Original article

Quality of Primary Health Care dental services from the perspective of users and dentists

Qualidade dos serviços odontológicos da Atenção Primária à Saúde na perspectiva dos usuários e dentistas

Douglas Emanuel Maciel da Silva, Camila Casimiro Siciliani, Juline Manica Desordi, Franciele Rodrigues Zorzo, Eliane Roseli Winkelmann, Adriane Cristina Bernat Kolankiewicz

Authorship

Metadata

ABSTRACT

Objective: To assess the quality of oral health care from the perspective of users and dentists. **Method:** Cross-sectional study with 222 users and 16 dentists from primary health care units. Data collection with the Primary Care Assessment Tool PCATool-Brazil Oral Health. Quality was considered satisfactory when the score was higher than 6.6. Analysis using Student's t-test and Mann Whitney U test. **Results:** Overall score of 7.24 from the perspective of dentists and 6.39 for users. The satisfactory components from the users' perspective were: affiliation (8.42), utilization (9.17), and services available (7.14); and, from the dentists' perception, longitudinality (6.80), integration of care (7.44), information system (8.06), services available (8.85), services provided (9.39), and family guidance (7.29). The comparison of scores detected significant differences in the attributes of care integration ($p<0.001$), information system ($p= 0.001$), available services ($p<0.001$), services provided ($p<0.001$), family guidance ($p<0.001$) and community guidance ($p=0.033$); as well as in the essential ($p<0.001$) and general (0.005) scores. **Conclusion:** The results demonstrate statistical differences in the assessment of service quality between the groups, with better scores in the perception of professionals. It is expected that the study will collaborate in the implementation of strategies that qualify work processes and favor effective and efficient dental care.

KEYWORDS: Primary Health Care. Oral Health Services. Quality Assurance, Health Care. Dentistry

RESUMO

Objetivo: Avaliar a qualidade da atenção à saúde bucal na perspectiva de usuários e cirurgiões-dentistas. **Método**: Estudo transversal, com 222 usuários e 16 cirurgiões-dentistas de unidades de atenção primária à saúde. Coleta de dados com Primary Care Assessment Tool PCATool-Brasil Saúde Bucal. Considerada qualidade satisfatória quando o escore é superior a 6,6. Análise por meio dos testes t-Student e Mann Whitney U. **Resultados**: Escore geral 7,24 na perspectiva dos dentistas e 6,39 para usuários. Os componentes satisfatórios na percepção dos usuários: afiliação (8,42), utilização (9,17) e serviços disponíveis (7,14); e, na percepção dos dentistas, longitudinalidade (6,80), integração de cuidados (7,44), sistema de informações (8,06), serviços disponíveis (8,85), prestados (9,39) e orientação familiar (7,29). A comparação dos escores detectou diferenças significativas nos atributos integração de cuidados ($p<0,001$), sistema de informações ($p= 0,001$), serviços disponíveis ($p<0,001$), serviços prestados ($p<0,001$), orientação familiar ($p<0,001$) e orientação comunitária ($p=0,033$); bem como nos escores essencial ($p<0,001$) e geral (0,005). **Conclusão**: Os resultados demonstram diferenças estatísticas da avaliação da qualidade dos serviços entre os grupos, com melhores escores na percepção dos profissionais. Espera-se que o estudo colabore na implementação de estratégias que qualifiquem os processos de trabalho, e favoreçam uma assistência odontológica resolutiva e eficiente.

PALAVRAS-CHAVE: Atenção Primária à Saúde. Serviços de Saúde Bucal. Avaliação da Qualidade dos Cuidados de Saúde. Odontologia.

INTRODUCTION

Primary Health Care (PHC) is characterized as the main form of access for users to public health services, focusing on the person in a comprehensive manner, coordinating and integrating the care provided at other points of care. In this sense, the implementation of PHC, so that it meets the needs of the population, is based on four essential attributes and three derivatives. The essential attributes are: first contact access, longitudinality, comprehensiveness and coordination of care. The derived attributes are: family guidance, community guidance and cultural competence[1].

The presence of essential attributes is related to the quality of PHC through its fundamental points as a strategy for the practical implementation of prevention, promotion and recovery services in health. The derivatives demonstrate the strengthening of PHC in the concepts of health that involve biological and social factors[2]. The presence of these attributes represents greater user satisfaction and better indicators, which positively impact people's health status[1].

Considering the expansion of PHC in Brazil and the increase in the number of oral health teams (oHT) since the creation of the National Oral Health Policy (NOPH), it is necessary to evaluate the results obtained to date, mainly regarding the organization and quality of services provided to the population. Therefore, it is important to conduct studies that support health management and administration processes, in addition to enabling the comparison of results that reflect the presence of attributes and identify the qualification needs of teams[3].

It is important to understand the strengths and weaknesses of oral health services, to identify the obstacles encountered so that health promotion occurs effectively and to be able to qualify the services provided, from access to resolution[4]. From this perspective, authors developed the Primary Care Assessment Tool (PCATool), which aims to measure the presence and extent of PHC attributes, making it possible to demonstrate the quality of work processes[5].

The PCATool was initially developed and validated in the United States of America[6]. In Brazil, the first validation took place in 2006, with the child user version[7]. The content, factorial and reliability validation of the adult version was published in 2013[8]. The first versions of the PCATool were related to the care offered by the medical and nursing areas and, when applied to oral health services, it was necessary to adapt it, changing the statement "doctor-nurse" to "dentist-oral health service"[9].

The validation of the PCATool Oral Health user version was published in 2020 and the version for dental professionals was published in 2021. Currently, the instrument represents an important tool that, in addition to highlighting the presence of PHC attributes in the reality of services, allows an assessment from different perspectives, covering both those who receive care and those who provide it[3,10].

There are few articles published using the PCATool OH Brazil in evaluations that address the topic from the perspective of users and professionals, in the same period of time[11]. Studies with the perceptions of dentists or users are observed[12-17]. Thus, this study is justified, given the knowledge gap, which requires research with both population groups at the same time. The objective of this study is to evaluate the quality of oral health care from the perspective of users and dentists.

METHODOLOGY

This is a cross-sectional, analytical study with a quantitative approach, carried out in accordance with the recommendations of the STROBE tool (Strengthening the Reporting of Observational Studies in Epidemiology).

