

Dental Hygienist Occupational Stress: A Preliminary Survey

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Abstract

There has been little occupational medicine research into work stressors of Dental Hygienists. The nature of their professional work duties involves a number of stressors common to healthcare providers and involve more specific stressors common to the dental professions. A survey was advertised to all 50 State dental hygienist associations. Individuals from eleven state associations responded. Over 160 dental hygienists participated in the survey. The preliminary survey results suggest time pressure, difficult patients, and difficult coworkers are the most common stressors dental hygienists complained of. This preliminary study provides insight into the range of stresses that could be further investigated and potentially addressed by interventions or improvements in the work environment.

Introduction

The experience of occupational stress is common. A survey done by Northwestern National Life claims 40% of workers report their job as “very or extremely stressful” (Sauter et al., 2000). The U.S. Department of Health and Human Services (2000) defines occupational stress as harmful physical and emotional responses that occur when the requirement of the job does not match the capabilities, resources, or needs of the worker. Acute and chronic stress can cause physical, psychological and emotional impacts on our daily lives.

Research has found that medical professionals and first responders are prone to high levels of stress and burnout. They are constantly expected to perform at their highest capacity while ensuring an immaculate execution of an array of medical procedures (Yeboah & Ansong, 2014). Stressors in medical, dental and other healthcare settings involves situational events and more chronic continuous stressors.

Demand for quick responses, work overload, working overtime, miscommunication, and equipment/medicine shortages have all been reported as causes of stress among occupational health employees (Familoni, 2008). In depth interviews with 19 nurses (Adib-

Hajbaghery et al., 2012) and a cross-sectional study (Chou et al., 2014) suggest nurses and physician assistants are at high risk for experiencing work stress and found high burnout rates in nurses (Chou et al., 2014). This may be a function of a high frequency and intensity of patient contact while seeing a steady stream of patients throughout the day. A negative effect of excessive stress and burnout is reduced employee productivity (Familoni, 2008). Interpersonal factors involving work relationships can reduce work effectiveness when relationships within the workplace become strained (Yeboah & Ansong, 2014).

Certain medical and dental professionals share certain job characteristics such as the constant pressure to focus, concentration on precision, listening intently, standing for hours, encounters with difficult patients, productivity demands, and needs to engage physically with patients. Dental professionals may encounter individuals with dental phobias or anxiety, patients with poor pain tolerance, and patients whose anxiety may increase the difficulty of physical procedures due to clenching, sensitivity to pain, tongue movements, or a pronounced gag reflex.

A study of the work-related complaints of dentists and dental assistants (Murtomaa, 1982) found that dentists and dental hygienists shared many similar occupational stressors. Thirty-one percent of the dentists and 10 % of the assistants reported having been on sick-leave during the two years prior to the survey due to some type of occupational problem. Musculoskeletal disorders of the back and neck and stress were the most frequently experienced complaints by the dentists.

Children, as well as adults, are conditioned to fear the dentist. It is estimated that as many as 75% of U.S. adults experience some degree of dental fear. It is estimated five to ten percent of the US adults experience dental phobia (Bracha, Vega, Vega, 2006). Dental phobic children and adults often seek dental care only when in extreme crisis such as a severe toothache or dental abscess. Working with fearful patients is often stressful for the dental practitioner. Part of dental practitioners stress may be related to more general findings that those frequently exposed to stressed individuals exhibit increased risk of feeling stressed themselves (Engert et al., 2014).

Method

Participants

The participants in our preliminary study were 161 members of dental hygienist associations around America. The link to the survey was distributed to all 50 states. In addition to Florida dental hygienists participating in a pilot of the study, dental hygienists from an additional 10 states responded (Illinois, New Jersey, Wyoming, Montana, Colorado, Maine, Pennsylvania, Texas, Washington and Kansas). A disproportionate number (forty percent of participants) were from Illinois. Demographics of participants were not collected due to the preliminary survey nature of the study

Procedure

Participants received a link via their respective dental health association liaison. All liaisons were on the board of their respective state dental association. The majority of these posted the link on their community Facebook group or via their monthly association newsletter emails. The link took each participant to a welcome screen containing five questions, some questions including multiple parts. The participants took a range of 3-41 minutes answering the survey, with the average time frame being around seven minutes to complete. Participants received no incentive for their participation. The surveys are completely anonymously but tracked by IP address to ensure no duplicates. The survey included both open and closed-ended questions.

