

Scale of attitudes related to dental competencies: development and validation

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ABSTRACT

This study aimed to develop and validate the content and face of a scale of attitudes related to dental competencies (SA-DC). It was a methodological development study involving the design and validation of a scale, using a quantitative and qualitative approach. The theoretical framework for the construct of the scale involved the concept of attitude in the field of Social Psychology and that of competence in the field of Education, qualified by the National Curriculum Guidelines for Dentistry Programs, thus providing the following indicators: Empathy in the professional-patient relationship, Lifelong learning, Readiness for interprofessional education, Protection of patients' rights, Social responsibility and Emotional intelligence. Ten experts participated in the face validation of the matrix of indicators (Nominal Group Technique) and of the items (Questionnaire), and the preliminary version was pilot tested with 17 undergraduate dentistry students. There was consensus on the permanence of the indicators, except for Emotional Intelligence. The scale (5-point Likert type) resulted in 53 items, 13 of which were modified from the original version. SA-DC was developed and met the content and face validation criteria used in the study.

Descriptors: Education, Dental. Attitudes of Health Personnel. Professional Competence. Educational Measurement. Validation Studies.

1 INTRODUCTION

There is a great challenge in assessing professionals' attitudes and competencies, especially those in health care professions. In the social field, attitudes are conceptualized as beliefs and feelings that predispose to an action¹. In the educational field, attitudes correspond to one of the key elements for observing performance² even in a real situation resulting from complex learning and the combination of cognitive, attitudinal and psychomotor skills stemming from mental transfer processes carried out in different contexts throughout life³⁻⁷.

Attitudes in health care professionals' training have been highly valued in national⁷⁻⁹ and international documents^{10,11}. The National Curriculum Guidelines (DCNs)⁹ for Dentistry programs, published in 2002, have required comprehensive, humane, citizenship-oriented and reality-transforming training, including changes in the teaching-learning process that would enable the mastery of six general competencies by students: Health Care, Communication, Decision Making, Continuing Education, Leadership and Administration and Management. The curriculum proposed by the DCNs requires that graduate students should have a profile with cognitive, affective and psychomotor domains in the areas of general education, professional training and citizenship.

When considering attitude as a learning task, the ten aspects related to the phenomenon called learning ecology, namely, learners themselves, the educational context, the curriculum, learning and institutional assessment systems, teaching methodologies and teaching materials, the teacher and the organization of the educational institution, must not be neglected¹².

Thus, the literature emphasizes the importance of attitude evaluation in specific situations¹³⁻¹⁶, especially as a component of practice evaluations¹⁷.

Brazilian researchers¹⁸⁻²⁰ in the medical education field have developed instruments with the purpose of assessing relevant aspects to the practice of the profession and the concepts presented in the DCNs, as well as emphasized the relevance of the application of such tools in order to support discussions on curricula²¹.

Other instruments based on self-report scales have been developed and subsequently validated in Portuguese to measure characteristics of students in the health education process that refer to the profile of contemporary graduates. This is the case of validation of instruments that measure empathy in the professional-patient relationship²² and lifelong learning¹⁵. The latter proposes to evaluate students' commitment to their continuing and practical training based on evidence. There are also guidance measures for collaborative interprofessional learning^{23,24}.

Despite the publications in education for health care professionals, attitudes and behaviors related to general training competencies are often neglected by higher-education assessment systems in Brazil, where students' performance is assessed through cognitive testing, program offer conditions, as well as by internal and external institutional assessments²⁵.

When analyzing health care programs, there is no analysis of attitudes in a global view of curricular competencies from the perspective of training assessment¹⁴ or as a resource for institutional self-assessment in Dentistry, although such construct is essential. Hence, there is a demand for an instrument that allows, through the self-assessment of behaviors, to measure the degree of development of attitudinal skills and, consequently, to guide knowledge construction in order to achieve the desired competencies for professional training, thus helping in the discussion on Dentistry curricula.

Given this premise, this study aimed to describe the process of preparing the matrix of

indicators and the items developed to compose a scale of attitudes related to dental competencies.

2 METHODOLOGY

This is a methodological development study²⁶ to design and validate the content and face of a scale. It was conducted with a group of experts and a sample of students (pilot) and integrated a doctoral study carried out by the first author of this article.

Following the project approval by the Research Ethics Committee (CAAE 50727215.6.0000.5208), the methodological procedures for validating the scale began, involving seven steps (Figure 1).

The methodology for systematizing the theoretical model²⁷ resulted in the design of a matrix with six indicators, which were established based on the education literature for health care professionals and guiding documents for the dental surgeon profession (Table 1).

