Dental and Dental Hygiene Students' Attitudes towards Social History Questions: A Survey

Clayton W. Blackwell & Marita R. Inglehart
University of Michigan - School of Dentistry, Ann Arbor, MI

ABSTRACT

Background: The objectives were to assess how dental and dental hygiene students consider the relevance of social history information. Specifically, it was assessed how important they considered to collect information about (a) lifestyle related risk factors for poor oral health, (b) general health-related information, (c) mental health/stress related factors, (d) living situation / social support factors, (e) socio-economic status, (f) safety/security questions, and (g) health literacy/ESL questions.

Methods: Data were collected with an anonymous web-based survey from 107 first year dental students and 23 first year dental hygiene students. Importance ratings were assessed with 3-point rating scales ranging from 1 = not at all to 3 = very important.

Results: Lifestyle related risk factors for poor oral health such as tobacco use, diet, and drug use were rated as most important. General health-related information such as medication accessibility, healthcare access and last medical visit were also rated as quite important. Mental health, such as PTSD and stress related factors as well as questions about the living situation were seen as relatively important. However, questions related to the patients' socio-economic status such as their income and education as well as social support related questions such as marital/partnership status were the lowest rated items. Health literacy and English literacy also received medium level importance ratings.

Lessons Learned: Incoming dental and dental hygiene students evaluate the importance of having information about patients' risk factors for poor oral health and health-related issues highest and sociodemographic and social issues as lowest.

Future Application and Next Steps: The next step is to collect this information from 2nd, 3rd and 4th year students to be able to assess if the degree of patient contact and clinical education will increase students' awareness concerning the importance of knowing social history information to provide optimal treatment.

INTRODUCTION

- In 2000, the first ever US Surgeon General Report on Oral Health provided clear evidence that certain population groups such as persons from socio-economically disadvantaged and/or historically underrepresented minority backgrounds and persons with different abilities have poorer oral health and increased challenges when seeking dental care in the U.S. compared to persons from other backgrounds. (1)

- Unfortunately, 21 years later, the 2021 NIDCR Report on oral health reiterated that certain population groups still have significantly poorer oral health and more problems with accessing oral healthcare services than other groups. (2)

- Collecting patient background information about their social history could be one way to assure that all patients receive the best possible dental care.

AIMS

The objectives were to assess how important students considered to collect information about

(a) **lifestyle related risk factors for poor oral health,**

(b) **general health-related information,**

(c) **mental health/stress related factors,**

(d) **living situation / social support factors,**

(e) **socio-economic status,**

(f) **safety/security questions,** and

(g) **health literacy/ESL questions.**

METHODS

This study was determined to be exempt from Institutional Review Board (IRB) oversight by the Health Sciences and Behavioral Sciences IRB at the University of Michigan, Ann Arbor, MI.

Design: This research uses survey methodology and has a cross-sectional study design.

Respondents: Data were collected from 107 first year dental students and 23 first year dental hygiene students. (See Table 1).

Procedure: The students responded to an anonymous web-based survey.

Materials: Importance ratings were assessed with 3-point rating scales ranging from 1 = not at all to 3 = very important.

Table 1:
Overview of the background characteristics

Background characteristics	Frequencies	Percentages
Gender:		
- male	41	30.6%
- female	89	69.02%
- non-binary	1	0.8%
Ethnicity / race:		
- European American	82	63.6%
- African American	8	6.2%
- Asian American	23	17.8%
- Other	16	12.4%
Academic program:		
- Dental school	107	82.3%
- Dental hygiene program	23	17.7%

RESULTS

The results of the survey of first year Dental and Dental Hygiene students are presented by category. Each category is organized from highest to lowest mean. Questions that were typically asked of patients during history taking had the highest rating from the students. These questions also address proximal determinants of health. Questions that touch on intermediate determinants of health were not viewed as helpful in taking a medical/dental history. Specifically:

a. **Lifestyle related risk factors** for poor oral health such as tobacco use, diet, and drug use were rated as most important.

b. **General health-related information** such as medication accessibility, healthcare access and last medical visit were also rated as quite important.

c. **Mental health-related topics,** such as PTSD and stress related factors were seen as relatively important. (See Table 2!)

d. Questions about the **living situation** were seen as relatively important.

e. However, questions related to the patients' **socio-economic status** such as their income and education as well as **social support** related questions such as marital/partnership status were rated lowest in their importance.

f. **Health literacy and English literacy** also received medium level importance ratings. (See Table 3!)

