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# WORKPLACE BULLYING:

# A NATIONAL SURVEY OF DENTAL HYGIENISTS

by

Savannah Dawn Sundburg BSDH May 2008, Old Dominion University

A Thesis Submitted to the Faculty of Old Dominion University in Partial Fulfillment of the Requirements for the Degree of

## MASTER OF SCIENCE

## DENTAL HYGIENE

# OLD DOMINION UNIVERSITY December 2019

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#### ABSTRACT

## WORKPLACE BULLYING: A NATIONAL SURVEY OF DENTAL HYGIENISTS

Savannah Dawn Sundburg Old Dominion University, 2019 Director: Prof. Susan L. Tolle

**Problem**: Workplace bullying in health care affects career satisfaction, career longevity and patient outcomes. The purpose of this study was to determine if bullying was occurring in dental hygiene employment settings as well as its prevalence in a convenience sample of dental hygienists.

**Methods**: After IRB approval, 1200 subscribers to a professional dental hygiene journal were invited to participate. Employing the validated Negative Acts Questionnaire-Revised (NAQ-R), participants were asked to indicate how often they experienced 22 defined negative behaviors according to rate of occurrence (never, now and then or monthly, weekly or daily) over the past six months. Bullying was defined as experiencing two or more of the 22 behaviors at least weekly. Participants were also asked to respond to six demographic questions relating to gender, age, employment setting, ethnicity, education level and years of practice.

**Results**: An overall response rate of 12.5% (N=154) was obtained. Data revealed 28% (n=44) of participants met the criteria for being bullied, as defined by the NAQ-R. Of this number, three or more negative acts were experienced by 22% of participants at least weekly and six percent of participants experienced two negative acts. Participants with 5 to 10 years of experience had the highest prevalence of bullying. No significant differences (p=.11) were found when comparing bullying mean scores of participants in solo dental practices ( $\bar{x}$ = 34.3, n=83) versus group dental practices ( $\bar{x}$ =39, n=52). Participants with 11 to 19 years of experience experienced significantly

less bullying ( $\bar{x}$ =31.9, n=30) compared to those with 5 to 10 years' experience ( $\bar{x}$ = 42.8, n=26) (p=.01).

**Conclusion**: Workplace bullying is a serious problem for many dental hygienists. Recognizing the occurrence is an important first step in addressing needed preventive measures and policies for those targeted. Over one-fourth of respondents indicated they experienced workplace bullying. Findings underscore the need for more research to determine bullying prevalence in a larger sample of dental hygienists as well as to develop strategies for prevention.

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# TABLE OF CONTENTS

LIST OF TABLES		
LIST OF FIGURES vii		
Chapter		
I. INTRODUCTION		
II. REVIEW OF THE LITERATURE		
III. METHODS		
IV. RESULTS19		
V. DISCUSSION		
VI. CONCLUSION		
REFERENCES		
APPENDICES		
A. IRB REVIEW		
B. SURVEY TOOL44		
VITA		

# LIST OF TABLES

Table	Page
1. Personal Characteristics and Demographics of Participants	32
2. Negative Acts Experienced Weekly or Daily by All Participants	
3. Comparison of Negative Acts Experienced Among Participants Meeting Bullying Criteria and All Participants	34
4. Mean Scores for Overall Negative Acts Experienced Based on Demographics	37
5. One Sample t-test Results Comparing Means Scores with Different Practice Settings	
6. One Sample t-test Results Comparing Mean Scores Based on Years of Practice	
7. Existence of Written Workplace Bullying Policy Among Participants Who Self-Identified as Being Bullied and All Participants	40
8. Existence of Written Workplace Bullying Policy Among Participants Meeting Bullying Criteria as Defined by NAQ-R and All Participants	41

# LIST OF FIGURES

Figure	Page
1. The Most Frequent Perpetrator of Bullying	42

#### **CHAPTER I**

## **INTRODUCTION**

Workplace bullying is a worldwide problem in healthcare with numerous studies demonstrating prevalence.<sup>1-15</sup> Research suggests workplace bullying is detrimental to the health and well-being of affected healthcare providers and their patients.<sup>11,12,16-27</sup> Workplace bullying refers to an abusive environment where an employee is persistently on the receiving end of repetitive mistreatments from superiors, coworkers or colleagues, while finding it difficult to defend themselves.<sup>28</sup> Bullying behaviors are deliberate, intimidating and tend to increase with time. They can be relentless, humiliating, malicious, cruel and long term, causing the victim to feel inferior to the perpetrator.<sup>29</sup> The toxic work environment resulting from this ongoing systemized abuse leads to psychological and physical distress in those targeted.<sup>17-25</sup>

According to Einarsen et al., bullying behaviors can be classified into three categories: physical intimidation, personal-related or work-related negative behaviors.<sup>30</sup> Physical intimidation may include physical violence, threats or the risk of violence.<sup>2</sup> Personal related bullying behaviors include excessive teasing, ridicule, being screamed at or physically abused, while work-related bullying are negative actions to sabotage a victim's work performance or satisfaction.<sup>31</sup> Some of these behaviors consist of withholding pertinent information, giving an unmanageable workload or providing a constant reminder of errors or mistakes.<sup>30</sup> Regardless of the category, bullying is grouped into two types, horizontal and vertical. Horizontal bullying, also termed lateral bullying, refers to bullying among peers or colleagues of similar professional level.<sup>31</sup> Research shows horizontal bullying is a common type of bullying seen among nurses.<sup>31-</sup> <sup>33</sup> Horizontal bullying could be caused when informal alliances form among colleagues.<sup>34</sup> bullying, the perpetrator could be the superior or subordinate. The position of power does not always determine the direction of bullying.<sup>33</sup>

Employees exposed to workplace bullying often experience adverse after effects impacting their health and well-being as well as work motivation, productivity and job fulfillment.<sup>6,11,17,18,20-23,34-36</sup> Numerous studies have documented the high prevalence of bullying in healthcare and the detrimental effects it has on those targeted. <sup>1-4,6-13,16-18,20-23,34-36</sup> Studies suggest workplace bullying not only affects healthcare worker's career satisfaction but impacts patient outcomes as well.<sup>11,12,16,26,27</sup> Bullying fosters an ineffective work environment in those targeted due to continued destruction of confidence, initiative, autonomy and skills.<sup>34</sup> Employees report staying in work positions that may be psychologically and physically harmful often due to financial issues.<sup>6,37</sup> Other victims of bullying often resign from their employment setting without having a new place of employment.<sup>38,39</sup>

International studies suggest the percentage of healthcare professionals experiencing workplace bullying ranges from 20% to 48%.<sup>1-4,6-13</sup> For example, a study of Turkish nurses revealed 47.7% experienced offensive behavior in the workplace at least weekly.<sup>1</sup> An Australian study of nurses revealed 24% of participants were bullied in the workplace within the previous six months.<sup>6</sup> A cross-sectional study of Japanese nurses demonstrated an 18% bullying prevalence with two of the most common behaviors being "withholding pertinent information affecting job performance" and "being given an unmanageable work load".<sup>3</sup> Nurses "receiving an unmanageable work load" was shown to be the most common work-related bullying behavior in a study of Israeli nurses, with a 29% bullying prevalence rate.<sup>4</sup> Bullying has also been studied within the United States (U.S). Workplace bullying has been labeled an "American epidemic," with the American Workplace Bullying Institute reporting 19% of the workforce is affected by

bullying.<sup>37</sup> Prevalence of workplace bullying has been established in American healthcare, with many healthcare providers negatively affected as well as patients.<sup>2,8,9</sup>

## STATEMENT OF THE PROBLEM

Bullying is a problem in the healthcare employment setting that negatively affects the health care workers psychological well-being and quality of work.<sup>6,16,17,18,20-23</sup> Currently there is limited research on workplace bullying prevalence among United States dental hygienists.<sup>5</sup> McCombs et al. conducted a pilot study on bullying prevalence in VA dental hygienists and results suggested one out of four participants met the criteria for workplace bullying.<sup>5</sup> The authors recommend a national study of dental hygienists to enhance understanding of true workplace bullying prevalence in dental hygiene.<sup>5</sup> Therefore, the purpose of this study is to determine prevalence of workplace bullying in a national sample of dental hygienists.

