



WELLNESS

2021 Dentist Well-Being Survey Report

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Executive Summary

KEY FINDINGS

- Most dentists (86%) reported they were satisfied with their dental practice and 95% reported feeling respected by the people they work with. However, consistent with the 2015 *Dentist Well-Being Survey*, employees in a private dental practice were less likely than partners to be satisfied, and younger dentists reported feeling respected less often compared to older dentists.
- The leading medical condition dentists reported was elevated cholesterol (16%), and anxiety (16%). The percent of dentists diagnosed with anxiety more than tripled in 2021 compared to 2003 (5%). Men more often reported elevated cholesterol, back problems, and arthritis compared to women. Dentists aged 40 years and older reported a condition more often than younger dentists.
- In the past year, 84% of dentists reported pain or discomfort while working. The neck, lower back, shoulders, and upper back were the most common sites of discomfort. Of dentists who reported pain or discomfort while working, 14% indicated the pain interfered with work.
- Hearing problems were common, reported by 35% of dentists overall and more than twice as often by those age 40 and over compared to younger dentists. More than half reported their hearing problems have remained the same, and most (61%) had not been evaluated by an audiologist.
- Dentists younger than 40 years old were more likely to score higher on the depression risk assessment questions than older dentists and have lower perceived self-competence.
- Among all dentists, perceived self-competence has declined since 2003 with the largest decline among women, those under age 40, and those with employee status.
- Less than half (46%) of dentists were aware of a state dentist well-being program available through their dental association. Dentists aged 40 and older and male dentists were significantly more likely to know about this program.

RECOMMENDATIONS

Results from 2021 indicate younger dentists continue to be disproportionately affected by mental and emotional health concerns. This age group was less likely to feel in control of their work environment, reported a higher level of stress at work, and scored higher on a depression scale. Younger dentists, who may benefit from additional support, were the least likely to be aware of a state dentist well-being program available through their dental association.

Dentists over age 40 were more likely in this sample to be a sole proprietor of their practice. This group was disproportionately affected by physical health concerns, including pain or discomfort while working. Areas of pain noted may be used to focus occupational therapy or physical well-being programs. Hearing problems remained prominent in this age group, consistent with 2015 findings. Use of hearing protection was rare. Programs targeted toward the physical health of those with relatively more experience in their practice are warranted. Findings highlight the importance of preventative care for younger dentists.

SURVEY CONSIDERATIONS

The 2021 *Dentist Well-Being Survey* findings are subject to at least three limitations. First, the 2021 *Dentist Well-Being Survey* was conducted during the COVID-19 pandemic, a time when all occupations faced health, well-being and economic hardship. Second, the sample analyzed in 2021 is smaller compared to past years and includes fewer than 1,000 dentists. Responses were weighted to account for non-response and be representative of the population of active dentists. Third, the survey format in 2021 was web-based and distributed to 20,000 dentists by e-mail. The 2003 and 2015 surveys were administered by paper via postal mail to a smaller, randomized sample. These differences may limit the generalizability of findings to all dentists, and comparison of results between survey years.

Results

DEMOGRAPHICS

Key demographic characteristics for dentists participating in the survey, and from the United States population of professionally active dentists in 2021, are shown in Table 1. Results of weighted responses are well-matched to the population of active dentists and can be considered a representative sample of dentists for the purposes of describing the results of the health and well-being survey.

Table 1: Demographic Characteristics of Dentists Participating in the 2021 *Dentist Well-Being Survey* Compared to All Professionally Active Dentists

	Respondents			Population of Professionally Active Dentists ¹	
	Number	Weighted Number	Percent ²	Number	Percent
All Dentists	894	894	100	151,484	100
Gender					
Male	493	560	64	96,087	63
Female	387	321	36	55,397	37
Missing/Other	14	0	~	~	~
Age Group					
Under 40 years of age	169	271	30	48,413	31
40 years of age and older	725	625	70	105,685	69
Missing	0	0	~	~	~
Region of Occupation					
New England	59	56	6	8,622	6
Middle Atlantic	111	106	12	21,237	14
East North Central	141	144	16	20,773	14
West North Central	83	86	9	9,131	6
South Atlantic	143	134	15	28,211	18
East South Central	46	48	5	7,036	5
West South Central	61	67	8	16,398	11
Mountain	82	89	10	11,331	7
Pacific	153	151	17	29,244	19
Missing/Other	11	13	1	~	~

1. Active Dentists, 2021 American Dental Association

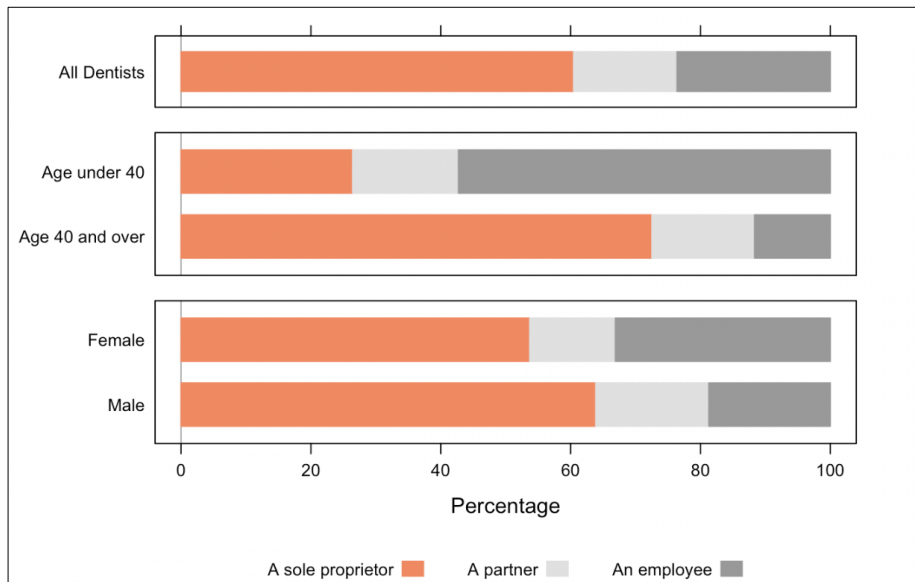
2. Weighted percentages are shown

Professionally active dentists were asked to select the practice types based on their reported current primary occupation. Most dentists reported that they were in private practice (82%), followed by Federal dental services (7%), dental school faculty (5%) and other dental occupation including state or local government employee or hospital staff (6%).

In terms of status in primary practice, dentists were asked to select one of five types: a partner, a sole proprietor (defined as the only owner of a dental practice), an employee (defined as dentists who receive a salary, commission, percentage or work on an associate basis), and an independent contractor. Fewer than 30 responses were received from independent contractors, therefore the percent response by question for this status is not shown. Just over half (60%) of dentists indicated they were a sole proprietor, 24% were an employee, and 16% a partner.

A larger percentage of respondents to the 2021 survey were employees compared to those who responded in 2015 (14%). There are differences in income and demographics of employees compared to practice owners that may impact the health and well-being findings across survey years.

