

## Attitudes towards Treating Individuals with Disabilities: A Survey of Dental Hygiene Students and Dental Hygiene Faculty

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### Abstract

The transactional research study's purpose is to assess the attitudes of student dental hygienists and their faculty utilizing the Lee and Solis "Dental Students' Attitudes towards the Handicapped Scale" (DSATHS), as described in Stoltenberg and Walker. An email was sent to student dental hygienists and their faculty (who are registered dental hygienists) at four Louisiana dental hygiene programs using Survey Monkey. The hygiene chair had been contacted prior to sending out the survey questions for consensual agreement to be contacted. A total of 65 respondents of the 158 that were mailed completed and sent the survey back. Data was categorized by frequency distributions. Student data showed positive feelings towards treating people with disabilities. Faculty showed similar positive responses to this survey. The authors work in Special Olympics-Special Smiles programs and they were very happy with the positive information provided by this survey.

**Keywords:** Attitudes; Dental hygienists; Special needs patients; Oral health care

### Introduction

A major health concern is providing adequate care for individuals with disabilities whether it is physical, mental, intellectual, developmental or acquired. There are complications for individuals with special needs to access dental care [1-3]. Since the late 1960s, societal and political views have changed and this was reaffirmed in Oral Health in America: a Report of the Surgeon General which recognized acceptance of de-institutionalizing ("mainstreaming") individuals with special needs [4].

Johnson stated, "Disability includes any mental, physical, or emotional condition that alters or limits activities of daily living. "Special Needs" refers to mental, physical, or emotional conditions requiring modification to dental/dental hygiene treatment. Handicap is an obstacle that imposes a limitation in functioning thereby placing an individual at a disadvantage" [5].

According to the US Census 2000 Brief: Disability Status [6], there are 49.7 million people or 19.3% of the civilian non-institutionalized population (age 5 and older) with some type of disability. In the Southern United States, 19.1 million people or 38.3% live with a disability. In Louisiana alone there are 882,020 non-institutionalized individuals or 21.8% of the state's population with disabilities. This report defines people as having a disability if one or more of the following conditions exist:

- They were age 5 or older and responded "yes" to a sensory, physical, and mental or self-care disability.
- They were aged 16 years or older and responded "yes" to a disability affecting them going outside of their home.
- They were between the ages of 16 and 64 and responded "yes" to an "employment disability" [6].

Data on disabilities from the US Census 2010 has not been published at present.

The Americans with Disabilities Act (ADA) of 1990 [7] (amended in 2008) prohibits the "... discrimination against individuals with

disabilities in such critical areas as employment, housing, public accommodations, education, transportation, communication, recreation, institutionalization, health services, and voting, with the adoption of the ADA and trend to mainstreaming individuals to public services". For people with disabilities, there is a critical need for dental services from local private practitioners. It is paramount to increase the competency and comfort level for present and future dental hygiene practitioners and dentists. The Commission on Dental Accreditation (CODA) considers patients with special needs to be "those patients whose medical, physical, psychological or social situations that make it necessary to modify dental routines in order to provide dental treatment for that individual". These individuals include, but are not limited to, people with developmental disabilities, complex medical problems, and significant physical limitations [8].

Recognizing special needs concerns for dental treatment, the Commission on Dental Accreditation (CODA) [8] adopted revised Competency Standards 2-12 and 2-16 for Dental Hygiene Programs in July 2004 and implemented the revisions on January 1, 2006.

Standard 2-12 states "Dental Hygiene Science content must include oral health education and preventative counseling, health promotion, patient management, clinical dental hygiene, provision of services for and management of patients with special needs, community dental/oral health, medical and dental emergencies, legal and ethical aspects of dental hygiene practice, infection and hazard control management, and the provision of oral health care services to patients with blood borne infectious diseases".

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Standard 2-16 states “Graduates must be competent in assessing the treatment needs of patients with special needs” and “Clinical instruction and experiences with the patients’ special needs should include instruction in proper communication techniques and assessing the treatment needs compatible with the special need” [8].

