

Research

Professional Quality of Life and Self-Compassion Among Dental Hygienists

Victoria Tumidajski, RDH, MS

Linda D. Boyd, RDH, RD, EdD

Jaymi-Lyn Adams, RDH, DHSc

Jared Vineyard, PhD

ABSTRACT

Purpose Health care professionals are often faced with stressful situations, demanding physical work, and unique pressures impacting patient care and personal health and wellness. The purpose of this study was to assess perceived levels of self-compassion and their relationship with professional quality of life in clinical dental hygienists.

Methods A cross-sectional survey of clinical dental hygienists ($n=345$) was conducted using a non-probability sample recruited via social media. Data collection used two validated instruments: Professional Quality of Life-21 with 2 sub-scales (compassion satisfaction and compassion fatigue) and Self-Compassion Scale (SCS) with 6 sub-scales (self-kindness, self-judgment, common humanity, isolation, mindfulness, over-identification). Descriptive statistics, correlations, and regression modeling were used for data analysis.

Results The completion rate was 48.4% ($n=167$). The SCS total mean score ($M=2.85$), compassion satisfaction (CS; 37.86) and compassion fatigue (CF; 25.62) mean scores were all in the moderate range. Regression models included SCS sub-scales and demographics with statistically significant correlations to CS and CF. In the regression model for CS, the SCS sub-scales of self-kindness ($\beta=2.10$, $t(,225) = 2.078$, $p=.039$) and mindfulness ($\beta=2.50$, $t(,250) = 2.312$, $p=.022$) emerged as predictors. The model explained 18.9% of variance in CS ($R^2 = .199$, adjusted $R^2 = .189$, $F(2,164) = 20.35$, $p<.001$). In the regression model for CF, the SCS sub-scales self-judgment ($\beta=-.33$, $t(162)=-3.53$, $p<.001$) and isolation ($\beta=-.215$, $t(162) = -2.282$, $p=.024$) along with the average number of hours worked per week providing patient care ($\beta=.147$, $t(162) = 2.217$, $p=.028$) were predictors. The model explained 28.4% of the variance in CF ($R^2=.297$, adjusted $R^2=.284$, $F(3,162)=22.84$, $p<.001$).

Conclusion Dental hygienists self-reported moderate self-compassion, CS and CF. Improvement in self-compassion and CS may prevent CF which reduces the risk of burnout. Strategies might include personal (e.g., positive self-talk and self-care) and workplace (e.g., employee wellness resources) approaches.

Keywords dental hygienists, Professional quality of life, self-compassion, compassion fatigue, compassion satisfaction,

NDHRA priority area, **Professional development: Occupational health** (methods to reduce occupational stressors).

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INTRODUCTION

Health care professionals are often faced with extremely stressful and emotional situations, demanding physical work, unpredictable and long work hours, and unique pressures from providing patient care.¹ These challenges can negatively affect mental health, well-being, and the professional quality of life.^{2,3} Professional quality of life refers to the emotions felt by those in helping professions and influenced by personal characteristics, client/patient environment, and work environment.⁴ Even though patient care is central to the work of healthcare providers, it is also the main stressor due to the intensity of the patient-provider interaction.⁵ A widely used measure of professional quality of life examines two main components that include compassion satisfaction (CS) and compassion fatigue (CF).^{2,4} Compassion satisfaction is defined as the joy one gets from performing well at work and the pleasure felt by helping others.⁴ Compassion fatigue is defined as a decreased ability to feel empathy due to interactions with distressed patients.⁶

High levels of CS, positive work environments, self-care, and support from management/leadership are protective against developing CF.^{2,5} For healthcare professionals, experiencing CF may lead to physical, (e.g., headaches, fatigue), emotional (e.g., depression, mood disorders, substance use disorders), and job-related negative effects (e.g., lack of empathy, burnout, job dissatisfaction, intention to leave).^{5,7-9} Low levels of self-compassion is a predictor of CF.^{10,11} Self-compassion is defined as turning compassion inwards and being supportive and motivating to ourselves during times of suffering or pain.¹² Self-compassion is associated with resilience, adaptive coping behaviors (positive reframing and problem-focused strategies), and health-promoting behaviors.¹² In addition, self-compassion is also a predictor of self-care behaviors and associated with benefits for work-life balance, mental health, well-being, and lower risk of burnout.¹²⁻¹⁴ High levels of self-compassion have been found to improve professional quality of life by reducing CF and burnout within the health care

professions.¹⁵ In addition, self-compassion programs have been found to improve CS, well-being and promote self-kindness within health care workers.¹⁶