The methodology used for the experts' consensus was the Nominal Group Technique (NGT)^{27,28} with the participation of dentists with at least ten years of work experience in management (n=3, in the field of education), care provision (n=3, working in primary, secondary or tertiary care, with experience in preceptorship) or teaching (n=4), who attended, at least once, the Annual

Meeting of the Brazilian Association of Dental Education (ABENO) in the past five years.

After the initial contact, NGT was conducted at two moments: virtual judgment performed in an independent, asynchronous and virtual fashion (Time 1 - T1) and, after 15 days, (Time 2 - T2) on-site discussion with the objective of converging the answers, thus reaching a consensus.

The analysis of indicators was approached qualitatively (according to their relevance and importance as “indispensable”, “necessary” or “expendable”) and quantitatively (score from 0 to 6: 0 = “not important”, 1 = “almost unimportant”, 2 = “not very important”, 3 = “medium importance”, 4 = “important”, 5 = “very important”; and 6 = “the most important”)²⁷. It also required the completion of a matrix in which the expert correlated the indicator with the dental competency(ies).

At T2, there was a moment of on-site consensus and individual responses. The indicator was excluded when, at T2, it received a classification of “expendable” by qualitative analysis or obtained, in its quantitative classification, a percentage equal to or greater than 50% as the maximum grade attributed (6) among the group members²⁷. A synthesis of the discussion occurring at T2 was prepared and sent to the group of experts for the ratification of its content.

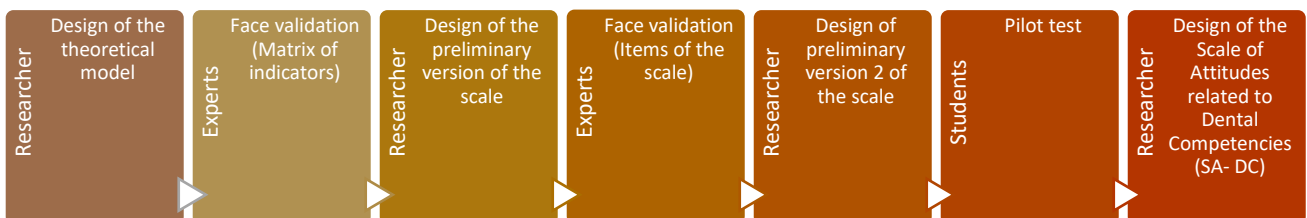


Figure 1. Methodological steps for designing and validating the scale

Chart 1. Theoretical model and matrix of indicators of the scale of attitudes related to dental competencies (EA-DC)

Indicator	Concept adopted in the Theoretical Model	Authors (Year)	Dental Competencies DCN*					
			HC	DM	COM	LEA	ADMG	CE
Empathy in the professional-patient relationship	Considering empathy as a predominantly cognitive attribute (as opposed to affective or emotional) that involves an understanding (as opposed to feeling) of patients' pain, experiences, complaints and perspectives, combined with the ability to communicate such understanding and the intention to help it, through the prevention and relief of pain and suffering.	Hojat <i>et al.</i> (2002) ¹³ ; Hojat e Lanoue (2014) ⁴³ .	X	X	X	X		
Lifelong learning	Motivation, capacity and behaviors necessary to maintain and develop competence in terms of the latest knowledge, technology and practices.	Salgueira <i>et al.</i> (2009) ¹⁵ .	X	X	X	X	X	X
Readiness for interprofessional learning	Positive actions in a proposal where two or more professions learn together about joint work and the specifics of each one in improving the quality of patient care.	Williams <i>et al.</i> (2012) ¹⁶ ; Aguilar da Silva <i>et al.</i> (2011) ²³ .	X	X	X	X	X	X
Protection of patients' rights	Ethical aspects of professional behavior during information provision to patients and their autonomy in deciding the treatment plan.	Chiu <i>et al.</i> (2010), ⁴⁴ CFO (2012) ⁴⁵ .	X	X	X	X		
Social Responsibility (SR):	Guarantee of care at all levels of complexity, interaction with the community, rational use of diagnostic and therapeutic resources and disease prevention.	Miranda <i>et al.</i> (2009) ²⁰ .	X			X	X	X
Emotional Intelligence (EI):	It involves the perception, processing, regulation and handling of emotions.	Arora <i>et al.</i> (2010) ⁵² .	X		X	X		

HC: Health Care; DM: Decision Making; COM: Communication; LEA: Leadership; ADMG: Administration and Management; CE: Continuing Education

The same theoretical framework served as a source for the design of items by the researcher, thus composing methodological step 3. Each indicator originated from 10 to 11 items, according to the concepts established in the theoretical model validated by the experts, resulting in preliminary version 1 with 53 items. We tried to outline items that were easy to understand, objective as well as relevant^{29,30} and that would behaviorally represent attitudes related to competencies (latent traits). A professional from the psychology field ensured their behavioral character.