Study location

Conducted in PHC units in a medium-sized municipality in the countryside of the state of Rio Grande do Sul, Brazil, with an estimated population of 85,135 inhabitants, characterized by being a regional health hub and university city[18].

According to the National Registry of Health Establishments (NRHE), the municipal public network has 18 PHC units: 14 of these operate in the Family Health Strategy (FHS) format and the others, as Primary Health Care Teams (PHCt). The units operate from 7:30 am to 11:30 am and from 1:30 pm to 5 pm.

Regarding dental care coverage, 15 PHC units have an Oral Health Team (OHt) in their composition, 13 of which are FHS units and two PHCt[19]. During the research collection period, there were a total of 25 dentists linked to the Municipal Health Department, 16 of whom worked in PHC units. The municipality has a Center for Dental Specialties (CDS) and a Radiology Service, a reference for PHC OHt.

Period

Data collection was carried out between February and July 2022.

Study subjects

Sixteen dentists working in the PHC of the municipality participated in the study. The inclusion and exclusion criteria used were the same as those used in the instrument validation

study[3]. The inclusion criterion was working in PHC for six months or more, and the exclusion criterion was being on paid or unpaid leave during the collection period. All professionals met the inclusion criteria and were contacted in person at their workplaces. At that time, the research was presented and the dentists were invited to participate.

The user group was composed of individuals over the age of 18, who had lived in the area covered by the health unit for at least one year; they were registered with the Integrated Municipal Health System (SIMUS), were linked to PHC units that had a dentist on staff, and had had at least one dental appointment at the health unit in the last year. The exclusion criterion was cognitive limitations that would make it impossible to understand the questionnaire items.

The minimum sample size of users and the number of participants per health unit were calculated considering the number of registered users in the Units with OHt (71,303), obtaining a sample power of 80% (1-β = 0.20), a significance level of 5% (α = 0.05), as well as a maximum margin of error of 12.5%. The estimate was 222 users. The statistical software STATA Version 12.1 was used (Stata Corp Stata Statistical Software: release 12.1. Stata Corporation, 2018).

Users were randomly selected by drawing lots. After checking 4,874 user records, it was found that 386 had had at least one dental appointment in the last year. Telephone contact or home visit was sought to present the research and schedule collection at the health unit or home, with up to three attempts to contact each participant, on different days and times. Of this number, 222 users met all inclusion criteria and agreed to participate in the research, covering the minimum representative sample per health unit.

Data collection and analysis

Data collection was carried out by 10 research assistants previously trained by reading the Manual of the Primary Health Care Assessment Instrument PCATool Brasil, published by the Ministry of Health in 2020[20], followed by test application on volunteers.

For dentists, collection took place at their own workplaces, following the research presentation script; with acceptance and signature of the Free and Informed Consent Form and application of a questionnaire to identify the professional profile constructed by the researchers and the PCATool Brasil OH version for dental professionals. The questionnaires were delivered in printed form and completed by the participants themselves, with a mean application time of 30 minutes. The PCATool Brasil OH instrument for professional dentists comprises 81 items distributed in nine components: Access First Contact — Accessibility; Longitudinality; Coordination — Integration of Care; Coordination — Information System; Comprehensiveness — Available Services; Comprehensiveness — Services Provided; Family Guidance; Community Guidance; and Cultural Competence[20].

For users, a questionnaire on sociodemographic conditions and the PCATool Brasil OH instrument for adult patients[20] were used. The questionnaires were administered in the form of an interview, at home or at the health unit, according to the participant's choice. The mean application time was 45 minutes. The PCATool OH version for adult users has 86 items distributed in 10 components: Affiliation; Access First Contact — Utilization; Access First Contact — Accessibility; Longitudinality; Coordination — Integration of Care; Coordination — Information System; Comprehensiveness — Available Services; Comprehensiveness — Services Provided; Family Guidance; and Community Guidance[20].

The score for each PCATool OH component was obtained by adding the values of the responses to the items that make up the component or attribute divided by the total number of items in the respective component or attribute. Each component had response options: definitely yes, probably yes, probably no, definitely no, and I don't know/don't remember. Each response obtained represented a value from 1 to 4, which was used to calculate a mean score for each component or attribute of Primary Health Care in Oral Health. The scores were transformed into values ranging from 0 to 10, based on the following formula: Score obtained -1/3X10. The higher the score, the better the evaluation, representing greater presence of the attribute measured. Scores below 6.6 were considered low/unsatisfactories[20].

The data obtained were entered into a database in Microsoft Excel and, after analysis of errors and inconsistencies, transferred and analyzed in PASW Statistics® (Predictive Analytics Software, by SPSS Inc., Chicago - USA) 21.0 for Windows. The results were analyzed using descriptive statistics through absolute and relative distributions, as well as mean and standard deviation, accompanied by the 95% confidence interval. The study of data symmetry was performed using the Kolmogorov Smirnov test. In the analysis involving the comparison of scores between the groups of users and dentists, the Student's t-test was applied and, in the case of variables with asymmetric distribution, the Mann Whitney U test. The results were considered statistically significant when $p \leq 0.05$.

The risks involved in the research referred to possible discomfort generated by the time spent answering the questionnaire; or embarrassment or unpleasant memories of one's life that occurred during the consultations. To minimize risks, all participants were advised about the possibility of withdrawing from the study or resuming the study at another time. In addition, the questionnaire was administered in a location chosen by the participant, which favored concentration and preserved privacy. All necessary time was given for the participant to reflect and respond to the questionnaires.

Ethical aspects

The project was submitted to the Research Ethics Committee of Regional University of Northwestern Rio Grande do Sul – UNIJUÍ (opinion n.º 5.156.499; CAAE n.º 52397321.7.0000.5350), in compliance with Resolution 466/2012 of the National Health Council (NHC).

RESULTS

Of the 4,874 medical records evaluated, 386 users had accessed dental services in the one-year period prior to the survey, equivalent to a percentage of 7.7%. There were 45 refusals and 119 losses: 42 could not be located due to inconsistencies in telephone contact and address, 70 scheduled an appointment but did not show up for data collection, and seven were unable to participate because they did not meet one of the inclusion criteria. Thus, 222 users participated in the study.

