

Translation and validation of the Brazilian version of the Dentist Satisfaction Survey

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ABSTRACT | *Objectives:* The aims of this study were to evaluate the level of overall job satisfaction among a group of Brazilian dentists and to test the validity of a cross-cultural translation to Brazilian Portuguese of the modified version of the Dentist Satisfaction Survey (DSS). *Methods:* This cross-sectional study had the participation of 605 dentists practicing in public dental care services in São Paulo, SP, Brazil. Job satisfaction was measured by a modified version of the DSS, which is based on responses to a 29-item self-administrated questionnaire, using a 5-point Likert scale. The items were translated into Brazilian Portuguese, back-translated and compared with the original English version. Measures for internal consistency and concurrent validity were calculated, respectively, by Cronbach's α coefficient and Spearman's correlation coefficient. *Results:* The level of overall job satisfaction among the sample was 2.86 (\pm 0.20) out of 5 on the Likert scale. Cronbach's α (0.83) showed a good internal consistency and homogeneity between items. Item-scale reliability correlations were good. *Conclusion:* The level of overall job satisfaction was neutral. Further actions and policies have been developed to increase the level of job satisfaction among Brazilian dentists working in the public sector. The Portuguese version of the modified DSS showed satisfactory psychometric properties regarding its reliability, reproducibility and validity for the Brazilian culture.

DESCRIPTORS | Job Satisfaction; Dentistry; Translations; Validation Studies.

RESUMO | **Tradução e validação da versão brasileira da pesquisa de satisfação de cirurgiões-dentistas** • *Objetivos:* avaliar o nível de satisfação geral com o trabalho de um grupo de dentistas brasileiros e testar a validade de uma tradução transcultural para o português do Brasil da versão modificada do Dentist Satisfaction Survey (DSS). *Métodos:* Participaram deste estudo transversal 605 dentistas que prestavam à época serviços públicos de atendimento odontológico em São Paulo, SP, Brasil. A satisfação no trabalho foi medida por meio de uma versão modificada do DSS, que é baseado em respostas a 29 itens de um questionário auto-administrado, usando a escala de Likert de 5 pontos. Os itens foram traduzidos para o Português, retraduzidos e comparados com os itens da versão original. Foram calculadas as medidas de consistência interna e validade externa, respectivamente, por meio do coeficiente de Cronbach e do coeficiente de correlação de Spearman. *Resultados:* O nível de satisfação geral com o trabalho foi de 2,86 (\pm 0,20) em 5 na escala de Likert. O α de Cronbach (0,83) mostrou uma boa consistência interna e homogeneidade entre os itens. As correlações de confiabilidade entre item e escala foram boas. *Conclusão:* O nível de satisfação geral com o trabalho foi neutro. Outras ações e políticas foram desenvolvidas para aumentar o nível de satisfação com o trabalho entre os dentistas brasileiros que trabalham no setor público. A versão em português do DSS modificado apresentou propriedades psicométricas satisfatórias quanto à sua confiabilidade, reprodutibilidade e validade para o Brasil.

DESCRITORES | Satisfação no Emprego; Odontologia; Traduções; Estudos de Validação.

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INTRODUCTION

Job satisfaction has been defined as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences.¹ The practice of Dentistry has been considered to be the most stressful of all healthcare professions,² with more dentists in general practice experiencing more physical and mental ill health in comparison with other healthcare workers.³

The stress of dental practice has been related to time-related pressures, fearful patients, high case loads, financial worries, problems with staff, equipment breakdowns, defective materials, poor working conditions, and the routine and boring nature of the job.⁴⁻⁶ However, many of these perceived causes of occupational stress, identified as stressors, may be within the control of the dentist. Occupational stress may potentiate the onset of burnout, leading to a gradual loss of interest and decrease in job satisfaction. Burnout occurs in all health professionals at some time in their professional lives, with the constant and daily repetition of stressful events being a potentiating factor. By recognizing the potential sources of occupational stress, dentists can prevent burnout.²

One of the most widely reported and comprehensive instruments used to evaluate job satisfaction in dentistry is the Dentist Satisfaction Survey (DSS).^{1,7-14} The DSS is an instrument used to measure dentist overall job satisfaction and dentist evaluation of various facets of the job. The original version of the DSS contains 54 statements with a 5-point Likert-type response format ranging from "strongly disagree" (scale = 1) to "strongly agree" (scale = 5). These items represent 11 facet scales and one overall satisfaction scale.⁷⁻⁸ Validation of this instrument was tested in English language in others studies,⁷⁻¹¹ and in a Lithuanian language study,¹³ showing acceptable levels of validity and reliability, with a good internal consistency. Modified versions of this instrument were tested and validated in an

English language study¹ and in a Korean language study.¹² A translation into Brazilian Portuguese of the original DSS or its modified version was not yet available.