In step 4, the face validation of the analyzed scale items occurred. The methodology used was the application of an online questionnaire on the SurveyMonkey® platform with a qualitative analysis of the relevance of the theoretical model (“indispensable”, “necessary” or “expendable”). Space was offered for comments with suggestions for new wording, corroborating for a better understanding or inclusion of a new item. The experts classified the scope of the construct and its domains. The analysis was qualitative and occurred at a single time, so that a cutoff point was adopted for exclusion when the item showed disapproval above 50% (“expendable” category).

After the adjustments suggested by the experts, the researcher prepared preliminary version 2 of the scale with five Likert-type answer choices: “I totally disagree” (1), “I partially disagree” (2), “I neither agree nor disagree” (3), “I partially agree” (4) and “I totally agree” (5) (step 5), which was applied to a pilot sample of students, members of the target population in the present study (step 6). Thirty students from one of the higher education institutions (HEIs) participating were invited to a meeting prior to an event organized by the institution, requesting attendance four hours in advance. Representation of all terms and both genders was sought.

In step 6, the students answered the scale and the questionnaire with the sociodemographic

information required by study, and the answering time was recorded. Then, a questionnaire was applied to analyze preliminary version 2 of the scale for clarity, formatting and completion guidelines, number of questions and understanding of terms, as well as the scope of the objective and fidelity of answers. The discussion on these aspects took place collectively, exploring solutions for greater clarity and understanding in order to ensure the quality of answers at all stages of dental training. Step 7 comprised the editing of the final version of the scale of attitudes related to dental competencies.

3 RESULTS

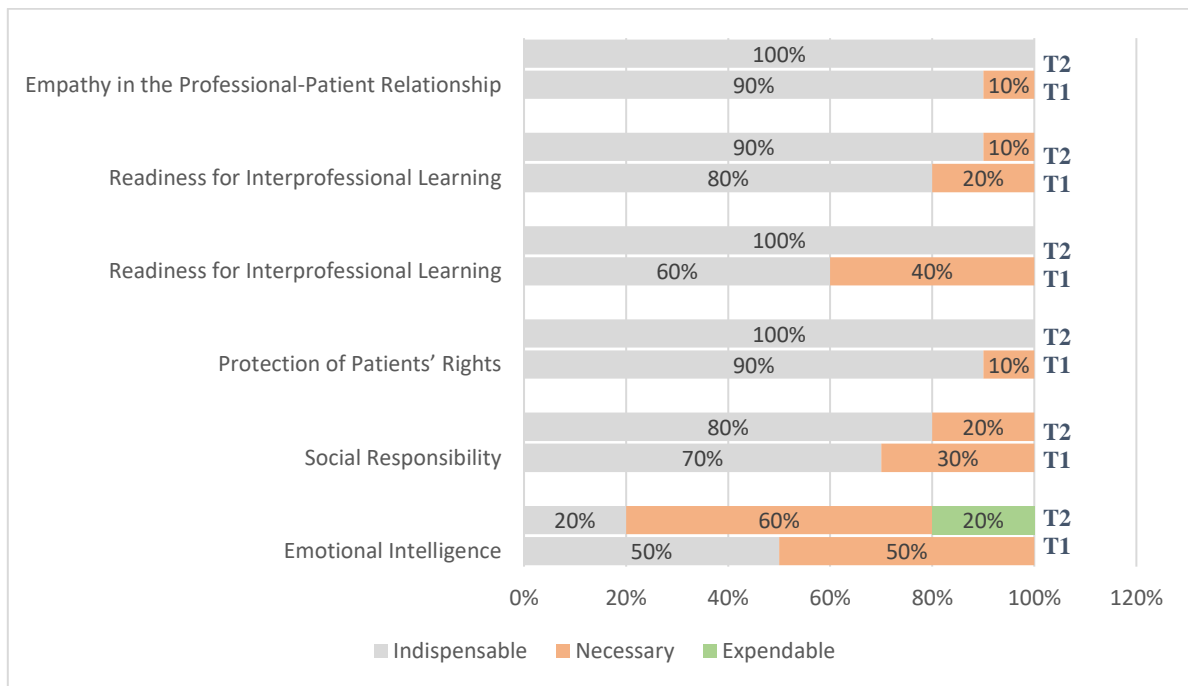
Face validation of the indicator matrix

It was observed that the Emotional Intelligence indicator received a percentage below the established cutoff point, both in the qualitative analysis (relevance) (Graph 1) and in the quantitative analysis (degree of importance) (Graph 2), thus corroborating for its exclusion from the model, after NGT.