While there is extensive research in nursing and other helping professions related to professional quality of life including compassion fatigue, there is limited research among dental hygienists despite some of the same stressors related to patient care.^{2,5,17,18} In addition, while literature about self-compassion in dental hygienists and dental hygiene students is emerging, none explore relationships between the two concepts.^{19,20} Therefore, to address these gaps in the literature, the purpose of this study was to assess perceived levels of self-compassion and relationship with professional quality of life in clinical dental hygienists. The study aims were to: 1) measure perceived level of self-compassion, 2) measure professional quality of life, 3) assess the relationship between self-compassion, professional quality of life and demographic subgroups, and 4) model the relationship between self-compassion subscales and demographics on professional quality of life.

METHODS

A cross-sectional survey research design was used with a convenience sample of clinical dental hygienists. This study was approved by the Massachusetts College of Pharmacy and Health Sciences Institutional Review Board (IRB) and was assigned protocol number IRB-2022-2023-137. The Checklist for Reporting Results of Internet E-Surveys (CHERRIES) was used to report the findings.²¹

Study Population

A non-probability sample of clinical dental hygienists was recruited via social media for this web-based survey. Inclusion criteria for participation consisted of dental hygienists who were providing patient care at least one day a week, had at least one year of clinical experience, were able to read English, and had the ability to access and complete an online survey. Exclusion criteria were individuals who did not currently

provide patient care a minimum of one day per week or with less than one year of experience and the inability to read English or complete an online survey.

A priori sample size estimation with G*Power for the most conservative planned statistical test (multiple linear regression) using a medium effect size ($f^2=0.15$), $\alpha=.05$, and 80% power was conducted. The suggested minimum sample size for completed surveys was $n=138$.

Instrument

The survey used two validated instruments with a total of 69 items. The survey sections included demographics/work characteristics (13 items), Professional Quality of Life Scale version 5 (30 items), and Neff's Self-Compassion Scale (26 items). The demographics/work characteristics have been used in previous research.

Professional Quality of Life (ProQoL)

The Professional Quality of Life Scale (ProQoL) was developed to assess the negative and positive aspects of those in helping professions.⁴ The original Professional Quality of Life scale (ProQOL-5) consisted of a series of 30 questions with subscales that included: compassion satisfaction, compassion fatigue, and burnout.⁴ A 5-point Likert scale was used to score each subscale separately, ranging from 1 (never) to 5 (very often).

While the ProQOL-5 instrument reported good construct validity with over 200 published papers,⁴ no psychometric analysis could be identified to support this claim and recent psychometric evaluations suggest concerns with the burnout sub-scale along with some items in the CF sub-scale.²²⁻²⁴ Therefore, a modified ProQOL-21 instrument developed by Heritage et al. and based on the original ProQOL-5 was used.²⁴

Heritage et al. conducted a Rasch analysis to identify items for deletion from the original ProQOL-5.²⁴ The compassion satisfaction items had a good model fit and remained unchanged from the original version. As a result of the analysis, items from the burnout and compassion fatigue sub-scales were removed due to

overlap and poor model fit.²⁴ The remaining burnout and compassion fatigue items were collapsed into a single compassion fatigue scale.²⁴ The resulting ProQOL-21 consisted of two subscales (compassion satisfaction and compassion fatigue).²⁴ The modified instrument demonstrated strong psychometric properties (e.g., construct, convergent, and divergent validity) along with good person (>0.80) and item reliability with a Cronbach's alpha of 0.90.²⁴ Based on the Heritage et al. ProQOL-21 model, the same items were removed prior to analysis for this study. In this sample, the internal reliability for the ProQOL-21 subscales were compassion satisfaction $\alpha=.93$ and compassion fatigue $\alpha=.87$, which are consistent with the findings of Heritage et al. According to the developers of the ProQOL, formal permission to use the instrument is not required provided the original source is appropriately cited.

Self-Compassion Scale (SCS)

Neff's Self-Compassion Scale (SCS) is used to measure self-compassion, which is having feelings of kindness and caring towards oneself.¹² The SCS is a self-report questionnaire with 26 items measuring six subscales including self-compassion: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. The SCS used a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always).