Results:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
I suffer from work related pain (ex. Back pain, cramps)	6%	4%	4%	51%	35%
If answered agree/strongly agree above; does this cause stress in the workplace	4%	18%	23%	42%	13%
I work a satisfactory amount of hours a week.	2%	9%	9%	46%	34%
I feel stress due to the work schedule	6%	17%	18%	39%	20%
The amount of patients I see can be overwhelming	8%	25%	23%	32%	12%
I get stressed about not seeing enough patients	25%	26%	16%	27%	6%
I feel pressure to see more patients than I am comfortable with.	22%	28%	20%	19%	11%
The work equipment causes me stress or discomfort	18%	27%	10%	36%	9%
I feel stress related to not enough training on equipment	44%	32%	15%	9%	0%
I feel stress related to not enough training on procedures	42%	36%	12%	9%	1%
Some co-workers make the work place more stressful for me.	7%	5%	18%	45%	25%
I have a hard time working with my boss or supervisor	34%	32%	12%	16%	6%
I don't feel like I get sufficient amounts of sleep at night	14%	25%	16%	24%	21%
I feel I have enough time for breaks / rest during my work schedule	21%	39%	10%	23%	7%
It is difficult for me to deal with patients of certain ages.	22%	40%	20%	16%	2%
It is stressful for me to work with patients that have poor personal hygiene	22%	32%	26%	17%	3%
I find it stressful to work with patients who are fearful of procedures	10%	17%	22%	35%	16%

I find it stressful to work with patients who are sensitive to procedures	5%	13%	18%	45%	19%
I find it stressful to work with patients who have difficult personalities.	3%	22%	16%	42%	17%
I have been verbally assaulted by a patient within the past year	28%	30%	9%	20%	14%
I have been physically assaulted by a patient within the past year	71%	21%	6%	0%	2%
Someone in my office has been verbally assaulted by a patient within the past year	23%	11%	17%	27%	18%
Someone in my office has been physically assaulted by a patient within the past year	62%	21%	11%	0%	2%
I feel like I have sufficient training in how to handle being verbally or physically assaulted in the workplace	7%	30%	25%	20%	14%

Open ended responsest:

What are the most difficult stressors you have in the workplace?	Percentage of participants
Time (with patients, time management, not enough time for lunch breaks, running behind schedule)	43%
Patients (children, late, non-compliant, irritated/disrespectful, personality conflicts, high anxiety, oral health)	32%
Co-Workers/Supervisors (personality differences, conflicts, differed expectations, lack of teamwork, off task, drama, unmotivated, micromanagers)	25%
Physical Pain (aches, neck, hands, back, repetitive movements, muscle stress)	13%
Issues with Doctor/Dentist (not respecting opinions, waiting on them for exams)	6%
Production goals	5%
Equipment (low quality, not working)	4%
Not enough patients	4%
Job benefits (security, retirement, lack of promotions)	4%
Booked for several months in advanced	

Insurance restrictions on patients	3%
	3%
Pressure of doing things accurately and precise	2%
Fear of infection / proper infectious control	1%

Self-reported stressful situations - reoccurring themes:

Difficult patients (sensitivity, special types of people: children and mentally ill, gag reflex, different types of culture etc)	Overall: 48%
	Difficult- 41%
	Anxious – 25%
	Sensitivity- 16%
	Late- 15%
	Question method and competency- 13%
Population (children, mentally handicapped) 10%	
Patients refusing treatment or in denial about condition	25%
Questioning competence	8%
Inappropriate comments/actions	4%

The results of this preliminary study explored an array of various issues dealing with dental hygienist occupational stressors. An open-ended, fill in the box, question indicated 31% of respondents reported that not having enough time or staying on time caused them the most stress in the office. This was followed by 25% who dealing with problem patients was the most stressful factor. The third most commonly stated occupational stress was coworkers, with 15% reporting this as being a significant stressor. Time stressors included the number of patients booked back to back with very little time to sit. Ninety-five respondents either agreed or strongly agreed that the amount of patients they see is overwhelming on a daily basis. Considering their daily work schedules 80 respondents did not agree that they had sufficient time in their work schedules for breaks or rest time. Even with this time pressure, 30% of respondents agreed that they sometimes feel pressured to take on more patients than they are comfortable with.

The data from the rating scale questions was generally consistent with the self-report of hygienists on the open-ended questions. Eighteen percent of the survey respondents agreed or strongly agreed that working with certain ages was stressful and in the open ended question and 10% of participants noted that working with certain ages or patients with mental health issues was stressful. On rating scales, 51% either agreed or strongly agreed

that working with fearful patients was difficult compared to 25% of participants mentioning that anxious patients gave them trouble on open-ended questions. Not surprisingly, in general the rating scale format seemed to be more sensitive to eliciting difficulties than more open-ended questions.