Since bullying affects the longevity and quality of healthcare careers, it is possible that bullying also significantly affects dental hygiene careers. Establishing prevalence of bullying in dental hygienists is an important first step in addressing ways to manage workplace bullying and minimizing negative consequences affecting both the individual and the work setting. This study explored workplace bullying prevalence in a national sample of dental hygienists and compared years practiced and employment setting to prevalence rates. To accomplish this study, the following research questions were explored:

What is the prevalence of workplace bullying among dental hygienists in the United States?
 Is there a relationship between the number of years a dental hygienist has practiced and bullying prevalence?

3. Is there a relationship between employment setting and bullying incidence?

#### SIGNIFICANCE OF THE PROBLEM

Bullying in healthcare is common and associated with psychological distress.<sup>6,16-18,20-23</sup> Types of psychological and physical distress reported include depression,<sup>6,16</sup> anxiety,<sup>19,20</sup> fatigue,<sup>19</sup> symptoms of post-traumatic stress disorder (PTSD),<sup>20-22</sup> and pain disorders.<sup>24</sup> Bullying increases risk of burnout within the first two years of practice.<sup>22</sup> An increased staff turnover can cause a financial strain on an organization, with frequent hiring and training of new staff.<sup>3,34</sup> Studies also suggest bullying negatively affects patient clinical outcomes and quality of care provided.<sup>11,12,16,26,27</sup> Workplace bullying negatively affects motivation, energy level, collaboration and commitment among healthcare providers.<sup>11,18</sup> Studies have identified bullying as a contributor to nurses making medical errors due to unstable or negative working environments.<sup>11,18</sup> Workplace bullying can also increase patient safety risks,<sup>27</sup> increasing the risks of adverse events and patient mortality<sup>26</sup>. Organizations and private practices should ensure a positive working environment to help maintain effective patient care.

## **DEFINITION OF TERMS**

1. <u>Dental hygienist</u>: a licensed professional possessing a license in their state to provide nonsurgical periodontal therapy.<sup>40</sup>

2. <u>Bullying</u>: a situation where an employee is persistently on the receiving end of mistreatments from superiors, coworkers or colleagues, while finding it difficult to defend themselves.<sup>1</sup>

3. <u>Burnout</u>: physical or mental collapse caused by overwork or stress.<sup>36</sup>

4. <u>Horizontal or lateral bullying:</u> bullying among colleagues or peers of similar hierarchical level.<sup>31</sup>

5. <u>Vertical bullying:</u> bullying among superior and subordinate.<sup>33</sup>

# HYPOTHESES

The following null hypotheses were tested at the 0.05 level of significance:

**HO 1:** There is no statistically significant difference in the prevalence of workplace bullying in dental hygienists employed in solo dental practices versus group dental practices as measured by the NAQ-R survey.

**HO 2**: There is no statistically significant difference in the prevalence of workplace bullying in dental hygienists based on years of practice as measured by the NAQ-R survey.

#### **CHAPTER II**

## **REVIEW OF THE LITERATURE**

Many studies have been conducted on bullying prevalence, the effects of bullying and strategies for bullying management.<sup>1-25,26,27,41-49</sup> Bullying prevalence in healthcare has been established in research throughout the world.<sup>1-4,6-13,16</sup> Bullying prevalence among nurses and other allied health professionals, including midwives, dentists, physicians and residential aged care facilities has been investigated thoroughly.<sup>1-16</sup> This literature review focuses on workplace bullying prevalence, effects and strategies for managing.

Several studies have used the Negative Acts Questionnaire-Revised (NAQ-R) to determine bullying prevalence.<sup>2-5,15</sup> Ganz et al., conducted a study on a convenience sample of 156 nurses.<sup>4</sup> The NAQ-R was used to determine bullying prevalence within five medical centers in Israel. Data was collected over 10 months, from employees of 15 different intensive care units. Results revealed almost one-third (29%) of participants had experienced bullying, with seven percent of those, experiencing bullying more than five times per week.<sup>4</sup>

Etienne et al. as well as Yokoyoma et al. also used the NAQ-R to determine bullying prevalence in nurses.<sup>2,3</sup> Etienne used a convenience sample of 95 nurses, recruited from a US pacific northwest professional nurses' association.<sup>2</sup> Position title predominantly reported was of staff nurse (65%) and 68% held at least a bachelor's degree. Results showed almost half (48%) had been a victim of bullying in the workplace.<sup>2</sup> Yokoyama et al. used the NAQ-R to determine prevalence of bullying in 825 Japanese nurses.<sup>3</sup> Participants predominantly worked in a hospital setting (92.4%), with 69.3% employed in a general in-patient wards. Results indicated almost one-fourth (18.5%) of subjects were bullied. Results also revealed a higher incidence of bullying in participants working in their current workplace for less than six months.<sup>3</sup> These findings are

similar both to Fang et al. and Ovayolu et al. that found nurses with less nursing experience were more likely to experience bullying as compared to more experienced nurses.<sup>1,3,7</sup>

Berry et al. conducted a study of 197 new nurses in Ohio using the NAQ-R.<sup>8</sup> According to NAQ-R results, 21.3% of participants were bullied. However, 75% of participants reported being exposed to a workplace bullying incident within the last thirty days, with over half being a target (58.4%).<sup>8</sup> Bullying prevalence was also established among newly graduated nurses in Massachusetts, using the NAQ-R.<sup>9</sup> Results showed 31% met bullying criteria whereas only 21% were aware they were being bullied.<sup>9</sup> Demir conducted a bullying study of 166 Australian allied health professionals working in a large Australian healthcare organization.<sup>6</sup> The sample was 86% female and 75% of participants were at least 35 years old. Participant's years of experience at the institution ranged from 0-4 years (52%), 5-9 years (21%) or over 10 years (27%).<sup>6</sup> Bullying was assessed using a single-item questionnaire. Almost one fourth (24%) of participants reportedly experienced workplace bullying within the previous six months.<sup>6</sup>

Among national health service workers in the United Kingdom, Carter et al. administered a cross-sectional questionnaire and interview.<sup>10</sup> These healthcare workers included nurses, midwives, dental professionals, scientists and administrative staff.<sup>10</sup> This study provided increased sample diversity to allow more generalizations among healthcare workers. Results indicated within the last 6 months, 19.9% of subjects had been bullied with occupations reporting the highest incidence of bullying as medical and dental staff.<sup>10</sup> Research on prevalence of workplace bullying in healthcare shows participants experienced work related bullying more commonly than personal related bullying.<sup>2-4,7,10,11</sup> "Being exposed to an unmanageable workload" is one of the most common work-related bullying experiences among healthcare providers.<sup>3,4,10</sup> Additional work-related bullying frequently experienced included "having views

and opinions ignored",<sup>2,7</sup> "someone withholding information that affects your performance",<sup>10</sup> and "being given tasks with unreasonable or impossible targets".<sup>10</sup>

