PEDIATRIC DENTISTRY CONTENT IN CIVIL SERVICE EXAMINATIONS IN THE STATE OF PARAÍBA: HOW IS THIS SPECIALTY BEING ADDRESSED?

CONTEÚDO DE ODONTOPEDIATRIA EM CONCURSOS PÚBLICOS NA PARAÍBA: DE QUE FORMA ESSA ESPECIALIDADE ESTÁ SENDO ABORDADA?

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ABSTRACT: This research study aimed at evaluating the content related to pediatric dentistry addressed in civil service examinations in the state of Paraíba through the analysis and classification of questions. Questions related to pediatric dentistry addressed in civil service examinations for the dentist position in the Family Health Program, held in the state of Paraíba, between the years 2001 and 2017 were evaluated. Across the state, 107 civil service examinations were identified and, when applying the exclusion criteria, 9 identical tests were found, consequently, being removed, totaling 98 examinations. After the analysis, 3,949 questions were obtained and only 54 questions were related to pediatric dentistry, representing 1.36% of total questions. The questions were classified according to the topic and the cognitive level according to the BLOOM's revised taxonomy. Results showed that topics related to oral rehabilitation and surgical management, including questions regarding anesthesia, surgery, pulp therapy, endodontic treatment, operative and restorative dentistry, dental materials, traumatic injuries and prosthesis/rehabilitation corresponded to 42% of the questions. The most prevalent cognitive domains were recall and analyze, corresponding to 45% and 29%, respectively. Thus, questions concerning oral rehabilitation and surgical management were the most addressed in civil service examinations, in which the domains remember and analyze were predominant. There were no questions requiring complex cognitive domain such as assessing and creating.

KEYWORDS: Questions. Personnel Selection. Dentistry.

INTRODUCTION

Since the 1988 Federal Constitution, civil service examinations were established as a means of entering a civil service, being compulsory to take it to hold permanent positions, except for the commissioned ones (MACÊDO et al., 2016). Article 37 of the Brazilian Federal Constitution indicates that those interested in participating in civil service examinations should compete on equal terms and comply with the principles of legality, impersonality, morality, publicity and efficiency to run for positions within the Union, the States, the Federal District and the Cities (BRASIL, 1988).

The Ministry of Health (MOH) states that the hiring process of a Family Health Team (FHT) should be through a civil service examination. However, there is a precariousness in the work of these teams caused by temporary hiring (VILELA; MAFRA, 2015). Civil service examinations guarantee that the constitutional principles are

respected, allowing, everyone who meets the requirements, to apply for the position. Additionally, fast stability, benefits and good salaries have increased the number of dentists participating in examinations and selective processes (VILELA; MAFRA, 2015; ARAÚJO, 2016)

Civil service examination tests usually comprise multiple choice questions, representing an element that contributes to feed the ideology of the examinations, in which the occupational practices, inherent to the position, does not resemble the evaluation method (FONTAINHA, 2015). Fontainha et al. (2014) state that it is necessary to advance in new practices when conducting civil service examinations in the country.

The examinations should aim at evaluating the skills of the candidate and select the best ones. In this sense, it is advisable to carry out the examination in stages for better checking the candidates' skills, as there are limitations in

objective tests (BORGES, 2009). It is important to determine which concepts are necessary so that the dentists can hold a position in the FHT.

In the context of dentistry, pediatric dentistry is a very important specialty for the service provided in the Family Health Units (FHU), since it is a priority for the emerging groups in the Family Health Strategy (ARAÚJO, 2016). However, little can be said about the current approach of the contents in civil service examination tests. It is necessary to consider that, it is important to analyze the content addressed in civil service examinations, in order to better understand the requirements that lead dentistto be part of the FHS. In this sense, this study aimed at evaluating the content related to pediatric dentistry addressed in civil service examinations in the state of Paraíba through the analysis and classification of questions.

MATERIAL AND METHODS

This is an observational, quantitative, analytical, documentary and retrospective research study. A research was conducted to verify the occurrence of civil service examinations for the dentist position in the Family Health Program, held in the state of Paraiba, between the years 2001 and 2017. The examinations were recovered, following a methodology applied by Moço, Flório and Zanin (2017), through a survey in two sites that are widely accessed by people who participate in civil service examinations in Brazil: PCI Concursos and Folha Dirigida (www.pciconcursos.com.br/provas and http://www.folhadiri-gida.com.br/fd/Satellite/concursos/paraiba). Descriptors were "dental surgeon" (*cirurgião-dentista*) and "dentist" (*dentista*). The tests were also tracked on the website of companies with greater representation in tender bids in the state of Paraíba.

