Use of PCATOOL in the Brazilian territory: publications from 2020 to 2022 and its conclusions: a literature review

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Uso de PCATool en territorio brasileño: publicaciones de 2020 a 2022 y sus conclusiones: una revisión de la literatura

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Abstract

Introduction: The Family Health Strategy, within the scope of Primary Health Care, seeks to be consolidated as a comprehensive care model. The Brazilian Ministry of Health adopted the "PCATool – Primary Health Care Assessment Tool – Brazil" as an assessment tool for Primary Health Care. Therefore, in this review, we analyze Brazilian publications in the healthcare area between 2020 and October 2022 that used the PCATool in the country. **Objective:** To evaluate the use and results of the PCATool in Brazil and what can be extracted to improve the Brazilian healthcare system. **Methods:** This is a systematic, quantitative-qualitative review, carried out through the Journal Portal of the Coordination for the Improvement of Higher Education Personnel, with the descriptors "PCATool" and "Primary Health Care Assessment Tool," and it involved 23 articles selected from a total of 106. The Likert scale, with scores transformed into a scale from 0 to 10, classifies attributes as High (score ≥6.6) and Low (score <6.6). **Results:** We observed divergent results between users and healthcare professionals in relation to Primary Health Care orientation, with users tending to classify it as low (Overall Scores <6.6), while professionals had a more positive view. **Conclusions:** Most studies reflect a low national orientation for Primary Health Care, with frequent negative evaluations of the attribute "access to healthcare." Services considered highly Primary Health Care-oriented also present unsatisfactory isolated attributes, pointing to barriers in the provision of Primary Health Care throughout the Brazilian territory.

Keywords: Public health; Primary health care; Evaluation study.

Resumo

Introdução: A Estratégia Saúde da Família, no âmbito da Atenção Primária à Saúde (APS), busca consolidar-se como modelo de cuidado abrangente. O Ministério da Saúde adotou o "PCATool – Ferramenta de Avaliação da Atenção Primária à Saúde – Brasil" como instrumento de avaliação da APS. Assim, esta revisão analisa publicações brasileiras na área da saúde publicadas entre 2020 e outubro de 2022 que utilizaram o PCATool no país. **Objetivo:** O objetivo é avaliar o uso e os resultados do PCATool no Brasil e o que se pode extrair para a melhoria do sistema de saúde brasileiro. **Métodos:** A revisão sistemática, quantitativo-qualitativa, realizada por meio do Portal de Periódicos da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) com os descritores "PCATool" e "Ferramenta de Avaliação da Atenção Primária à Saúde", envolveu 23 artigos selecionados do total de 106. A escala Likert, com pontuações transformadas em uma escala de 0 a 10, classifica os atributos como "alto" (pontuação ≥6,6) e "baixo" (pontuação <6,6). **Resultados:** Foram observados resultados divergentes entre usuários e profissionais de saúde com relação à orientação da APS, com os usuários tendendo a classificar a orientação como baixa (pontuações gerais <6,6), enquanto os profissionais tinham uma visão mais positiva. **Conclusões:** A maioria dos estudos reflete uma baixa orientação nacional para a APS, sendo frequentes sobretudo as avaliações negativas do atributo "acesso aos cuidados de saúde". Serviços considerados altamente orientados para a APS apresentam também atributos isolados insatisfatórios, apontando para barreiras na prestação de APS em todo o território brasileiro.

Palavras-chave: Saúde pública; Atenção primária à saúde; Estudo de avaliação.