The ages ranged from 18 to 81 years, with an estimated mean of 48.4 years (SD 15.1), with a predominance of females, with 71.2% (n=158), white/yellow skin color and married/cohabiting marital status, with proportions of 65.5% (n=144) and 60% (n=132), respectively. Regarding education, the highest frequencies were those with incomplete elementary education, with 33.3% (n=74); as well as those with complete high school, with 27.9% (n=62); and complete elementary education, with 23.0% (n=51). The majority of the sample reported having children, with 85.6% (n=190) (Table 1).

Table 1 – General characterization of the user sample

Variables	Users (n=222)	
	n	**%**
Family Age		
Mean±SD	48.4±15.1 (18-81)	
Median (1st-3rd Quartile)	49.0 (36-62)	
Age group		
18 to 59 years	160	72.1
Over 59 years	62	27.9
Sex		
Female	158	71.2
Male	64	28.8
Ethnicity/color		
White and yellow	144	65.5
Mixed race. black and indigenous	76	34.5
Marital status		
Married, living together	132	60.0
Single	88	40.0
Children	190	85.6
How many children		
NA	32	14.4
1 to 3 children	156	70.3
More than 3 children	34	15.3
Education		
Does not know	4	1.8
Incomplete elementary	74	33.3
Complete elementary	51	23.0
Complete high school	62	27.9
University education	31	14.0

A: Percentages obtained based on the total sample

Source: prepared by the authors

Regarding dentists, ages ranged from 26 to 58 years, with a mean of 44.2 (±9.8) years. Most were female, with 62.5% (n=10). A specialization course in Public Health was reported by 10 dentists. Regarding the time the professional worked at the unit, 43.8% of the sample concentrated in the period of 1 to 2 years. Regarding the workload, most professionals reported the period of 40 hours, with 62.5% (n=10). The employment relationship via public tender reached 81.3% (n=13) (Table 2).

Table 2 – Characterization of dentists, municipality in the northwest of the State of RS, Brazil, 2022

Variables	Dentists (n=16)	
	N	%
Age (years)		
Mean±SD (Range)		44.2±9.8 (26-58)
Median (1st-3rd Quartile)		44.5 (38-52)
Sex		
Female	10	62.5
Male	6	37.5
Undergraduate Institution		
Public	10	62.5
Private	6	37.5
Specialization in Public Health		
Yes	10	62.5
No	6	37.5
Time working at the Unit		
1-2 years	7	43.8
2-3 years	3	18.8
5-10 years	3	18.8
11 years or more	3	18.8
Weekly Workload		
20 hours	4	25
30 hours	2	12.5
40 hours	10	62.5
Employment Relationship		
Public contest employee	13	81.3
Cisa *	3	18.8

* Intermunicipal Consortium of the Northwest of the State of Rio Grande do Sul

Source: prepared by the authors

Regarding the evaluation of attributes, these were compared between users and dentists. Statistically significant differences were detected, indicating that the mean scores were higher in the group of dentists. This can be observed in the Essential Score ($p<0.001$) and in the attributes Care Integration ($p<0.001$), Information System ($p=0.001$), Available Services ($p<0.001$),

Services Provided (p<0.001), Family Guidance (p<0.001) and Community Guidance (p=0.033) (Table 3).

Table 3 – Mean, standard deviation and confidence interval of the attributes of users (U) (n=222) and dentists (D) (n=16), municipality in the northwest of the State of RS, Brazil, 2022

Attributes and groups		M	SD	95% confidence interval		pB
				Lower limit	Upper limit	
Affiliation	U	8.42	2.26	4.96	11.74	- - -
Use	U	9.17	1.52	6.87	10.76	- - -
Accessibility	U	5.20	1.63	4.99	5.42	0.669
	D	5.24	1.40	4.50	5.99	
Longitudinality	U	6.40	1.64	6.19	6.62	0.535
	D	6.80	0.83	6.36	7.24	
Integration of care	U	4.26	2.17	3.97	4.54	<0.001*
	D	7.44	1.46	6.66	8.22	
Information systems	U	5.90	2.78	5.53	6.27	0.001*
	D	8.06	1.49	7.26	8.85	
Available services	U	7.14	2.16	6.86	7.43	<0.001*
	D	8.85	0.97	8.33	9.36	
Services provided	U	4.61	3.08	4.21	5.02	<0.001*
	D	9.39	0.71	9.01	9.77	
Family guidance	U	5.53	3.20	5.11	5.96	<0.001*
	D	7.29	1.68	6.40	8.19	
Community guidance	U	3.13	2.30	2.83	3.44	0.033*
	D	5.80	1.39	5.05	6.54	
Cultural competence	D	6.27	1.53	3.27	9.26	
Essential score	U	6.38	1.18	6.23	6.54	<0.001*
	D	7.63	0.67	7.27	7.99	
General score	U	6.39	1.18	6.23	6.54	0.005*
	D	7.24	0.80	6.81	7.66	

B: Mann Whitney U test * Statistical difference

Source: prepared by the authors

When comparing the groups, the greatest variations occurred between the mean scores in the attributes: Services provided [U: 4.61±3.08 vs. D: 9.39±0.71; p<0.001] and Community Orientation [U: 3.13±2.30 vs. D: 5.80±1.39; p<0.001. No less important, the smallest difference between the two groups occurred in the attribute Available services [U: 7.14±2.16 vs. D: 8.85±0.97; p<0.001].

DISCUSSION

From the analysis of the scores, it can be observed that, of the 10 components evaluated by the users, the attributes Affiliation (8.42), Utilization (9.17) and Available Services (7.14) presented satisfactory means and the others, as well as the general and essential scores, were below the cut-off point. On the other hand, the evaluation carried out with the dentists presented satisfactory scores in the attributes Longitudinality (6.8), Integration of Care (7.44), Information Systems (8.06), Available Services (8.85), Services Provided (9.39) and Family Guidance (7.29). The attributes Accessibility (5.24), Community Guidance (5.8) and Cultural Competence (6.27) presented low scores. The general and essential means were satisfactory (7.24 and 7.63, respectively). In the statistical analysis obtained between the groups' scores, significant differences were observed in the essential and general scores and in six of the eight components. There was evidence of a considerably more positive assessment by dentists, in line with what was found in other studies[11,21]. In the assessment of the users investigated, they demonstrated that the services did not fully cover the attributes. This result is similar to that of other studies that demonstrated the challenge of implementing work processes that are appropriate to the needs of people who use PHC[15, 16, 21].