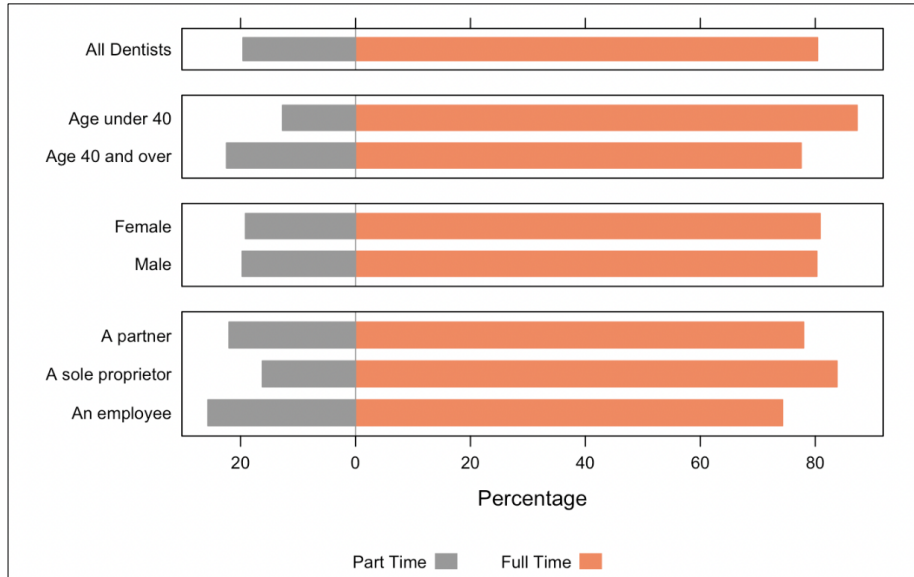
Dentist Status in Practice by Demographic, 2021



HOURS PER WEEK IN PRIMARY OCCUPATION

In total, 80% of dentists reported that they usually work full-time in their primary dental occupation (defined as at least 30 hours per week). Younger dentists were more likely to work full-time than older dentists. Sole proprietors were more likely than other dentists to work full-time. The percentage reporting full-time work has decreased across survey years, from 86% in 2003, 82% in 2015 to 80% (95% CI 78%-83%) in 2021.

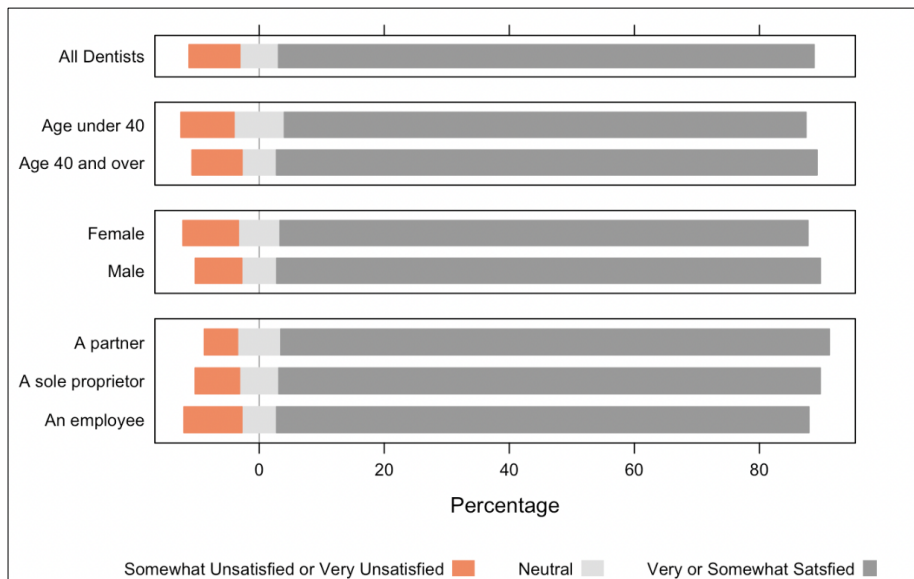
Time Spent in Primary Occupation by Demographic, 2021



SATISFACTION WITH DENTAL PRACTICE

Dentists in private practice were asked how satisfied they were with their current primary practice. The majority (86%) were satisfied, and small differences between age and gender were not statistically significant. However, consistent with the 2015 *Dentist Well-Being Survey*, employees in a private dental practice were less likely than partners to be satisfied with their current primary practice ($p < 0.05$).

Job Satisfaction by Demographic, 2021



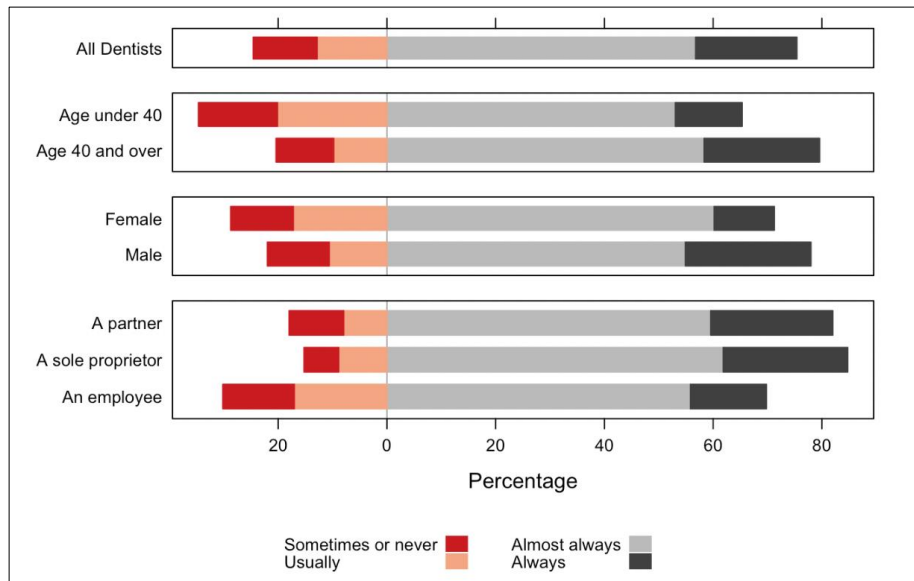
LEAVE OF ABSENCE

Dentists were asked if they had taken leave of absence for a list of reasons. About one in four (24%) reported taking a leave of absence. Women more often reported leave than men (29% vs. 21%, respectively, $p < 0.05$). Of all listed reasons, absence for personal illness was the most common (7%) followed by child rearing (6%). Other reasons for leave included those due to the impact of the Coronavirus-2019 (COVID-19) pandemic on childcare, family care or pause of business.

CONTROL OF WORK ENVIRONMENT

Dentists were asked whether they felt in control of their work environment. While 75% of dentists reported feeling in control always or most of the time, dentists aged 40 and older were more likely to report that they felt in control of their work environment than younger dentists (80% vs. 65% of dentists, respectively, $p < 0.05$). In terms of status in dental practice, employees were less likely to feel in control of their work environment compared to sole proprietor or partners ($p < 0.05$). Findings in 2021 are consistent with the 2015 *Dentist Well-Being Survey*, which also found dentists with employee status less often reported they felt in control, with 30% reporting they sometime, rarely or never felt in control.