For the SCS, each subscale was evaluated for internal consistency and reliability (Neff, 2003). Cronbach's alpha results for the sub-scales were as follows: self-kindness (SK, 5 items) $\alpha=.78$, self-judgment (SJ, 5 items) $\alpha=.77$, common humanity (CH, 4 items) $\alpha=.80$, isolation (IS, 4 items) $\alpha=.79$, mindfulness (MI, 4 items) $\alpha=.75$ and overidentification (OI, 4 items) $\alpha=.81$. In this study sample the reliability values (Cronbach's alpha) were consistent with the original scale validation (SK $\alpha=.86$, SJ $\alpha=.86$, CH $\alpha=.75$, IS $\alpha=.74$, MI $\alpha=.74$, OI $\alpha=.81$). Permission to use this survey was obtained from the author of the SCS. SCS scores range from low (1.0-2.49), moderate (2.5-3.5), and high (3.51-5.0). The self-judgment, isolation, and over-identification subscales are reverse scored.

Procedure

Various dental hygiene groups were identified on social media platforms such as Instagram, Facebook, and LinkedIn. Group administrators were messaged through social media for consent to post the invitation to participate. Upon approval, the invitation containing study purpose and the link to the voluntary survey took the participant to the informed consent for review. Those who agreed to participate clicked on 'yes' and were taken to the four-page survey, those who did not agree clicked on 'no' and exited the survey. No incentives were offered for participation. Settings in the online survey platform (Qualtrics®, Provo, UT, USA) prevented the collection of participant IP addresses, did not allow participants to use a back button to change responses, prevented respondents from taking the survey more than once, and allowed respondents to return to complete the survey for 72 hours. Participants were informed the survey would take 10-15 minutes and weekly reminders were posted on the social media group pages. The survey remained open from May to July 2023. Once closed, the data was downloaded to spreadsheets for analysis (SPSS 29; IBM, Armonk NY, USA).

Statistical Analysis

For the descriptive portion of this study, frequencies were used for categorical data and appropriate measures of central tendency (mean/median) and variability (standard deviation/IQR) for continuous and ordinal data. All variables were assessed for normality and collinearity. Non-normal distributions were addressed via transformation or non-parametric alternatives. Outliers, identified using the $1.5 \times \text{IQR}$ rule, were considered for removal and any removals were reported. Responses had to be 100% complete for the validated instruments to be used in the analysis.

For inferential analysis, relationships between continuous variables were examined with Pearson or Spearman correlations, while chi-square tests assessed associations between categorical variables. Multivariable regression (with dummy coding for categorical predictors) was used for modeling. For all tests, appropriate adjustments to family wise error

(e.g., Bonferroni) were made for multiple statistical tests. The acceptable alpha level for this study was set at .05 for hypothesis testing and all measures of effect size (e.g., 95% Confidence Interval, R², Phi Coefficient, Cohen's d) were calculated.

RESULTS

While 345 surveys were accessed via the Qualtrics link, 167 (48.4% completion rate) contained complete data for all validated instruments and were therefore eligible for inclusion in the analysis. The majority of participants were White (91%), non-Hispanic (96%) females (97%) from the United States (87%) who worked in private practice (78%; Table I). About 40% of the sample were aged 20-30 with a mean age of 43.02 (SD= 12.01). About two-thirds of the sample held an entry-level associate degree (61%). The mean years providing patient care was 16.78 (SD= 11.48) years. The mean appointment time was 57.48 (SD=9.17) minutes.

The first aim was to explore perceived self-compassion in the dental hygienists in the sample. The mean for the SCS total score was 2.85 (SD .70). Mean scores for each self-compassion sub-scale are shown in Table II. The mean of the sub-scale scores were in the moderate range ranging from 2.55 (self-judgment) to 3.19 (mindfulness). Self-judgment was near the cut-off between the low and moderate range. Frequencies for the SCS items are shown in Table III.