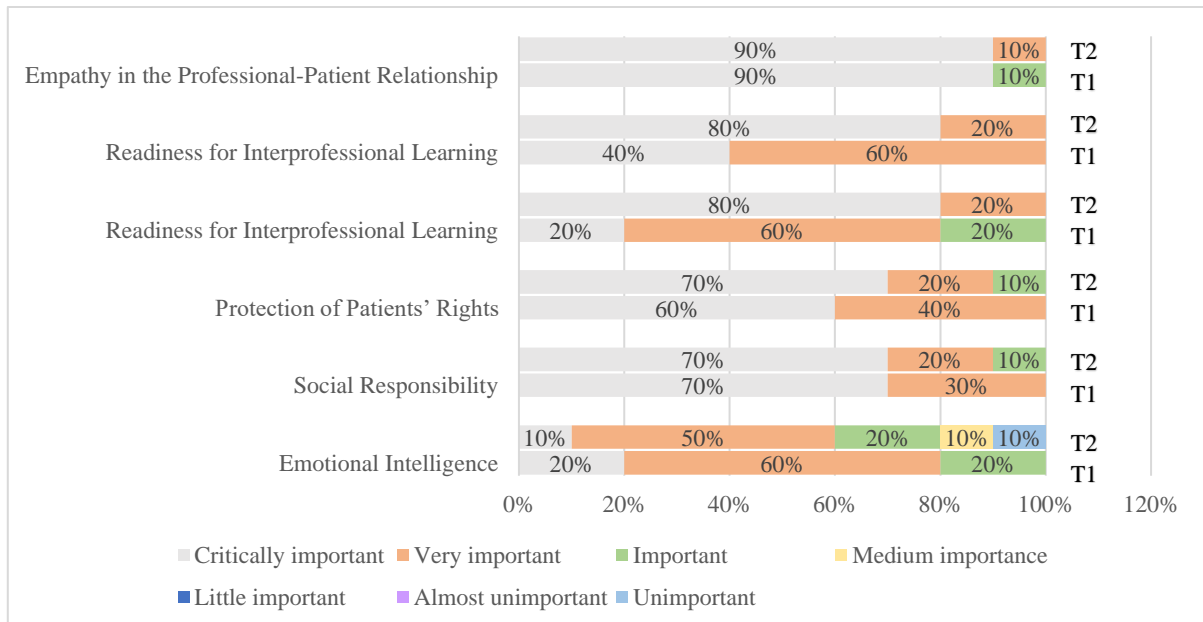
The difficulty of relating the indicators to only one competency was discussed, since they are not isolated, but rather complement each other. Both the indicators and the competencies, among themselves, have an important correlation, making it almost impossible to fragment them.

The Emotional Intelligence (EI) indicator showed divergence in the evaluation process. As for the concept: initially, it was questioned by one of the experts regarding what was proposed in the model, which was not clear enough. As for its importance: many reports showed the importance of EI in professional life: in problem-solving, in dealing with terminally ill patients, in facing the death of patients, in working on multiprofessional teams and in primary care. Concerning the pertinence in the proposed model: it was questioned as regards the size of the instrument necessary to measure this construct and also as

regards the priorities of which attitude should be included in the assessment, so that this indicator could be partially interpreted by others already existing in the model.



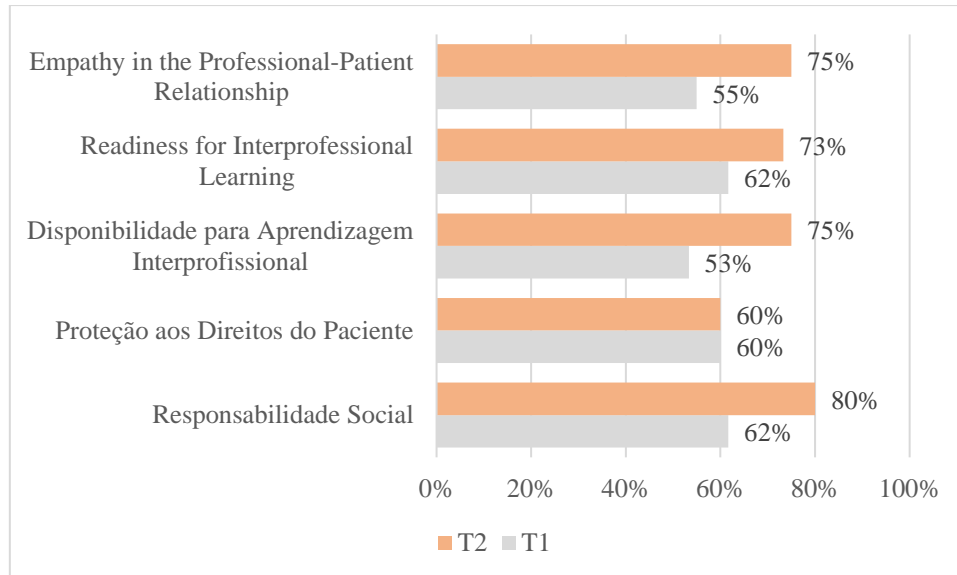
Graph 1. Distribution of answers in the qualitative analysis by experts before (T1) and after (T2) the on-site discussion