An association between a healthcare provider's age and their experience with bullying has been shown within research;<sup>1,3,7,12</sup> most young healthcare providers are also inexperienced in their field.<sup>1,3,12</sup> According to Yildirim et al., 15% of bullied participants were affected by their age, with younger nurses experiencing more bullying behaviors as compared to older, more experienced nurses.<sup>12</sup> Young nurses commonly lack the interpersonal skills necessary to face difficult situations, causing them to receive critical remarks and judgments from more experienced nurses.<sup>12</sup> Ovayolu et al. also found younger nurses with less nursing experience received more negative criticism, were offended more easily and were more isolated from organizational activities.<sup>1</sup>

The influence of gender on bullying prevalence has fluctuated within research. Some studies have found no influence of gender and bullying incidence<sup>1,4</sup> and others have shown considerable degrees of influence.<sup>10,11,13</sup> Ariza-Montes et al. found females were more likely to be affected by bullying.<sup>13</sup> Results showed 72.6% of bullied participants were female.<sup>13</sup> However, according to the overall NAQ-R mean score in a study done by Carter, males scored significantly higher (28.3) than females (27.0) in workplace bullying prevalence.<sup>10</sup> Wright et al. also showed males were more likely to experience work-related bullying behaviors as compared to females.<sup>11</sup> Among various cultural groups, Ganz et al. found ethnicity did not impact bullying prevalence.<sup>4</sup> However, study results from Carter determined white participants in a healthcare setting experienced a higher level of three specific bullying behaviors as compared to black or ethnic minority groups.<sup>10</sup> Bullying behaviors reported more frequently by white participants included "being exposed to an unmanageable workload", "someone withholding information which

affects your performance", and "being given tasks with unreasonable or impossible targets or deadlines".<sup>10</sup>

While research supports workplace bullying exists in healthcare, minimal research is available related to bullying prevalence in the oral healthcare setting. A study of hospital dentists found 63% witnessed bullying in the workplace whereas 25% actually experienced workplace bullying.<sup>14</sup> Results showed behaviors most commonly experienced were "threat to professional status" (49%), "threat to personal standing" (46%), "persistent attempts to belittle and undermine your work" (36%) and "persistent and unjustified criticism and monitoring of your work" (33%).<sup>14</sup> Although only 20% of hospital dentists admitted to being a target of bullying, 60% reported they had experienced one or more of the behaviors on the bullying checklist within the last 12 months, suggesting participants did not recognize specific negative behaviors as workplace bullying.<sup>14</sup>

In a convenience sample of 164 VA dental hygienists, McCombs et al. found 24% of participants experienced workplace bullying weekly or daily within the last 6 months.<sup>5</sup> While 1 out of 4 participants met the criteria for being bullied, results revealed 1 out of 7 of these participants did not recognize they were being bullied.<sup>5</sup> The authors of this study stressed implementation of bullying education and awareness to prevent workplace bullying in the dental field.<sup>5</sup> Because this study only involved Virginia dental hygienists, the need for a national study on workplace bullying to determine prevalence was suggested.<sup>5</sup> Kim conducted an international survey of 224 Korean dental hygienists to determine the prevalence of bullying using the NAQ-R.<sup>15</sup> All subjects were women, 88.8% were unmarried and 72.3% were 29 years of age or younger.<sup>15</sup> Results showed workplace bullying experiences among participants had a mean score of 34.47, with the highest possible score being 110.<sup>15</sup> Similar to results of Etienne and Fang et

al., the response "I have had my opinion or viewpoint ignored" was the highest reported bullying behavior.<sup>2,7,15</sup> Kim also found workplace bullying incidences increased among participants with less work experience and among younger dental hygienists.<sup>15</sup> These findings are similar to previous research where younger employees were bullied more frequently than older employees in various healthcare settings<sup>1,7,15</sup>

Within the studies among dental professionals, bullying victims commonly misreported their bullying experience.<sup>5,14</sup> Possibly due to their lack of knowledge about what negative acts are considered workplace bullying, participants reported they were not a target of workplace bullying but indicated on the survey they had experienced bullying behaviors within the last six months.<sup>5,14</sup> Education and awareness of workplace bullying is important to establish definitions, identify inappropriate negative behaviors and discuss negative effects of bullying. Victims of workplace bullying experience both psychological and physiological distress. Research suggests bullying is associated with lower psychological health,<sup>17</sup> increased levels of psychological distress (PTSD)<sup>20-23</sup> and pain disorders.<sup>24</sup>

Chatziioannidis et al. conducted a study in Greece to determine mental health impacts of workplace bullying among 163 physicians and 235 nurses.<sup>17</sup> Results indicated bullying exposure was associated with a lower psychological health.<sup>17</sup> Participants experiencing bullying had a higher, less favorable, general health score as compared to non-bullied participants.<sup>17</sup> Authors recommend a supportive work environment to minimize bullying and its negative effects within a work setting.<sup>17</sup> Rodwell et al. investigated psychological effects of bullying in 208 elder care nurses and 233 nurses and midwives.<sup>18</sup> Results showed 37.3% of hospital nurses reported bullying and demonstrated higher levels of psychological distress as compared to non-bullied

participants.<sup>18</sup> Data analysis showed 35.6% of elder care nurses were bullied and demonstrated higher depression scores.<sup>18</sup> These findings demonstrate the detrimental psychological effects of workplace bullying.<sup>18</sup>

Workplace bullying has been shown to increase instances of depression.<sup>6,16</sup> This is concerning since depression is the cause of over 2/3 of the suicide occurrences in America each year.<sup>49</sup> According to a study done by Ekici et al. on the effects of workplace bullying in 201 physicians and 309 nurses, experiences of workplace bullying had an impact on the depression symptoms of nurses by 33% and physicians by 27%.<sup>16</sup> Similar depression effects were found in a study done by Yildirim, where results showed 33% of nurses with depression had been a target of bullying.<sup>12</sup> This suggests workplace bullying significantly increases the likelihood of developing depression symptoms.<sup>12,16</sup> Workplace bullying has also been shown to increase anxiety and fatigue in those targeted.<sup>19,20</sup> Reknes et al. conducted a longitudinal study of 1,582 Norwegian nurses to identify mental health effects of workplace bullying.<sup>19</sup> Workplace bullying and mental health data was collected at baseline and one year later.<sup>19</sup> Results showed there were significant relationships between exposure to bullying at baseline and mental health problems one year later.<sup>19</sup> Exposure to workplace bullying also significantly predicted an increase of anxiety and fatigue scores after one year.<sup>19</sup> Authors concluded workplace bullying could be a predictor of future mental health problems in nurses.<sup>19</sup>

Many Americans suffer with anxiety disorders, making it the most common mental illness in the country.<sup>50</sup> Therefore, Berry et al. conducted a study to determine symptoms of anxiety among bullied nurses in the Midwest part of the country.<sup>20</sup> Results found significantly higher stress and anxiety scores among participants experiencing frequent or daily bullying.<sup>20</sup>

11

Minimizing workplace bullying within the United States could ultimately reduce risks of developing common mental health illnesses like depression and anxiety disorders.<sup>17-19, 51</sup>

Post-traumatic stress disorder is a serious anxiety disorder classified by symptoms of avoidance, intrusion and hyper-arousal, in response to a previous traumatic event.<sup>52,53</sup> Research suggests workplace bullying increases the chances of developing post-traumatic stress disorder.<sup>20-23</sup> Laschinger conducted a study of 1,140 Canadian nurses examining the relationship between workplace bullying and symptoms of PTSD.<sup>21</sup> Results found a significant association between PTSD symptoms and bullying incidence among nurses.<sup>21</sup> Exposure to bullying was significantly associated with higher levels of PTSD symptoms among participants.<sup>21</sup> Authors suggested exposure to bullying is an independent predictor of post-traumatic stress disorder.<sup>21</sup> Balducci et al. found workplace bullying was positively related to PTSD symptoms of 818 administrative staff in Italy.<sup>22</sup> Rodriguez-Munoz et al. conducted a study of 183 bullying victims in Spain to determine prevalence and intensity of post-traumatic stress disorder in bullying victims, as compared to a control group of non-bullied participants.<sup>23</sup> Results showed almost half (42.6%) of targeted bullying victims met the conditions for PTSD, with females meeting PTSD conditions more frequently than males.<sup>23</sup>Authors suggested workplace bullying leaves lasting PTSD effects and disrupts a victim's self-worth.<sup>23</sup>

