








Online teaching, quality of life and anxiety of Brazilian dental professors during the COVID-19 outbreak

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Abstract: The COVID-19 pandemic led to changes in academic teaching and dental education, but the impact on dental professors' mental health and quality of life remains poorly understood. Thus, the objective of this study was to evaluate the impacts of social distancing and online teaching related to COVID-19 on the quality of life and anxiety of Brazilian dental professors. This was a cross-sectional study conducted from August 2020 to October 2020. Three instruments were used in an online version: a questionnaire about personal data, academic information and online teaching activities, the Generalized Anxiety Disorders 7 (GAD7) scale, and the Abbreviated World Health Organization Quality of Life (WHOQOL-bref) scale. All instruments were sent by e-mail, social media, and messaging apps to private and public universities and professors. Of the 318 responses, 187 (58.8%) were from female professors. Moreover, lack of good internet access and adequate place for online teaching, difficulties in producing teaching materials, and housework roles had a significant impact on the quality of life and anxiety scores (all p -values < 0.05). Also, Brazilian dental professors who declared that they would make greater efforts if the activities were face-to-face had significantly worse quality of life and anxiety scores, and female professors had significantly higher anxiety scores (all p -values < 0.05). These results provide evidence of a negative effect of social distancing and online teaching activities related to COVID-19 outbreak on the health-related quality of life and mental health of Brazilian dental professors.

Keywords: COVID-19; Dentistry; Anxiety; Quality of Life.

Introduction

The COVID-19 pandemic has changed educational settings around the world. Considering the preventive and social distancing measures implemented to control the pandemic scenario, face-to-face teaching activities in educational institutions focused on medical education has been suspended in several countries. To protect students and professors and maintain social distancing, medical schools have adopted online learning activities. However, the sudden transition from traditional to online emergency teaching due to COVID-19 has provoked several changes, reflections and challenges.^{1,2}



In online activities, professors have sought to adapt to the new dynamics and possibilities of teaching through information technologies. However, they are expected to encounter difficulties in this process.^{1,2} It has been reported that health professionals often accumulate clinical, educational and administrative activities³. During the COVID-19 pandemic, the new context led to an increase in workload and an impairment on mental health, specially higher levels of anxiety.^{3,4}

Considering this context, it is necessary to pay attention to the health of professors during the COVID-19 pandemic. Several efforts have been reported to ensure safe working conditions that allow the continuity of teaching activities in dental education institutions. Thus, dental professors and their institutions had to quickly adapt to online teaching and develop methodologies and plans compatible with online learning, including biosafety measures in clinical and laboratory settings.^{5,6}

In fact, dental education was strongly affected by the COVID-19 pandemic, both because of the aforementioned online educational aspects and because of the need to establish safe measures to allow the return of the activities in the educational and clinical settings,^{7,8} since the dental training offered during the COVID-19 pandemic must be qualified and adequate to the limitations imposed by social distancing.⁹ However, most Brazilian dental professors did not receive any training for online teaching activities.⁷

In the literature, there are few reports about the psychological impacts of the COVID-19 pandemic and actions to promote mental health, as in the Department of Prosthodontics at Wuhan University. The authors reported that during the COVID-19 pandemic, employees from the Wuhan University had access to face-to-face counselling sessions and online wellness programs, both related to mental health.¹⁰ Nevertheless, there is evidence of high levels of depression among Indian students and dental practitioners during COVID-19 pandemic,¹¹ Also, several factors may be associated with this mental health impairment, including pre-COVID-19 pandemic mental illness.^{11,12}

Thus, considering the relationship between teaching practice during the COVID-19 pandemic and the impact on dental education and mental health of dental professors, the objective of this study was to evaluate the psychological impacts of social distancing and online teaching related to COVID-19 among Brazilian dental professors. The hypothesis investigated was that social distancing and online teaching in dental schools influence the quality of life and anxiety of Brazilian professors.

Methodology

Setting

This was a cross-sectional and descriptive study, with a quantitative approach. The STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) statement was adopted to guide the report of this investigation, using the validated version in Portuguese published in 2010¹³. The study was designed in Brazil during the COVID-19 pandemic, considering the limitations related to social distancing. Therefore, all planning and execution were carried out online.