Once the criteria were applied, the tests were cataloged, examined by two researchers, and added to Microsoft Excel® 2007. The questions were analyzed, considering the topics related to pediatric dentistry, excluding only the ones that presented duplicity. At all stages, the inter-rater agreement level was measured by calculating the Kappa coefficient (0.82), being 0.80 the minimum acceptable value for the study. The specific knowledge classification by general topics was done according to the most recent book of Guedes-Pinto (GUEDES-PINTO, 2016), 9th edition, on pediatric dentistry. The topics covered were distributed as follows: 1.STUDY OF DECIDUOUS DENTITION: odontogenesis, eruption, rhizolysis, anatomy,

development and characteristics; 2. PSYCHOLOGICAL CONDUCT IN PEDIATRIC DENTISTRY: principles of psychology and psychological techniques; 3. DIAGNOSIS AND BUCCAL PATHOLOGY IN PEDIATRIC DENTISTRY: radiology, cardiology, periodontics and stomatology; 4. ORAL REHABILITATION AND SURGICAL MANAGEMENT OF CHILDREN PATIENTS: anesthesia, surgery, pulp therapy (deciduous and permanent young dentition), endodontic treatment (deciduous and permanent young dentition), operative and restorative dentistry, dental materials, traumatic injuries and oral prosthesis/rehabilitation; 5. INTERRELATIONSHIP WITH RELATED AREAS: drug therapy, sedation and dentistry for special patients.

Bloom's Taxonomy of the Educational Objectives classifies the objectives belonging to the cognitive domain in six levels presented in a sequence that goes from the simplest to the most complex one: I - KNOWLEDGE, II - UNDERSTANDING, III - APPLICATION, IV - ANALYSIS, V - SYNTHESIS, VI – EVALUATION (BLOOM et al., 1956; FERRAZ; BELHOT, 2010). In this study, questions were classified according to Bloom's Revised Taxonomy (BRT), where the terms Knowledge, Understanding, Application, Analysis, Synthesis and Evaluation were replaced by the following: I - REMEMBER, II - UNDERSTAND, III - APPLY, IV - ANALYZE, V - CREATE and VI - ASSESS, respectively, in which domains create and evaluate change position in complexity level (MOIMAZ et al., 2017).

Questions containing subdivisions (items A, B, C ...), in relation to the classification criteria of cognitive levels, were analyzed, *e.g.*, all subdivisions were analyzed as forming just one question, predominating the classification level that required a more complex cognition level according to the taxonomy. In relation to the topics of pediatric dentistry, the subdivisions were analyzed as independent questions, which should necessarily explore some knowledge that was distributed in one or more topics.

Because there was no involvement of human beings and the material considered a public domain, there was no need to be submitted to the ethics committee. Nevertheless, the research is in compliance with the laws governing the common sense and ethics.

RESULTS

A total of 107 tests were collected from examinations applied between 2001 and October 2017. When applying the exclusion criteria, 9 identical tests were removed, totaling 98 tests. After analyzing the tests, there were 3,949 questions and, out of these, only 54 questions, 1.36% of the total, were related to pediatric dentistry. Additionally, two questions were excluded due to duplicity. Among the issues analyzed, none were canceled or deleted for errors. When analyzing the specific knowledge by generic topics, oral rehabilitation and surgical management, including contents of anesthesia, surgery, pulp therapy, endodontic treatment, operative and restorative dentistry, dental materials, traumatic injuries and dental prosthesis/rehabilitation were the most frequent topics found in the examinations, corresponding to 43% of the questions, being followed by diagnosis and oral pathology, which corresponded to 25% of the questions (Figure 1).
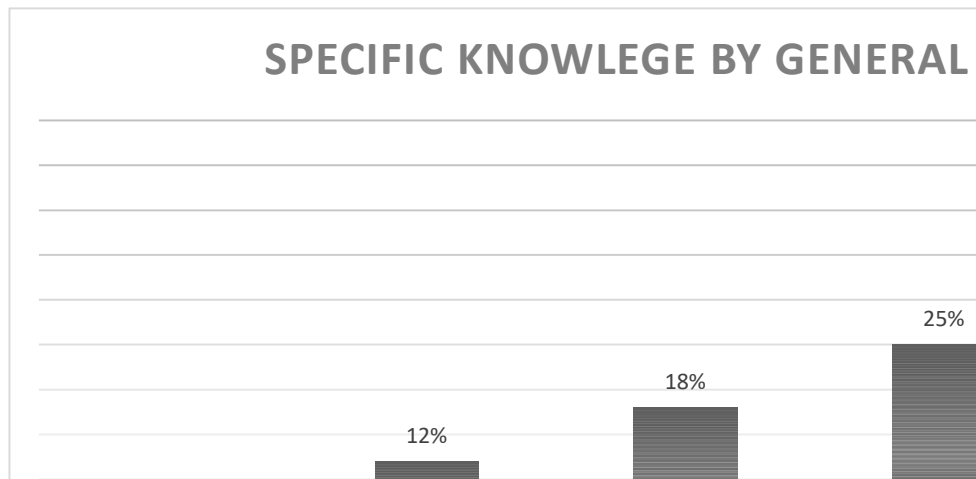