The First Contact Access attribute is divided into two components for assessment, namely "Use", which is present in the user version, and "Accessibility", which is present in both versions[20]. In the user assessment, the "Use" component was the one that had the highest score, which was expected, given the profile and inclusion criteria of the research. This result suggests that, among the participants, PHC is the preferred gateway for accessing dental services. Of the eligible population for the study, 7.7% accessed dental services during the established period, indicating that there is a significant portion of people who do not use public dental services. A similar study conducted in Porto Alegre/RS, based on contact with 1,943 people, found that 1,449 were unable to participate in the study because they had not used the PHC dental services[16]. Among the variables that contribute to the disparities in the use of dental services is the increase in the number of registered users per team, a result of the criteria for financial transfer of funds from the Previne Brasil Program based on registration[22]. Thus, the number of individuals registered per team does not necessarily represent the number of people who actually use the service, but rather people who live in the area covered by the health unit.

The Social Determinants of Health are factors related to the individual's health situation, and may be social, economic, cultural, ethnic/racial, psychological and behavioral factors[23]. Published studies observe a positive relationship between the sociodemographic characteristics of individuals and access to and use of health services, where individuals with low income, low

education and greater vulnerability tend to use health services more.[24-26.]

The Accessibility component of the First Contact Access attribute was the only one to present a low score in both groups, proving to be one of the greatest challenges of PHC. Furthermore, this attribute directly influences the others, since individuals who do not access the services will hardly be able to learn about the other attributes[21]. Furthermore, the lower number of oral health teams, compared to the number of FHS units, generates a pent-up demand, hinders the provision of services and weakens prevention and health promotion actions, since there is a greater demand for curative care for oral diseases[27].

Furthermore, this component presents questions regarding the opening hours of health units, access at night or on weekends and whether there is any reference for care when the unit is closed. The PHC units studied operate during business hours, which constitutes an access barrier, especially for workers. The municipality has an Emergency Care Unit (UPA) for emergency medical/nursing care, but there is no dentistry professional on the team.

Among the possibilities for overcoming access difficulties, there is the possibility of adopting extended hours in PHC units, which could favor prolonged access, with a greater number of consultations available. Another possibility would be to organize a Dental Emergency Care service at the municipality's UPA so that users have a reference, especially for urgent and emergency cases, when the unit is not operating[28, 29].

Longitudinality is the attribute that makes it possible to assess the continuity of care[1]. In this study, the users' score was below the cutoff point, compatible with the scores published by Maciel *et al.*[15](2020) and Cardozo *et al.*[16](2020) and below those found by Nascimento *et al.*[11](2019) and Kfouri *et al.*[17](2019). In the group of dentists, the mean was above the cutoff point, as well as the results found by D'Ávila *et al.*[13](2016) and Nascimento *et al.*[11](2019), however, above the results obtained by Miranda *et al.*[14](2021) and Pivatto and Silveira *et al.*[12](2022).

The low turnover of professionals, associated with the possibility of rescheduling appointments to continue treatment, positively influences the score of the longitudinality attribute. However, progress is still needed in terms of forming the professional-patient bond, so that better quality can be achieved in the users' perception. Regarding the Coordination attribute, a positive evaluation was observed by professionals and a negative evaluation by users, with a significant statistical difference between the groups. It is worth noting that the questionnaire applied to users presents two initial questions for this component: "Do you receive the results of your dental x-rays at the "oral health service"?" and "Did you consult any type of specialist dentist or specialized oral health service during the period in which you were being followed up by the "oral health service/dentist" (e.g.: for root canal treatment, gum treatment or more complicated oral surgery)?". If the user answered yes to the second question, he/she answered other questions related to the

integration of care. The municipality's PHC does not have a radiology service in the public network offices, resulting in low scores for this component.

The questions of this attribute in the version of the instrument for dental professionals address the referral and counter-referral between the PHC and the specialized service[20], not including those related to radiographic examinations. This aspect was decisive for the discrepancy in scores between the evaluation of the two groups. According to Gomes *et al.*[30] (2019), the centralization of dental radiographic examinations is the model present in the reality of PHC in Brazil, mainly due to structural problems of the units and insufficient health financing to better equip the teams. However, this structuring of the PHC represents an increase in costs for management, in the purchase of equipment and payment of additional fees to workers[30, 31.]

The evaluation of the Coordination – Information System attribute concerns the registration and access to user information, as well as the delivery of records or service bulletins[20]. The evaluation of this component showed a significant difference between the two groups, where the user group presented an unsatisfactory score and the dentist group, a satisfactory score. The users' perceptions are similar to those found by Cardozo *et al.*[16] (2020), but were below those found in the studies by Nascimento *et al.*[11] (2019), Maciel *et al.*[15] (2020), and Kfouri *et al.*[17] (2019). The professionals' data, on the other hand, had values above the mean of 6.6, following the pattern of other studies[11-14].

Currently, the municipality under investigation has a computerized health system, with electronic medical records, which interconnects all health services in the municipality. Data sharing allows professionals to access patients' care history, as well as reference and counter-reference documents, medications in use, referrals, and exam requests[32]. The professionals' familiarity with the system reflects the positive evaluation of the component by this group.

Users do not have their own access to the computerized system, have no contact with their electronic medical records, and do not receive records of the care provided. Araújo, Rechmann and Magalhães[33] (2019) point out that, legally, the users have the right to see their medical records, and it is the institution's responsibility to provide them when requested. Patients' access to their care records can be a factor of empowerment; however, it is essential that professionals have communication mechanisms with users in order to guide them regarding the information, thus avoiding misinterpretations that may generate unnecessary concerns[34].

Health literacy (HL), conceptualized as the individual's ability to access, understand and use information, must be taken into account when understanding the results of the assessment of the quality of PHC services. This is because limited HL is related to worse levels of health quality and less efficient use of services[35-37].

The comprehensiveness attribute is related to the provision of services that are in accordance with the needs of the population, and is divided into two components: Available

Services and Services Provided[20]. The data show a positive evaluation by users regarding "Available Services", but a negative evaluation regarding "Services Provided", which gives evidence that users were aware of the responsibilities of PHC, but did not recognize the provision of services in their entirety. On the other hand, dentists evaluated both components positively, with a significant difference in relation to users.