Effects of workplace bullying vary among genders.<sup>24,25</sup>According to Khubchandani et al., workplace bullying associated negative health risks were significantly higher in bullied females when compared to bullied males.<sup>24</sup> Females were more likely to experience pain disorders, including lower back pain, neck pain and headaches.<sup>24</sup> Whereas, bullied males were more likely to be diagnosed with hypertension or angina.<sup>24</sup> Eriksen et al. also found a difference in workplace bullying's negative effects among genders.<sup>25</sup> Results showed females use of anti-

depressant medications increased years after bullying experience, suggesting females are more likely to have more long-term health effects from workplace bullying.<sup>25</sup>

Although research has shown older, more experienced nurses are less predisposed to workplace bullying,<sup>1,12</sup> Demir et al. found older health professionals are affected more negatively by workplace bullying.<sup>6</sup> According to Demir et al., bullied participants 45 years old and older reported higher levels of psychological distress when compared to bullied participants younger than 45 years old.<sup>6</sup> Depression was reported more in bullied subjects working for more than 5 years as compared to bullied subjects working less than 5 years.<sup>6</sup> Authors concluded these results could be due to a lack of career progression in bullied participants, with more experience.<sup>6</sup> Workplace bullying impacts the quality of patient care and reduces one's ability to conduct error-free tasks.<sup>11,12,16,26,27</sup> Both Ekici and Yildirim found bullying had a negative effect on a healthcare provider's motivation, energy level, collaboration among colleagues and commitment to their work.<sup>12,16</sup> Workplace bullying can contribute to adverse events,<sup>26</sup> medical errors,<sup>11</sup> and even patient mortality.<sup>26</sup> Laschinger and Rosenstein found staff distracted by workplace bullying causes both an increase of patient safety risks and patient falls.<sup>26,27</sup>

According to Ekici et al., workplace bullying had a negative effect on the work performance of both physicians and nurses.<sup>16</sup> Results found significant correlations between workplace bullying and participant's motivation, energy level and collaboration with colleagues.<sup>16</sup> Yildirim et al. conducted a study of 286 Turkish nurses to determine workplace bullying prevalence and the negative effects on those targeted.<sup>12</sup> Results of this study found workplace bullying had a negative impact on job motivation, commitment and energy level.<sup>12</sup> A study was conducted on 244 members of a perioperative team, consisting of medical doctors, nurses, nurse anesthetists and surgical technologists.<sup>26</sup> Participant's perspective of negative effects associated with disruptive behaviors in the operating room was studied.<sup>26</sup> These disruptive behaviors included being yelled at, use of abusive language, berating in front of peers and receiving insults, usually from superiors.<sup>26</sup> Nurses reported these behaviors were experienced weekly 22% of the time and daily 7% of the time which by definition would be considered workplace bullying.<sup>26</sup> Results showed participant's believed disruptive behaviors were responsible for incidences of medical errors (67%), adverse events (67%), patient mortality (28%), and compromises in patient safety (58%).<sup>26</sup>

Workplace bullying can impact nurse's quality of care and increase medical errors.<sup>11,27</sup> Wright et al. conducted a study of 241 Columbian nurses to determine relationship between bullying and medical errors.<sup>11</sup> Results showed personal-related bullying behaviors had a significant positive relationship with causing medical errors.<sup>11</sup> Work-related bullying had a significant positive relationship with the psychological state of participants targeted by bullying.<sup>11</sup> This decreased psychological state, as a result of bullying, was found to increase the risk of medical errors.<sup>11</sup> Therefore, authors suggest work-related bullying has an indirect negative impact on patient care.<sup>11</sup> Laschinger investigated effects of workplace bullying on patient safety risk and nurse-assessed patient outcomes among 336 Canadian nurses.<sup>27</sup> Participant's bullying experiences, perceptions of adverse patient outcome frequencies, patient care quality, and workplace incivility were statistically analyzed.<sup>27</sup> Results showed bullying and physician incivility were most strongly associated with frequency of patient adverse effects.<sup>27</sup> Bullying had the most significant association with patient safety risk, although all workplace mistreatments were significantly related.<sup>27</sup> Authors suggest negative interpersonal relationships, like workplace bullying, among healthcare providers may hinder effective communication, reducing high-quality patient care and increasing patient safety risks.<sup>27</sup>

Implementation of workplace bullying management strategies is needed in healthcare to reduce bullying associated stressors and maintain quality patient care. Research has been conducted to determine effective ways in preventing and managing workplace bullying.<sup>43,47,48</sup> Management of workplace bullying is attainable through proper leadership,<sup>42</sup> clear anti-bullying policies,<sup>42</sup> training sessions, emotional intelligence training<sup>43,45</sup> and cognitive rehearsal script response training sessions.<sup>46,48</sup> These management strategies have all been shown to either help prevent or manage workplace bullying. Leaders within an organization must be socially intelligent and ethical to manage workplace bullying.<sup>41</sup> It is necessary to investigate complaints of workplace bullying and follow up on previously reported complaints to maintain a safe and healthy work environment for all employees.<sup>41</sup> Written anti-bullying policies, training sessions and surveys of bullying prevalence within the organization is important in establishing awareness, providing education and determining the workplace bullying prevalence within an organization.<sup>42</sup>

Research has been conducted to determine the effects of emotional intelligence in reducing the prevalence and negative effects associated with workplace bullying.<sup>43-45</sup> Emotional intelligence is a person's ability to process, regulate and utilize emotional information,<sup>49</sup> while maintaining reason in emotional problem solving.<sup>54</sup> Persons with high emotional intelligence are more sensitive to feelings and tend to be more cautious.<sup>55</sup> Ashraf conducted a study on the moderating effects of emotional intelligence in workplace bullying of 242 doctors in Pakistan.<sup>43</sup> Results showed job performance of bullied participants with high emotional intelligence was affected less than those with a low emotional intelligence.<sup>43</sup> Hutchinson et al. and Bennet et al. have explained the moderating potential of emotional intelligence in workplace bullying, stating nurse leaders are better equipped to recognize early signs of bullying and manage negative

bullying behaviors when they have a higher emotional intelligence.<sup>44,45</sup> These findings support the need for emotional intelligence training sessions to improve emotional management abilities of nurses and nurse leaders.<sup>44,45,55</sup>

Cognitive rehearsal script training is learning scripted verbal responses to bullying.<sup>46</sup> This gives the victim necessary tools to confront their perpetrator, in hopes of stopping the negative behaviors.<sup>46</sup> Griffin conducted a study of 26 new nurses in Massachusetts to determine effectiveness of interactive cognitive rehearsal script training sessions.<sup>47</sup> Results showed when confronted by lateral bullying, 100% of the trained nurses were able to confront their aggressor and unwanted negative behaviors stopped.<sup>47</sup> A similar study done by Stagg et al. found 70% of nurses changed their own conduct after the training course and 40% reported a decrease in bullying behaviors within their workplace.<sup>48</sup> Although 70% of nurses felt they had the tools to interfere into a bullying situation among peers, only 16% reported they did intervene when necessary.<sup>48</sup> Authors suggest several effective bullying management strategies should be investigated to help manage and avert workplace bullying.<sup>48</sup>

#### **CHAPTER III**

#### **METHODS**

After IRB approval, a descriptive survey design was used to determine the extent to which a national sample of 1200 dental hygienists, sampled from a major publishing company subscription list, perceive they experienced workplace bullying. The Negative Acts Questionnaire-Revised (NAQ-R), a valid and reliable instrument designed to measure workplace bullying, was used.<sup>31</sup> The NAQ-R questionnaire determines how frequently participants experience various negative acts or behaviors that typify bullying.