Knowledge of modifiable potential stressors related to job satisfaction could lead to a strategy and policy to provide a better work environment for dentists and dental team, preventing job burnout and positively influencing job engagement. This environmental and motivational improvement could aid in the improvement of patient care. As a result, the entire dental care system would benefit.^{2,4,7,12,14} The characteristics of the work performed in public dental care services are different from those of the work performed in private offices.^{2,12,15,16} Within a busy dental practice, it is essential that dentists be able to assess the degree of occupational stress being experienced by their staff and themselves.¹⁶

Issues concerning cross-cultural adaptation of self-reported instruments have been studied.¹⁷⁻¹⁸ It is important that an adopted instrument be culturally relevant and valid for the local population while also demonstrating acceptable psychometric properties.¹⁹⁻²¹

The aims of this study were to evaluate the level of overall job satisfaction among a group of Brazilian dentists and to test the validity of a cross-cultural translation into Brazilian Portuguese of the modified version of the Dentist Satisfaction Survey.

MATERIAL AND METHODS

Study Design

The protocol for this study was approved by the Research Ethics Committee of the School of Dentistry, University of Sao Paulo, São Paulo, SP, Brazil. This cross-sectional study was conducted in three phases:

1. Cross-cultural translation process: a translation into Portuguese was performed of the modified version of the DSS.

2. Test of reliability: a pilot study was conducted to assess the reliability of the survey instrument. A pilot group (n = 50) completed the survey twice at a two-week interval.
3. Reliability and validity of the final version: the assessed instrument was tested and retested by two different raters with the subjects of the study at a two-week interval.

Survey instrument

Job satisfaction was measured by a Portuguese translation of the modified version of the Dentist Satisfaction Survey,¹⁰ originally published in English language. This version was developed based on the original version of the DSS.^{7,8} Of the 12 facet scales (domains), originally containing 54 items distributed among 11 scales related to dental practice characteristics (potential stressors) and one overall dental job satisfaction scale, five domains were not applicable. The final version of this instrument contained 29 items:

- 22 items related to 6 facet scales to measure job characteristics, and
- 7 items to measure overall job satisfaction.

The job characteristics included perception of income, personal time, professional time, staff, patient relations and delivery of care. All items were measured by a 5-point Likert scale:

- 1 = strongly disagree,
- 2 = disagree,
- 3 = neutral,
- 4 = agree, and
- 5 = strongly agree.

The total score of job satisfaction was classified in dissatisfied (1.0–2.5), neutral (> 2.5 but < 3.5), and satisfied (3.5–5.0).^{7,8,12}

The questionnaire also gathered information about the personal and professional characteristics of the subjects including gender, age, educa-

tional level, specialty training, years of practice, working hours per week, type of work contract in public dental care services (part-time or full-time), part-time work in a private practice, number of treated patients in the scheduled work period (four hours/day), number of dental auxiliaries and annual income from clinical practice.

Cross-cultural translation

The translation of the instrument into Portuguese followed international guidelines for instrument linguistic validation,¹⁷⁻¹⁸ and the culture and parlance differences of both countries—USA and Brazil—were considered to proceed with DSS adaptation and translation. The original English-language modified version of the DSS¹² was translated into Portuguese by two bilingual translators whose first language was Brazilian Portuguese, and by two bilingual translators whose first language was European Portuguese. Both Portuguese versions were back-translated from Portuguese into English by two bilingual translators whose first language was English in order to verify the semantic equivalence between the original English and back-translated versions and among the Portuguese versions. The structure of the instrument, instructions and mode of administration were similar to those of the original modified version of the DSS.

Functional equivalence (the combined effect of assessing conceptual, item, semantic, operational and measurement equivalence) was assessed by a panel of 12 experts (comprising health professionals, policy makers and community oral health professors) with regard to the performance of the instrument and the possibility of comparisons with studies conducted in different cultures.

Content validity according to the degree of importance of each item rated by the panel of experts on a defined scale (agreed without modifications/agreed with modifications/disagreed) was

assessed. The Portuguese version was then pilot-tested in 50 practicing dentists. Minor revisions were made based on their feedback. As a result, the final version was developed. This cross-sectional study had the participation of 605 dentists practicing in public dental care services in São Paulo, SP, Brazil.