According to Amorin and Leite[38] (2024), the PCATool OH questions related to the Available Services component are basically related to health education processes, making it difficult to approach the Comprehensiveness attribute more deeply regarding the provision of the evaluated services. It is possible that (,) even services with good performance evaluations present weaknesses that prevent Comprehensiveness from being truly effective. They are also influenced by sociodemographic variables and self-perception in oral health[39].

Hirooka *et al.*[40] (2018) states that inequalities in access directly influence the provision of services that are appropriate to the population's needs. Situations found in the municipality, such as HFt (heath family team) without OHt, can compromise access to services and, consequently, the comprehensive care of users. In addition, structural issues of services, related to dental materials and instruments, also influence the reality of Comprehensiveness in services in practice, facts not covered by the instrument[41].

The positive data regarding the Available Services component were also found in a study carried out in Curitiba, Brazil, with 900 users and 203 dentists, demonstrating the advancement of the list of services offered by the PHC, with the objective of guaranteeing effective care and improving the population's oral health indicators[11]. Considering the differences in perceptions of this component, Costa *et al.*[21] stated that one of the ways to mitigate the difference in knowledge of the available services between professionals and users would be to organize a visual presentation with the list of services offered by the unit. Of the essential attributes assessed by both groups, the Services Provided component of the Comprehensiveness attribute is the one that presents the greatest difference between the assessments. The questions related to this item take into account a series of preventive guidelines that the users may or may not have received during their dental appointment. The fact that users do not receive oral health care guidelines during their dental appointment reduces the chance of a positive evaluation of the service by 4.27 times[42].

Dental care has been significantly affected during the Covid-19 pandemic. According to Chisini *et al.* (2021), there was a decrease of up to 88% in the number of dental procedures performed in the SUS during the pandemic, generating a pent-up demand from patients with untreated oral health problems during this period. Thus, taking into account the decrease in the number of cases of the disease and the progress in vaccination, it is expected that there will be a greater demand for dental care. This context favors a practice focused on clinical actions that

aim to rehabilitate users' oral health, but with the risk of overloading professionals' schedules[44], [45]. Thus, it is necessary for services to guarantee access to both elective or emergency dental care and to prevention and health promotion actions, thus avoiding an epidemiological setback related to the population's oral health conditions[46].

Prates *et al.*[47] stated that the derived attributes presented worse indicators in the country, when compared to the essential ones. In this study, only the Family Guidance attribute was above mean, in the professionals' perception. Although it is a common practice for professionals to seek information about family members, in the users' perception, there is no interest from health teams in living conditions related to the family environment[48].

Another derived attribute with a statistical difference between the groups was Community Guidance, which had a low score in both groups. According to Starfield[1] (2002), this attribute concerns the recognition of the population's needs through epidemiological data and direct contact with the community, establishing relationships. Vermeulen *et al.*[49] (2018) state that the effectiveness of this attribute seeks to encourage services to assume responsibility for the health care of their assigned population, so that individual needs can be reconciled with collective needs.

Brunelli *et al.*[50] (2021) reports that strategies such as local surveys to better understand the needs of communities, participatory management to define action priorities and more cost-effective forms of interventions can improve the perception of the Community Guidance attribute by users. However, the history of dental care focused on curative clinical care results in low interaction of oral health teams with activities outside the office environment, making it difficult to work on community issues in the territory[51].

Cultural Competence is an important derived attribute for planning PHC actions, as understanding the factors related to the cultural diversity of populations makes it possible to enhance health outcomes[2]. The score obtained by the study was 6.2, below the ideal. This result is similar to that found by Miranda *et al.*[14] (2021), who assessed PHC from the perspective of 50 dentists from Sobral, Brazil.

Considering the differences between the evaluations, this study has the potential to stimulate the qualification of oral health services by gathering subsidies for health planning. Thus, it makes it possible to identify the weaknesses and potentialities of OHt from the different perspectives of users and professionals, assisting in decision-making in health management and administration processes. In addition, the data collection with both groups was carried out in the same period of time.

Gratitude bias is one of the main limitations of evaluation studies[,] when carried out with users. Another limitation of the study is the publication of few articles using the PCATool OH Brazil, making comparison difficult.

CONCLUSION

The perception of users, evidenced by the low scores in most attributes, indicates the need for improvements in the quality of dental services. The problems involving access to health services and accessibility barriers stand out, which contribute to a worse evaluation. The difficulty of access for users influences the perception of other attributes, since it prevents them from fully enjoying health services.

The different perceptions of the groups studied are relevant in the evaluation process, since they consider a broader context of evaluation of the different actors, based on their experiences, expectations and knowledge of dental services. By identifying the presence and extent of the PHC attributes, it is expected that the study will collaborate in the implementation of strategies that qualify the work processes, and favor effective and efficient dental care.

REFERENCES

1. Starfield B. Atenção primária: equilíbrio entre necessidades de saúde, serviços e tecnologia. Brasília, DF: UNESCO, Ministério da Saúde, 2002. 726p. [acesso em 2022 abr. 24]. Disponível em: https://www.nescon.medicina.ufmg.br/biblioteca/imagem/0253.pdf

2. Cipriano TSP, Teixeira L de O, Araujo CMH de, Vargas AMD, Ferreira EF e. O uso do PCATool (Primary care Assessment tool) como ferramenta de avaliação em saúde bucal: uma revisão de escopo. RSD [Internet]. 23º de abril de 2022 [acesso em 2022 jul. 16]; 11(6):e14111628834. DOI: http://dx.doi.org/10.33448/rsd-v11i6.28834

3. D'Avila OP, Harzheim E, Hauser L, Pinto LF, Castilhos ED, Hugo FN. Validação da versão brasileira do Primary Care Assessment Tool (PCAT) para Saúde Bucal-PCATool Brasil Saúde Bucal para Profissionais. Cien Saude Colet. 2021. [acesso em 2022 mar. 20] 26:2097-2108. DOI: https://doi.org/10.1590/1413-81232021266.23432020

4. Sousa CEGC. A Equipe de Saúde Bucal na Estratégia de Saúde da Família – ESF: Revisão de literatura. Facit Business and Technology J. 2021 [acesso em 2022]. 1(22). Disponível em: https://revistas.faculdadefacit.edu.br/index.php/JNT/article/view/795

5. Starfield B, Cassady C, Nanda J, Forrest CB, Berk R. Consumer experiences and provider perceptions of the quality of primary care: implications for managed care. J Fam Pract. 1998. [acesso em 2021 nov. 20] 46(3): 216-26. Disponível em: https://pubmed.ncbi.nlm.nih.gov/9519019/