The second aim was to assess the professional quality of life of the participants. Findings showed the total mean score for the CS was 37.86 (SD=7.40) on a scale with maximum value of 50 (Table II) while the mean total score for CF was 25.6 (SD=7.36) with a maximum possible score of 55. According to the ProQOL-5 manual, the CS would be in the moderate range.⁴ The CF mean score was near the 75th percentile according to the percentile rankings by Heritage et al. For CS, the items reported occurring often or very often were "I get satisfaction from being able to treat people" (84%) and "I am proud of what I can do to help" (75%). For CF, about half (53%) reported the frequency was often/very often for the item "I feel worn out because of my work as a dental

Table I. Demographics/Work Characteristics (n = 167)

	n	%		n	%		
Age	21-30	66	39.5	Entry level dental hygiene degree	Certificate	2	1.2
	31-40	27	16.2		Diploma	22	13.3
	41-50	32	19.2		Associate degree	102	61.4
	51-60	36	21.6		Bachelor's degree	40	24.1
	61-70	6	3.6				
Gender	Male	2	1.2	Highest level of education	Certificate	1	0.6
	Female	161	97.0		Diploma	16	9.6
	Non-binary	2	1.2		Associate degree	59	35.5
	Prefer to self-describe as	1	0.6		Bachelor's Degree	63	38.0
					Master's Degree	26	15.7
Race	White	151	91.0	Doctoral Degree	1	0.6	
	Black or African American	3	1.8	Private Practice	129	77.7	
	Native American or American Indian	2	1.2	Corporate dental office/Dental Service Organization (DSO)	14	8.4	
	Asian	5	3.0	Federally Qualified Health Center (FQHC)/Community Health Center	7	4.2	
	Native Hawaiian or Pacific Islander	1	0.6	Government (e.g. Indian Health Service, correctional facility, VA, military)	4	2.4	
	More than 2 races	4	2.4	Alternative practice setting (e.g., hospital, mobile care)	5	3.0	
				Other	7	4.2	
Ethnicity	Hispanic or Latino	6	3.7	United States regions	West	49	29.3
	Not Hispanic or Latino	157	96.3		South	21	12.6
Hours worked per week	10-24	35	21.0		Midwest	35	21.0
	25-32	61	36.5		Northeast	36	21.6
	33-40	65	38.9		Canada	21	12.7
	40+	6	3.6	Australia	1	.6	
Years of clinical patient care	1-10	58	34.7	Missing	4	2.4	
	11-20	53	31.7				
	21-30	36	21.6				
	31-40	15	9.0				
	41-50	5	3.0				

Table II. Self-Compassion and Professional Quality of Life (ProQOL) Sub-Scale Mean Scores

	Mean	Standard Deviation	Median
ProQOL-21 Sub-Scales			
Compassion Satisfaction	37.86	7.40	38.00
Compassion Fatigue	25.62	7.36	25.00
Self-Compassion Subscales (scale of 1-5)			
Self-kindness	2.88	.79	2.80
Self-judgment	2.55	.91	2.40
Common humanity	3.06	.81	3.00
Isolation	2.84	.85	2.75
Mindfulness	3.19	.74	3.00
Overidentification	2.63	.96	2.50

hygienist". Response frequencies for each ProQoL item are shown in Table IV.

The next aim explored relationships between SCS, ProQoL, demographics, and work characteristics. The older the participant, the higher the CS score ($r = .210, p < .05$) although the correlations were small. Increasing age also had statistically significant moderate correlations to IS ($r = .324, p < .01$) and OI ($r = .303, p < .01$) in addition to small correlations with other SCS sub-scales (Table V). More years in practice was weakly correlated to higher CS ($r = .179, p < .05$) and lower CF ($r = -.160, p < .05$) scores. Years in practice also had significant small correlations with the SCS sub-scales. More average number of hours worked was significant correlation for higher CF ($r = .199, p < .01$) although it was a small correlation. There were no significant correlations between entry-level degree, highest degree, average appointment time per patient with SCS or ProQoL. Other demographic variables did not have large enough groups for between group analysis.

The final aim was to model predictive relationships between SCS, demographics, and the two sub-scales of ProQoL. The first series of multiple regression models were examined to identify associations between compassion satisfaction mean score, SCS subscales, and age. The final model identified self-kindness and mindfulness as predictors of CS (Table IV). The model explained 18.9% of the variance in compassion fatigue ($R^2 = .199$, adjusted $R^2 = .189$, $F(2,164) = 20.35, p < .001$). Self-kindness ($\beta = 2.10, t(225) = 2.078, p = .039$) was a slightly

stronger predictor of CS than mindfulness ($\beta = 2.50, t(250) = 2.312, p = .022$).

A second series of multiple regression models was conducted to examine the association between the compassion fatigue mean score and SCS subscales, age, and average number of hours worked per week. In the final model three predictors emerged: self-judgment, isolation, and the average number of hours worked per week providing patient care (Table IV). The model explained 28.4% of the variance in compassion fatigue, ($R^2 = .297$, adjusted $R^2 = .284$, $F(3,162) = 22.84, p < .001$).