At the beginning of the on-line survey, an introductory statement was provided informing participants that participation was voluntary, responses would remain anonymous and they would be reported in group form only. Informed consent was understood upon completion of the survey. Comprised of 22 specific negative acts, the survey is grouped into three categories of bullying: work related, personal and physical intimidation. Participants were asked to rate the frequency they had experienced each negative behavior using a five-point scale (never, now and then, monthly, weekly or daily) in the workplace within the past six months. To provide objective data and minimize response bias, the survey did not use the term "bullying" or "harassment" in any of the survey questions. According to Einarsen et al., experiencing at least two negative behaviors at least weekly in the past six months indicates bullying.<sup>28</sup> Einarsen recommends the NAQ-R can provide prevalence data as well as an overall mean score for comparison. A score of 22 would indicate never experiencing any of the behaviors, compared to a score of 110 indicating daily experience with all 22 behaviors.<sup>28</sup>

In addition to the NAQ-R, participants were asked to respond to six demographic questions (gender, age, employment setting, ethnicity, education level and years of practice), a

question on whether they believed they had been a target of workplace bullying, who was the perpetrator if so, to whom did they report it and if their current employment setting had written policies on bullying. Data was collected via three electronic mailings over 6 weeks using Qualtrics (Provo, Utah). Complete surveys were analyzed for response frequency with descriptive statistics. Two-tailed t-tests were used to determine if significant differences in bullying mean scores occurred between employment settings and years of experience. Significance was set at the .05 level.

# CHAPTER IV RESULTS

Of the 1200 dental hygienists invited to participate 154 completed the survey, yielding a response rate of 12.8%. Results revealed 54% of participants were employed in a solo dental practice and 34% were employed in a group practice. Participants were predominately white (83%), female (97%) and over 50 years of age (62%). Forty-seven percent of participants had an associate degree and 42% had a bachelor's degree. Over half (55%) had been practicing dental hygiene 20 years or more. Complete demographic data is found in Table 1. Results showed 28% (n=44) of participants met the criteria for being bullied, as defined by the NAQ-R. Of this 28%, three or more negative acts were experienced by 22% of bullied participants and six percent of those participants experienced two negative acts at least weekly. While not meeting the criteria for bullying, it is significant to note, 11% of participants experienced at least one negative act weekly or daily (Table 2).

Within the three categories of bullying, seven questions related to the category of workrelated bullying. The most prevalent behavior, among all participants, reported weekly or daily was having opinions or views ignored (23%). For those 44 participants who met the criteria for being bullied, 70% had opinions and views ignored, 61% had their work excessively monitored and 55% were exposed to an unmanageable workload. Twelve questions were related to the category of personal bullying. For those who met the criteria for being bullied, the most prevalent experienced behavior was being ignored or facing hostile reactions when approached (43%) (Table 3). Three behaviors were in the category of physical intimidation bullying, which comprised the category with the lowest number of reported experiences. Among all participants, 31% reported being shouted at or targeted with spontaneous anger and 27% reported being intimidated with threatening behaviors at least now and then in the past six months. For those 44 participants who met the criteria for bullying, 14% had been intimidated with threatening behavior and only 2% had experienced threats of violence or abuse/attacked weekly or daily (Table 3.) Fortunately, 94% of participants never experienced threats of violence or were abused/attacked. Although a small percentage experienced physical intimidation, 69% of all participants had never been shouted at or targeted with spontaneous anger (or rage).

Mean scores were calculated for all participants and averaged among each group regarding gender, ethnicity, education level, practice setting, age and years of practice (Table 4). Hypothesis one was tested using a two-tailed t-test to determine between group differences based on practice setting (Table 5). No statistically significant differences (p=.11) were found when comparing bullying scores of participants in solo dental practices ( $\bar{x}$ = 34.3, n=83) compared to group dental practices ( $\bar{x}$ =39, n=52). Therefore, null hypothesis one is retained. However, participants in solo dental practices experienced significantly less bullying ( $\bar{x}$ =34.3, n=83, p=.05) as compared to all other practice settings combined. Regarding hypothesis two, data showed participants with 11 to 19 years of practice experienced bullying less ( $\bar{x}=31.9$ , n=30, p=.02) and those with 5 to 10 years of practice experienced bullying more ( $\bar{x}$ =42.8, n=26, p=.05) than all other participants. A statistically significant difference was also found between scores of participants with 5 to 10 years' experience ( $\bar{x}$ = 42.8, n=26) and participants with 11 to 19 years' experience ( $\bar{x}$ =31.9, n=30, p=.01). Participants with 11 to 19 years' experience had a significantly lower bullying score than those with 5 to 10 years' experience and therefore, null hypothesis two was not retained (Table 6).

At the end of the survey, participants were provided with a definition of bullying and asked if they were experiencing workplace bullying. Only 19 percent (n=30) responded yes, although 28 % of respondents met the NAQ-R criteria for being bullied. The most frequent

reported perpetrators of bullying were receptionists (27%) and owner dentists (27%), with fellow hygienists acting as the perpetrator 23% of the time (Figure 1) Of those participants reporting bullying, only 50% reported it to their superiors. Results varied among participants when asked if a written bullying policy existed in their office, although the vast majority (77%) were not aware of a policy or stated none existed (Table 7). Of those participants meeting the criteria for bullying, 18% reported a policy existed in their office, while 61% stated no policy existed and 20% were unsure (Table 8).

#### **CHAPTER V**

## DISCUSSION

Workplace bullying is a serious occupational stressor affecting job satisfaction as well as the overall health and well-being of those targeted.<sup>6,8-12,16-22,35,36</sup> Moreover, being bullied at work subjects targeted individuals to excessive negativity, feeling of powerlessness and impacts quality of patient care.<sup>11,12,16,26,27</sup> Results from this study suggest workplace bullying is a problem for the dental hygiene professional with at least one out of four study participants being victims of workplace bullying. The 28% bullying prevalence rate in this study is similar to findings in other studies of healthcare professionals, including nurses where the pooled prevalence rate in a meta-analysis was 22.2%. <sup>2-6,10,14,15,56</sup> McCombs et al. found 24% of VA dental hygienists were bullied and these findings were comparable to those of Demir et al. with a 24% prevalence rate in allied health professionals.<sup>6</sup> A 19% prevalence was reported in 2017 by the Workplace Bullying Institute for adults in the US.<sup>37</sup>

Research in nursing suggests workplace bullying undermines a culture of safety and knowledge of the most prevalent negative acts experienced is an important first step in determining the scope of the problem and development of interventions to assist those who are targeted.<sup>42,48</sup> The most common negative act experienced in this study was having opinions and views ignored followed by being exposed to an unmanageable workload and these results are similar to McCombs et al. and Kim.<sup>5,15</sup> These findings might be explained by the dental private practice hierarchy. Typically, a supervising dentist oversees dental hygienists work and schedule, creating an opportunity for dentists to reject or overturn a dental hygienist's opinions and views. Although physical intimidation was the lowest reported negative act in this study, it is alarming any physical intimidation bullying is occurring among dental professionals. Over one quarter of

participants had experienced verbal abuse and were intimidated or threatened at least now and then. This finding suggests the safety and well-being of dental hygiene professionals may be threatened and undermines a culture of safety. Concentrated efforts by supervisors should be implemented to minimize verbal or physical intimidation among staff.