6. Shi L, Starfield B, Xu J. Validating the adult primary care assessment tool. J Fam Pract. 2001. 50(2):161-175. Disponível em: https://publichealth.jhu.edu/sites/default/files/2023-04/shi-2001.pdf

7. Harzheim E, Starfield B, Rajmil L, Álvarez-Dardet C, Stein AT. Internal consistency and reliability of Primary Care Assessment Tool (PCATool-Brasil) for child health services. Cad Saude Pública. 2006; 22(8): 1649-59. DOI: https://doi.org/10.1590/s0102-311x2006000800013

8. Harzheim E, Oliveira MMC, Agostinho MR, Hauser L, Stein AT, Gonçalves MR et al. Validação do instrumento de avaliação da atenção primária à saúde: PCATool-Brasil adultos. Rev Bras Med Fam Comunidade. 2013; 8(29): 274-84. DOI:

http://dx.doi.org/10.5712/rbmfc8(29)829

9. Fontanive, LT. Adaptação de instrumento Primary Care Assesment Tool-Brasil versão usuários dirigido à saúde bucal [dissertação de mestrado]. Mestrado em Epidemiologia, Universidade Federal do Rio Grande do Sul: Porto Alegre. 2011. Disponível em: https://lume.ufrgs.br/bitstream/handle/10183/53155/000854104.pdf?sequence=1

10. Cardozo DD, Stein C, Hauser L, Fontanive LT, Harzheim E, Hugo FN. Validity and reliability of the brazilian primary care assessment tool: Oral health of adults. Rev Bras Epidemiol. 2020. [acesso em 2021 jul. 16] 23: e200076. DOI: https://doi.org/10.1590/1980-549720200076

11. Nascimento AC, Moysés ST, Werneck RI, Gabardo MCL, Moysés SJ. Assessment of public oral healthcare services in Curitiba, Brazil: a cross-sectional study using the Primary Care Assessment Tool (PCATool). BMJ Open. 2019. [acesso em 2022 abr. 24]; 17;9(1):e023283. DOI: https://doi.org/10.1136/bmjopen-2018-023283

12. Pivatto VM, Silveira DS da. Presença e extensão dos atributos da Atenção Primária à Saúde nos serviços de saúde bucal de Florianópolis, SC. APS em Revista. 2022. [acesso em 2022 out. 20] 4(2), 122–130. DOI: https://doi.org/10.14295/aps.v4i2.243

13. D'Avila OP. Avaliação de serviços de saúde bucal na atenção primária a saúde: análise psicométrica e exploratória [tese de doutorado]. Programa de Pós-Graduação em Odontologia, da Universidade Federal do Rio Grande do Sul: Porto Alegre. 2016. [acesso em 2021 jul. 15]. Disponível em: https://www.lume.ufrgs.br/bitstream/handle/10183/147161/000999280.pdf?sequence=1

14. Miranda MMA, Castro-Silva II, Martins P, Maciel JAC. Atributos da Atenção Primária à Saúde e fatores associados na perspectiva de cirurgiões-dentistas. Rev Bras Promoc Saúde. 2021. [acesso em 2022 abr. 12]; 34. DOI: https://doi.org/10.5020/18061230.2021.11483

15. Maciel JAC, da Silva RADA, de Farias MR, Teixeira CNG, Castro-Silva II, Teixeira AKM. Avaliação de usuários sobre atributos da atenção primária à saúde bucal na Estratégia Saúde da Família. Rev. APS. 2020; [acesso em 2022 jun. 05]. 23 (3): 526 – 540. DOI: https://doi.org/10.34019/1809-8363.2020.v23.27794

16. Cardozo DD, Stein C, Hauser L, Fontanive LT, Harzheim E, Hugo FN. Presence and extension of the attributes of primary health care in public dental services in Porto Alegre, Rio Grande do Sul State, Brazil. Cad Saude Publica. 2020; [acesso em 2022 mar. 16] 36(2):e00004219. DOI: https://doi.org/10.1590/0102-311X00004219

17. Kfouri MG, Moysés ST, Gabardo MCL, Nascimento AC, da Rosa SV, Moysés SJ. The feminization of dentistry and the perceptions of public service users about gender issues in oral health. Cien Saude Colet. 2019 [acesso em 2021 jun. 05]. 24 (11): 4285-4296. DOI: https://doi.org/10.1590/1413-812320182411.00832018

18. Instituto Brasileiro de Geografia e Estatística. Prévia da população calculada com base nos resultados do Censo Demográfico 2022 até 25 de dezembro de 2022. IBGE, 2022. [acesso em 2023 mar. 19]. Disponível em: https://ftp.ibge.gov.br/Censos/Censo_Demografico_2022/Previa_da_Populacao/POP2022_Municipios.pdf.

19. Brasil. Ministério da Saúde (MS). CNES: Cadastro Nacional de Estabelecimentos de Saúde. Brasília, DF, 2022. [acesso em 2022 nov. 23]. Disponível em: http://cnes.datasus.gov.br/pages/estabelecimentos/ficha/profissionais-ativos/4310202260182.

20. Brasil. Ministério da Saúde. Manual do Instrumento de Avaliação da Atenção Primária à Saúde: PCATool-Brasil - 2020. Brasília, DF: 1ºed. 2020. [acesso em 2023 mar. 23].

Disponível em:
http://189.28.128.100/dab/docs/portaldab/documentos/20200506_Pcatool_versao_prelimina
r_Final.pdf.