Ethical aspects

Before conducting the study, a research project was sent to the Research Ethics Committee of the School of Dentistry of Ribeirão Preto - University of São Paulo for consideration (number of approval: 4.143.131). In accordance with this approval, the authors adopted the guidelines for human research presented in the Declaration of Helsinki and Resolution 466 of the National Health Council/Ministry of Health - Brazil. The data obtained were used for the proposed objective, ensuring the confidentiality of information and anonymity of participants.

Sample

The dental professors (who teach any subject in undergraduate or graduate dental courses - whether they are dentists or not) who composed the sample were selected for convenience, using a non-probabilistic approach. The inclusion criteria were professors dentistry courses from private and public universities who volunteered to participate

in the research by signing the Informed Consent Form. The low refinement of the sample did not compromise the results, since variables other than “dental professor” were irrelevant to the objective of the study or were evaluated in the results.

Variables

The main variables of interest established were anxiety and quality of life. Personal identification and data related to academic activities during the COVID-19 pandemic were also collected. Thus, three instruments were applied to participants: a questionnaire developed by the authors, the WHOQOL-bref (Abbreviated World Health Organization Quality of Life) to assess quality of life, and the GAD-7 (General Anxiety Disorder – 7) to assess signs and symptoms of anxiety.

The WHOQOL-bref is a brief version of the WHOQOL-100 questionnaire and was applied in the Portuguese version, previously validated for the Brazilian population.¹⁴ The WHOQOL-bref contains 26 questions, 2 general items, and 24 items divided into four domains: physical (domain 1), psychological (domain 2), social relationships (domain 3), and environment (domain 4). The questionnaire is a practical tool for assessing the quality of life of individuals and has a good psychometric performance. The results for each question are presented on a Likert scale, converted into scores from 0 (worst) to 100 (best) for each domain.^{14,15,16}

The GAD-7 was also applied in a validated Portuguese version previously translated by the Mapi Institute.¹⁷ This self-administered instrument contains 7 items that assess signs and symptoms of anxiety in individuals in the past two weeks. It is quick to administer and has good reliability and psychometric properties. The results are presented in a score from 0 (best) to 21 (worst). Scores of 10 or more indicate the presence of signs and symptoms of anxiety disorders.^{17,18}

Lastly, the questionnaire developed by the authors recorded personal (age, sex, marital status, religiosity, children, and income) and academic (education, social distancing and online teaching practice during the COVID-19 pandemic) information with the aim of contextualizing the obtained data related to the quality of life and anxiety from the WHOQOL-bref

and the GAD-7, respectively. Age was stratified into five groups: 30 years or less; between 31 and 40 years; between 41 and 50 years; between 51 and 60 years; more than 60 years. Through this instrument, the experiences and self-assessments of Brazilian dental professors with online teaching activities were evaluated, both in “yes or no” and in Likert-type scale answers (Figure).

Data collection

Data collection took place from August 2020 to October 2020. During this time, the form containing the above instruments was available online for response. All the instruments were sent to Brazilian dental professors using an online version on the Google Forms platform. The survey form was sent by email to private and public universities, posted on social media, and shared in messaging apps, in an effort to reach more professors, in light of the COVID-19 restrictions.

After assessing the instruments on the first page, participants were duly informed about research objectives and agreed to participate by electronically signing the consent form. From the second page, the instruments were applied sequentially.

Statistical analyses

The jamovi software (version 1.6.16, Sydney, Australia, 2020) was used to perform the statistical analyses. At first, descriptive analyses of the datasets were performed, including frequencies, means, medians, dispersions, and range. After evaluating distribution of data and finding that they were not normally distributed, correlations were verified by the Spearman correlation test, and comparisons between means were performed by Mann-Whitney or Kruskal-Wallis tests, including pairwise comparisons by Dwass-Steel-Critchlow-Fligner (DSCF) test as a *post hoc* analysis. The level of significance was 5% ($\alpha = 0.05$). Regarding the WHOQOL-bref scores, approximations were made to two decimal places.

Results

Sample characterizing

These results are from 318 Brazilian dental professors. Of these, 187 were female (58.8%), 207

Por favor responda a todas as perguntas. **Seu nome será preservado no momento da divulgação dos resultados.** Muito obrigada pela sua participação!