The Commission on Dental Accreditation (CODA) considers patients with special needs to be “those patients whose medical,

physical, psychological or social situations make it necessary to modify dental routines in order to provide dental treatment for that individual.” These individuals include, but are not limited to, people with developmental disabilities, complex medical problems, and significant physical limitations [8].

## Methods

The survey instrument chosen for this study is a modification

The following questions to be answered with these responses:	
SA= Strongly Agree; A = Agree; U = Undecided; D = Disagree; SD = Strongly Disagree	
1.	My education has taught me to enjoy working with disabled people.
2.	I am not interested in learning anything else about disabled people.
3.	Educators who teach me seem to be well versed in the psychological, social, and emotional characteristics of the disabled.
4.	In the private office, a separate waiting room should be provided for disfigured patients.
5.	My educational experience has taught me a tremendous amount about the dental needs of the disabled.
6.	Dental services for the disabled should only be provided in a hospital.
7.	My educational training has helped me to better empathize with disabled people.
8.	The more severe the disability, the lesser need for restorative dentistry.
9.	When working with the disabled, I don't care to understand what they are feeling.
10.	My educational experiences have helped me to enjoy being with disabled people.
11.	I care about future dental treatment of the disabled.
12.	The educational experiences I have received have really helped me interact with disabled people.
13.	Very little sensitivity is required when interacting with the disabled.
14.	My teachers have shown me how to enjoy working with a positive attitude toward the disabled.
15.	Working with the disabled is a very enjoyable experience.
16.	I would not particularly desire disabled patients in my practice.
17.	My teachers have shown me how to enjoy working with the disabled.
18.	Disabled people make me uneasy.
19.	My educational training has made me confident to work with disabled people.
20.	I dislike working with disabled people.
21.	My educational training has provided me with a positive attitude toward the disabled.
22.	Dental treatment of the disabled is very discouraging.
23.	The program for treatment of the disabled at my school is really good.
24.	When working with disabled people, I find it hard to respond to them.
25.	My educational training has helped me better understand how to treat the disabled.
26.	My teachers have not shown me how to respond to the needs of the disabled
27.	My educational experiences have taught me to dislike the disabled.
28.	My instructors seem nervous and reluctant to treat the handicapped.
29.	My educational training has not helped me to understand the disabled.
30.	The teachers at my school do not seem to know very much about disabled people.
31.	My teachers are not very excited or interested in the treatment of the disabled.
32.	My educational experiences have taught me very little about the dental needs of the handicapped. Please indicate whether you have had experience with disabled people: (A = True, B = False)
33.	In your immediate family
34.	With a relative other than above
35.	With a close friend, neighbor, classmate
36.	In your work experience
37.	Please indicate the number of formal courses you have taken in disabilities or special education. A = none, B = one, C = 2-3, D = 4-5, E = 6 or more I would feel comfortable rendering oral hygiene care and instruction to: (A = True, B = False)
38.	Deaf patients
39.	Blind patients
40.	Paraplegic/quadruplegic patients
41.	Body or facial abnormality/amputee patients
42.	Epileptic patients
43.	Cerebral palsy patients
44.	Intellectual disabled/ mental retarded patients
45.	Emotionally disturbed patients
46.	Are you: A = Educator/Faculty Member. B = Student
47.	Sex: A = Male, B = Female

Table 1: Survey Instrument.

of “Dental Student’s Attitudes towards the Handicapped Scale” (DSATHS). The first DSATHS, developed by Lee and Sonis [1], consisted of 32 questions. This scale was modified by Stoltenberg and Walker [2] with the addition of 14 questions to gather information about the respondents’ prior experiences with disabled individuals. The Stoltenberg “modified” scale was chosen for this study (Table 1). All questions were entered into SurveyMonkey to collect responses.