Among the individual predictors, self-judgment was the strongest predictor of compassion fatigue, ($\beta = -.33, t(162) = -3.53, p < .001$) with isolation also emerging as a significant predictor, ($\beta = -.215, t(162) = -2.282, p = .024$). Both predictors were associated with lower CF scores, meaning higher levels of self-judgment and isolation result in greater compassion fatigue. Finally, the average number of hours worked per week providing patient care was a significant positive predictor, ($\beta = .147, t(162) = 2.217, p = .028$), indicating that more hours worked per week are associated with increased compassion fatigue. Collinearity diagnostics revealed that multicollinearity was not a significant concern, as all tolerance values were above .40, and variance inflation factor (VIF) values were below 2.1.

DISCUSSION

The purpose of this study was to assess professional quality of life and self-compassion and their relationship among clinical dental hygienists. The results demonstrated an overall moderate level of self-compassion in this sample of dental hygienists. All SCS sub-scales means were slightly below the values among other helping professions such as nursing,^{25,26} however, they were consistent with outcomes in another study of clinical dental hygienists.²⁰

Table III. Frequency of Self-Compassion Scale (n=167)

SCS Sub-Scale		Almost never	2	3	4	Almost always
		n (%)	n (%)	n (%)	n(%)	n (%)
*SJ	I'm disapproving and judgmental about my own flaws and inadequacies.	11 (6.6)	24 (14.4)	40 (24.0)	47 (28.1)	45 (26.9)
*IO	When I'm feeling down, I tend to obsess and fixate on everything that's wrong.	13 (7.8)	21 (12.6)	39 (23.4)	41 (24.6)	53 (31.7)
CH	When things are going badly for me, I see the difficulties as part of life that everyone goes through.	10 (6.0)	20 (12.0)	73 (43.7)	40 (24.0)	24 (14.4)
IS	When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.	20 (12.0)	37 (22.2)	46 (27.5)	43 (25.7)	21 (12.6)
SK	I try to be loving towards myself when I'm feeling emotional pain.	10 (6.0)	31 (18.6)	69 (41.3)	38 (22.8)	19 (11.4)
*IO	When I fail at something important to me, I become consumed by feelings of inadequacy.	10 (6.0)	25 (15.0)	49 (29.3)	44 (26.3)	39 (23.4)
CH	When I'm down, I remind myself that there are lots of other people in the world feeling like I am.	22 (13.2)	28 (16.8)	73 (43.7)	31 (18.6)	13 (7.8)
*SJ	When times are really difficult, I tend to be tough on myself.	4 (2.4)	18 (10.8)	43 (25.7)	56 (33.5)	46 (27.5)
MI	When something upsets me, I try to keep my emotions in balance.	3 (1.8)	12 (7.2)	66 (39.5)	56 (33.5)	30 (18.0)
CH	When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.	25 (15.0)	21 (12.6)	79 (47.3)	32 (19.2)	10 (6.0)
*SJ	I'm intolerant and impatient towards those aspects of my personality I don't like.	15 (9.0)	29 (17.4)	60 (35.9)	43 (25.7)	20 (12.0)
SK	When I'm going through a very hard time, I give myself the caring and tenderness I need.	32 (19.2)	41 (24.6)	67 (40.1)	16 (9.6)	11 (6.6)

Table III. Frequency of Self-Compassion Scale (n= 167) (cont.)