- 1) Idade:
- Menos de 30 anos
- De 31 a 40 anos
- De 41 a 50 anos
- De 51 a 60 anos
- De 61 a 70 anos
- Mais de 71 anos

- 2) Sexo:
- Feminino
- Masculino
- Prefiro não informar

- 3) Professor em que nível:
- Professor Assistente
- Professor Colaborador
- Professor Doutor
- Professor Titular
- Livre Docente
- Professor Sênior

- 4) Estado civil
- Solteiro(a)
- União estável
- Casado(a)
- Divorciado(a)
- Viúvo(a)

- 5) Você é religioso ou possui alguma espiritualidade?
- Sim
- Não

- 6) Durante a pandemia, sua renda diminuiu?
- Sim
- Não

- 7) Atualmente, com a pandemia você?
- Permanece em Ribeirão Preto
- Foi para outra cidade
- Outro

- 8) Você ministrou disciplinas *online* durante a pandemia?
- Sim
- Não

9) Como você classifica sua metodologia de ensino durante esse período:

- Excelente
- Bom
- Regular
- Ruim
- Péssimo

10) Como você classifica seu empenho nas disciplinas que ministrou:

- Excelente
- Bom
- Regular
- Ruim
- Péssimo

11) Se as aulas fossem presenciais seu empenho seria maior?

- Sim
- Não

12) Como você considera o seu rendimento com as atividades à distância?

- Excelente
- Bom
- Regular
- Ruim
- Péssimo

13) Comparando com as atividades pedagógicas presenciais, seu rendimento ministrando as atividades remotas (à distância) foi:

- Muito melhor
- Melhor
- Nem melhor, nem pior
- Pior
- Muito pior

14) Você encontrou dificuldades na elaboração de material didático para ser disponibilizado *online*?

- Sim
- Não

15) Você já produzia material para ser disponibilizado de forma online aos alunos antes da pandemia?

- Sim
- Não

16) Em relação aos métodos para ministrar aulas *online* (forma síncrona ou assíncrona) qual foi o modo que você utilizou?

- Ministrei aulas de forma síncrona
- Ministrei aulas de forma assíncrona
- Ministrei aulas de ambas formas

17) Você tem um lugar silencioso e calmo em sua casa para ministrar às aulas e preparar material didático?

- Sim
- Não

18) O seu acesso à internet é bom?

- Sim
- Não

19) Você tem filho(s)?

- Sim
- Não

20) Em caso afirmativo, a necessidade em cuidar do(s) seu(s) filho(s) tem influenciado de alguma maneira sua rotina durante a pandemia?

- Sim
- Não

Não possui filhos

21) Você é responsável integralmente ou parcialmente pelas atividades domésticas da sua casa?

- Sim
- Não

22) Em caso afirmativo, a necessidade de realizar atividades domésticas tem influenciado de alguma maneira a sua rotina durante a pandemia?

- Sim
- Não

Não sou responsável por realizar atividades domésticas em minha casa

23) Você ou alguém do seu núcleo familiar testou positivo para COVID-19?

- Sim
- Não

Figure. Questionnaire developed by the authors to record personal and academic data, including experience with online teaching during the COVID-19 pandemic.

were between 31 and 50 years old (65.1%), and 197 were married (61.9%). In addition, 207 (65.1%) reported having children, 250 (78.6%) performed housework, and 285 (89.6%) declared having some religiosity. Regarding professional activities in dentistry schools, 21 (6.6%) were professors of the basic subjects, 191 (60.1%) of the clinical subjects, and 106 (33.3%) of both areas. Of these, 2 (0.6%) were senior professors, 47 (14.8%) were associate professors, 53 (16.7%) were full professors, 142 (44.7%) were assistant professors, 42 (13.2%) were lecturers, and 32 (10.1%) were collaborating professors.

Anxiety and quality of life

Table 1 shows the GAD-7 anxiety scores in absolute and relative frequencies. In our sample, 121 of the 318 (38%) participants had a GAD-7 score of 10 or

Table 1. Anxiety scores of GAD-7 in absolute and relative frequencies.

Variable		GAD-7 score			
		0-4	5-9	10-14	15-21
Absolute frequency	n	38	159	68	53
Relative frequency	%	11.9	50	21.4	16.7
Mean score		9.13			
Standard deviation		4.56			
Median		8			
Range		21 [0, 21]			

[] minimum, maximum.

higher, suggesting significant signs and symptoms of anxiety disorders.