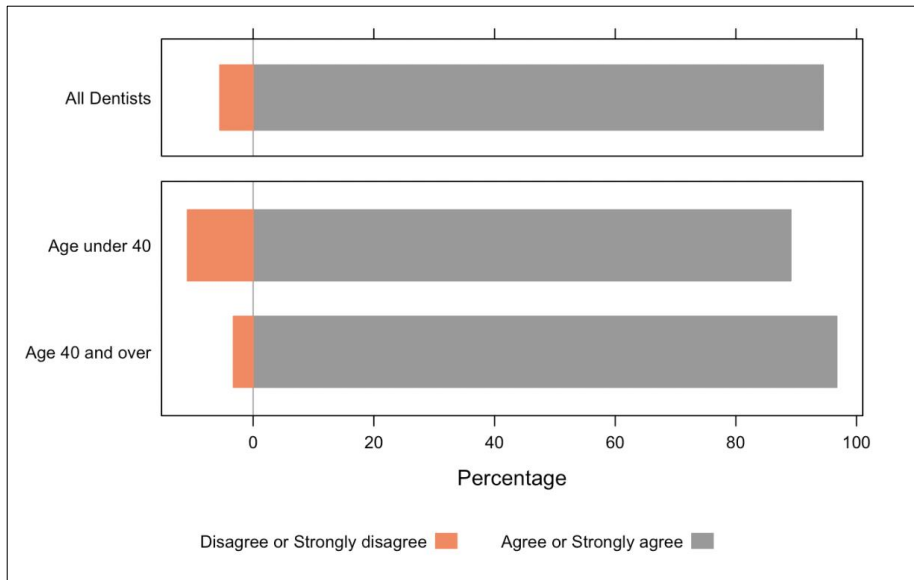
In Control of Work Environment by Demographic, 2021



RESPECT BY COWORKERS

Dentists were asked their level of agreement with the statement “I think the people I work with respect me”. Most dentists (95%, 95% CI 93%-96%) agreed with this statement. However, dentists under age 40 were significantly less likely to agree with the statement than older dentists ($p < 0.05$). The trend in feeling respected has decreased from 98% reported in the 2003 *Dentist Well-Being Survey*.

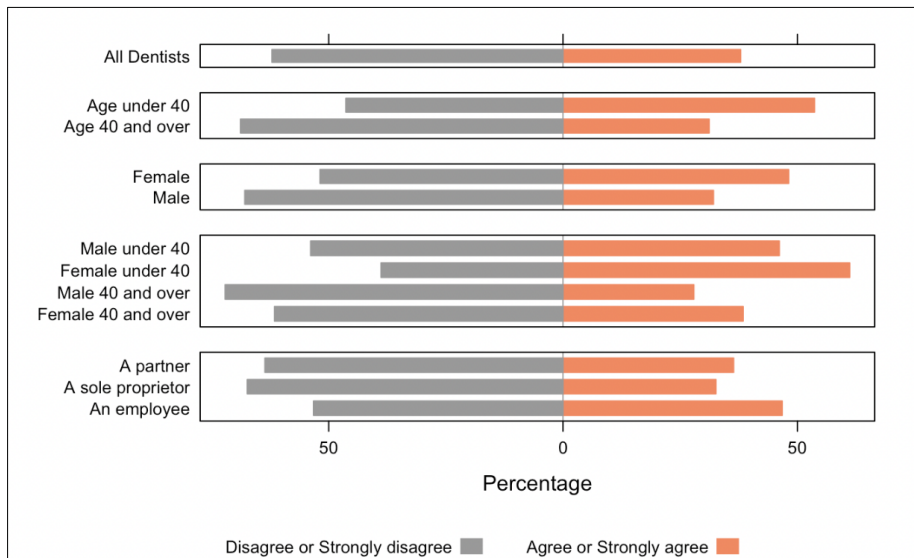
Agreement with the statement: "I think the people I work with respect me."



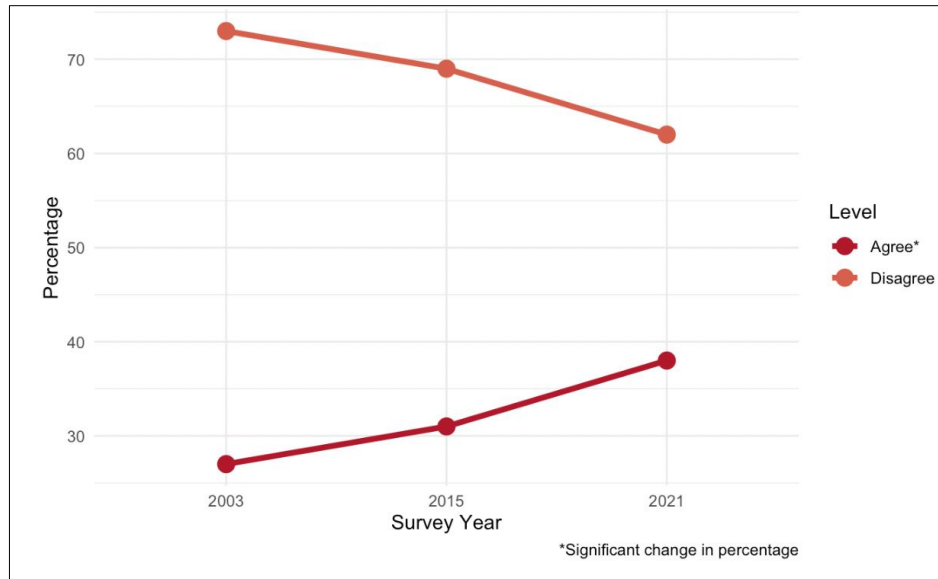
PERCEIVED SELF-COMPETENCE IN THE WORKPLACE

Of all primary care dentists, 38% (95% CI 35%-41%) reported they sometimes doubt their own competence. Women under age 40 were most likely to agree with the statement (61%) compared to dentists of other age and gender groups ($p < 0.05$). The percentage of all dentists reporting doubt in self confidence has increased more than 10 percent since 27% of dentists agreed with the statement in the 2003 *Dentist Well-Being Survey*. In the 2003 survey, agreement in dentists under 40 and dentists aged 40 and older was similar (26% and 27%, respectively). There has been a notable shift toward doubt of competence among the younger dentists.

Agreement with the statement: "I sometimes doubt my own competence."