Graph 2. Distribution of answers in the quantitative analysis by experts before (T1) and after (T2) the on-site discussion

It was found that there was an improvement in the consensus for the other indicators. These were related to competencies in

a representative way, considering the means of the proportions attributed to the indicators at T1 and T2 (Graph 3).



Graph 3. Means of the proportions established in the relationship between indicators x dental competencies before (T1) and after (T2) the on-site discussion

One of the experts was favorable, as quoted: *“because we are human beings, this indicator must be evaluated in students”, as “we are all reason and emotion, and knowing how to deal with emotions is essential for comprehensive and human education.”*

The arguments against the inclusion of EI in the model were: *“uncertainty about the possibility of measuring and working cognitively in teaching”* (educational manager), *“difficulty in teaching and influencing students”* (teacher), *“lack of stability”* (manager), *“for being the result of personal maturation with little influence from teachers and being susceptible to changes during training and mental health status”* (teacher) and for the *“possibility of being influenced by genetics”* (teacher).

Face validation of the scale items

The experts considered the composition of preliminary version 1 of the scale to be relevant,

and 100% considered it comprehensive in relation to the construct. However, they suggested changes in the wording of nine of the 53 items.

Pilot study with the target population of the scale

The pilot sample comprised 17 of the 30 invited students, distributed, according to their training stage, in: Initial (from the 1st to the 3rd terms) (41.2%); Medium (from the 4th to the 6th terms) (29.4%); and Final (from the 7th to the 10th terms) (29.4%). The age group was from 19 to 27 years old; most of them worked on the day shift (n=12/70.6%) and were males (n=9/52.9%). They reported satisfaction about the formatting of the instrument (88.2%), clarity and objectivity of the items (94.1%), the objective of the scale (100%) and the number of questions (58.8%), which ensured fidelity in their answers (70.6%). It is noteworthy that 58.8% of students found at least one item with unknown terms, which were

later adapted.

Regarding the fidelity of answers, most managed to answer the instrument by “thinking about/feeling what their attitudes were or would be in the situations presented”, with 29.4% of students’ reporting that “their answers corresponded to the most accepted attitudes by society, which also represented their own attitudes”.

In order to resolve the misunderstanding of terms, four items were edited which, after alterations, generated the final version of the scale of attitudes related to dental competencies (Chart 2).

The time to answer the study questionnaire with sociodemographic and educational data and the scale ranged from five minutes and 10 seconds to 11 minutes and 30 seconds, with a mean of approximately 8 minutes.

4 DISCUSSION

The proposal to create a scale for evaluating attitudes related to dental competencies meets a demand in the field of Dentistry education and health care in the Unified Health System (SUS). There is an excessive number of professionals trained from a technician perspective, while attitudinal competencies are neglected in care provision³¹, curricular practice³² and governmental²⁵ and institutional^{14,32} assessment systems.

Nevertheless, publications coordinated by representatives of the Brazilian Dental Education Association^{33,34} have emphasized the difficulty of Brazilian institutions in adopting the curricular proposal of DCNs, which presented innovations both in pedagogical aspects and in the composition of general competencies in non-technical fields of the profession. This can be exemplified in a study³² that analyzed the ethical dimension in Dentistry programs, in which the inexpressiveness of such dimension was

observed in tutorial and evaluation experiences.

This study intended to contribute to improving the scenario described and looked at the evidence of validity of a scale of attitudes related to dental competencies. To that end, national^{26,35} and international^{36,37} parameters were considered in the methodological steps.