Resumen

Introducción: La Estrategia de Salud de la Familia, en el ámbito de la Atención Primaria de Salud (APS), busca consolidarse como un modelo de atención integral. El Ministerio de Salud adoptó el "PCATool – Herramienta de Evaluación de la Atención Primaria de Salud – Brasil" como herramienta de evaluación de la APS. Por lo tanto, esta revisión analiza las publicaciones brasileñas en el área de la salud entre 2020 y octubre de 2022 que utilizaron el PCATool en el país. **Objetivo:** El objetivo es evaluar el uso y los resultados del PCATool en Brasil y lo que se puede extraer para mejorar el sistema de salud brasileño. **Métodos:** La revisión sistemática, cuantitativa-cualitativa, realizada a través del Portal de Revistas CAPES con los descriptores "PCATool" y "Primary Health Care Assessment Tool", involucró 23 artículos seleccionados de un total de 106. La escala Likert, con puntuaciones transformadas en una escala de 0 a 10, clasifica los atributos en Alto (puntuación ≥6,6) y Bajo (puntuación <6,6). **Resultados:** Se observaron resultados divergentes entre usuarios y profesionales de la salud con relación a la orientación de APS, siendo los usuarios tendientes a clasificar la orientación como baja (puntuaciones generales <6,6), mientras que los profesionales tenían una visión más positiva. **Conclusiones:** La mayoría de los estudios reflejan una baja orientación nacional hacia la APS, siendo frecuentes las evaluaciones negativas del atributo acceso a la salud. Los servicios considerados altamente orientados a la APS también presentan atributos aislados insatisfactorios, lo que apunta a barreras en la prestación de APS en todo el territorio brasileño.

Palabras clave: Salud pública; Atención primaria de salud; Estudio de evaluación.

INTRODUCTION

We cannot start a discussion about the Primary Care Assessment Tool (PCATool) without mentioning the 1978 Declaration of Alma-Ata and its fundamental role in changing the paradigm of biopsychosocial care, defining Primary Health Care (PHC) as one of the structuring pillars for ensuring health in a comprehensive way as the inalienable right of human beings.[1]

In Brazil, PHC seeks to be consolidated in the context of the Family Health Strategy (FHS) as the best model for providing comprehensive care to individuals, despite several political and economic tensions nowadays, such as the difficulties imposed in the context of Constitutional Amendment No. 95, of 2016.[2,3] The concept of comprehensive care to individuals is based on the integration of several attributes that define an effective and comprehensive healthcare system. The attributes adopted by the Institute of Medicine (1978) are: first-contact access, continuity, integrality, coordination of care, family orientation, community orientation, and cultural competence, the three last mentioned being considered derived attributes and the first four, essential attributes of PHC.[4,5] Some of these attributes are subdivided into procedural and structural, such as access (accessibility and use), coordination (information system and integration of care), and integrality (available services and provided services), which deepens the analysis of PHC. Although at first these concepts may seem independent of each other, they depend on their own definitions.[5]

However, how can we infer, as objectively as possible, whether such attributes are actually present in PHC services and whether they are truly PHC-oriented? Hence, Starfield created a research instrument, among preexisting others, called PCATool, the focus of this article. It allows, through a structured questionnaire, to evaluate PHC, as well as to perform comparative analyses considering the universal nature of its variables.[5]

PCATool is a structured questionnaire, with variations of items inquiring about each attribute depending on its version (for example: adults, child, or professionals), which allows to evaluate comprehensive care to individuals, being able to individualize each of the attributes depending on the score and to show whether or not it is PHC-oriented. The calculation is done by Likert scale, with scores that are transformed to scale from 0 to 10 and allow classifying the attributes as "high" (score ≥6.6) and "low" (score <6.6), and the overall score can also be estimated, when all attributes are analyzed, with the result "high" demonstrating that such service(s) is (are) strongly PHC-oriented. When derived attributes are not calculated, we only have the essential score. It is noteworthy, however, that the comprehensive care of individuals only exists if all the essential attributes are satisfactory, with greater potential if the derived attributes are also satisfactory.[5]

PHC is the gateway to health of the vast majority of Brazilian users, justifying the need for a constant evaluation of its efficiency, being PCATool and its mirror versions (child-adolescent and professionals, for example) recognized and adopted by the Brazilian Ministry of Health (*Ministério da Saúde* – MS) as one of the ways for evaluating PHC[4] and, therefore, the theme of this study.

Therefore, and based on the desire to strengthen PHC as the best care model of the Brazilian population, the key objective of this study is to evaluate the use and results of the PCATool in Brazil, in a given period, and what can be extracted to improve our healthcare system.