Agreement with the statement: “I sometimes doubt my own competence”, 2003 - 2021



DENTAL LASERS AND EYE PROTECTION

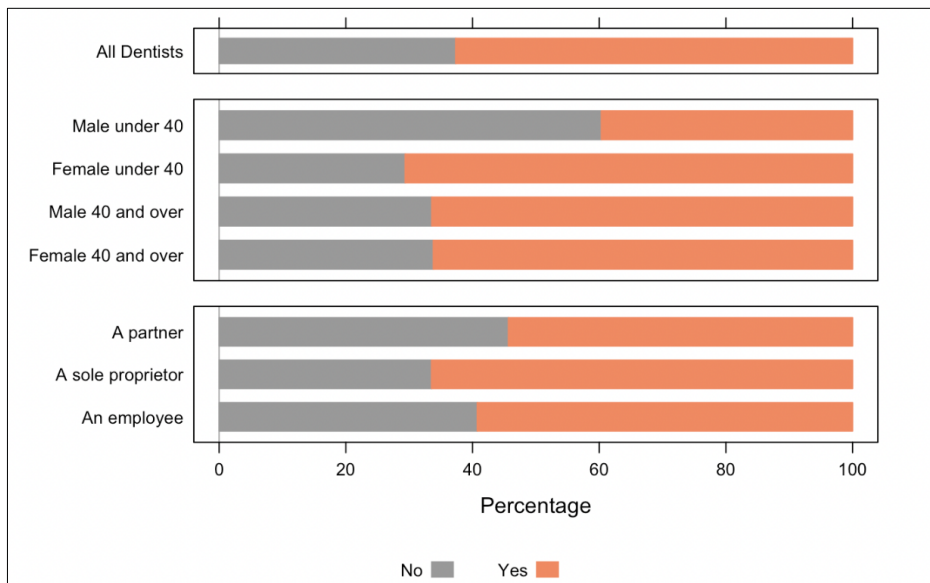
While 29% of dentists reported they used dental lasers to treat their patients, laser use was primarily reported by those in private practice. Use of eye protection when using dental lasers was common (84%), although 16% reported “No” or only “Sometimes” when asked if they use eye protection. Use of dental lasers was similar in the 2015 *Dentist Well-Being Survey*, where 27% reported they used dental lasers, and of those, 88% wore eye protection.

PHYSICAL HEALTH

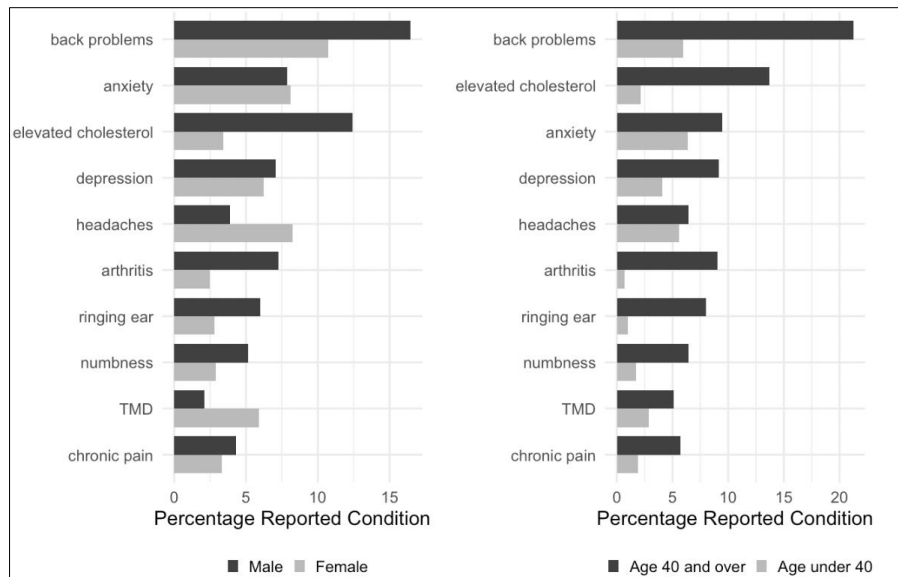
Diagnosed Medical Conditions

Of all dentists, 63% reported that they had experienced a medical condition. The most common conditions were back problems (27%), elevated cholesterol (16%), anxiety (16%), depression (13%), headaches (12%), arthritis (10%), ringing in the ear (9%), numbness/tingling, paresthesia, or muscle weakness (8%), temporomandibular joint dysfunction (8%), or chronic pain (8%). Male dentists more often reported elevated cholesterol, back problems, numbness/tingling, paresthesia or muscle weakness, and ringing in the ear compared to female dentists. Dentists 40 years of age and older were more likely to report a condition than younger dentists ($p < 0.05$).

Self-Reported Medical Conditions by Demographic, 2021



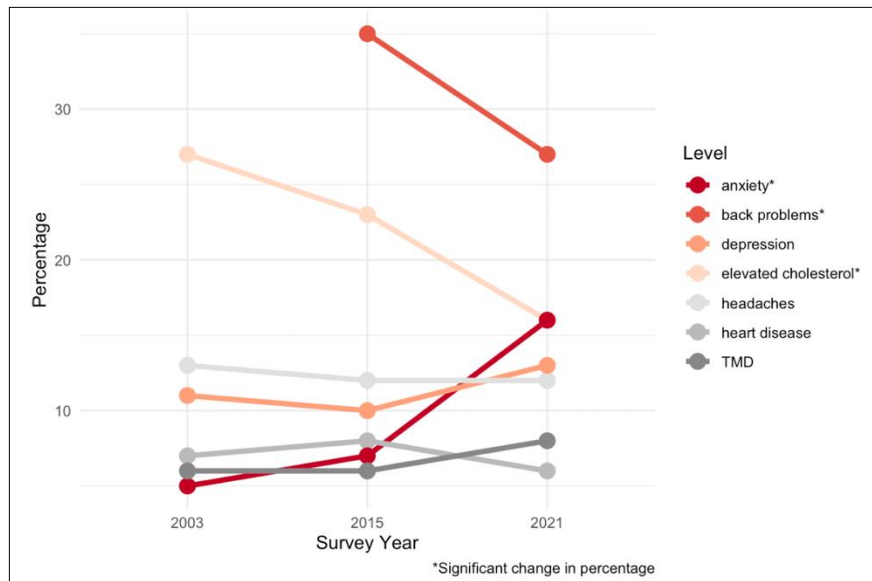
Self-Reported Medical Condition by Gender or Age, 2021



Comparison of Diagnosed Medical Conditions, 2003-2021

Dentists were asked about medical conditions in the last three Dentist Well-Being Surveys. The percent of dentists diagnosed with anxiety more than tripled in 2021 (16%) compared to 2003 (5%). Back problems, added as a question to the survey in 2015, remained the most common condition, reported by 35% in 2015 and 27% of dentists in 2021. Elevated cholesterol, the most common condition among dentists in the 2003 Well-Being Survey, declined through 2021.