For an instrument to present good quality, during its content validation phase, it must clearly show its objective; the target population for which it is intended; an adequate definition and theoretical foundation of concepts based on relevant literature, in addition to mentioning how the selection of items occurred, in such a way that facilitates the reading and understanding of the instrument, involving the target population and experts on the subject³⁶. All of these aspects were addressed in the methodology steps in the present study.

It is noteworthy that, regarding the objective of the scale, it has an evaluative and educational character, since the intention is that teachers and students pay attention to the issues concerning attitudes related to competencies, from the beginning to the final stages of training. Self-report measures on attitudes in the educational field are only effective when they work as an educational assessment². The latter, in turn, promotes the development of individualized skills and with increasing degrees of complexity, and should be accompanied by feedback³⁸⁻⁴⁰.

Another possibility would be to use the data originated by the scale with the objective of evaluating curricular practices, as occurred with the instrument previously developed²⁰, which intended to evaluate attitudes of medical students and was applied in a longitudinal fashion in a later study²¹, pointing out both individual and collective strengths and weaknesses.

As for the construct of the instrument, a brief discussion about the attitude concept included in the model is appropriate. Although a concept from

Scale of attitudes related to dental competencies: development and validation

Chart 2. Final version of the items for the instrument for assessing attitudes related to dental competencies after face validation by experts and a pilot sample of the target population

	Empathy in the Professional-Patient Relationship ^{13,20,22,43,58,59,60}	Lifelong Learning ^{15,20,48}	Readiness for Interprofessional Learning ^{16,20,23,24,49,61}	Social Responsibility ^{20,31}	Protection of Patient's Rights ^{44,45}
TA	Adoption of perspective; Providing humane care; Communication and interaction	Motivation and learning-related beliefs; Attention to learning opportunities; Self-learning	Teamwork and collaboration; Teamwork; Cooperative learning	Resolutivity; Health education Intersectoriality; Social and health awareness	Patient information; Patient autonomy in therapeutic decisions
ITEMS	<p>1. I notice it when my patient is scared/anxious during the consultation.</p> <p>2. I believe that by perceiving my patients' feelings, I am more likely to achieve better therapeutic results.</p> <p>3. I listen carefully to patients' complaints in order to develop an individualized plan.</p> <p>4. I use non-verbal expressions, such as shaking hands and shaking my head affirmatively, during the consultation in order to improve communication with patients.</p> <p>5. I understand what a patient feels with his illness, without feeling his pain.</p> <p>6. My attitude towards patients does not depend on their appearance (physical or social condition).</p> <p>7. During a patient's anamnesis consultation (disease history), I listen more than I speak.</p> <p>8. I am attentive to the tone of my voice during anamnesis and other consultations.</p> <p>9. I show to patients that I understand their complaints.</p> <p>10. I greet patients at the beginning of the consultation.</p>	<p>11. When I see an unknown and interesting subject, I try to find out more about it.</p> <p>12. Even if I don't like a subject, I study it to be a good professional.</p> <p>13. My school motivates me to study to be a good professional.</p> <p>14. I know how to evaluate my performance in an academic activity.</p> <p>15. My college assessments help me learn from mistakes.</p> <p>16. Participating in scientific research, even without a grant, motivates me.</p> <p>17. I consider extension activities to be a learning opportunity.</p> <p>18. Participating in dentistry meetings/conferences is stimulating.</p> <p>19. I intend to continue studying after I graduate.</p> <p>20. I use a variety of information sources (abstracts, books, scientific articles, the Internet) to study.</p> <p>21. I believe that even 20 years after graduation, I will still be studying dentistry topics to update myself.</p>	<p>22. Studying with students from other undergraduate programs improves my dental practice.</p> <p>23. I respect the knowledge of students from other programs.</p> <p>24. I think that the different fields of health care contribute to improving patients' health equally.</p> <p>25. Multi/interprofessional teamwork allows me to learn to relate to people.</p> <p>26. Experience on multi/interprofessional teams is essential for my training as a dentist.</p> <p>27. To discuss a clinical case with professionals from other fields, I need to study more.</p> <p>28. When seeking to solve a problem, I work better in a small group of students than in a large group.</p> <p>29. I believe that collaborative work in multi/interprofessional groups is more likely to achieve positive results for patients.</p> <p>30. Sharing experiences with students from other health care programs makes me a better person.</p> <p>31. My interprofessional communication improves if, in undergraduation, I have academic experience with students from other programs.</p> <p>32. I believe that the leadership of a multi/interprofessional team can be practiced by professionals from any health care field.</p>	<p>33. I am attentive to the residues produced during the dental consultation so as not to pollute the environment.</p> <p>34. I consider that working in children's education is a role to be played by dentists, thus promoting health education.</p> <p>35. As a health care professional, I need to be knowledgeable about health care policies.</p> <p>36. Having experience in different communities is important for my dental education.</p> <p>37. I recognize that it is the dentist's responsibility to avoid dental overtreatment, that is, to avoid unnecessary therapeutic procedures.</p> <p>38. I know how to advise people on basic general health care.</p> <p>39. I participate/have participated in meetings/seminars/lectures on higher education.</p> <p>40. I answer/have answered institutional self-assessment questionnaires from my college.</p> <p>41. I am knowledgeable about the Dentistry Services regulatory agencies.</p> <p>42. I understand that compulsory notification diseases are also a dentist's responsibility.</p> <p>43. I know how to refer patients to any of the three levels of SUS care provision services.</p>	<p>44. I believe that the existence of associations for protection of dental training clinic users is valid.</p> <p>45. I understand that discharge from dental treatment must be agreed upon with patients.</p> <p>46. I allow my patients to participate in decision-making regarding their treatment.</p> <p>47. My patients have the right to knowing about more than just one therapeutic option for their disease.</p> <p>48. I do not publish photos of my patients without their written consent.</p> <p>49. If a patient requests it, I provide him/her with his/her dental records and keep a copy of them on file.</p> <p>50. I only start routine dental treatment when my patient signs a consent form.</p> <p>51. I believe that patients with serious diseases need to know about their condition, as long as they want to.</p> <p>52. When providing care for a child, I direct pertinent information to him/her and to his/her guardian.</p> <p>53. When participating in scientific research, I perform data collection only after a consent form is signed by the patients involved.</p>

