Recall Examination	15 (68.2)	14 (63.6)	
Examination Position			
Knee to Knee	8 (36.4)	5 (22.7)	0.322**
Patient in Dental Chair	14 (63.6)	17 (77.3)	
Frankl Score During Examination			
++/+	14 (63.6)	18 (81.8)	0.310*
-/ --	8 (36.4)	4 (18.2)	

*Fisher's Exact Test
**Chi-square Test

Table 3: Video Data Collection of Five Key Points Pre and Post Video Module

	Pre-Module N (%)	Post-module N (%)	p-value
Lift the Lip			
No	20 (90.9)	9 (40.9)	<0.001**
Yes	2 (9.1)	13 (59.1)	
Oral Hygiene			
Discussed/Demonstrated Brushing			0.488*
No	2 (9.1)	0 (0.0)	
Yes	20 (90.9)	22 (100.0)	
Discussed/Demonstrated Flossing			0.066**
No	12 (54.5)	6 (27.3)	
Yes	10 (45.5)	16 (72.7)	
Caries Risk Assessment			
No	20(90.9)	18 (81.8)	0.664*
Yes	2 (9.1)	4 (18.2)	
Dietary Counseling			
Discussed Meals			0.281*
No	7 (31.8)	3 (13.6)	
Yes	15 (68.2)	19 (86.4)	
Discussed Snacks			0.412*
No	5 (22.7)	2 (9.1)	
Yes	17 (77.3)	20 (90.9)	
Discussed Drinks			0.009*
No	9 (40.9)	1 (4.5)	
Yes	13 (59.1)	21 (95.5)	
Discussion of Fluoride Exposure			
No	7 (31.8)	3 (13.6)	0.281*
Yes	15 (68.2)	19 (86.4)	

*Fisher's Exact Test
**Chi-square Test

Table 4: Pre and Post-Survey Data Collection

	Pre-Module N (%)	Post-module N (%)	p-value*
Plan to Treat Children Post-Graduation			
No	0 (0.0)	0 (0.00)	>0.999*
Yes	22 (100.0)	22 (100.0)	
Age of Patients Willing to Treat			
0-2 years	13 (59.1)	17 (77.3)	0.221*
3 -5 years	3 (13.6)	4 (18.2)	
6-9 years	4 (18.2)	0 (0.00)	
10-13 years	2 (9.1)	1 (4.5)	
Adults only	0 (0.0)	0 (0.0)	
Procedures Student is Willing to Provide Post Graduation			
Dental examination			>0.999*
No	0 (0.0)	0 (0.0)	
Yes	22 (100.0)	22 (100.0)	
Dental Cleaning			>0.999*
No	0 (0.0)	0 (0.0)	
Yes	22 (100.0)	22 (100.0)	
Fluoride Treatment			>0.999*
No	0 (0.0)	0 (0.0)	
Yes	22 (100.0)	22 (100.0)	
Restorative Treatment			>0.999*
No	4 (18.2)	3 (13.6)	
Yes	18 (81.8)	19 (86.4)	
Urgent Care			0.340**
No	9 (40.9)	6 (27.3)	
Yes	13 (59.1)	16 (72.7)	
Diet Counseling			>0.999*
No	0 (0.0)	1 (4.55)	
Yes	22 (100.0)	21 (95.5)	
Oral Hygiene Instruction			>0.999*
No	0 (0.0)	0 (0.0)	
Yes	22 (100.0)	22 (100.0)	
Referral			>0.999*
No	1 (4.5)	1 (4.5)	
Yes	21 (95.5)	21 (95.5)	

*Fisher's Exact Test
**Chi-square Test

Table 5: Post Survey Results

	N (%)
Did you Find the Video Module to be?	
Extremely helpful/Helpful	21 (95.5)
Neither helpful nor unhelpful	1 (4.5)
Did you Find the Notecard to be:	
Extremely helpful/Helpful	19 (86.4)
Neither helpful nor unhelpful	2 (9.1)
Unhelpful/extremely unhelpful	1 (4.5)
Do you feel like the extra training through Video Module helped you feel more comfortable in treating pediatric patients in your future practice?	
No	4 (18.2)
Yes	17 (77.3)
I don't know	1 (4.5)