Table 2 shows the mean scores for each domain of quality of life. The Kruskal-Wallis test revealed statistical differences between domains (p -value < 0.05), and the DSCF test revealed that all domains were statistically different from each other (p -value < 0.05). The worst quality of life scores were found in domain 1 (physical), while the best scores were found in domain 4 (environment).

The Spearman's test identified a significant, negative, and weak correlation between the GAD-7 and domain 1 (p -value < 0.05 and $\rho = -0.350$), domain 2 (p -value < 0.05 and $\rho = -0.384$), domain 3 (p -value < 0.05 and $\rho = -0.361$), and domain 4 (p -value < 0.05 and $\rho = -0.338$). This means that higher GAD-7 anxiety scores were significantly correlated with lower quality of life scores in all domains of the WHOQOL-bref, although of low intensity.

Moreover, the Spearman test did not identify a significant correlation between stratified age and GAD-7 scores (p -value > 0.05). Female participants had significantly higher GAD-7 scores using the Mann-Whitney test (p -value < 0.05 and mean difference equal to 1.0). Also, the Spearman test identified a significant, positive, and very weak correlation between age and domain 1 (p -value < 0.05 and $\rho = 0.193$), domain 2 (p -value < 0.05 and $\rho = 0.142$), and domain 4 (p -value < 0.05 and $\rho = 0.163$). Female participants had significantly lower quality of life scores in domain 1 (p -value < 0.05 and mean difference

Table 2. WHOQOL-bref score stratified by domains.

Variable	WHOQOL-bref score			
	Domain 1	Domain 2	Domain 3	Domain 4
	Physical	Psychological	Social relationships	Environment
Items	3, 4, 10, 15, 16, 17, 18	5, 6, 7, 11, 19, 26	20, 21, 22	8, 9, 12, 13, 14, 23, 24, 25
Mean score	56.6 ^a	63.2 ^b	66.7 ^c	71.6 ^d
Standard deviation	± 10.2	± 11.5	± 18.7	± 12.7
Median	57.1	64.6	66.7	71.9
Range	60.7	58.3	100	65.6
	[21.4, 82.1]	[29.2, 87.5]	[0, 100]	[34.4, 100]

[] minimum, maximum. a/b/c/d: statistical differences.

equal to -3.57) and domain 2 (p-value < 0.05 and mean difference equal to -4.17), evaluated by the Mann-Whitney test.

No difference in GAD-7 or WHOQOL-bref scores was found between dental professors of basic, clinical or both subjects (Kruskal-Wallis, all p-value > 0.05). In addition, teaching synchronous, asynchronous or both classes did not influence GAD-7 or WHOQOL-bref scores (Kruskal-Wallis, all p-value > 0.05).

Social distancing and online teaching activities during COVID-19 pandemic

Table 3 shows the comparisons of dichotomous nominal variables (related to social distancing and online teaching activities) with data from GAD-7 and WHOQOL-bref instruments (Mann-Whitney test).

Table 4 shows the correlations of ordinal variables (related to social distancing and online teaching practices) with data from GAD-7 and WHOQOL-bref instruments (Spearman correlation test). In both analyses, some aspects related to online teaching activities during the COVID-19 had an influence on anxiety and quality of life scores.

Discussion

Before discussing our findings, it is important to highlight that online education, established due the COVID-19 pandemic, and its implications (including social distancing) is an urgent issue that deserves attention, although it remains under-researched in the literature.^{19,20} Limitations of this

Table 3. Social distancing and online teaching activities of Brazilian dental professors (dichotomous outcomes with yes or no answers) and their impacts on anxiety and quality of life scores.