TA: Thematic areas

from social psychology¹ has been used, it is coherent with the concept in the educational field, under the perspective of functioning as essential elements for developing competencies^{2,7,14}. The network articulation of the general DCN competencies is mentioned in the literature^{41,34}, and it was evident when indicators that could indirectly represent them were searched. The results in the face validation of the indicator matrix portray such inseparability of competencies when the group of experts affirms the difficulty in relating them to only one of the competencies.

As for the scale indicators, the term empathy appears in the DCNs in the description of the concept of competency Leadership, certainly considering its importance in the process of communication with peers. The proposal from the model in this study emphasized empathy in the professional-patient relationship as it encompasses the competencies of Health Care and Communication. When professional-patient communication is taught, empathy is cited as a key element for building a relationship that can be taught during the training of health care professionals⁴². Indirectly, by knowing how to respect and value patients, the relationship with peers and that in a leadership situation would be ensured. Numerous instruments address such relationship, presenting evidence of validity^{13,43}.

Protection of Patient's Rights was included in the proposal, emphasizing patient information and autonomy in therapeutic decisions⁴⁴ and by documents that regulate the profession of Brazilian dentists⁴⁵. Emphasis on the relationship with patients is observed with the inclusion of indicators that provide patient safety in their relationship with health care professionals. Such a relationship is mostly paternalistic, and an instrument that assesses attitudes should

discourage that culture both in training and in professional practice. In the literature, these components are added to the assessments of clinical competence, and their value is recognized^{46,47}.

The inclusion of the Lifelong Learning (LL) indicator has evidence in the literature on health care professionals' training, and there is a specific instrument validated in Portuguese that portrays the combination of professionalism, motivation and beliefs related to learning, academic activities, attention to learning opportunities and technical competencies to seek information for doctors^{15,48}. In the DCNs, this need was evidenced in the description of the general competencies Permanent Education, and Decision Making and, indirectly, in Health Care, since the quality of the care provided involves constant updating and access to information.

The group questioned the possibility of overestimating the relevance of LL in the model, as it is a group of highly educated experts; however, it is expected that, when graduating, students will be "general dentists, with solid technical and scientific training, and active in the permanent construction of their own knowledge"^{34,41}.

The indicator Readiness for Interprofessional Learning addressed the reality of working on multiprofessional teams, considered as a guarantee of quality in the health care provision for individuals and the community since the implementation of the Unified Health System. The term interprofessional was preferred so that such performance, in an integrated manner among different professions, can occur concurrently, aiming to achieve collaborative practice and better therapeutic results⁴⁹. Detecting Readiness for interprofessional learning in undergraduate students, as proposed in the model, provides feedback related to the

subject, which, in Dentistry, is extremely restricted⁵⁰. This indicator is consistent with guidelines for interprofessional extension practices, a challenge for undergraduate curricula⁵¹.