METHODS

This is a systematic literature review, of quantitative-qualitative approach. The systematic review method aims to synthesize results obtained from research on a topic or issue, in a systematic, orderly, and comprehensive manner.[6]

The stages of the production of this review are the identification of the topic, guiding question, sampling (selection of articles), and categorization of studies.

This research is based on the national literature review conducted in the period from September to October 2022, through research in the Journal Portal of the Coordination for the Improvement of Higher Education Personnel (CAPES). No articles were sought in which tools other than the PCATool were used, as the authors decided to use the same evaluation method of the MS.[4] The search descriptors "PCATool" and "Primary Care Assessment Tool" were used. In the search, 106 articles were found, which were subsequently submitted to the selection criteria. In Figure 1, the strategy for surveying and selecting the materials analyzed in this study is shown.

The inclusion criteria were: articles in Portuguese, Spanish, and English, published from 2020 to October 2022 in Brazilian journals, which addressed the topics proposed for this research, studies of the "guidelines review" type and made available in full.

The exclusion criteria were: articles structured as abstracts, duplicate, outdated, that did not comprehensively and satisfactorily address the surveyed topic, which only mentioned or described the instrument, besides not fully complying with the inclusion parameters.
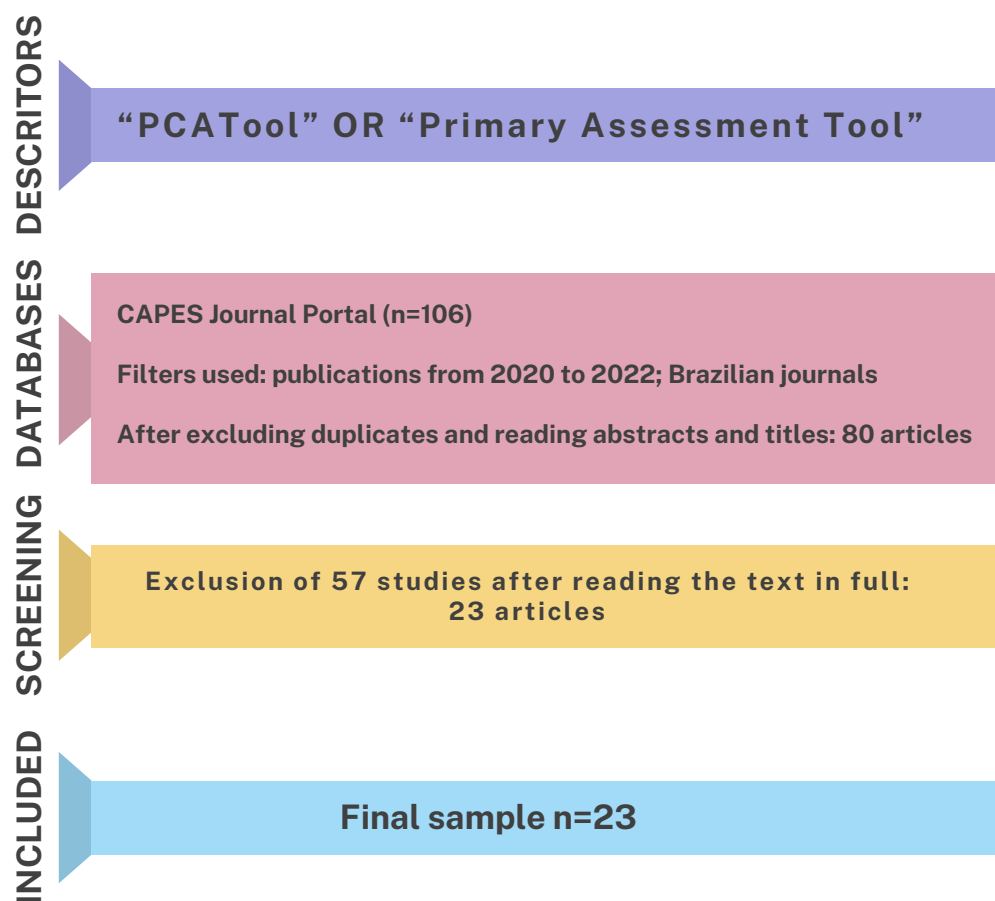
DESCRITORS

"PCATool" OR "Primary Assessment Tool"

DATABASES

CAPES Journal Portal (n=106)

Filters used: publications from 2020 to 2022; Brazilian journals

After excluding duplicates and reading abstracts and titles: 80 articles

SCREENING

Exclusion of 57 studies after reading the text in full:
23 articles

INCLUDED

Final sample n=23

Figure 1. Flowchart of the strategy for searching articles.