SCS Sub-Scale		Almost never	2	3	4	Almost always
		n (%)	n (%)	n (%)	n(%)	n (%)
IS	When I'm feeling down, I tend to feel like most other people are probably happier than I am.	16 (9.6)	25 (15.0)	58 (34.7)	45 (26.9)	23 (13.8)
MI	When something painful happens I try to take a balanced view of the situation.	8 (4.8)	27 (16.2)	73 (43.7)	39 (23.4)	20 (12.0)
CH	I try to see my failings as part of the human condition.	13 (7.8)	23 (13.8)	72 (43.1)	41 (24.6)	18 (10.8)
*SJ	When I see aspects of myself that I don't like, I get down on myself.	10 (6.0)	16 (9.6)	49 (29.3)	60 (35.9)	32 (19.2)
MI	When I fail at something important to me, I try to keep things in perspective.	8 (4.8)	25 (15.0)	70 (41.9)	46 (27.5)	18 (10.8)
IS	When I'm really struggling, I tend to feel like other people must be having an easier time of it.	13(7.8)	34 (20.4)	56 (33.5)	44 (26.3)	20 (12.0)
SK	I'm kind to myself when I'm experiencing suffering.	16 (9.6)	39 (23.4)	74 (44.3)	27 (16.2)	11 (6.6)
*IO	When something upsets me, I get carried away with my feelings.	10 (6.0)	21 (12.6)	51 (30.5)	44 (26.3)	41 (24.6)
*SJ	I can be a bit cold-hearted towards myself when I'm experiencing suffering.	14 (8.4)	25 (15.0)	56 (33.5)	44 (25.3)	28 (16.8)
MI	When I'm feeling down, I try to approach my feelings with curiosity and openness.	22 (13.2)	42 (25.1)	73 (43.7)	21 (12.6)	9 (5.4)
SK	I'm tolerant of my own flaws and inadequacies.	14 (8.4)	40 (24.0)	81 (48.5)	21 (12.6)	11 (6.6)
*IO	When something painful happens, I tend to blow the incident out of proportion.	19 (11.4)	44 (26.3)	56 (33.5)	26 (15.6)	22 (13.2)
IS	When I fail at something that's important to me, I tend to feel alone in my failure.	8 (4.8)	27 (16.2)	71 (42.5)	37 (22.2)	24 (14.4)
SK	I try to be understanding and patient towards those aspects of my personality I don't like.	13 (7.8)	32 (19.2)	86 (51.5)	25 (15.0)	11 (6.6)

Note: Self-kindness (SK), self-judgment (SJ), common humanity (CH), isolation (IS), mindfulness (MI), over-identification (OI). * Denotes items that are reverse scored.

The total SCS mean score was in the moderate range. While it was lower what has been reported in the literature on nursing and other medical providers (2.85 vs. 2.89 to 3.27),^{25,27,28} it was consistent with the findings of Laliberte et al. in a study of dental hygienists.²⁰ Given the slightly lower mean for the SCS and sub-scales, the findings represent an opportunity for further exploration of the associated factors and suggest a need for both personal and workplace measures to increase self-compassion. Personal measures might include positive self-talk, self-kindness, self-acceptance, and practicing self-care.¹² Workplace strategies might include building community, celebrating success, promoting open communication, and developing a mindset that mistakes provide an opportunity for growth.¹² Other approaches for a supportive workplace could include advocating for continuing education programs to enhance self-compassion to help improve self-kindness and learn coping exercises.¹⁵

In terms of professional quality of life, the study sample exhibited moderate compassion satisfaction and compassion fatigue. CS was similar to research with other helping professions like nursing,^{25,29} but higher than findings among dental hygienists (37.86 vs. 31.99 and 23.57).^{17,30} Given the analysis for CF in this study used the ProQOL-21 approach, it is not comparable to most previous research. Despite the difficulty in making comparisons of CF across professions, overall CS and CF were in the moderate range in the sample and indicate the need to identify ways to increase CS such as self-care which also decreases the likelihood of developing CF.⁵ Identifying methods to decrease CF is crucial due to its correlation with burnout, which is related to intention to leave the profession.^{2,5,8,9,17}

Demographic variables correlated with CS in this study and included greater age and years of practice; those with more years in practice or those who were older had greater CS and lower CF scores, consistent with previous research.^{17,29,31} A meta-analysis reported inconsistent results related to CS and years of experience or age,² while CF was associated with the number of hours worked, consistent with a finding by Knutt et al. in another sample of dental

hygienists.¹⁷ The significance of this finding relates to the association between CF and leaving the field, highlighting the importance of effective workload and time management.¹⁷ Dental hygienists may be tempted to work more hours for a variety of reasons including inflation, a shortage of providers, and/or student loans, however caution is in order to ensure time is reserved for self-care to prevent CF.