21. Costa, MA, Brito e Alves MTSS, Branco RMPC, Castro WEC, Ramos CAM. Avaliação da qualidade dos serviços de Atenção Primária à Saúde no município de São José de Ribamar, Maranhão, Brasil. Interface. 2020; [acesso em 2022 mar. 16] 24: e190628. DOI: https://doi.org/10.1590/Interface.190628

22. Silva LA, Pinheiro EL, Diniz FC, Senna MIB, Ferreira FC. Disparidades regionais no uso dos serviços públicos de saúde bucal no Brasil. Arq Odontol. 2024; 60:164-172. DOI: https://doi.org/10.35699/

23. Moreira ESM, Borges FRS, Silva MP, Silva DR, Rodrigues BB, Matsuy MA et al. Estudo transversal da autopercepção de saúde em adultos residente na cidade de Anápolis–Goiás e a influência do estilo de vida, do acesso ou não à assistência à saúde e a presença ou não de doenças crônicas. Braz J of Develop. 2020; 6(1):552-564. DOI: https://doi.org/10.34117/bjdv6n1-039

24. Almeida APSC, Nunes BP, Duro SMS, Facchini LA. Determinantes socioeconômicos do acesso a serviços de saúde em idosos: revisão sistemática. Rev Saude Publica. 2017; [acesso em 2022], 51(50). DOI: https://doi.org/10.1590/S1518-8787.2017051006661

25. Fagundes MLB, Bastos LF, Amaral Júnior OL, Menegazzo GR, Cunha AR, Stein C, et al. Socioeconomic inequalities in the use of dental services in Brazil: an analysis of the 2019 National Health Survey. Rev Bras Epidemiol 2021;24(suppl 2):e210004.12.

26. Teixeira CNG, Pereira SMS, Hilgert JB, Oliveira NMA, Ribeiro CCC, Neves M, et al. O uso dos serviços odontológicos no último ano na população brasileira: revisão sistemática com metanálise. Cien Saude Colet. 2023;28(4),1087-100.

27. Leal Júnior FJ, Leal MGA, da Silva JWM, de Souza ARS, Viana MCA, Pinheiro WR. Integralidade em saúde bucal na Atenção Primária à saúde: uma revisão integrativa. RSD. 2021; [acesso em 2022 jun. 25] 10 (11): e311101119529. DOI: http://dx.doi.org/10.33448/rsd-v10i11.19529

28. Justo CM, Duque A, Lopes QS, Carvalho ES, Moreno AC, Silva R, et al. Acessibilidade em Unidade Básica de Saúde: a visão de usuários e profissionais. Rev Saúde Col. UEFS. 2017 [acesso em 2022 nov. 23] 7(1): 16–23. DOI: https://doi.org/10.13102/rscdauefs.v7i1.1187

29. Menchik GB, Dutra GR, Pinto TMP, Dalpian DM, Batista AK. Perfil do atendimento odontológico na Unidade de Pronto Atendimento do Município de Santa Maria. Rev ABENO. 2022; [acesso em 2023 mar. 19] 22 (2):1657. DOI: https://doi.org/10.30979/revabeno.v22i2.1657

30. Gomes D, Zoboli ELC, Finkler M. Problemas éticos na saúde bucal no contexto da Atenção Primária à Saúde. Physis. 2019; [acesso em 2021 jun. 19] 29 (2): e290208. DOI: https://doi.org/10.1590/S0103-73312019290208

31. Chisini LA, Martin ASS, Silva JVJBF, Brambatti N, de Pietro FS, Conde MCM, et al. Cobertura radiográfica odontológica pelo Sistema Único de Saúde na região Sul do Brasil em 2016: estudo ecológico. Epidemiol. Serv. Saúde [Internet]. 2019; [acesso em 2022 jun. 16] 28(1): e2018090. DOI: http://dx.doi.org/10.5123/s1679-49742019000100005

32. Caetano CS, Orfão NH. Prontuário Eletrônico do Paciente em Clínicas Odontológicas: uma revisão integrativa. J Health Inform. 2021; [acesso em 2022 nov. 23] 13(3): 93-9. Disponível em: https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1359317

33. Araújo ATM, Rechmann IL, Magalhães TA. O sigilo do prontuário médico como um direito essencial do paciente: uma análise a partir das normativas do Conselho Federal de

Medicina. Cad Iberoam Direito Sanit. 2019; [acesso em 2023 mar. 19] 8(1), 95–109. DOI: https://doi.org/10.17566/ciads.v8i1.517

34. Ricarte, ILM. Sistemas nacionais de prontuários eletrônicos frente à privacidade de dados. E-lis. 2019. [acesso em 2023 mar.19]. Disponível em: http://eprints.rclis.org/33929/

35. Stanzel KA, Hammarberg K, Fisher J. 'Not everybody is an internet person': Barriers for menopause-related health literacy among immigrant women from the Horn of Africa nations. Health Promot J Austral. 2021; [acesso em 2022 nov. 23] 32(1):61–68. DOI: https://doi.org/10.1002/hpja.326

36. Taylor DM, Fraser SDS, Bradley JA, Bradley C, Draper H, Metcalfe W, et al. A Systematic Review of the Prevalence and Associations of Limited Health Literacy in CKD. Clin J Am Soc Nephrol. 2017 [acesso em 2022 nov. 23] 12(7): 1070-1084. DOI: https://doi.org/10.2215/CJN.12921216

37. Gheno, E. R. ; Rodrigues, F. O. ; Kunkel, G. K. ; Nogaro, A. ; Anastacio, Z. F. C. ; Kolankiewicz ACB . Association between sociodemographic variables and health literacy levels among individuals with mental disorders in Brazil. Journal of Health Literacy, v. 9, p. 31-44, 2024.

38. Amorim SM, Leite ICG. Avaliação da integralidade e do acesso de primeiro contato em saúde bucal na Atenção Primária, sob a perspectiva de cirurgiões-dentistas. HU Rev [Internet]. 2024; 49:1-12. Disponível em: https://periodicos.ufjf.br/index.php/hurevista/article/view/41310

39. Silva, D. E. M. da, Siciliani, C. C., Desordi, J. M., Rodrigues, F. de O., Colet, C. de F., & Kolankiewicz, A. C. B. (2024). Quality of dental services: association with sociodemographic and self-perception characteristics. Cogitare Enferm, 29. https://doi.org/10.1590/ce.v29i0.96262

40. Hirooka LB, Catanante GV, Porto HS, Caccia-Bava MCGG. Structural factors for public dental health services in regional health care network 13: an analysis of the Brazilian National Program for Improving Access and Quality of Primary Care. Rev Odontol UNESP. 2018; 47(1):31-9. doi: https://dx.doi.org/10.1590/1807-2577.06817.