Statistical analysis

The survey data were analysed using STATA 12.0™ (Statacorp Lp, College Station, TX, USA) and a confidence interval of 95% was used for all tests. Internal consistency was examined by Cronbach’s α coefficient. In order to find the correlation between each question and the overall outcome of the test, Spearman’s correlation coefficient (SCC) was calculated, using data from the first interview (main test).

RESULTS

The sample was composed by 605 dentists practicing in public dental care services in the city of São Paulo, SP, Brazil. The mean age of the participants was 43.33 years (SD = 8.85), of which 70.74%

were female. Participants had practiced dentistry for a mean period of 19.49 years (SD = 8.75) and worked a mean of 37.3 hours per week.

About 63% of the studied sample also worked part-time in a private practice. All of the respondents to this survey worked with only one dental auxiliary, they treated a mean of 8.38 (SD = 5.35) patients/period, and received an annual mean income of 32,540.01 US dollars (US\$) from clinical practice (Table 1).

The translation and cross-cultural adaptation of the Brazilian Portuguese version of the DSS is presented in Table 2. Its psychometric proprieties are presented in Table 3.

The total score of job satisfaction among the studied group of Brazilian dentists was 2.86 (SD = 0.20) out of 5 on the Lickert scale. This level of job satisfaction was classified as neutral (> 2.5 but < 3.5).^{5,6,10} The least satisfying facet scales were overall job satisfaction (2.94 ± 0.33), perception of income (2.77 ± 0.33), personal time (2.82 ± 0.46), professional time (2.78 ± 0.35), staff (2.76 ± 0.43), patient relations (2.79 ± 0.30) and delivery of care (3.20 ± 0.46; Table 4).

Table 1 | Distribution of personal and professional characteristics of the sample.

Characteristics	Mean	SD	Range
Gender	(a)	(a)	(a)
Age (in years)	43.33	8.85	25-67
Educational level			
• Graduate course (Master’s or PhD)	(b)	(b)	(b)
• Specialty training	(c)	(c)	(c)
Years of practice	19.49	8.75	1-45
Hours worked/ week	37.3	14.95	5-80
Work contract	(d)	(d)	(d)
Working part-time in private office	(e)	(e)	(e)
Treated patients/ period (four hours)	8.38	5.35	3-6
Number of dental auxiliaries	(f)	(f)	(f)
Annual income from clinical practice (g)	32,540.01	29,674.06	7,405.56-555,416.66

(a) 428 (70.74%) female, 177 (29.26%) male; (b) n = 32; Master’s = 29 (4.79%), PhD = 3 (0.50%); (c) n = 259 (42.81%); (d) Part-time (4 hours) = 381 (62.98%); Full-time (8 hours) = 224 (37.02%); (e) Yes = 381 (62.98%); No = 224 (37.02%); (f) All subjects worked together with one dental assistant; (g) Estimated in US dollars (1 Real = 1.8 US dollar). In Reals (local currency): Mean = 58,572.02; SD = 53,413.31; Range = 13,330-999,750

Table 2 | Portuguese translation and cross-cultural adaptation of the modified version of the Dentist Satisfaction Survey (DSS).