After applying the selection criteria, a sample of 23 articles was obtained for thorough reading and data collection. These data and their conclusions, demonstrated in a descriptive way, were divided into topics and analyzed based on the attributes considered necessary by Starfield.[5] Although there are different versions of the PCATool for application in adults and in children and adolescents, both instruments were deemed PCATool users, considering that they are in the same level of care.

As this is a literature review, this study did not require consideration of the Ethics Committee on Research Involving Human Beings (REC); however, the ethical aspects of Resolution No. 466/12, of the Brazilian National Health Council, were respected.

RESULTS

The description of the articles used in the review and its results are presented in Chart 1.[7-29]

Based on Chart 1, we can divide the articles that applied the PCATool in their entirety or partially, that is, using all or only one of the attributes of interest, in addition to studies at regional and national levels.

Of these 23 tabulated articles, 17 had the evaluation of all attributes, six with the use of PCATool Professionals[7-12] (one of which made the survey for two different PHC teams for comparison purposes),[13] eight with the PCATool Users (adults or children)[12,14-20], and three that evaluated both users and professionals.[21-23] Only one of the articles evaluated the attribute "cultural competence" of professionals.[10]

Chart 1. Data on articles of the final sample.

Reference	Methodology	Location	Evaluation of the attributes and authors' notes
Abrantes et al.[7]	Quantitative cross-sectional study. PCATool was applied to 202 professionals working in primary health care units.	Campina Grande (PB)	PCATool Professionals Satisfactory: Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Essential Score, Overall Score Unsatisfactory: Access-Accessibility Note: The authors consider a barrier to the provision of PHC when at least one of the attributes is unsatisfactory.
Alves et al.[24]	Cross-sectional study on 384 male users. A sociodemographic form and the PCATool were used.	Campina Grande (PB)	PCATool Adults Unsatisfactory: Access-Use and Access-Accessibility
Bispo et al.[25]	Evaluative and cross-sectional study. The sample consisted of 163 healthcare professionals, of both sexes, who worked in primary health care.	Juazeiro do Norte (CE)	PCATool Professionals Unsatisfactory: Access-Accessibility
Coêlho et al.[14]	Longitudinal study and quantitative approach. PCATool Child version was used for data collection. 109 guardians participated in the study.	Recife (PE)	PCATool Adults Satisfactory: Access-Use, Coordination-Information system Unsatisfactory: Access-Accessibility, Continuity, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Family Orientation, Community Orientation, Essential Score, Overall Score Note: The authors consider PHC unsatisfactory for the comprehensive care of children.
Corrêa and Leite[26]	Cross-sectional study, developed by census tract. The target population of this study was composed of 332 permanent and contract FHS physicians of the nine health regions of the city.	Belo Horizonte (MG)	PCATool Professionals *(only one attribute analyzed)* Satisfactory: Family Orientation Note: Better scores were observed for longer training time in Family and Community Medicine (FCM).
Costa et al.[15]	Research of quantitative approach and cross-sectional design. PCATool Child version was used to evaluate the attributes. 50 adults were interviewed, guardians of children up to five years of age enrolled in the service.	Lagarto (SE)	PCATool Child Satisfactory: Coordination-Information System Unsatisfactory: Access-Use, Access-Accessibility, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation, Essential Score, Overall Score Note: The authors point out several failures regarding comprehensive care.
Costa et al.[8]	Cross-sectional study, conducted by applying the PCATool-Brazil questionnaire, Professionals version, and a sociodemographic questionnaire to characterize the profile of professional education, experience, and performance in PHC. Physicians from traditional and mixed FHS units participated in the research.	Juiz de Fora (MG)	PCATool Professionals Satisfactory: Coordination-Integration of Care, Coordination-Information System, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation. Essential Score, Overall Score Unsatisfactory: Access-Accessibility Note: The authors pointed out the importance and need to expand accessibility.