In regard to practice setting, while no significant differences in bullying frequency was found between group and solo practices, participants in solo practices experienced less negative acts compared to any other dental hygiene employment settings. Kim found dental hygienists working in general hospitals in Korea were bullied significantly more than those working in dental hospitals or clinics, suggesting larger employment settings could pose more of a risk for bullying and the greater the number of employees the greater the opportunities for bullying.<sup>15</sup>

Previous studies among healthcare professionals have found younger, more inexperienced nurses and dental hygienists experience negative behaviors more frequently than older, more experienced collegues.<sup>1,12,15</sup> However, this study found participants with 5 to 10 years' experience reported the most negative acts experienced. An explanation of this finding could be shortly within their career, hygienists with 5 to 10 years' experience may begin to recognize negative acts more readily than before as they become more competent and confident in their expertise. Hygienists with 5 or less years' experience could be too inexperienced to identify negative acts as anything other than normal workplace behavior. Participants with 11 to 19 years' experience had the lowest prevalence of negative acts experienced. This finding could be explained by a desensitization of more experienced hygienists to the negative acts in their workplace. These individuals could be comfortable operating at the status quo. Reports of negative acts increased among participants with 20 or more years' experience. This could be due to a dental hygienist's inability to ignore negative acts as they mature in their career. The more mature a dental hygienist becomes may lead to adopting the idea they should not have to put up with negative behaviors after long dedication to the profession and an employment setting.

Results of this study suggest some participants are not aware they are being bullied; as 28% of participants meet the criteria for being bullied but only 19% self-identified as experiencing workplace bullying. Findings suggest the need for education on bullying behaviors in the workplace. Educating healthcare professionals through training programs has shown to be an effective way of addressing workplace bullying.<sup>46-48</sup> These training programs should give clear definitions and examples of bullying behaviors with techniques to avert those behaviors.<sup>46,47</sup> Cognitive script training has been shown to be effective in reducing bullying in the workplace and providing those affected with techniques to stop the unwanted behavior.<sup>47,48</sup> Knowledge of bullying allows a more informed population to identify these negative behaviors and rectify any bullying-like behaviors they might be demonstrating themselves. Dental hygiene programs should include anti-bullying training in their curriculum. Current practicing dental hygienists would benefit from continuing education courses to help clearly define bullying and provide techniques for controlling bullying in their work setting.

Respondents who self-identified as experiencing workplace bullying, revealed the most frequent perpetrators were owner dentists and receptionists. Dental hygienists should ideally work in harmony with receptionists as scheduling coordination is important to successful practice. Clear communication is necessary among all staff to ensure staff members fulfill their specific roles without contradicting a colleague's expertise. Owner dentists may set office protocols and policies that should be supported by staff. Disagreements on office policies must not be allowed to disintegrate into bullying behaviors from one staff member to another regardless of how important their role in the practice may be perceived. Johnson et al. stressed that when management is the perpetrator of bullying, victims will have a more difficult time finding support to stop the bullying.<sup>57</sup> This could be one explanation for why so many participants did not report bullying. The most common reason why it was not reported in this study was fear of termination, the supervisor was the perpetrator and participants were concerned reporting the bullying would not change the behavior. In the most effective workplace, supervisors should have an open-door policy for reporting bullying and maintain the anonymity of the victim. A fear of reporting bullying could create a feeling of hopelessness and lead to psychological distress in the bullied victim. Education of all staff members, identifying negative behaviors classified as bullying and ways to prevent occurrences of these behaviors is necessary in preventing workplace bullying.

Undesirable workplace conditions associated with bullying negatively affect both healthcare professionals and patients. <sup>6,11,17,18,20-23,34-36</sup> These negative effects are harmful to both physiological and psychological health of those affected. In order to minimize the damaging effects of workplace bullying and prevent occurrences, anti-bullying policies should be in place and strictly enforced. Accusations of bullying should be taken seriously by administration and consequences to perpetrators should be initiated quickly. Only 18% of bullied participants and 23% of all participants stated a bullying policy existed. A clear message of no tolerance for bullying in the workplace could deter negative behaviors among colleagues and their superiors. The importance of such a policy cannot be overemphasized as bullying behaviors negate teamwork, hinder communication, delay implementation of new practices and can be a threat to both patient and employee health and safety. <sup>6,11,17,18,20-23,34-36,58</sup> Written workplace bullying policies are important safeguards and should clearly define bullying, provide examples of acceptable and unacceptable work practices and give recommendations of action for victims,

perpetrators and supervisors.<sup>42</sup> Most participants indicated no policy existed or were unaware of an existing workplace bullying policy, so this a needed area to address. A team-based approach in the dental setting is necessary to provide optimal patient care and a safe working environment. All members of the practice setting need education on effects of bullying and strategies for prevention and maintenance of a supportive work culture.<sup>2</sup> Ideally, counseling should be provided to both the perpetrator and victims of workplace bullying and all members of the team should be encouraged to report and document bullying behaviors.

#### LIMITATIONS

Several limitations could have affected the results of this study. Participants were predominantly white female, limiting the ability to make generalizations to the national population. The low response rate may be due to wording used in the email to respondents. If the word bullying was used, instead of negative acts, a greater response rate may have occurred. The survey method and self-report are representative of the participant's subjective perception, creating a risk of under or over reporting negative acts. It is possible those who felt they were victims of negative acts were more motivated to complete the survey. Therefore, the findings should be used cautiously. To control for this in future studies, a third party could be used in reporting on the survey. Future studies should have a more balanced sample of genders and ethnicities. They should also create a more enticing title to attract more respondents. Collecting the responses from perpetrators could also shed light on another perspective of bullying. Future studies should include a larger sample to allow more generalizability to national dental hygienists.

#### **CHAPTER VI**

## CONCLUSION

Results of this study reveal one out of four participants met the criteria for being bullied in the oral care setting workplace. Dental hygienists play a vital role in dental offices promoting oral health. Constructive collaboration among staff is key in having a healthy workplace and efficient dental office. Establishing the prevalence of workplace bullying in dental offices is vital in understanding the cause and ways to prevent negative acts from occurring. Support from superiors in the workplace are necessary to a healthy and collective work environment. The psychological effects of workplace bullying on healthcare providers reveal the need for exploration of workplace bullying among dental hygienists. Further studies into workplace bullying among dental hygienists is needed to better understand the prevalence and its effect on dental hygienists. Dental hygiene educators should implement bullying education and awareness into curriculum. Cognitive script training could be an advantageous way of preparing new dental hygienists in responding to and seeking help for bullying behaviors they may experience in their career.

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Characteristics	No. of Respondents (N)	%
Gender		
Male	5	3
Female	149	97
Age Range		
20 to 29	12	8
30 to 39	22	14
40 to 49	25	16
50 to 59	47	31
60 and over	48	31
Ethnicity		
White	128	83
Black or African American	3	2
Hispanic	13	8
Asian	5	3
Other	5	3
Highest Education		
Associate Degree	73	47
Bachelor's degree	65	42
Master's Degree	13	8
Doctoral Degree	3	2
Employment Setting		
Solo Private Practice	83	54
Group Private Practice	52	34
Education	11	7
Public Health	1	1
Corporate	6	4
Other	1	1
Years of Practice		
Under 5 years	13	8
5 to 10 years	26	17
11 to 19 years	30	19
20 or more years	85	55

 Table 1. Personal Characteristics and Demographics of Participants (N=154)

Due to rounding, some response percentages do not equal 100%

Number of Negative Acts Experienced	Count	Percent
0	93	(60)
1	17	(11)
2	10	(6)
3 or more	34	(22)

 Table 2. Negative Acts Experienced Weekly or Daily by All Participants (N=154)