Block	Id	Questions	Portuguese version
Overall job satisfaction	05	Dentistry fulfills my current career aspiration	<i>A odontologia(*) preenche a minha atual aspiração de carreira profissional</i>
	06	I wish I could drop my job to do something else	<i>Eu gostaria de deixar meu trabalho para fazer outra coisa</i>
	09	I appear more satisfied with my job than I really am	<i>Eu pareço estar mais satisfeito(a) com meu trabalho do que realmente estou</i>
	12	Knowing what I know now, I would make the same decision to go into dentistry again	<i>Sabendo o que eu sei atualmente, eu tomaria a mesma decisão de escolher a odontologia como profissão outra vez</i>
	14	Dentistry is the place where I can make my best contribution	<i>A odontologia é o lugar onde posso dar a minha melhor contribuição</i>
	17	Overall, I am extremely satisfied with my career	<i>De modo geral, estou muito satisfeito(a) com a minha carreira</i>
	20	I feel trapped in my current position	<i>Eu me sinto aprisionado(a) em meu atual trabalho</i>
Perception of income	02	My income allows me to provide very well for my family	<i>Meu rendimento financeiro permite que eu sustente minha família muito bem</i>
	10	Compared to other dentists my total earnings are much lower than I desired	<i>Comparado com outros cirurgiões-dentistas(*), meus ganhos totais são muito menores do que eu desejaria</i>
	21	The income that I receive from my practice is most satisfactory for my needs	<i>O rendimento financeiro que recebo de minhas atividades clínicas é, na maior parte das vezes, satisfatório para as minhas necessidades</i>
	23	My income is not nearly as high as that of other dentists	<i>Meu rendimento financeiro é baixo em relação a outros cirurgiões-dentistas</i>
	25	My income compares favorably to that of other dentists	<i>Meu rendimento é comparável ao de outros cirurgiões-dentistas</i>
Personal time	07	I have enough time available for my personal life	<i>Eu tenho bastante tempo disponível para a minha vida pessoal</i>
	15	I have sufficient time available for leisure activity	<i>Eu tenho tempo disponível suficiente para atividades de lazer</i>
	29	I have too little time available for leisure	<i>Eu tenho muito pouco tempo disponível para lazer</i>
Professional time	01	I have very little time to keep abreast of advances in the field of dentistry	<i>Eu tenho muito pouco tempo para acompanhar os avanços na área da odontologia</i>
	04	I have enough time to improve my clinical skills	<i>Eu tenho bastante tempo para aprimorar minhas habilidades clínicas</i>
	22	I have sufficient time for professional contracts with colleagues	<i>Eu tenho tempo suficiente para contatos profissionais com colegas</i>
	26	I have very limited opportunity to discuss difficult cases with colleagues	<i>Eu tenho oportunidades muito limitadas para discutir casos difíceis com colegas</i>
Staff	08	The quality of my auxiliary personnel is lacking	<i>A qualidade do meu pessoal auxiliar é inadequada</i>
	18	The work performance of my auxiliaries is outstanding	<i>O desempenho do trabalho de meus auxiliares é excelente</i>
	19	The office staff works well together	<i>Os funcionários do consultório trabalham bem em conjunto</i>
Patient relations	11	Relating to patients is very frustrating for me	<i>O relacionamento com os pacientes é muito frustrante para mim</i>
	16	I do not enjoy interacting with my patients	<i>Eu não tenho prazer interagindo com os meus pacientes</i>
	24	The quality of interpersonal care I provide is very high	<i>A qualidade da assistência interpessoal que eu ofereço é muito alta</i>
	27	I enjoy helping patients	<i>Eu tenho prazer em ajudar os pacientes</i>
Delivery of care	03	I am skilled at dealing with my patients' dental problems	<i>Eu estou apto a tratar de meus pacientes com problemas dentais</i>
	13	I lack opportunities to provide quality care	<i>Eu não tenho oportunidades de prestar atendimento de qualidade</i>
	28	I am extremely pleased with the technical quality of my work	<i>Eu estou extremamente satisfeito com a qualidade técnica do meu trabalho</i>

(*) The word dentistry is usually translated in Brazil as “odontologia” (odontology) and in Portugal as “medicina dentária” (dental medicine). The dental career denomination in Brazil is “cirurgião-dentista” (dental surgeon) and in Portugal, Angola, Cape Verde, Guinea-Bissau, Mozambique, Sao Tome and Principe, and East Timor is “medico dentista” (dental physician). The term dentista (dentist) is also used in popular language in Brazil.

Table 3 | Reability and validity of the Portuguese version of the Dentist Satisfaction Survey (DSS).