41. Lima JG, Giovanella L, Fausto MCR, Bousquat A, Silva EV. Atributos essenciais da atenção primária à saúde: resultados nacionais do PMAQ-AB. Saúde Debate. 2018; 42(1):52-66. doi: https://dx.doi.org/10.1590/0103-11042018S104

42. Pires HF, Limão NP, Protasio APL, Valença AMG. Fatores associados à satisfação dos usuários com a atenção à saúde bucal na Paraíba, 2014. Saúde Debate. 2020; [acesso em 2022 jun. 23] 44 (125): 451-64. DOI: https://doi.org/10.1590/0103-1104202012513

43. Chisini LA, Costa FS, Sartori LRM, Corrêa MB, D'Avila OP, Demarco FF. COVID-19 pandemic impact on Brazil's public dental system. Braz oral res. 2021; [acesso em 2023 mar. 19] 35: e082. DOI: https://doi.org/10.1590/1807-3107bor-2021.vol35.0082

44. Santos JVN, Alves MNF, Castanha DM, Leal CB, Oliveira MSG, Silva ADCM, et al. Impacto da pandemia do COVID-19 nos procedimentos odontológicos de exodontias no Brasil. Braz J Dev. 2021; [acesso em 2022 jun. 05] 7(12):113318-32. DOI: https://doi.org/10.34117/bjdv7n12-220

45. Santos FPFR, Cazola LHO; Cunha IP. Método da estimativa rápida participativa no planejamento da equipe de saúde bucal. Rev Cient Esc Estadual Saúde Pública Goiás "Cândido Santiago". 2021; [acesso em 2022 nov. 23] 7: e7000044. Disponível em: https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1342473

46. Lucena EHG, Freire AR, Freire DEWG, Araujo ECF, Lira GNW, Brito ACM et al. Acesso em saúde bucal na atenção básica antes e após o início da pandemia de COVID-19 no Brasil. SciELO Preprints. 2020. DOI: https://doi.org/10.1590/scielopreprints.819

47. Prates ML, Machado JC, Silva LS, Avelar OS, Prates LL, Medonça ET, et al. Desempenho da Atenção Primária à Saúde segundo o instrumento PCATool: uma revisão sistemática. Cien Saude Colet. 2017; [acesso em 2023 mar. 19] 22(6): 1881-1893. Disponível em: https://cienciaesaudecoletiva.com.br/artigos/desempenho-da-atencao-primaria-a-saude-segundo-o-instrumento-pcatool-uma-revisao-sistematica/15767?id=15767

48. Vidal TB, Rocha AS, Harzheim E, Hauser L, Tesser CD. Scheduling models and primary health care quality: a multilevel and cross-sectional study. Rev Saúde Pública. 2019; [acesso em 2023 mar. 19] 53: 38. DOI: https://doi.org/10.11606/S1518-8787.2019053000940

49. Vermeulen L, Schäfer W, Pavlic DR, Groenewegen P. Community orientation of general practitioners in 34 countries. Health Policy [Internet]. 2018; 122(10):1070-7. DOI: https://doi.org/10.1016/j.healthpol.2018.06.012

50. Brunelli B, Langkamer MFB, Dornelas AJS, Rodrigues MJM, Bernardes JG. Orientação Comunitária: uma revisão integrativa. Rev Bras Med Fam Comunidade [Internet]. 2021; 16(43):2768. Disponível em: https://rbmfc.org.br/rbmfc/article/view/2768.

51. Silva MFVM, Lima MES, Soares MAP, Figueiredo N. Avaliação da satisfação do usuário no serviço de saúde bucal: revisão integrativa da literatura. Cad Saúde Colet. 2022; [acesso em 2023 mar. 19] 30(3) 460-470. DOI: https://doi.org/10.1590/1414-462X202230030439

Authorship			
Name	**Institutional affiliation**	**ORCID**	**CV Lattes**
Douglas Emanuel Maciel da Silva	Regional University of Northwestern Rio Grande do Sul (UNIJUÍ)	https://orcid.org/0009-0009-0602-156X	http://lattes.cnpq.br/3650288225119237
Camila Casimiro Siciliani	Regional University of Northwestern Rio Grande do Sul (UNIJUÍ)	https://orcid.org/0009-0005-2942-7619	http://lattes.cnpq.br/3491046486822698
Juline Manica Desordi	Regional University of Northwestern Rio Grande do Sul (UNIJUÍ)	https://orcid.org/0000-0001-6482-9780	http://lattes.cnpq.br/1169445562792113
Franciele Rodrigues Zorzo	Regional University of Northwestern Rio Grande do Sul (UNIJUÍ)	https://orcid.org/0009-0005-5290-5367	http://lattes.cnpq.br/9897801379541283
Eliane Roseli Winkelmann	Regional University of Northwestern Rio Grande do Sul (UNIJUÍ)	https://orcid.org/0000-0003-2686-8679	http://lattes.cnpq.br/9972212126180165
Adriane Cristina Bernat Kolankiewicz	Regional University of Northwestern Rio Grande do Sul (UNIJUÍ)	https://orcid.org/0000-0003-1793-7783	http://lattes.cnpq.br/7833969359741646
Corresponding author	Adriane Cristina Bernat Kolankiewicz adri.saudecoletiva@gmail.com		

Metadata		
Submission: July 27th, 2023	Approval: February 7th, 2025	Published: October 17th, 2025
Cite this article	Silva DEM, Siciliani CC, Desordi JM, Zorzo FR, Winkelmann ER, Kolankiewicz ACB. Qualidade dos serviços odontológicos da Atenção Primária à Saúde na perspectiva dos usuários e dentistas / Quality of Primary Health Care dental services from the perspective of users and dentists. Rev.APS [Internet]. 2025; 28 (único): e282541715. DOI: https://doi.org/10.34019/1809-8363.2025.v28.41715	
Assignment of first publication to Revista de APS	Authors retain all copyright over the publication, without restrictions, and grant Revista de APS the right of first publication, with the work licensed under the Creative Commons Attribution License (CC-BY), which allows unrestricted sharing of the work, with recognition of authorship and credit for the initial publication citation in this journal, including referencing its DOI and/or article page.	
Conflict of interests	No conflicts of interest.	
Funding	No funding.	
Authors' contributions	Conception and/or design of the study: DEMS, CCS, ERW, ACBK; Acquisition, analysis or interpretation of data: DEMS, ERW, ACBK. Draft preparation: DEMS, CCS, JMD, FRZ, ERW, ACBK. Critical review of the preliminary version: DEMS, CCS, JMD, FRZ, ERW, ACBK. The authors approved the final version and agreed to be accountable for all aspects of the work.	

Go to top