Dichotomous outcomes (yes or no)	n	%	GAD-7	WHOQOL-bref			
				Domain 1	Domain 2	Domain 3	Domain 4
				p-value and outcome (better or worse)			
Reduced income during the COVID-19 pandemic	180	56.6	> 0.05	> 0.05	> 0.05	< 0.05* (worse)	< 0.05* (worse)
Moved to another city during the COVID-19 pandemic	23	7.2	> 0.05	> 0.05	> 0.05	> 0.05	> 0.05
Taught online classes during the COVID-19 pandemic	307	96.5	> 0.05	> 0.05	> 0.05	> 0.05	> 0.05
Greater effort if the activities were face-to-face	161	50.6	< 0.05* (worse)	< 0.05* (worse)	< 0.05* (worse)	< 0.05* (worse)	< 0.05* (worse)
Presented difficulties to produce didactic materials to be made available online	157	49.4	< 0.05* (worse)	< 0.05* (worse)	< 0.05* (worse)	< 0.05* (worse)	< 0.05* (worse)
Produced materials to be made available online to students before the COVID-19 pandemic	133	41.8	> 0.05	> 0.05	< 0.05* (worse)	< 0.05* (worse)	< 0.05* (worse)
Had a quiet and peaceful place in their home to teach classes and prepare materials	241	75.8	< 0.05* (better)	< 0.05* (better)	< 0.05* (better)	< 0.05* (better)	< 0.05* (better)
Good internet access	295	92.8	< 0.05* (better)	< 0.05* (better)	< 0.05* (better)	< 0.05* (better)	< 0.05* (better)
Had an impact on work routine due to caring for their children during the COVID-19 pandemic	111	34.9	> 0.05	< 0.05* (worse)	> 0.05	> 0.05	> 0.05
Had an impact on work routine due to housework during the COVID-19 pandemic	180	56.6	< 0.05* (worst)	< 0.05* (worst)	< 0.05* (worst)	< 0.05* (worst)	< 0.05* (worst)
The participant or a family member tested positive for COVID-19	65	20.4	> 0.05	> 0.05	> 0.05	> 0.05	> 0.05

n = number of participants (absolute frequency) who answered "yes" to the dichotomous variable evaluated; % = relative frequency of n value; *statistically significant compared to participants who answered "no".

Table 4. Social distancing and online teaching activities of Brazilian dental professors (ordinal outcomes) and their correlations with anxiety and quality of life scores.

Ordinal outcomes (Likert scale answers)	GAD-7	WHOQOL-bref			
		Domain 1	Domain 2	Domain 3	Domain 4
		p-value			
Self-assessment of teaching methodology during the COVID-19 pandemic	> 0.05	< 0.05*	< 0.05*	< 0.05*	< 0.05*
Coefficient (r)	-	0.193	0.237	0.229	0.137
Correlation level	-	very weak	very weak	very weak	very weak
Self-assessment of efforts in online classes taught during the COVID-19 pandemic	> 0.05	< 0.05*	< 0.05*	< 0.05*	> 0.05
Coefficient (r)	-	0.203	0.200	0.119	-
Correlation level	-	very weak	very weak	very weak	-
Self-assessment of performance in online activities during the COVID-19 pandemic	> 0.05	< 0.05*	< 0.05*	< 0.05*	< 0.05*
Coefficient (r)	-	0.257	0.226	0.156	0.171
Correlation level	-	very weak	very weak	very weak	very weak
Comparison between self-assessed performance in classroom and in online teaching during the COVID-19 pandemic	> 0.05	< 0.05*	< 0.05*	< 0.05*	< 0.05*
Coefficient (r)	-	0.209	0.203	0.132	0.129
Correlation level	-	very weak	very weak	very weak	very weak

*statistically significant.

study that must be considered before applying these results include the non-probabilistic sample, which does not allow quantitative inferences as to whether this dataset represents all Brazilian dental professors, and the cross-sectional nature of the study, which only allows establishing an association between variables, without a cause-effect relationship. In addition, it is possible to assume that many professors worked as dentists (in clinics or on the front line against COVID-19) or performed administrative activities during the COVID-19 pandemic, in addition to online teaching activities. However, this was not evaluated in the study. Lastly, due to extreme responses on the Likert scale, there may be a response bias.

Despite efforts to properly adapt to this new way of teaching, our findings confirm the fears that university professors are not prepared for this reality, probably due to the lack of training for new technologies.¹⁹ Furthermore, university professors are inserted in an environment that may promote mental illness. In addition to changes in routine activities due to the COVID-19 pandemic, the needs and demands of educational institutions regarding

teaching activities can increase stress, anxiety, depression and work-related exhaustion. Thus, it is expected that the consequences of this context may have an impact on psychological distress.^{19,20}

Prior to the COVID-19 pandemic, some evidence from China already demonstrated the relationship between teaching and mental illness. The mental health of university professors may be closely related to occupational satisfaction, while factors such as effort-reward ratio, income, institutional support, over commitment, and academic titles can influence this outcome. Moreover, 58.9% of professors had depressive symptoms, and female professors had worse mental health indicators.²¹⁻²⁴