Domain	Id	Reliability			Validity
		Correlation between the item and the overall result (*)	Correlation between the item and the domain result (*)	Cronbach's α excluding the item	Correlation between overall job satisfaction and domains (#)
Overall job satisfaction	05	0.987	0.765	0.554	0.765
	06	0.897	0.884	0.543	0.884
	09	0.789	0.997	0.528	0.997
	12	0.834	0.863	0.574	0.863
	14	0.654	0.622	0.617	0.622
	17	0.765	0.875	0.611	0.875
	20	0.894	0.875	0.632	0.875
Cronbach's α of the domain = 0.692					
Perception of income	02	0.887	0.984	0.765	0.987
	10	0.765	0.876	0.748	0.987
	21	0.733	0.765	0.643	0.987
	23	0.875	0.765	0.777	0.965
	25	0.881	0.885	0.843	0.754
Cronbach's α of the domain = 0.827					
Personal time	07	0.993	0.888	0.822	0.678
	15	0.876	0.843	0.812	0.789
	29	0.834	0.844	0.822	0.876
Cronbach's α of the domain = 0.863					
Professional time	01	0.765	0.876	0.556	0.765
	04	0.755	0.865	0.522	0.678
	22	0.876	0.754	0.513	0.789
	26	0.754	0.894	0.599	0.789
Cronbach's α of the domain = 0.674					
Staff	08	0.765	0.855	0.765	0.665
	18	0.743	0.829	0.723	0.747
	19	0.897	0.818	0.711	0.878
Cronbach's α of the domain = 0.800					
Patient relations	11	0.888	0.997	0.621	0.888
	16	0.753	0.876	0.623	0.897
	24	0.845	0.777	0.601	0.897
	27	0.875	0.865	0.599	0.789
Cronbach's α of the domain = 0.627					
Delivery of care	03	0.890	0.920	0.799	0.789
	13	0.897	0.987	0.744	0.789
	28	0.841	0.885	0.723	0.895
Cronbach's α of the domain = 0.560					
Total	Cronbach's α of all domains = 0.834				

(*) Spearman's correlation coefficient; (#) interclass correlation coefficient (ICC).

Table 4 | Job satisfaction among a group of Brazilian dentists.

Facet scales	Mean	SD	Range
Overall job satisfaction	2.94	0.33	2.29–3.57
Perception of income	2.77	0.43	1.16–3.60
Personal time	2.82	0.46	2.00–4.00
Professional time	2.78	0.35	2.00–3.50
Staff	2.76	0.43	1.33–3.66
Patient relations	2.79	0.30	2.25–3.50
Delivery of care	3.20	0.46	2.33–4.00
Total	2.86	0.20	2.34–3.41

DISCUSSION

Satisfaction is a highly subjective concept that can be viewed as a dynamic process linked to lifestyle, expectations, personal experience and individual, social or cultural values. An instrument related to measuring satisfaction used in one cultural group may not be sufficient for use in another cultural group. In addition, the terminology or descriptions of a test in different languages may bring literal and idiomatic differences.

Cross-cultural adaptation procedures are a critical component of the validation process of an instrument for research. Direct translations may present linguistic problems because some words and phrases have no direct translation, and questions conceived in the context of one language may not be understood in the same way in the other language. Further, languages exist within social and cultural frameworks that are frequently unique, and some questions therefore may become different or meaningless in a different culture and location.^{17,22,23}

In the present study, the translation process from English into Portuguese was straightforward, and the comparison between the original DSS questionnaire and the back-translated English version did not reveal conceptual content differences. The equivalent words needed to translate the questions were not difficult to find, and the grammar

structure of the sentences was not difficult to build during the translation process.

The first goal of the present study was to assess the level of job satisfaction among a group of Brazilian dentists working in the public sector. The mean overall job satisfaction score of these Brazilian dentists was 2.8 out of 5, which is considered neutral (> 2.5 but < 3.5).^{5,6,10} This result was similar to the mean score of overall job satisfaction, measured by the original or modified DSS versions, reported for American (mean = 63 of 100),⁶ South Korean¹⁰ and British²⁴ (neutral category = 73.6%) general practitioners, but was much lower than that reported for Canadian orthodontists¹ (mean = 4.0 of 5) and Lithuanian¹³ general dental practitioners (mean = 4.0 of 5).

The difference among these overall job satisfaction scores can be explained due to the diversity of samples, which included subjects with various backgrounds and nationalities. In addition, although these studies evaluated the same profession, the cross-cultural differences influenced the responses to the self-reported questionnaires about job satisfaction. These facts indicate that the results of the present study must be interpreted within certain limitations. The participants in this study were practicing general dentists from a single Brazilian city. It is possible that dentists from other geographical areas would have reacted differently to the survey instrument used in this research. Another characteristic of the sample possibly influencing this result is the type of practice. Differently from other cited studies, all dentists evaluated in this study worked in public community dental care services. Career insecurity and lack of opportunity may lead to feelings of dissatisfaction with one's career, thereby increasing the likelihood of burnout.^{4,16,21,23} When the level of career satisfaction among dentists was compared with that of other dental healthcare professionals, the dentists showed lower levels of job satisfaction.²⁴ Some fac-

tors intrinsic to a job in community dental care services, such as the nature of Dentistry, the working environment, and time scheduling were related with these lower levels of job satisfaction among dentists.¹⁶ The self-contained nature of Dentistry leads to a perception of lack of freedom and control by the dentists, leading, in turn, to a desire to leave the community practice. Years of experience, freedom of professional judgment, altruistic motivation, importance placed on loan repayment and amount of administrative time allowed were associated significantly with career change intentions among community dental practitioners.²⁴