Lists of email addresses for dental hygiene students and dental hygiene faculty at four dental hygiene programs in Louisiana (LSUHSC School of Dentistry–New Orleans, University of Louisiana–Lafayette, University of Louisiana–Monroe, and Southern University–Shreveport) were obtained with consent from the directors of these dental hygiene programs. These email addresses were entered into Survey Monkey and a participation invitation with the survey link was emailed to all potential respondents. This was done to ensure the anonymity of the respondents. If a potential respondent accepted the invitation, he/she followed the link to the survey in the invitation. Instructions were listed on the survey site. Respondents were not required to answer every question. This stipulation came from the IRB for LSUHSC that respondents were NOT required to answer every question.

## Results

One hundred and fifty-eight invitations were emailed to twenty-

seven faculty members and one hundred and thirty-one students. Sixty-five invitations (41.1%) were accepted, of which sixteen (24.6%) were educators, forty-five (69.2%) were students and four (6.1%) chose not to disclose status.

The data was analyzed by frequency distributions. Frequency tables from student data (Table 2) showed positive feelings toward the treatment of the disabled. The faculty data (Table 3) was very similar. Even with the limited coursework (Figure 1) included in the dental hygiene curriculum, the responses for questions 38 through 47 (Figures 2 and 3) indicated that the students and their faculty felt comfortable in delivering care to patients with ‘special needs’.

## Conclusions and Recommendations

The authors strongly feel that future studies need to be done especially in the Southern region of the United States because 38.3% of people living with disabilities are in this region. Dental professional training in this area can affect confidence levels and result in more interest and thus access to care for treatment of this population.

## Acknowledgement

The authors would like to thank Paul Caballero for his assistance with this research.

Considering your experiences treating disabled individuals, please answer the following questions with the responses below: SA= Strongly Agree; A= Agree; U= Undecided; D= Disagree; SD= Strongly Disagree					
Answer Options	SA	A	U	D	SD
My education has taught me to enjoy working with disabled people.	19	14	9	3	0
I am not interested in learning anything else about disabled people.	0	1	3	21	20
Educators who teach me seem to be well versed in the psychological, social, and emotional characteristics of the disabled.	18	23	3	1	0
In the private office, a separate waiting room should be provided for disfigured patients.	0	2	6	23	14
My educational experience has taught me a tremendous amount about the dental needs of the disabled.	14	16	11	4	0
Dental services for the disabled should only be provided in a hospital.	3	0	3	24	15
My educational training has helped me to better empathize with disabled people.	21	18	5	1	0
The more severe the disability, the lesser need for restorative dentistry.	0	0	2	17	25
When working with the disabled, I don't care to understand what they are feeling.	0	1	0	5	39
My educational experiences have helped me to enjoy being with disabled people.	14	18	12	1	0
I care about future dental treatment of the disabled.	26	19	0	0	0
The educational experiences I have received have really helped me interact with disabled people.	15	18	10	2	0
Very little sensitivity is required when interacting with the disabled.	0	0	1	17	26
My teachers have shown me how to enjoy working with a positive attitude toward the disabled.	14	23	6	1	1
Working with the disabled is a very enjoyable experience.	9	23	13	0	0
I would not particularly desire disabled patients in my practice.	0	8	4	20	13
My teachers have shown me how to enjoy working with the disabled.	12	22	9	2	0
Disabled people make me uneasy.	2	9	8	20	6
My educational training has made me confident to work with disabled people.	8	23	8	6	0
I dislike working with disabled people.	0	3	8	20	14
My educational training has provided me with a positive attitude toward the disabled.	14	25	5	1	0
Dental treatment of the disabled is very discouraging.	0	3	8	25	9
The program for treatment of the disabled at my school is really good.	12	14	13	5	1
When working with disabled people, I find it hard to respond to them.	1	6	12	20	6
My educational training has helped me better understand how to treat the disabled.	14	22	8	1	0
My teachers have not shown me how to respond to the needs of the disabled	1	9	4	20	11
My educational experiences have taught me to dislike the disabled.	0	1	2	11	31
My instructors seem nervous and reluctant to treat the handicapped.	0	0	2	14	29
My educational training has not helped me to understand the disabled.	0	3	5	16	21
The teachers at my school do not seem to know very much about disabled people.	0	1	0	19	25
My teachers are not very excited or interested in the treatment of the disabled.	0	2	4	19	20
My educational experiences have taught me very little about the dental needs of the handicapped.	1	5	4	17	18

Table 2: Student responses to Survey Instrument N=45.