Table 6: Top positive and negative comments from post-module survey

Top 3 Positive Comments from Post-module Survey	Top 3 Negative Comments from Post-module Survey
1. Step by step instructions in the video were helpful	1. No examples of behavior management
2. Notecard served as a good visual reminder during exams; it was short and concise; pictures on notecard were good to show parents	2. Not clear on how to discuss caries risk assessment and fluoride supplementation
3. Video/visual examples of knee-to-knee, dental chair exam and demonstration of Lifting the lip were very helpful	3. Would have liked to have viewed the video week 1 of clerkship before patient encounters

APPENDIX A: Predoctoral Dental Student Demographic Survey

Introduction:
The purpose of this survey is to collect demographic information regarding you, a predoctoral student participating in your pediatric dentistry clerkship. It is important to answer **ALL** questions in the survey. Please answer the questions honestly and to the best of your abilities. Your participation in this survey will not affect your overall grade in your clerkship. The research team appreciates your participation in this survey as we aim to improve the educational experience of predoctoral dental students in the field of pediatric dentistry.

1. What is your first and last name (please print):

   _____

2. What is your gender?

   ☐ Male
   ☐ Female

3. What is your race? (check all that apply)

   ☐ American Indian or Alaskan American
   ☐ Asian
   ☐ Black or African American
   ☐ Native Hawaiian or Other Pacific Islander
   ☐ White
   ☐ Hispanic or Latino
   ☐ Other:_____

4. What is your age in years? _____

5. What is your marital status?

   ☐ Never married
   ☐ Married
   ☐ Living with partner
   ☐ Divorced
   ☐ Widowed
   ☐ Separated

6. Are there any persons less than 18 years old now living or staying in your home?

   ☐ Yes
   ☐ No

   If **yes**, how many? _____

7. Have you held a job or had a hobby, prior to dental school, where you worked with children? (Examples: nanny/babysitter, camp counselor, Sunday school teacher)

   ☐ Yes
   ☐ No

8. Have you practiced pediatric dentistry on a dental mission trip?

   ☐ Yes
   ☐ No

9. Have you held previous jobs in dentistry before attending dental school? (check all that apply)

   ☐ No
   ☐ Yes - Dental assistant
   ☐ Yes - Hygienist
   ☐ Yes - International dentist
   ☐ Yes - Other:_____

10. Do you plan on treating pediatric patients after graduation?

    ☐ Yes
    ☐ No

11. Are you going to complete a pediatric dentistry residency program after graduation?

    ☐ Yes
    ☐ No

12. What is the minimum age of pediatric patients you would be willing to treat?

- ☐ 0-2 years
- ☐ 3-5 years
- ☐ 6-9 years
- ☐ 10-13 years
- ☐ 13-15 years
- ☐ 16-18 years
- ☐ Adults only

13. Which of the following procedures would you feel comfortable providing to pediatric dental patients in your future practice? (check all that apply)

- ☐ Dental examination
- ☐ Dental cleaning
- ☐ Fluoride treatment
- ☐ Restorative treatment
- ☐ Urgent care
- ☐ Diet counseling
- ☐ Oral hygiene instruction
- ☐ Referral
- ☐ All the above
- ☐ None of the above

APPENDIX B: Pre and Post-Video Module Data Collection Points

Record ID _____
ID of Patient (1.1, 1.2, 2.1 etc) _____
Date video was recorded (mm/dd/yyyy) _____
Number of dental providers present _____
Number of caregivers present _____
Number of children present (including the patient) _____

Position of child during exam:

☐ Knee-to-knee
☐ In dental chair

The next four questions pertain to the behavior of child at four occasions during dental appointment (Frankl behavior score ++, +, -, --)

1. When Predoctoral student enters operator/room
   ☐ ++ ☐ + ☐ - ☐ --

2. When the child is positioned for the exam
   ☐ ++ ☐ + ☐ - ☐ --

3. During the Dental exam
   ☐ ++ ☐ + ☐ - ☐ --

4. After the dental exam
   ☐ ++ ☐ + ☐ - ☐ --

Is the Notecard present during the appointment?
☐ Yes ☐ No

The next 7 questions pertain to: Was the following content delivered and was it delivered by the predoctoral student:

1. "Lift the Lip" training
   ☐ Yes ☐ No

2. Criteria for Oral Hygiene Instruction during Appointment

   Discuss/Demonstrate Brushing
   ☐ Yes ☐ No

   Discuss/Demonstrate Flossing
   ☐ Yes ☐ No

3. Risk assessment for early childhood caries (did the predoctoral student say something to the nature of "your child is at risk/prone to caries based on...)