Negative Acts	N	ever		nd Then or onthly	or Daily	
	Met Bullying Criteria (%)	All Participants (%)	Met Bulling Criteria (%)	All Participants (%)	Met Bullying Criteria (%)	All Participants (%)
Work						
Related Bullying						
Been exposed to unmanageable workload	7	(35)	39	(44)	55	(21)
Given tasks with unreasonable/ impossible targets/ deadlines	20	(54)	34	(33)	45	(13)
Had information withheld that affected your performance	16	(48)	41	(40)	43	(12)
Had your opinions and views ignored	5	(31)	25	(47)	70	(23)
Had your work excessively monitored	14	(48)	25	(33)	61	(19)
Ordered to do work below your level of competence	16	(53)	36	(33)	48	(14)
Pressure into not claiming something to which entitled	34	(73)	52	(23)	14	(4)
Personal						
Bullying Been ignored or faced	7	(56)	50	(32)	43	(12)

Table 3. Comparison of Negative Acts Experienced Among Participants Meeting BullyingCriteria (n=44) and all Participants (N=154)

hostile						
reactions						
when you						
approached						
Been ignored,						
excluded, or	14	(52)	10	(26)	20	(12)
isolated from	14	(52)	48	(36)	39	(12)
others						
Been						
subjected to	61	(76)	30	(21)	9	(3)
practical jokes		()		()	-	(-)
Experienced						
persistent						
criticism on	23	(64)	43	(27)	34	(10)
your work and	23	(04)	45	(27)	54	(10)
effort						
Had false						
allegations	39	(70)	45	(25)	16	(5)
made against		~ /				
you						
Had gossip						
and rumors	18	(52)	50	(39)	32	(9)
spread about	10	(32)	50	(37)	32	
you						
Had insulting/						
offensive	16	(58)	52	(33)	32	( <b>0</b> )
remarks made	10	(38)	52	(33)	32	(9)
about you.						
Had key tasks						
removed,						
replaced with			2.6	(1.2)	10	( )
trivial	45	(82)	36	(12)	18	(5)
unpleasant						
tasks						
Humiliated or						
ridiculed in						
connection to	18	(62)	50	(29)	32	(9)
your work						
Received						
hints or						
signals from	41	(75)	48	(21)	11	(3)
others that						
you should						
quit job						
Reminded	2	(44)	55	(43)	43	(13)
repeatedly of		× /			-	\[

your errors or						
mistakes						
Subjected to						
excessive	45	(77)	30	(16)	25	(7)
teasing and	43	(11)	50	(10)	23	(7)
sarcasm						
Physical						
Intimidation						
Bullying						
Been						
intimidated						
with	45	(73)	41	(23)	14	(4)
threatening						
behavior						
Been shouted						
at or targeted						
with	41	(69)	43	(26)	16	(5)
spontaneous			-		-	
anger (or						
rage)						
Experienced						
threats of	00	( <b>0</b> , <b>1</b> )	10		2	(1)
violence or	80	(94)	18	(6)	2	(1)
abused/						
attacked						

Population	Count	Ā	SD	St. Error Mean
Overall	154	36.79	17.05	1.37
Gender	1.5-4	50.77	1,100	1.07
Male	5	42.60	12.60	5.64
Female	149	36.59	17.17	1.41
Ethnicity	117	00107	1,11,	
Asian	5	30.60	5.22	2.34
Black or African				
American	3	48.33	37.17	21.46
Hispanic	13	47.31	25.89	7.18
Native Hawaiian/Pacific				
Islander	2	31.00	1.41	1.00
Two or More	3	31.33	9.29	5.36
White	128	35.91	15.64	1.38
Highest Education				
Associate degree	73	37.12	17.81	2.08
Bachelor degree	65	35.57	16.92	2.10
Master's degree	13	41.31	12.70	4.08
Doctoral degree	3	35.33	14.73	7.33
Practice Setting				
Corporate Setting	6	52.83	28.73	11.773
Education	11	36.18	11.08	3.34
Group Private Practice	52	39.02	17.73	2.46
Other	1	40.00	-	-
Public Health	1	35.00	-	-
Solo Private Practice	83	34.29	15.90	1.75
Age Range				
20 to 29	12	29.92	7.86	2.27
30 to 39	22	41.73	16.51	3.52
40 to 49	25	35.44	17.57	3.51
50 to 59	47	38.43	21.48	3.13
over 60	48	35.33	13.07	1.89
Years of Practice				
Under 5 years	13	34.23	19.72	5.49
5 to 10 years	26	42.81	19.26	3.78
11 to 19 years	30	31.93	10.80	1.97
20 or more years	85	37.05	17.39	1.89

Table 4. Mean Scores for Overall Negative Acts Experienced Based on Demographics

				95%	95%			
			Std.	Confidence	Confidence			Sig.
Population	Ā	SD	Error Mean	Interval; Lower	Interval; Upper	t	df	(2- tailed)
•	Λ	50	Witan	Lower	Сррег	L.	ui	tancu)
All Practice	36.79	17.05	1.37					
Settings vs. Corporate	30.79	17.05	1.57				5.1	
Setting	52.83	28.73	11.73	-13.42	46.81	1.41	3	.21
	02.00	20170	11000	10112				
Education	36.18	11.08	3.34	-11.22	9.92	12	152	.90
Group								
Private								
Practice	39.02	17.73	2.46	-2.36	9.10	1.16	152	.25
Solo Private								
Practice	34.29	15.90	1.75	-10.81	02	- 1.98	152	.05*
		10000	1170	10101		1170	102	
Corporate Setting vs.	52.83	28.73	11.73					
Setting vs.	52.05	20.75	11.75				5.8	
Education	36.18	11.08	3.34	-13.41	46.71	1.37	3.8	.22
Group	20.10	11.00	0.01	10111	101/1	1107		
Private								
Practice	39.02	17.73	2.46	-2.57	30.20	1.69	56	.10
Solo							5.0	
Private Practice	34.29	15.90	1.75	-11.55	48.64	1.56	5.2 2	.18
	34.29	13.90	1.75	-11.55	40.04	1.30		.10
Education	26 10	11.00	2.24					
vs. Group	36.18	11.08	3.34					
Private								
Practice	39.02	17.73	2.46	-14.00	8.32	51	61	.61
Solo								
Private	04.00	15.00	1.55	<b>A</b> ~ <b>F</b>	11 70	<b>a</b> a	0.2	-
Practice	34.29	15.90	1.75	-7.95	11.73	.38	92	.70
Group Private								
Practice vs.	39.02	17.73	2.46					
Solo								
Private								
Practice	34.29	15.90	1.75	-1.09	10.55	1.61	133	.11
Note *p<.05								

 Table 5. One Sample t-test Results Comparing Mean Scores Within Different Practice

 Settings

			Std.	95% Confidence	95% Confidence			Sig.
Population	Ā	SD	Error Mean	Interval; Lower	Interval; Upper	t	df	(2- tailed)
All Years of								
Practice vs.	36.79	17.05	1.37					
Under 5 years	34.23	19.72	5.49	-12.57	6.99	-0.56	152	0.57
5 to 10 years	42.81	19.26	3.78	.07	14.42	2.00	152	0.05*
11 to 19 years	31.93	10.80	1.97	-11.11	94	-2.36	73.69	0.02*
20 or more years	37.05	17.39	1.89	-4.89	6.06	0.21	152	0.83
Under 5 years vs.	34.23	19.72	5.49					
5 to 10 years	42.81	19.26	3.78	-4.78	21.94	1.30	37	0.20
11 to 19 years	31.93	10.80	1.97	-14.67	10.08	-0.4	15.22	0.70
20 or more years	37.05	17.39	1.89	-7.64	13.28	0.53	96	0.59
5 to 10 years vs.	42.81	19.26	3.78					
11 to 19 years	31.93	10.80	1.97	-19.50	-2.25	-2.55	38.03	0.01*
20 or more years	37.05	17.39	1.89	-13.68	2.16	-1.44	109	0.15
11 to 19 years vs.	31.93	10.80	1.97					
20 or more years	37.05	17.39	1.89	-10.54	.31	-1.87	82.53	0.6