Figure 1. Specific Knowledge Classification Analysis by General Topics.

According to Bloom's revised taxonomy (MOIMAZ et al., 2017), 46% of these questions were part of the remember domain, in which the goal expected from students is to verify what is already known, by recognition or memory and, 29% of the questions were in the apply domain (Figure 2).
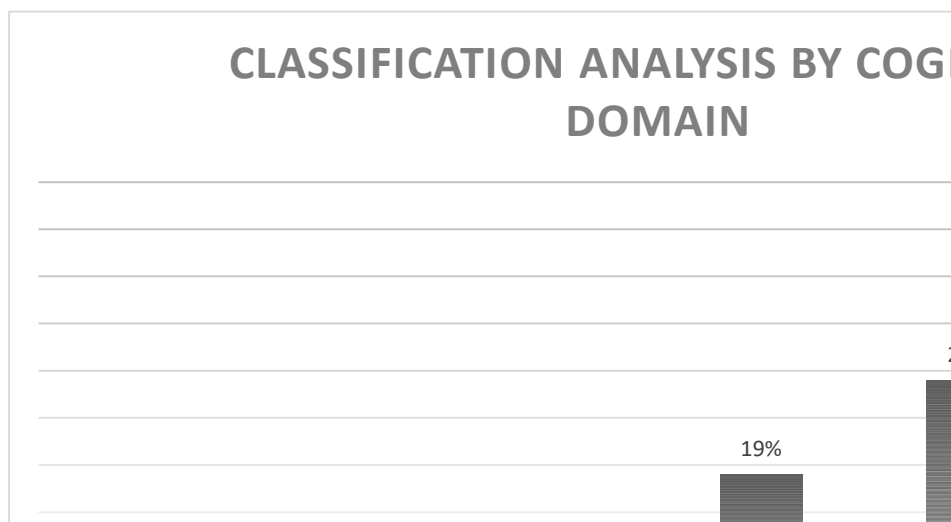

Figure 2. Classification Analysis by Cognitive Domain.

DISCUSSION

The inclusion of the Oral Care Team (OCT) in the Family Health Strategy took place through the Administrative Rule 267/GM of March 2001, aiming at increasing the population's access to oral care services and, thus, encouraging a reorganization of actions at a primary level

(BRASIL, 2001). From then on, professionals can be hired to be part of the OCT, as well as participating in civil service examinations.

A total of 107 tests were collected from examinations applied between 2001 and October 2017. No tests were found prior to these years. However, this fact does not imply that there was no civil service examination for dentist from 2001, when the OCT was included in the FHT. Evidence may not be available in the research media surveyed in this study. In addition, nine tests were excluded by duplicity or considered aggravating, as this type of occurrence may compromise the legitimacy of competitions.

The main dental procedures performed by dentists in Basic Care Units (BCU) are exodontics, restorations, scaling, smoothing and polishing, pulp capping, coronary opening and dressing, sealant application and ulotomy/ulectomy in adults and pediatric patients (MEURER, 2013). In this study, only 1.36% of the questions were related to pediatric dentistry, evidencing the low prevalence of this topic in examinations whose professionals will assist the public in question. It is important to be aware that the approach to children in the FHS is essential for the improvement of the quality of life of this population (BRASIL, 2012).