☐ Yes ☐ No

4. Criteria for Dietary Counseling during appointment

Discussed meals (how many and/or what is eaten at mealtime)

☐ Yes ☐ No

Discussed snacks (how many per day and/or snacks eaten)

☐ Yes ☐ No

Discussed drinks (frequency of drink other than water)

☐ Yes ☐ No

5. Discussion of fluoride exposure (ask about using fluoridated toothpaste/rinse).

☐ Yes ☐ No

6. Adult family member(s) present

☐ Mom
☐ Dad
☐Both Parents
☐ Guardian
☐ Other
☐Not stated
☐Other Family Member(s) _____

Anything of note during the exam:

_____

APPENDIX C: Post Video Educational Module Survey

Introduction:
The purpose of this survey is to collect information about you, a predoctoral student participating in your pediatric dentistry clerkship, and your opinion regarding the Video Educational Module. It is important to answer **ALL** questions in the survey. Please answer the questions honestly and to the best of your abilities. Your participation in this survey will not affect your overall grade in your clerkship. The research team appreciates your participation in this survey as we aim to improve the educational experience of predoctoral dental students in the field of pediatric dentistry.

Section 1: The following questions pertain to the educational video that you watched during this study:

1. Did you find the video module to be:
   - ☐ Extremely helpful
   - ☐ Helpful
   - ☐ Neither helpful nor unhelpful
   - ☐ Unhelpful
   - ☐ Extremely unhelpful

2. What are some aspects of the video module that you found to be helpful? *Write in below.*

3. What are some aspects of the video module that you found to be NOT helpful? *Write in below*

Section 2: The following questions pertain to the educational notecard that you received during this study:

1. Did you find the notecard to be:
   - ☐ Extremely helpful
   - ☐ Helpful
   - ☐ Neither helpful nor unhelpful
   - ☐ Unhelpful
   - ☐ Extremely unhelpful

2. What are some aspects of the notecard that you found to be helpful? *Write in below.*

3. What are some aspects of the notecard that you found to be NOT helpful? *Write in below*.

Section 3: The following questions pertain to your plans for your future dental practice:

1. Do you plan on treating pediatric patients (patients age 18 years old or less) in your future practice?
   - ☐ Yes
   - ☐ No
   - ☐ I don't know

2. What is the minimum age of pediatric patients you would be willing to treat in your future practice?
   - ☐ 0 – 2 years
   - ☐ 3 – 5 years
   - ☐ 6 – 9 years
   - ☐ 10 – 13 years
   - ☐ 14 – 18 years
   - ☐ Adults only

3. Which of the following procedures would you feel comfortable providing to pediatric dental patients in your future practice? *Select all that apply.*
   - ☐ Dental exam
   - ☐ Dental cleaning
   - ☐ Fluoride treatment
   - ☐ Restorative treatment
   - ☐ Urgent care
   - ☐ Diet counseling
   - ☐ Oral hygiene instruction
   - ☐ Referral
   - ☐ All the above
   - ☐ None of the above

4. Do you feel like the extra training provided in the Video Educational Module helped you feel more comfortable in treating pediatric patients in your future practice?
   - ☐ Yes
   - ☐ No
   - ☐ I don't know

5. What are some aspects of the Video Educational Module that helped you feel more comfortable with the idea of treating pediatric patients in your future practice? *Write in below.*

6. What aspects of the Video Educational Module format do you feel would need to be modified before adding it to the pediatric dentistry clerkship training curriculum? *Write in below*.

APPENDIX D: Patient Demographic Data Collection Points

Record ID _____

Patient ID Number (ex: 1.1 1.2, 2.1, 2.1...) _____

Axium Chart # for Patient _____

Provider First and Last Name _____

Patient Date of Birth (mm/dd/yyyy) _____

Date of Treatment Rendered to Patient _____

Patient Gender

- □ Male
- □ Female

Exam Type

- □ New Patient Exam
- □ Recall Exam