 Table 6. One Sample t-test Results Comparing Mean Scores Based on Years of Practice

Note \*p<.05

Existence of Written Bullying Policy	Self-Identified as Bullied %	All Participants %
Yes	30	23
No	57	45
Don't Know	13	32

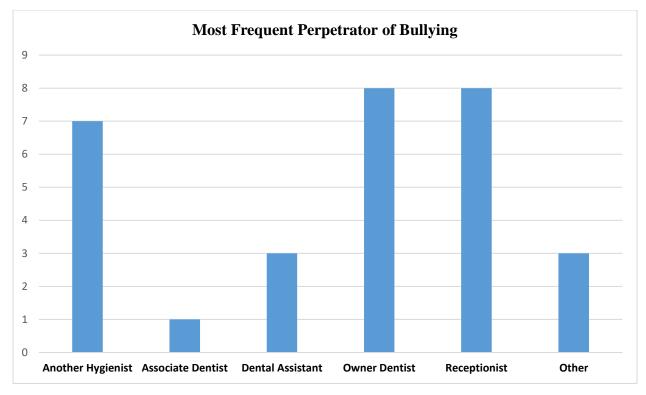
Table 7. Existence of Written Workplace Bullying Policy Among Participants Who Self-Identified as Being Bullied (n=30) vs. All Participants (N=154)

Existence of Written Bullying Policy	Participants Meeting Bullying Criteria %	All Participants %
Yes	18	23
No	61	45
Don't Know	20	32

Table 8. Existence of Written Workplace Bullying Policy Among Participants MeetingBullying Criteria as Defined by NAQ-R (n=44) vs. All Participants (N=154)

# Figure 1.





#### **APPENDIX A**

#### **IRB REVIEW**



#### Physical Address

4111 Monarch Way, Suite 203

Norfolk, Virginia 23508

#### Mailing Address

Office of Research 1 Old Dominion University Norfolk, Virginia 23529

Phone(757)683-3460

Fax(757)683-5902

DATE: September 22, 2018 TO: Lynn Tolle, BSDH MS FROM: Old Dominion University Health Sciences Human Subjects Review Committee PROJECT TITLE: [1318859-2] A National Study of Workplace Bullying; Are Dental Hygienists Affected? **REFERENCE #:** SUBMISSION TYPE: Response/Follow-Up DETERMINATION OF EXEMPT STATUS ACTION: DECISION DATE: **REVIEW CATEGORY:** Exemption category # 6.2

Thank you for your submission of Response/Follow-Up materials for this project. The Old Dominion University Health Sciences Human Subjects Review Committee has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Harry Zhang at 757-683-6870 or qzhang@odu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Old Dominion University Health Sciences Human Subjects Review Committee's records.





# **APPENDIX B**

## **SURVEY TOOL**

OLD DOMINION UNIVERSITY I DEA FUSION
Block 1
We are conducting a survey to determine your experiences with negative behaviors in the work setting. Your assistance in completing this survey is greatly appreciated. Please answer the questionnaire honestly and completely. The questionnaire will take no more than 10 minutes to complete. All questions need a response to submit. The survey is voluntary and responses will remain confidential and anonymous. Return of the survey will indicate voluntary, informed consent.
Default Question Block
Respond below by selecting the best answer:
What is the gender you most identify with?
<ul> <li>Male</li> <li>Female</li> </ul>
Select your age range
<ul> <li>20 to 29</li> <li>30 to 39</li> </ul>
40 to 49
50 to 59
over 60

What is	your primary employment setting?
Solo	o Private Practice
🔵 Gro	up Private Practice
🔵 Edu	cation
Pub	lic Health
Cor	porate Setting
Oth	er
Select y	our ethnicity:
🔘 Whi	te
🔵 Blad	ck or African American
Am	erican Indian or Alaska Native
🔵 His	panic
Nat	ive Hawaiian and other Pacific Islander answer
🔵 Asia	an
O Two	or More or Not Listed:
Highest	Education
Ass	ociate degree
Bac	helor degree
🔵 Mas	ster's degree
O Doc	toral degree

#### How long have you been employed as a Dental Hygienist?

- Under 5 Years
- 5 to 10 years
- 11-19 years
- 20 or more years

	Never	Now and Then	Monthly	Weekly	Daily
Had information withheld that affected your performance	0		$\bigcirc$	$\bigcirc$	$\bigcirc$
Been exposed to unmanageable workload	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Ordered to do work below your level of competence	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Given tasks with unreasonable/impossible targets/ deadlines	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Had your opinions and views ignored	0		$\bigcirc$	$\bigcirc$	$\bigcirc$
Had your work excessively monitored	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Reminded repeatedly of your errors or mistakes	0		$\bigcirc$	$\bigcirc$	$\bigcirc$
Humiliated or ridiculed in connection with your work	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Had gossip and rumors spread about you	$\bigcirc$		$\bigcirc$	$\bigcirc$	$\bigcirc$
Had insulting/offensive remarks made about you	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Been ignored, excluded or isolated from others	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Received hints or signals from others that you should quit job	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Been intimidated with threating behavior	0		$\bigcirc$	$\bigcirc$	$\bigcirc$
Experienced persistent criticism on your work and effort	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Been ignored or faced hostile reactions when you approached	0		$\bigcirc$	$\bigcirc$	$\bigcirc$
Had key tasks removed, replaced with trivial unpleasant tasks	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Had false allegations made against you	0		$\bigcirc$	$\bigcirc$	$\bigcirc$
Subjected to excessive teasing and sarcasm	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Been shouted at or targeted with spontaneous anger (or rage)	0		$\bigcirc$	$\bigcirc$	$\bigcirc$
Pressured into not claiming something to which entitled	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Been subjected to practical jokes	0		$\bigcirc$	$\bigcirc$	$\bigcirc$
Experienced threats of violence or abused/attacked	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

•	fend and stop abuse. Are you experiencing workplace bullying?
Ves	
No	
Who was the most frequer	nt perpetrator of these bullying behaviors?
<ul> <li>Owner dentist</li> </ul>	
Associate dentist	
Another hygienist	
Receptionist	
Financial personnel	
Dental assistant	
Patient	
Other:	
Did you report the bullying	occurrences to a supervisor?
🔵 yes	
o no	
What was the reason for n	not reporting the bullying occurrences?

What happened after you reported	ho hulluing?	
	në bullying ?	
		//
Does your employment setting have	written policies on bullying?	
) yes		
o no		
Do not know		
Please share any additional comme	nts.	
		1

Survey Powered By Qualtrics

# VITA

## SAVANNAH D. SUNDBURG Old Dominion University School of Dental Hygiene 4608 Hampton Blvd, Norfolk, VA 23529

## **EDUCATION:**

Old Dominion University	2019
Master of Science in Dental Hygiene	
Old Dominion University	2008
Bachelor of Science in Dental Hygiene	

### LICENSURE/CERTIFICATION:

2008- Present	Virginia Board of Dentistry, Dental Hygiene License #
2017- Present	CPR Certification
2009	Local Anesthesia Certification

## **PROFESSIONAL EXPERIENCE:**

2015- Present	Dental Hygienist- Tabb Family Dentistry, Yorktown, VA
2008-2014	Dental Hygienist- David J. Alexander DDS, Hampton, VA
2004-2008	Dental Assistant – David J. Alexander DDS, Hampton, VA