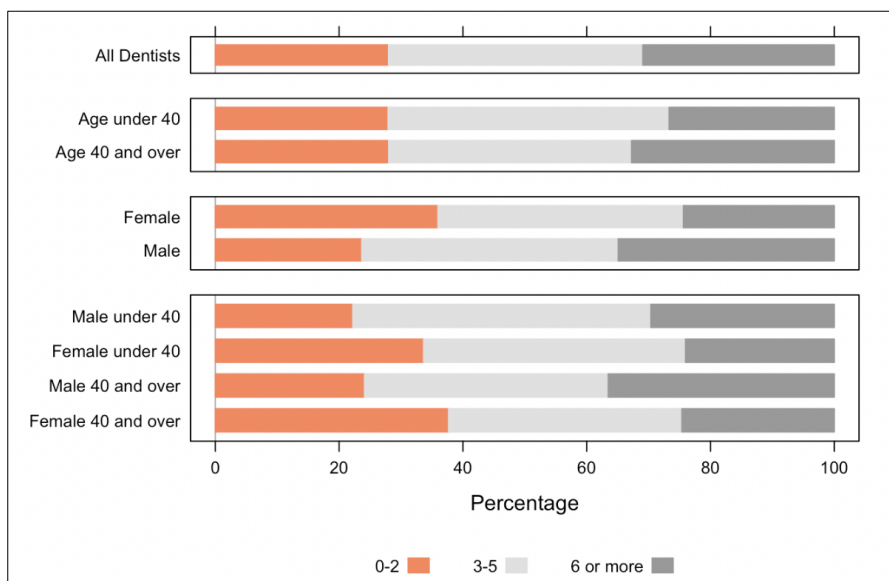
Trend in Self-Reported Medical Condition, 2003-2021



Exercise

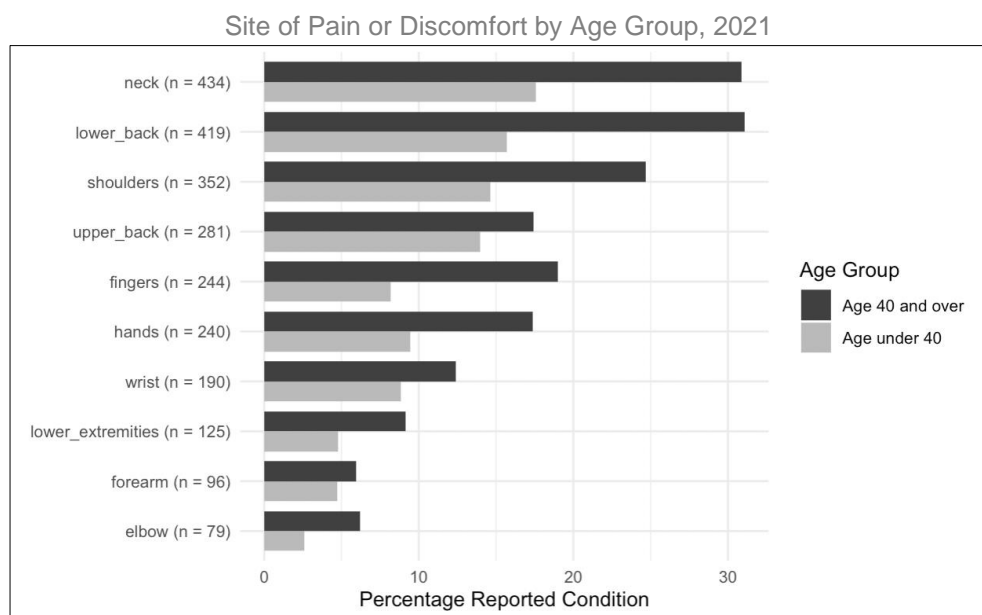
More than half of dentists (69%) engaged in five hours of exercise, or less, in an average week. Men reported more hours of exercise during the week, than women, with 22% of men reporting 6 hours of exercise or more ($p < 0.05$). There were too few responses to conclude difference in exercise by dentist status.

Hours of Exercise per Week, 2021



Pain and Discomfort

In the past year, 84% of dentists reported pain or discomfort while working. The neck, lower back, shoulders, and upper back were the most common sites of discomfort. Of dentists who reported pain or discomfort while working, 14% indicated it interfered with work. Almost half (48%) of dentists with pain while working sought treatment, most often surgery as opposed to chiropractic (21%), physical/occupational therapy (15%), physiatry/physical medicine and rehabilitation (7%), or other type of specialist treatment (6%). Pain or discomfort at any site was more common among older dentists ($p < 0.05$). The number of dentists who did not report pain or discomfort was too small to report reliable statistics to compare dentists with or without discomfort while working.



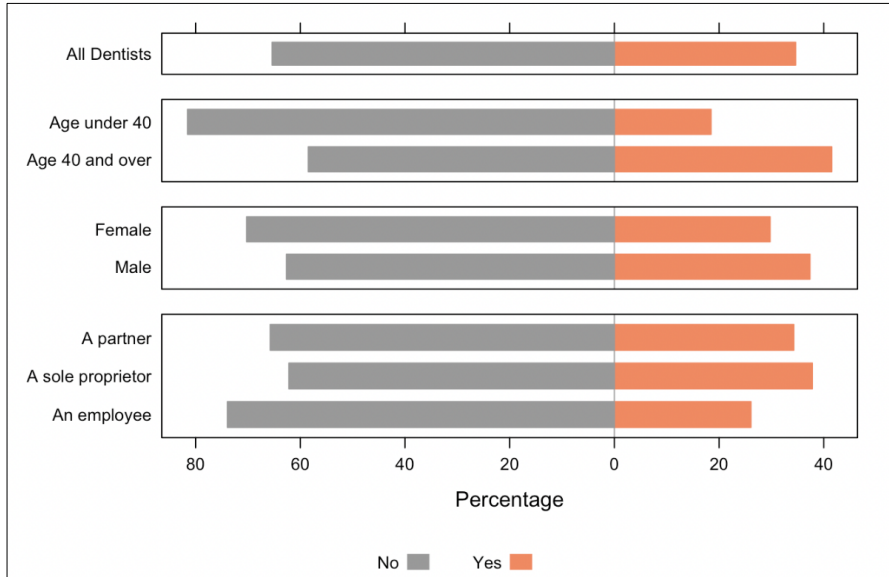
Sleep

Dentists most often reported getting between four and seven hours of sleep in a typical night. Approximately one in four (25%) get more than eight hours. Women under age 40 report getting the most sleep, with 40% reporting 8-11 hours a night. Six percent of dentists reported they use an electric sleep device (e.g. CPAP), of whom 81% were men.

Hearing Loss and Use of Hearing Protection

Hearing problems were reported by 35% of dentists overall and more than twice as often by those age 40 and over (42%) compared to younger dentists (18%), ($p < 0.05$). Of those with hearing problems, 36% noticed first signs of hearing loss more than five years ago. Thirty-six percent with hearing problems reported symptoms have worsened and 64% reported they remained the same since they first noticed their hearing loss. The majority with hearing problems (61%) had not been evaluated by an audiologist. Dentists reported they very rarely used hearing protection while treating patients. Of all dentists, only 3% reported using hearing protection, and 9% reported sometimes using it. There were no differences in use of hearing protection by age or gender.