Complementing the analysis of the established indicators and the DCNs, the word responsibility appears in the description of three of the six general DCN competencies: Health Care, Leadership and Permanent Education. Notwithstanding, Social Responsibility (SR) is mentioned in the attitudes assessment instrument created for medical students²⁰, which justified the concept present in the model, corroborating the reality of the DCNs⁹ and the extension guidelines⁵¹.

The exclusion of Emotional Intelligence from the model was mostly due to technical reasons, given that the concept was not devalued by the group of experts, as shown in the Results section; however, it was considered quite broad, which, in itself, would require a range of dimensions^{52,53}, thus making its inclusion in the model unfeasible.

In addition to the recommendation to include the objective and adequate definition of the construct and its domains in the instrument design process, the literature advises that, during the face validation of the scale items, three aspects must be observed: the scope of the items on relevant aspects of the content, as well as that of its domains, and the theoretical basis for a clear description of the construct and its theory of reference³⁷. The authors of the present study met this criterion by following methodological steps carefully, as described in the specific section of this article. The results are exemplified for the establishment of a uniform number of items per indicator (Graph 3), combined with the orientation of satisfactorily meeting the theoretical scope of the concepts³⁵.

With the participation of the target

population in the validation process through a pilot study, it is possible to measure the degree of understanding of the items on the scale. The reporting of the reliability of answers, as well as the discussion about the indicators in the theoretical model, increased the evidence of validity regarding the scope and formatting of the items. The perception of dental students in the curriculum analysis and competencies acquired from the perspective of the DCNs has been described in the literature with 91 students from the last year of an HEI program in southern Brazil⁵⁴. The authors found, after a curricular reform, positive results, in decreasing order, for: 1) the development of health prevention, promotion, protection and rehabilitation actions; 2) willingness for continuous learning; 3) decision making; 4) and performance in multiprofessional teams. In contrast, the graduates insufficiently rated the issues that involved the planning, leadership and administration and management of health care services.

As for the unknown terms, the fact that the expression “agreed discharge” was unanimously misunderstood, even by students in the final stages of the program, is emphasized. Agreed discharge in Oral Health means the sharing of therapeutic decisions between the professional and a patient, the latter being a subject who is capable of practicing his/her autonomy⁵⁵. It is suggested that this lack of knowledge may represent a model of professional-patient relationship centered on the patient, which has not yet been culturally experienced by Brazilians^{56,57}. The possible difficulty in achieving the DCN competencies that advocate a change in such a model, both in Health Care and in pedagogical practices, is questioned^{9,31}.

Another aspect to be discussed in this methodological step was the students’ satisfaction concerning the number of questions.

41.2% classified it as regular by answering: “Yes, the number was exaggerated, but I thought the presence of all items in the questionnaire was important”. This finding may be related to an answer bias associated with a long questionnaire. On the other hand, the number of items should not obey mathematical rules, but the scope of the theory involved in the construct³⁵.

This study culminated in the validation of a scale composed of 53 items and five indicators, according to criteria established in national and international recommendations. Its application in different scenarios with psychometric property testing and in a longitudinal fashion is suggested.

5 CONCLUSION

SA-DC was developed and met the content and face validation criteria used in the study.

RESUMO

Escala de atitudes relacionadas às competências odontológicas: desenvolvimento e validação

O objetivo do presente estudo foi desenvolver e realizar a validação de conteúdo e de face de uma escala de atitudes relacionadas às competências odontológicas (EA-CO). Tratou-se de estudo de desenvolvimento metodológico envolvendo construção e validação de uma escala, com abordagem quanti e qualitativa. O referencial teórico para o construto da escala envolveu o conceito de atitude no campo da Psicologia Social, e o de competência, no campo da Educação, qualificada pelas Diretrizes Curriculares Nacionais para os cursos de Odontologia, originando os indicadores: Empatia na relação profissional-paciente, Aprendizagem ao longo da vida, Disponibilidade para aprendizagem interprofissional, Proteção aos direitos do paciente, Responsabilidade social e Inteligência emocional. Dez especialistas participaram da validação de face da matriz de indicadores (Técnica do Grupo Nominal) e dos itens (Questionário) e a versão preliminar foi

testada em piloto com 17 estudantes de Odontologia. Houve consenso para permanência dos indicadores, exceto para Inteligência emocional. A escala (tipo Likert, 5 pontos) resultou em 53 itens, sendo 13 alterados da versão original. A EA-CO foi desenvolvida e atendeu aos critérios de validação de conteúdo e de face utilizados no estudo.

Descritores: Educação em Odontologia. Atitude do Pessoal de Saúde. Competência Profissional. Avaliação Educacional. Estudos de Validação.

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