The regression outcomes of this study identified predictors of CS and CF. For CS, the predictors were self-kindness and mindfulness, both of which are positive aspects of self-compassion. However, for CF the predictors were negative aspects of self-compassion (self-judgment and isolation) along with the number of hours worked. However, self-judgment was twice as strong in predicting CF than the isolation and number of hours worked. These results were consistent with findings from nursing research,^{11,25} indicating the value of fostering the development of positive aspects of self-compassion to offset the negative aspects.¹²

This study had several limitations that should be considered. The moderate completion rate may have introduced self-selection and non-response bias. Reliance on self-report measures has the potential for recall and social desirability biases. The cross-sectional design inherently limits the ability to identify causal relationships between the variables in the study. Additionally, recruiting participants through social media may introduce coverage bias, potentially underrepresenting individuals without an online presence, limiting the generalizability of the findings. Challenges encountered during recruitment and the time period for data collection may have also introduced unforeseen biases. While these limitations are important to acknowledge, the use of well-validated instruments was a strength, enhancing the reliability of the measurements.

CONCLUSION

Dental hygienists have moderate levels of self-compassion, CS and CF. Focusing on specific

Table IV. ProQOL: Response Frequencies (n=167)

Sub Scale		Never	Rarely	Sometimes	Often	Very Often
		n (%)	n (%)	n (%)	n (%)	n (%)
CS	I get satisfaction from being able to treat people.	1 (0.6)	0	25 (15.0)	63 (37.7)	78 (46.7)
CS	I feel invigorated after working with those I treat.	2 (1.2)	24 (14.4)	61 (36.5)	50 (29.9)	30 (18.0)
CF	I am not as productive at work because I am losing sleep over traumatic experiences of a person I treat.	83 (49.7)	67 (40.1)	14 (8.4)	2 (1.2)	1 (0.6)
CF	I think that I might have been affected by the traumatic stress of those I treat.	63 (37.7)	57 (34.1)	36 (21.6)	4 (2.4)	7 (4.2)
CF	I feel trapped by my job as a dental hygienist.	46 (27.5)	48 (28.7)	45 (26.9)	17 (10.2)	11 (6.6)
CF	Because of my job, I have felt "on edge" about various things.	30 (18.0)	50 (29.9)	61 (36.5)	14 (8.4)	12 (7.2)
CS	I like my work as a dental hygienist.	3 (1.8)	10 (6.0)	49 (29.3)	75 (44.9)	30 (18.0)
CF	I feel depressed because of the traumatic experiences of the people I treat.	58 (34.7)	66 (39.5)	36 (21.6)	6 (3.6)	1 (0.6)
CF	I feel as though I am experiencing the trauma of someone I have treated.	76 (45.5)	58 (34.7)	27 (16.2)	4 (2.4)	2 (1.2)
CS	I am pleased with how I am able to keep up with treatment techniques and protocols.	—	10 (6.0)	34 (20.4)	81 (48.5)	42 (25.1)
CS	My work makes me feel satisfied.	5 (3.0)	25 (15.0)	50 (29.9)	52 (31.1)	35 (21.0)
CF	I feel worn out because of my work as a dental hygienist.	3 (1.8)	16 (9.6)	59 (35.3)	46 (27.5)	43 (25.7)
CS	I have happy thoughts and feelings about those I treat and how I could help them.	2 (1.2)	9 (5.4)	59 (35.3)	66 (38.5)	31 (18.6)
CF	I feel overwhelmed because my workload seems endless.	9 (5.4)	27 (16.2)	63 (37.7)	38 (22.8)	30 (18.0)
CS	I believe I can make a difference through my work.	—	12 (7.2)	44 (26.3)	64 (38.3)	47 (28.1)
CF	I avoid certain activities or situations because they remind me of frightening experiences of the people I treat.	92 (55.1)	60 (35.9)	11 (6.6)	3 (1.8)	1 (0.6)
CS	I am proud of what I can do to help.	2 (1.2)	3 (1.8)	37 (22.2)	62 (37.1)	63 (37.7)
CF	As a result of my work, I have intrusive, frightening thoughts.	94 (56.3)	54 (32.3)	16 (9.6)	1 (0.6)	2 (1.2)
CF	I feel "bogged down" by the system.	16 (9.6)	28 (16.8)	66 (39.5)	31 (18.6)	26 (15.6)
CS	I have thoughts that I am a "success" as dental hygienist.	3 (1.8)	19 (11.4)	55 (32.9)	54 (32.3)	36 (21.6)
CS	I am happy that I chose to do this work.	7 (4.2)	21 (12.6)	44 (26.3)	46 (27.5)	49 (29.3)

Note: CS = Compassion Satisfaction; CF = Compassion Fatigue

Table V. Correlation between Demographic/Work Characteristics and ProQol and Self-Compassion Scale Sub-Scales