Self-reported Hearing Problems by Demographic, 2021

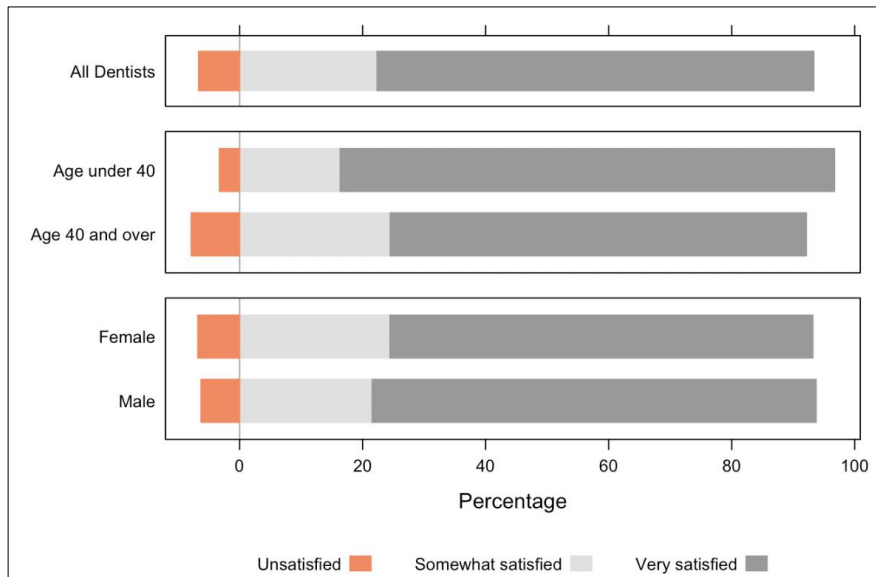


EMOTIONAL HEALTH

Relationship Status

Dentists were asked to report their current relationship status. 83% of dentists were married or a member of an unmarried couple. Most dentists (93%) reported that they were satisfied or very satisfied with their relationship with their spouse or domestic partner. Seven percent were somewhat unsatisfied or very unsatisfied with their relationship.

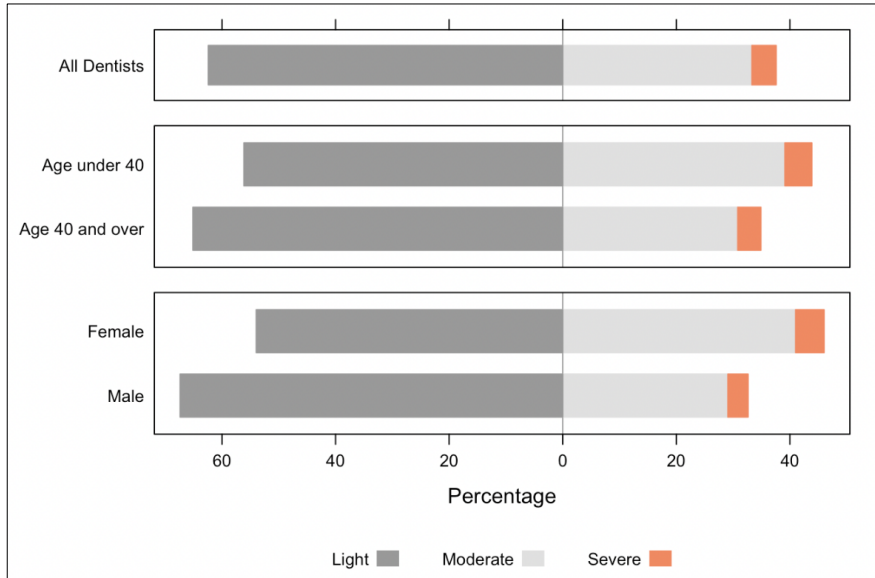
Satisfaction with Relationship by Demographic, 2021



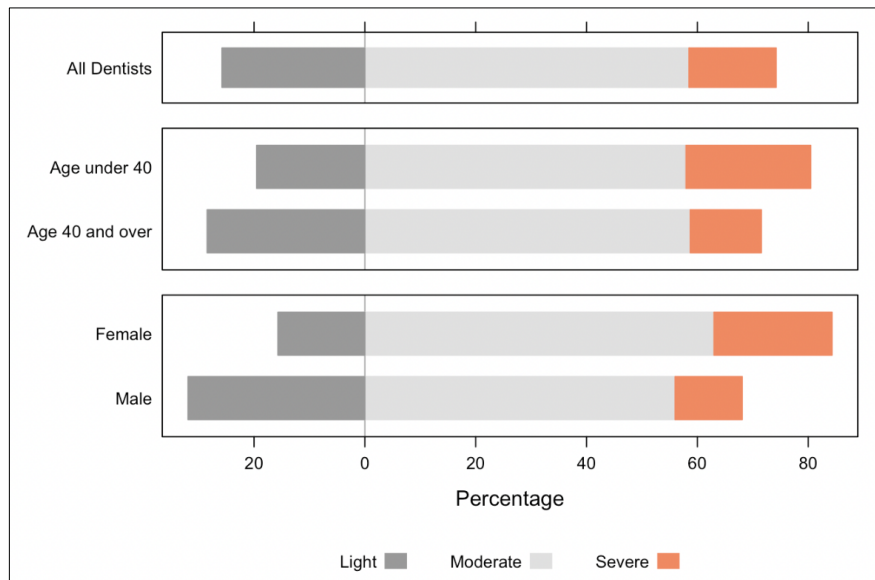
Stress Level

The majority of dentists (63%) reported that they have a low level of stress at home. Severe stress at home was reported by fewer than 30 dentists in each category and percentages are not reliable for statistical comparison. In contrast, stress at work was more notable, with the majority of dentists reporting moderate or severe stress at work and women reporting severe stress at work at a rate twice that of men (21% and 12%, respectively, $p < 0.05$).