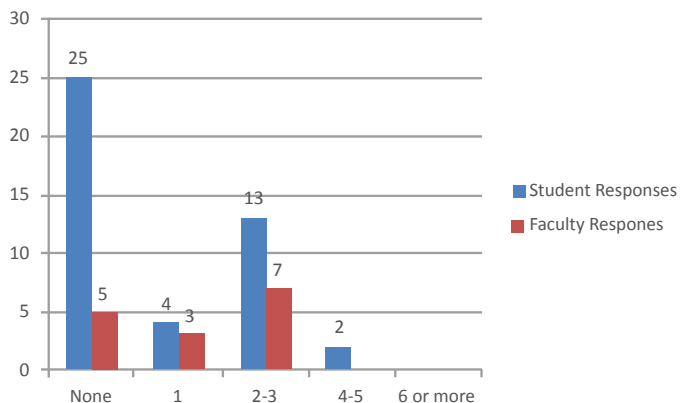


Figure 1: Survey Question 37: Number of formal courses.

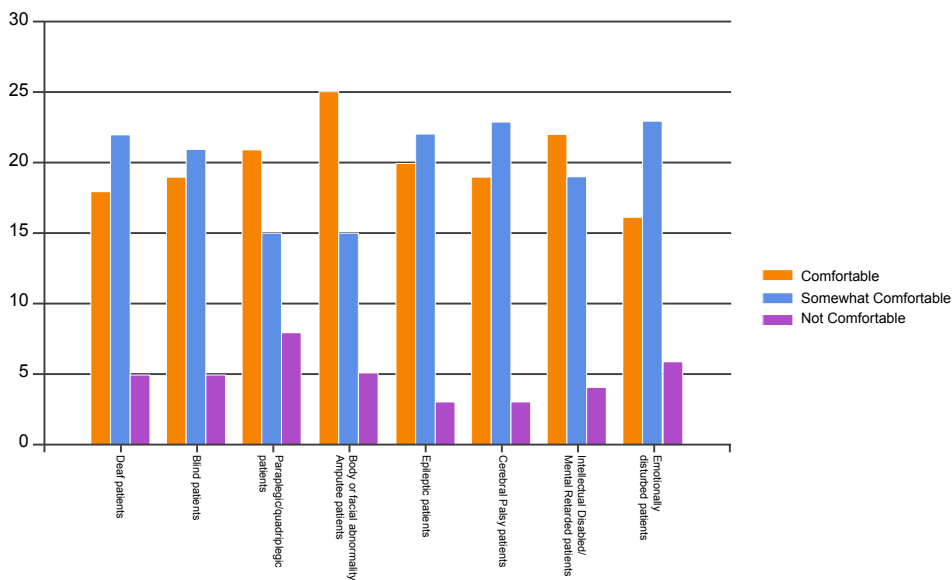


Figure 2: Survey Questions 38 – 47: Comfort rendering treatment and OHI – Student Responses.