		CS	CF	SK	SJ	CH	IS	MI	OI
Age	Pearson Correlation	.210*	-.106	.183*	.279**	.251**	.324**	.233**	.303**
	Sig. (2-tailed)	.017	.233	.038	.001	.004	.000	.008	.001
	n	128	128	128	128	128	128	128	128
Average years providing patient care	Pearson Correlation	.179*	-.160*	.160*	.249**	.259**	.263**	.179*	.251**
	Sig. (2-tailed)	.021	.039	.039	.001	.001	.001	.021	.001
	n	167	167	167	167	167	167	167	167
Average hours/week providing patient care	Pearson Correlation	.039	.199**	.004	-.105	-.053	-.082	-.032	-.090
	Sig. (2-tailed)	.621	.010	.955	.178	.500	.295	.682	.248
	n	166	166	166	166	166	166	166	166
Average appointment time/ patient	Pearson Correlation	-.008	-.022	-.093	-.048	.042	-.064	-.091	-.118
	Sig. (2-tailed)	.925	.784	.242	.547	.600	.423	.255	.140
	n	159	159	159	159	159	159	159	159

Note: CS = Compassion Satisfaction, CF = Compassion Fatigue, Self-Kindness: SK, Self-Judgment: SJ, Common Humanity: CH, Isolation: IS, Mindfulness: MI, and Over-identification: OI

*Significant at the 0.05 level (2-tailed) **Significant at the 0.01 level (2-tailed).

TABLE VI. Multiple Regression Models Predicting Compassion Satisfaction and Compassion Fatigue

Compassion Satisfaction					
Predictors	B	SE B	β	t	p
Self-kindness	2.102	1.012	.225	2.078	.039
Mindfulness	2.503	1.082	.250	2.312	.022
Model Summary	R	R ²	Adj. R ²	F	p
	.446	.199	.189	20.348 (2, 164)	<.001
Compassion Fatigue					
Predictors	B	SE B	β	t	p
Self-judgment	-0.246	0.070	-0.334	-3.534	<.001
Isolation	-0.169	0.074	-0.215	-2.282	0.024
Hours per week	0.013	0.006	0.147	2.217	0.028
Model Summary	R	R ²	Adj. R ²	F	p
	0.297	0.297	0.284	22.844 (3, 162)	<.001

Note: B = unstandardized regression coefficient; SE B = standard error of the coefficient; β = standardized regression coefficient; VIF = variance inflation factor.

components of self-compassion, specifically self-kindness and mindfulness, while actively reducing self-judgment and feelings of isolation could lead to significant improvements in overall self-compassion. This in turn may improve CS and prevent CF, reducing the risk of burnout and supporting overall well-being. A combination of personal strategies (e.g., positive self-talk, self-care, and mindfulness) and workplace strategies (e.g., employee wellness programs and peer support networks) may be effective to enhance self-compassion. Encouraging self-compassion not only benefits individual dental hygienists by strengthening individual resilience, but it also creates a work culture in which they are able to thrive

personally and professionally, mitigating burnout and intention to leave the profession.

IMPLICATIONS FOR DENTAL HYGIENE PRACTICE

- Workplace demands and the challenges of providing patient care can lead to poor professional quality of life impacting dental hygienists both emotionally and physically, which can lead to burnout.
- Self-compassion can be a protective measure in improving professional quality of life for dental hygienists.
- Implementing workplace and personal strategies to enhance professional quality of life and self-compassion can have a positive effect on patient – provider interactions and overall well-being for dental hygienists.

DISCLOSURES

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Victoria Tumidajski, RDH, MS

Forsyth School of Dental Hygiene
Massachusetts College of Pharmacy and Health Sciences
Boston, MA, USA

Linda D. Boyd, RDH, RD, EdD

Forsyth School of Dental Hygiene
Massachusetts College of Pharmacy and Health Sciences
Boston, MA, USA

Jaymi-Lyn Adams, RDH, DHSc

Forsyth School of Dental Hygiene
Massachusetts College of Pharmacy and Health Sciences
Boston, MA, USA

Jared Vineyard, PhD

Massachusetts College of Pharmacy and Health Sciences
Boston, MA, USA

Idaho College of Osteopathic Medicine
Meridian, ID, USA

Corresponding author:

Linda D. Boyd, RDH, RD, EdD;
linda.boyd@mcphs.edu

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