Dental hygienists appeared to complain of both too many patients and having too few patients. Forty-four percent of people agreed or strongly agreed that “the amount of patients [they] see can be overwhelming” whereas 33% strongly disagreed or disagreed. Further investigations could look into the specific job titles, location, practice characteristics, and demographics to further determine what constitutes comfortable workloads.

Dentists and dental hygienists are constantly leaning over their patients to be able to complete appropriate dental procedures and examinations. This constant stance can cause uncomfortable back pain and/or the arms and hands can become sore. A large percentage of hygienists surveyed reported experiencing some sort of pain (51% agreed and 35% strongly agreed). Pain may further magnify stress and produce further muscle tension, and cycle into more pain. Interventions involving behavioral pain management, muscle relaxation, techniques, break schedules may offer some promise in reducing the impact of this very common stressor.

Forty-five percent of respondents described and agreed to seeing patients who are especially sensitive to certain procedures as being stressful. The goal of the hygienist is to perform duties as efficiently and completely as possible, causing the patient minimal pain and discomfort. This is especially hindered when the patient complains of sensitivity. In this case, he or she will become less cooperative and may lead to the appointment taking much longer than expected, or the hygienist could potentially be unable to follow through with all scheduled tasks.

Although the majority of hygienists did not experience verbal or physical assaults, and physical assaults were rare, more than a third reported either they or someone in their office had been verbally assaulted by a patient. It is concerning that 34% agreed or strongly agreed that they personally had been verbally assaulted, 2% strongly agreed they had been physically assaulted, 45% either agreed or strongly agreed that someone in their office had been verbally assaulted and 2% strongly agreed that someone in their office had been physically assaulted. Training on how to deal with verbally threatening patients was not universal, 37% of dental hygienists either disagreed or strongly disagreed that they had received proper training on how to handle an assaultive incident. The lack of more universal training may stem from the lack of recognition of the frequency of verbal assaults in the dental hygiene setting.

Overall, time stressors and difficult patients were reported as common significant stressors by the respondents with 32% of respondents mentioning some type of difficult patient causing high levels of stress on open-ended questions. “Problem” patients and anxiety prone patients were mentioned 41% and 25% respectively in a question that asked to describe a stressful situation. Time stress was also mentioned by 43% of respondents. Less

frequent but still common stressors involved pain (13%) and issues related to supervision by a dentist (6%).

Discussion

The present preliminary study attempted to solicit and explore work stressors which dental hygienists find significant and which may be fruitful for further research. Results involving dental hygienists identifying work-loads and time pressure are probably not surprising and require further study in terms of quantifying ideal loads, work, and break schedules.

Results also provide some direction for training needs, such as training in working with children, elderly individuals and fearful individuals. For example in our online survey 18% of dental hygienists reported that it was difficult to work with patients of “certain ages”, 50% of respondents agreed or strongly agreed that working with patients that had a fear of procedures was a source of stress, and 65% said working with patients that were sensitive to procedures caused them stress.

While physical assaults were rare, the finding that 30-40% of the respondents reported verbal assaults within the office, is important for further study and intervention. A recent British Dental Association survey looked at violence and abuse in general dental practice over a three-year period. In a study of 3078 practice staff, 80 per cent of practice personnel (dentist or assistant) had experienced some type of aggression at work. Assistant personnel appeared twice as likely to experience verbal assaults as dentists. (British Dental Association, 1997). Our survey results that 37% of dental hygienist would not feel prepared in any assault or potential assault incident. Improving employee training in dealing with dental phobia, difficult patients, and managing verbally escalating patients may help improve workplace safety and reduce such assaults and the stress hygienists face in the workplace.

As a preliminary survey, the current study has multiple limitations. Basic and in-depth demographic information might provide more information as to stressors that early, mid, and late-career dental hygienists find problematic, as well as the impact of stressors, type of practice, and work schedules. Self-selection bias may also have resulted in a sample which reported more stressors than in general dental hygiene practice, or the nature of the survey may have made hygienists uncomfortable with reporting negative feelings about their work or patients avoid taking the survey potentially underestimating stressors. Further studies are needed to learn more and replicate the base rates of the stressors identified in this study.

Operational definitions of terms especially those involving verbally assaultive behaviors would also help elucidate the nature of these interactions and would be more helpful in helping guide interventions and training. Future studies would also benefit from employing follow up efforts to ensure responses from other States and by attempting to survey those who did not initially respond.

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