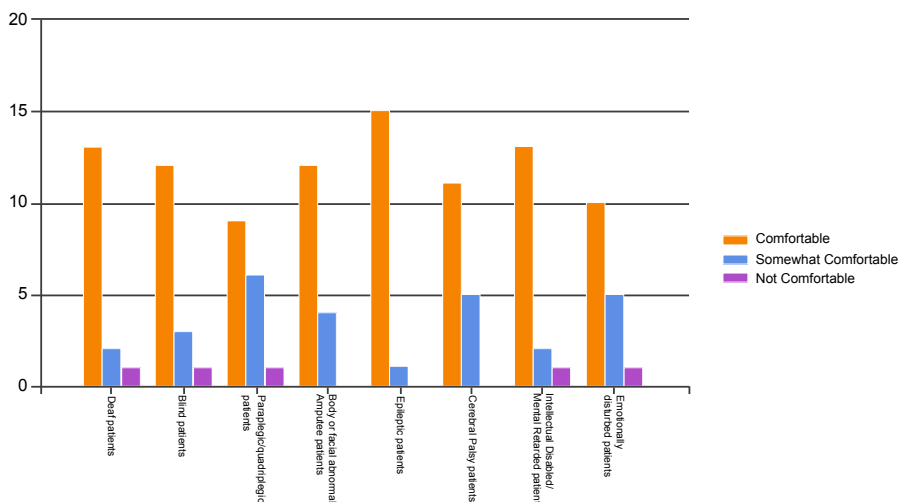


Figure 3: Survey Questions 38-47: Comfort rendering treatment and OHI - Faculty Responses .

**Considering your experiences treating disabled individuals, please answer the following questions with the responses below: SA= Strongly Agree; A= Agree; U= Undecided; D= Disagree; SD= Strongly Disagree**

Answer Options	SA	A	U	D	SD
My education has taught me to enjoy working with disabled people.	9	5	2	0	0
I am not interested in learning anything else about disabled people.	0	0	0	6	10
Educators who teach me seem to be well versed in the psychological, social, and emotional characteristics of the disabled.	6	5	5	0	0
In the private office, a separate waiting room should be provided for disfigured patients.	0	0	2	6	8
My educational experience has taught me a tremendous amount about the dental needs of the disabled.	4	8	2	2	0
Dental services for the disabled should only be provided in a hospital.	1	0	1	7	7
My educational training has helped me to better empathize with disabled people.	7	6	2	1	0
The more severe the disability, the lesser need for restorative dentistry.	0	0	0	4	12
When working with the disabled, I don't care to understand what they are feeling.	0	0	0	2	14
My educational experiences have helped me to enjoy being with disabled people.	6	6	3	1	0
I care about future dental treatment of the disabled.	11	5	0	0	0
The educational experiences I have received have really helped me interact with disabled people.	6	6	4	0	0
Very little sensitivity is required when interacting with the disabled.	0	0	0	3	12
My teachers have shown me how to enjoy working with a positive attitude toward the disabled.	8	5	3	0	0
Working with the disabled is a very enjoyable experience.	8	5	3	0	0
I would not particularly desire disabled patients in my practice.	0	1	2	7	6
My teachers have shown me how to enjoy working with the disabled.	7	4	5	0	0
Disabled people make me uneasy.	0	1	1	9	5
My educational training has made me confident to work with disabled people.	5	6	3	2	0
I dislike working with disabled people.	0	0	0	8	8
My educational training has provided me with a positive attitude toward the disabled.	9	5	2	0	0
Dental treatment of the disabled is very discouraging.	0	2	2	6	6
The program for treatment of the disabled at my school is really good.	3	4	5	3	1
When working with disabled people, I find it hard to respond to them.	0	3	1	8	4
My educational training has helped me better understand how to treat the disabled.	7	8	1	0	0
My teachers have not shown me how to respond to the needs of the disabled	0	2	2	5	7
My educational experiences have taught me to dislike the disabled.	0	0	1	6	9
My instructors seem nervous and reluctant to treat the handicapped.	0	0	2	5	9
My educational training has not helped me to understand the disabled.	0	0	2	5	9
The teachers at my school do not seem to know very much about disabled people.	0	0	2	6	8
My teachers are not very excited or interested in the treatment of the disabled.	0	0	3	5	8
My educational experiences have taught me very little about the dental needs of the handicapped.	0	0	1	7	8

**Table 3:** Faculty responses to survey instrument N=16.

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