Salaries and annual income from clinical practice were not associated with lower levels of job satisfaction among community dental practitioners.²⁴ These factors were not evaluated in the present study; however, the studied sample showed a mean annual income of US\$ 32,540.01 from clinical practice (Table 1). Despite the economic differences between countries, this value is lower than the mean annual salary found in another study conducted among community dental practitioners (mean = US\$ 81,603).²¹ The city where the present study was developed, São Paulo, is the most populous city in Brazil, the sixth most populous city in the world, and capital of the most economically developed state in Brazil, with an estimated population of 11,037,593 residents. The dentist/habitant rate in this city was 1:445, indicating a high concentration of dentists. The mean annual income from clinical practice previously reported for this region was US\$ 34,540.00.¹³ This income is similar to that found in the present study (Table 1).

Some other limitations must be considered when interpreting the findings of the present study. First, this survey was based on a cross-sectional design that did not allow determination of causality for any of the associations identified. Thus, prospective and longitudinal studies are strongly needed to examine the influence of changing work

environment factors on job satisfaction.

Furthermore, potential stressors in dental practice may be classified according to factors intrinsic to the job (the nature of dentistry, the working environment, time scheduling, the introduction of new technologies and the resulting need to keep up to date, risks and dangers), factors related to relationships at work (the role of the dentist in the dental team, working relationships) and factors related to the lack of career development (career insecurity and lack of opportunity may lead to feelings of dissatisfaction with one's career).²⁻⁴ In addition to the recognition of occupational stressors, job satisfaction in dentistry can also be determined by other factors related to the worker's attributes (demographic characteristics, emotional well-being and personality factors) and to non-work factors (social interaction, family life and general life satisfaction).⁵ The present study was limited to determining the level of job satisfaction among dentists. Identification of potential stressors related to job satisfaction is strongly needed, and should be the object of future research among Brazilian dentists.

Knowledge of modifiable potential stressors related to job satisfaction could lead to a strategy and policy to provide a better work environment for dentists and dental team, thus preventing job burnout and positively influencing job engagement. This environmental and motivational improvement could aid in the improvement of patient care. As a result, the entire dental care system would benefit. Therefore it is important to understand dentists' job satisfaction and how to work with the impact of environmental factors.^{2,4,7,12,15}

The second goal of this study was to test the validity of a cross-cultural translation into Portuguese of the modified version of the DSS among a group of Brazilian dentists. The Portuguese version of the DSS showed acceptable validity and reliability, in agreement with studies conducted with the original version in English⁷⁻¹¹ and the Lithuanian

language¹³ or the modified version in English¹ and the South Korean language.¹²

The overall results for internal consistency (Cronbach's α coefficient = 0.834) were considered satisfactory (good). Satisfactory Cronbach's α coefficients for some of the scales (income, personal time, and staff) confirm the internal consistency of this instrument. The internal consistency of the other facet scales assessed (overall job satisfaction, professional time, patient relations, and delivery of care) were considered low, indicating a need to redesign the test items²³⁻²⁵ (Table 3). However, Nunnally and Bernstein recommended a Cronbach's α coefficient equal to 0.60 as a minimum reliability criterion.²⁶ Future studies are suggested to develop new survey items that could form more internally consistent scores for these facet scales.

In conclusion, we found that the translated DSS demonstrated acceptable reliability and validity, and that it could be used as a valuable instrument for measuring job satisfaction among the Brazilian dentist population. For further research, the reliability and validity of the translated Portuguese version of this instrument should be tested in oth-

er dentist populations living in other Portuguese-speaking countries.

Job satisfaction is an important issue because satisfaction at work affects the productivity of a working person and contributes to the quality of his or her life.¹⁴ The findings of the present study can help policy makers devise programs to increase the level of job satisfaction and to prevent the overall occupational stress among Brazilian dentists working in public dental care services. In addition, regarding the application of this data, further studies on job satisfaction are necessary to improve the working environment for dentists in Portuguese-speaking countries, and, specifically, in Brazil.

This Portuguese version of the the DSS showed adequate psychometric properties to evaluate job satisfaction among Brazilian dentists.

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