Stress Level at Home by Demographic, 2021



Stress Level at Work by Demographic, 2021



Effect of Poor Health on Activities

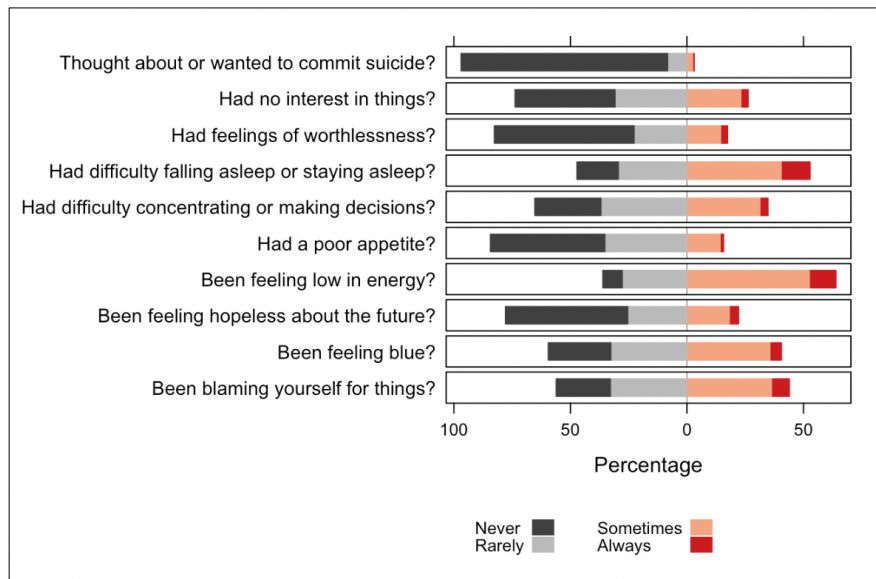
Dentists were asked for the number of days during the past month that poor physical or mental health kept them from usual activities (i.e., work, recreation). Of all dentists, the majority (91%) reported fewer than six days lost. This percentage is similar to that reported in the 2015 *Dentist Well-Being Survey* where 92% reported fewer than five days lost. The number of dentists reporting days lost was too small for further statistical comparison by demographics or across survey years.

Depression

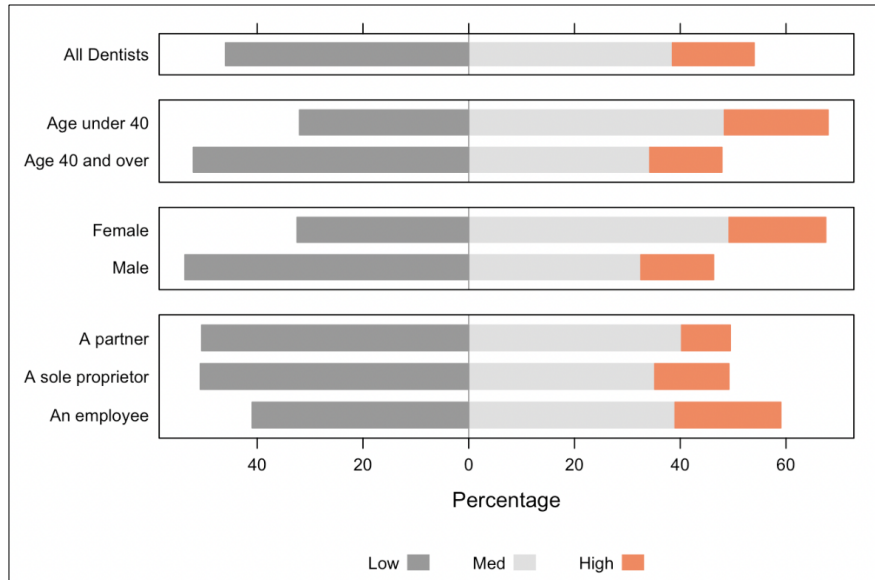
Dentists were asked ten questions about their feelings and mental condition in the past two weeks. Totalling the dentist’s response to the ten questions, almost half (46%) of dentists had a score of “Low” risk for depression. Thirty nine percent (39%) had a total score “Medium,” and 15% had a score of “High” risk for depression. Responses to depression screening questions are shown for all dentists, however, where fewer than 30 dentists responded “Always” to the question, percentages are considered unreliable and are not shown.

In terms of demographics, dentists younger than 40 years old more often scored “medium” or “high” risk (68%) compared to older dentists (48%), ($p < 0.05$) and female dentists more often scored “medium” or “high” risk (67%) compared to male (47%) ($p < 0.05$), indicating a higher risk of depression in these groups.

Depression Screening Questions: “In the past two weeks have you...”



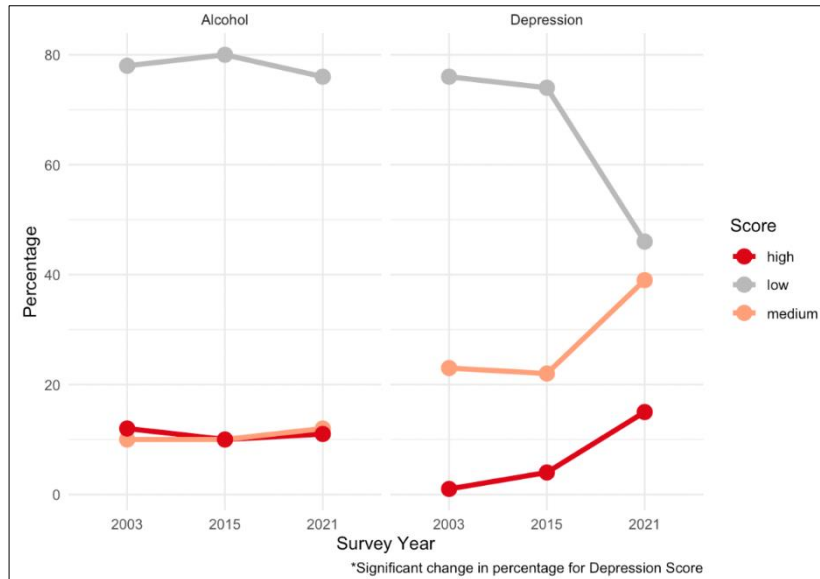
Depression Screening Score by Demographic, 2021



Depression and Alcoholism Screening Score, 2003-2021

Questions and scoring methods to assess risk for depression were identical across the last three Dentist Well-Being Surveys. In 2021, 15% (95% CI 13%-18%) of dentists scored “High” on the depression assessment compared to only 1% in 2003. Dentists were also asked four questions about their drinking habits. Most dentists (76%-78%) scored at a “Low” risk level on the alcohol abuse screening questions in all three years of the *Dentist Well-Being Survey*.

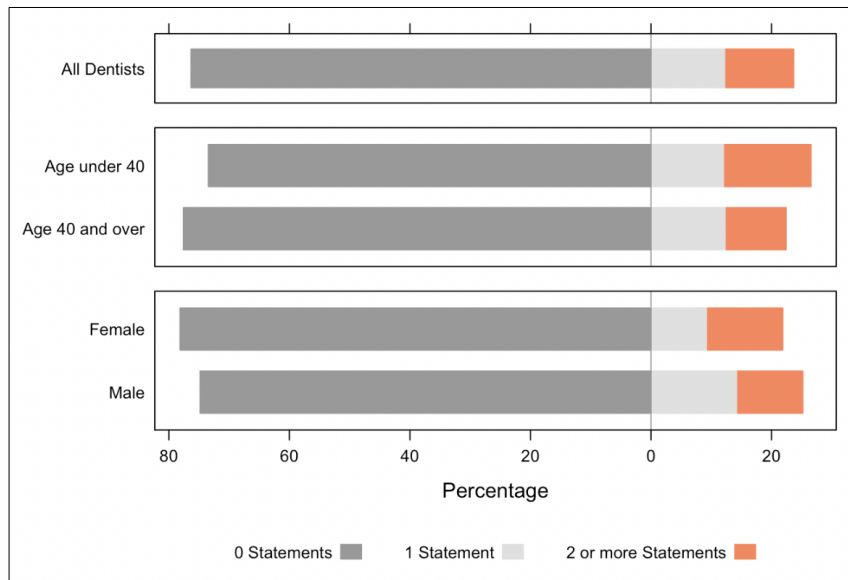
Trend in Alcohol and Depression Screening Score, 2003-2021



ALCOHOL USE

Dentists who were not currently in recovery from alcoholism were asked four questions about their drinking habits: if they ever felt that they should cut down on their drinking, if they ever had been annoyed by other people criticizing their drinking, if they had ever felt bad or guilty about their drinking, and if they had ever had a drink first thing in the morning to steady nerves or to get rid of a hangover. Totaling the dentist’s response to the four questions, 76% of dentists did not agree with any statements, categorized as “0 Statements”. Twelve percent (12%) agreed with one statement, and 11% agreed with two or more. There were no significant differences in response by age or gender.