However, the effects of COVID-19 in females are not homogeneous and should not be determined from a single aspect, as several factors can affect mental health and quality of life.^{25,26} As an example, an Indian study with nurses working on the front line against COVID-19 did not identify significantly worse outcomes (anxiety, depression and quality of life) in female professionals compared to males,²⁵ while another study with health professionals in Cyprus, also using GAD-7 and WHOQOL-bref, found

an association between anxiety, poorer mental health and occupational burnout with the female sex.²⁶

When we consider female university professors, the literature reports possible stressors related to online teaching. Online teaching may blur the lines between personal and professional life, affect communication, reduce social interaction, and increase the number of work tasks to be performed, which may lead to mental overload. In addition, female university professors may be more involved in housework and family caregiving responsibilities, as societal gender roles can attribute these functions to women.²⁷

Our study did not intend to clarify the different effects of the COVID-19 pandemic in female and male professors, and more refined methods would be needed to properly assess this issue. However, problems with mental health among women in higher education institutions have been reported in the literature.²⁸ In our results, female professors were the majority of participants who answered “yes” to the question of whether they felt that housework and taking care of their children interfered with teaching activity routines, as well as of participants who answered “no” to whether they had good internet access and a quiet and peaceful place in their home to prepare and teach classes, with approximately 68.3%, 69.4%, 82.6% and 67.5% of the answers, respectively.

It is also important to emphasize that university professors have other activities in addition to teaching, such as conducting research, obtaining research funding, and publishing scientific articles, in addition to supporting the intellectual development of their students. This context alone can lead to stress and mental disorders.^{23,24} Social distancing, online classes combined with curricular changes, and the use of new teaching methodologies are also likely to increase the stress inherent of the profession.^{8,29}

In the context of dental professors, it is also important to highlight that most dental schools remained closed during the COVID-19 pandemic. Besides that, the undergraduate dentistry course has many clinical activities with patients to practice dental procedures. Considering the limitations of these activities due to the COVID-19 pandemic,

dental professors were forced to develop or learn new methods to maintain dental education, especially in the area of clinical activities, which can be considered as the main challenge of dental education in this scenario, as online methodologies cannot entirely replace face-to-face activities with patients.^{30,31}

Moreover, the mental health of professors becomes an even more relevant outcome to be studied. Although challenging, the technologies used in dental education during the COVID-19 pandemic are expected to be used in the future. Thus, periods of adaptation and training with new educational methodologies and technologies is urgent.^{32,33}

It is also relevant to consider that anxiety and quality of life are outcomes that can be modified by many other variables, which should be understood as a result of many factors.³⁴ In view of these considerations and according to our results, it is possible to assume that the changes in teaching practice during the COVID-19 pandemic affected the health of Brazilian dental professors, especially related to psychological impacts. However, considering that teaching practice can be naturally stressful,^{8,29} it can be challenging to accurately investigate the impact of teaching modalities during the COVID-19 pandemic on these outcomes.

Ultimately, our results indicate issues related to online teaching during the COVID-19 pandemic that were also related to dental professors' anxiety levels and quality of life scores. Considering the aforementioned context of online education, difficulties and their implications were to be expected. Based on our results and related literature,³⁵⁻⁴⁰ it is possible to assume that the observed impacts on anxiety and quality of life may be associated to a) little experience/training with online teaching, b) technostress (difficulty in adapting to the use of technologies), c) low motivation for online activities, d) access to remote devices and high-quality internet, and e) concerns about teaching performance and satisfactory teaching-learning processes.

For future perspectives, further studies are needed to understand how the mental health of Brazilian dental professors may influence the training of future dentists in Brazil and to guide interventions to prevent mental illness during online teaching

activities. Besides, the development of mental health programs within dental schools can assist in reducing these mental health impacts.

Conclusion

It is possible to conclude that social distancing and online teaching related to the COVID-19 pandemic influenced the anxiety and quality of life scores of Brazilian dental professors measured by the instruments GAD-7 and WHOQOL-bref, respectively. Efforts to maintain the quality of dental education

during the COVID-19 pandemic must be accompanied by actions to promote mental health and quality of life, in addition to training dental professors for this new pandemic scenario.

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