The highest prevalence of specific knowledge was related to oral rehabilitation and surgical management. These findings corroborate with a study carried out by Araújo (2016), who evaluated the distribution of technical questions related to dentistry in civil service examinations, in which operative dentistry and, subsequently, biosafety and surgery were the prevailing specialties. Araújo, Martins and Dantas (2016), when analyzing the oral care procedures performed in the FHI I in Natuba city, Paraíba, found out that the procedures performed the most were related to surgery, followed by periodontics and operative dentistry, respectively. Then, it can be said that the specific knowledge most required in civil service examination tests, considering pediatric dentistry, are in accordance with the procedures most performed by dentists in FHUs. However, to show the association between the content, covered in civil service examinations, and the most frequent procedures, performed by dentists in UBSs, it is necessary to have more detailed studies, comprising the entire Brazilian territory. The presence of recurrent topics is an indication that these are contents prioritized in civil service examinations and should be coherent with the work provided by the professionals in the FHU. Bloom's taxonomy of educational objectives was developed to classify the

educational objectives in three major areas: cognitive, affective and psychomotor, allowing the classification of the teaching objects based on the required cognitive complexity (MISKALO, 2010). In this study, the BRT was used since the implantation of new technologies to the educational system requires adaptation to the original taxonomy (FERRAZ; BELHOT, 2010).

In a study conducted by Miskalo (2010), the questions were classified according to the Bloom's taxonomy, in which the first two cognitive levels were considered low levels, and the following four were considered high levels. After the analysis, the author found that 97% of all the questions were included in low levels of knowledge and understanding, corresponding to the domains remember and understand in the BRT. Andrade, Carvalho and Queiroz (2017) analyzed questions related to 48 tests applied to students of immunology applied to dentistry, using the Bloom's taxonomy, considering levels I and II as low, III and IV as intermediate and levels IV and V as high. The results showed that the highest prevalence of these (87.5%) were also classified in low levels of knowledge and understanding. It is believed that the non-agreement of the results with this study, which had the prevalent domains remember and apply, is justified by the fact that the tool has different purposes. In this study, the goal was to measure the profile expected from the professional and, in that, the goal was to have an educational tool. Moreover, the institutions elaborating the questions were different, one being made up of faculty members, and the other consisting of persons in the service of companies chosen through tender bids. In the analyzes by, it was observed that none of the questions was classified in the levels of synthesis and evaluation, cognitive levels considered high by these authors, and not present in this study.

Analyzing the public health questions from the National Examination of Student Performance in 2004, 2007, 2010 and 2013, through the BRT, Moimaz et al (2017). verified that 11 questions (39.29%) were included in the analyze domain, making it the most prevalent in the study. This was the second most expressive domain in the results of this research. Therefore, it can be said that it is an important dimension in questions that aim at measuring the profile of professionals and students that will take the test. It should be emphasized that these analyzes do not allow the evaluation of the quality of the civil service examinations carried out in the state of Paraíba, but only evaluate the nature of the questions applied in the tests. Studies evaluating the content of public procurement in

dentistry are required, as these data can act as a study guide for recent graduates. In addition, the data found here may assist examination board members in the design and verification of tests.

CONCLUSION

The most frequent questions related to pediatric dentistry addressed in civil service examinations in state of Paraiba, Brazil, concerning oral rehabilitation and surgical management were the most addressed in civil service examinations, in which the domains remember and analyze were predominant. There were no questions requiring complex cognitive domain such as assessing and creating.

RESUMO: Esse trabalho teve como objetivo verificar o conteúdo de Odontopediatria abordado em concursos públicos da Paraíba através da análise e classificação de questões. Foram extraídas questões que versavam sobre os assuntos da área de Odontopediatria de certames disponíveis realizados e encerrados, de todas as cidades do estado da Paraíba para o cargo de cirurgião-dentista do Programa Saúde da Família entre os anos de 2001 e 2017. De todo o estado foram coletados 107 certames e ao aplicar os critérios de exclusão, foram removidas 9 provas idênticas, totalizando 98. Após análise destas, obteve-se 3949 questões e dessas apenas 54; 1,36% do total, versavam sobre Odontopediatria. As questões foram classificadas de acordo com o tópico genérico de que se tratavam e o nível cognitivo que exigiam de acordo com a Taxonomia Revisada de BLOOM. Os resultados mostraram que o tópico referente à reabilitação bucal e manejo cirúrgico, foi o de maior prevalência correspondendo a 42% das questões e as dimensões cognitivas mais prevalentes foram lembrar e analisar que corresponderam a 45% e 29%, respectivamente. Foi possível concluir que questões referentes à reabilitação bucal e manejo cirúrgico foram as mais abordadas em concursos públicos no contexto da Odontopediatria e que as dimensões lembrar e analisar foram as de maior prevalência. Não houve ocorrência de questões que exigiam dimensões cognitivas mais complexas, como avaliar e criar.

PALAVRAS-CHAVE: Questões de exames. Seleção de Pessoal. Odontologia.

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