Agreement with Alcohol Abuse Screening Statements by Demographic, 2021



DRUG USE

Fewer than ten dentists reported they were currently in recovery from a drug addiction. Dentists who were not in recovery were asked four questions about their drug use habits: if they ever felt that they should cut down on their drug use, if they ever had been annoyed by other people criticizing their drug use, if they had ever felt bad or guilty about their drug use, and if they had ever used drugs first thing in the morning to steady nerves or to get rid of a hangover. Fewer than 15 dentists responded positively to each of the four questions. Percentages and further analysis by age and gender are not shown because there are too few respondents in each category to report reliable percentages.

MEDICATION USE

Dentists were asked which prescribed, over the counter, or herbal medications they currently use on a regular basis. Dentists reported they regularly used NSAIDS (34%), allergy medications (20%), analgesics (8%), antidepressants (7%), herbal medicines (7%), sleeping pills (7%) or diuretics (5%). Less than 5% of dentists used any other medication listed. When dentists used antidepressants, there were more often prescribed by a doctor, whereas NSAIDS and allergy medications were often self-obtained.

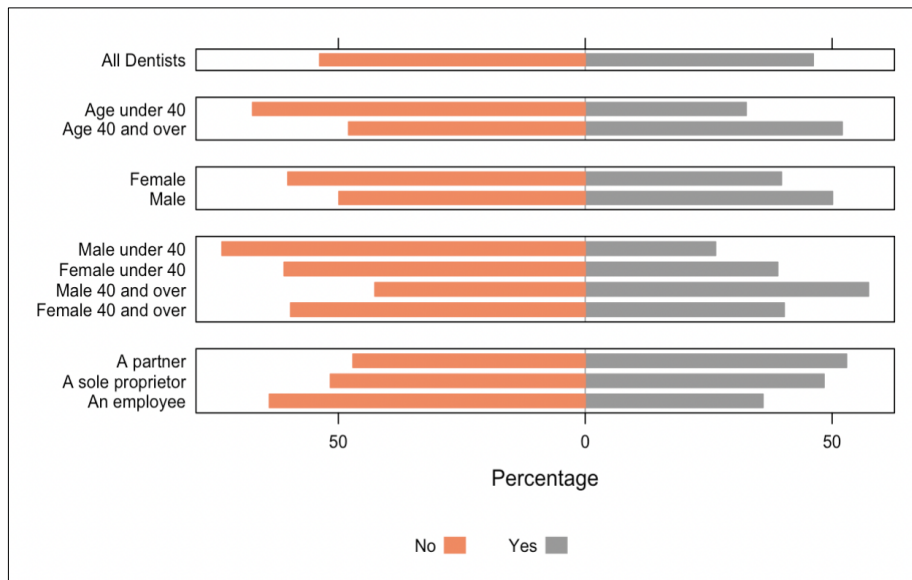
VAPING

Dentists were asked if they had ever used a vaping device. Only 58 dentists, (7%) reported using a vaping device. There was no difference by age category and the number was too small to make conclusions about gender of dentists or type of substance used with the vaping device.

DENTIST WELL-BEING PROGRAM AWARENESS

Less than half (46%) of dentists were aware of a state dentist well-being program available through their dental association. Dentists aged 40 and older and male dentists were significantly more likely to know about this program ($p < 0.05$). There were no measurable differences in program awareness by region of the country where dentists practiced.

Knowledge of a State Dentist Well-Being Program by Demographic, 2021



Survey Method and Response Rate

In March, the 2021 *Dentist Health and Well-Being Survey* was sent by email to a random selection of 20,000 American Dental Association (ADA) member and non-member dentists licensed to practice in the United States. The survey was administered via an on-line platform and responses were anonymous. Two reminder emails were sent. A total of 1,116 survey responses were received for a response rate of 6%. This rate is low, compared to the 2003 and 2015 surveys, at 23% and 28%, respectively.

Survey responses from those who indicated dentist was not their primary occupation, retired dentists, dental students, and those who completed less than 10% of the survey were excluded. The final sample for analysis includes 894 active dentists. Post-stratification weights were applied so that the weighted case distribution of eligible survey respondents was as close as possible to that of the population of active dentists in 2021. All percentages shown are weighted responses.

DATA WEIGHTING

Demographic variables with a potential to impact survey question responses were considered for calculating weights. The survey sample was compared to the 2021 annual census of dentists in terms of age group, gender and region. If the difference between the survey sample and population of active dentists was more than five percentage points, the variable was used to weight the data.

Female dentists over 40 years of age were over-represented in responses. Both male and female dentists under 40 years of age were under-represented in responses. Therefore, weights were defined by age and gender combination. Responses missing information on age or gender were assigned a weight of 1.0. Table 2 presents the weights calculated and assigned to each group.

Table 2. Weights Assigned to Survey Responses

Respondents	Assigned Weight
Male dentists under 40 years of age	2.31
Female dentists under 40 years of	1.24
Male dentists 40 years of age or	0.98
Female dentists 40 years of age or	0.67

ANALYSIS

The statistical software RStudio with the accompanying survey package was used to apply the post-stratification weight in the analysis and calculate all descriptive statistics and measures of association in this report.

Percentages were calculated using the number of dentists who responded to the survey item as the denominator. All numbers and percentages shown are weighted responses, unless specified as an un-weighted total. Statistics calculated for categories with fewer than 30 responses are considered unreliable. Difference in distribution of responses between groups was determined by Pearson's chi-squared test. The chi-squared test assesses whether observations in more than one category, expressed in a contingency table, are independent of each other.

Differences were considered statistically significant if the p-value of the chi-squared test was less than 0.05. Results of analysis for the *Dentist Health and Well-Being Survey* in 2003, 2015 and 2021 were compared where questions were asked consistently across all three survey years. Binomial 95% confidence intervals were calculated for responses in 2021. Without original data for 2003 and 2015, comparisons are descriptive, and results were estimated to be significantly different when the 95% confidence interval for the 2021 measure did not include the percentage for a comparison survey year.