Table 2: Results concerning Objectives a – c

How helpful would it be to ask these questions in a medical/dental history? Lifestyle related risk factors	1 - % Not at all	2 - % Some-what	3 -% Very	Mean
Tobacco use	0.8	5.5	98.8	2.93
Diet	0	10.9	89.1	2.89
Drug use	11.6	7.8	90.7	2.89
Alcohol use	0	14.7	85.3	2.85
General health related topics	**1 - %**	**2 - %**	**3 - %**	**Mean**
Pregnancy	1.6	13.2	85.3	2.84
Medication access and affordability	1.6	15.5	82.9	2.81
Health care accessibility	1.6	16.5	81.9	2.8
Last medical visit	1.6	18.6	79.8	2.78
Health insurance status	2.4	18.1	79.5	2.77
Positive or negative health care experiences	1.6	23.3	75.2	2.74
Prior hospitalizations	2.3	24.2	73.4	2.71
Medication adherence	3.1	24.2	72.7	2.70
Sexual activity / Sexually transmitted disease	7.1	23	69.8	2.63
Ranking health among other life priorities	1.6	43.8	54.7	2.53
Alternative care practices	5	41.7	53.3	2.48
Mental health related topics	**1 - %**	**2 - %**	**3 - %**	**Mean**
Mental health	2.3	27.9	69.8	2.67
Triggers for harmful behaviors and motivation to change	3.9	28.1	68	2.64
Post-traumatic stress disorder	6.3	27.8	65.9	2.60
Causes of recent and long-term stress	3.9	16.7	59.4	2.55
Traumatic or life-shaping experiences	9.4	39.4	51.2	2.42

Table 3: Results concerning Objectives d - g

How helpful would it be to ask these questions in a medical/dental history? Living situation / social support	1 - % Not at all	2 - % Some-what	3 -% Very	Mean
Primary spoken language	3.90	18	78.1	2.74
Race / Ethnicity	11.9	54	34.1	2.22
Place of birth or nationality	20.3	55.5	24.2	2.04
Number of children / childcare	25.2	53.5	21.3	1.96
Religious affiliation	31	43.7	25.4	1.94
Social relationships	27	52.4	20.6	1.94
Number of people in household	28.7	57.4	14	1.85
Marital / partnership status	32	55.5	12.5	1.80
Socio-economic status	**1 - %**	**2 - %**	**3 - %**	**Mean**
Financial security	23	46	31	2.08
Number of hours worked / week	26.4	49.6	24	1.98
Job security	24.6	52.4	23	1.98
Employment / number of jobs	29.7	46.1	24.2	1.95
Education	30.5	50	19.5	1.89
Income	38.1	41.3	20.6	1.83
Safety / security	**1 - %**	**2 - %**	**3 - %**	**Mean**
Environmental setting / environmental health	4.7	29.1	66.1	2.61
Food security	3.1	33.3	63.6	2.6
Safety of living situation	7.9	30.2	61.9	2.54
Legal issues	28.9	47.7	23.4	1.95
Health literacy / ESL	**1 - %**	**2 - %**	**3 - %**	**Mean**
Health literacy and numeracy	3.9	27.3	68.8	2.65
English literacy	7.9	23.6	68.5	2.61

DISCUSSION

- The fact that these students were in their first year of dental education needs to be considered when interpreting these findings.

- When assessing questions beyond health / behavior related questions, students thought that health care and medication accessibility were of high importance.

- Demographic information and social support factors, as well as socio-economic status were evaluated as the lowest importance as a group.

REFERENCES

1. National Institutes of Health. Oral Health in America: Advances and Challenges. Bethesda, MD: US Department of Health and Human Services, National Institutes of Health, National Institute of Dental and Craniofacial Research, 2021.

2. U.S. Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000.

CONCLUSIONS

- First year students evaluate the importance of information about patients' risk factors for poor oral health and health-related issues highest.

- They rate questions about and sociodemographic and social issues lowest.

- The next step is to collect data from 2nd, 3rd and 4th year students to be able to assess if patient contact and clinical experiences will increase students' awareness concerning the importance of knowing social history information to provide optimal treatment.

ACKNOWLEDGEMENTS