Chart 1. Continuation.

Reference	Methodology	Location	Evaluation of the attributes and authors' notes
Costa et al.[12]	Cross-sectional study, carried out from June to December 2019, with 233 adult users from 19 PHC units.	Fortaleza (CE)	PCATool Adults Satisfactory: Access-Use and Coordination-Integration of Care Unsatisfactory: Access-Accessibility, Coordination-Information System, Integrality-Available Services, Integrality-Provided Services, Continuity, Community Orientation, Family Orientation, Essential Score, Overall Score Note: The authors observed low performance of PHC, but with better results among teams with FCM residency.
Costa et al.[21]	Evaluative study of quantitative approach, on organizational characteristics and performance of Family Health Teams services based on PHC attributes. The study population consisted of 73 professionals and 386 users. Data were collected in interviews using the PCATool.	São João de Ribamar (MA)	PCATool Professionals Satisfactory: Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Essential Score, Overall Score Unsatisfactory: Access-Accessibility PCATool Users Unsatisfactory: Access-Accessibility, Access-Use, Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation, Essential Score, Overall Score Note: The authors conclude that the demands of the population were not met.
Figueira et al.[16]	Cross-sectional and quantitative research, with data collected by using PCATool Adults, short version, and participation of 342 people from riverside communities.	Santarém (PA)	PCATool Adults, short version Satisfactory: Access-Use, Access-Accessibility, Coordination-Information System, Continuity, Family Orientation, Essential Score Unsatisfactory: Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Community Orientation, Overall Score Note: The authors state that care to this population must be improved.
Maia et al.[9]	Cross-sectional study, carried out on 41 nurses and 31 physicians in the Sudoeste II region of the state of Goiás, through interviews using the PCATool instrument.	Goiás (GO)	PCATool Professionals Satisfactory: Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation, Essential Score, Overall Score Unsatisfactory: Access-Accessibility Note: Emphasis on the relationship between the training time of healthcare professionals and the obtained scores. The longer the training time, the better the obtained scores.
Martins et al.[17]	Descriptive, quantitative, cross-sectional study on 397 women of reproductive age from six municipalities in the state of Paraná, with sociodemographic characterization variables and application of the PCATool.	Paraná (PR)	PCATool Adults Unsatisfactory: Access-Accessibility, Access-Use, Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation, Essential Score, Overall Score Note: The study points to the need to qualify the provision of care to women, according to the authors.

Chart 1. Continuation.

Reference	Methodology	Location	Evaluation of the attributes and authors' notes
Masochini et al.[18]	Evaluative research, of quantitative approach and cross-sectional design. The PCATool instrument was used to interview 345 older adults.	Sinop (MT)	PCATool Adults Satisfactory: Access-Use, Coordination-Integration of Care, Coordination-Information System, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation, Overall Score Unsatisfactory: Access-Accessibility, Essential Score Note: The authors point out that the "access" attribute remains a barrier to overcome.
Miranda et al.[10]	Cross-sectional study, carried out on 50 dentists linked to PHC, using the PCATool Professionals version, validated for oral health services.	Sobral (CE)	PCATool Professionals Unsatisfactory: Access-accessibility, Continuity, and Cultural Competence Satisfactory: Coordination-Integration of Care, Coordination-Information System, Integrality-Available Services, Integrality-Provided Services, Family Orientation, Community Orientation, Essential Score, Overall Score Note: The only study in which the derived score "cultural competence" was calculated.
Pinto et al.[29]	The study considered the short version of the PCATool instrument. The sample consisted of 9,677 users aged 18 years or older.	Brazil	PCATool Adults *Analysis of the overall scores of the five Brazilian regions.* Unsatisfactory: The authors compared several regions, and in all of the overall scores analyzed the South Region presented the best results and the North Region, the worst.
Pinto and Silva[28]	The research was developed by cluster probability sampling. The survey incorporated the validated short version of PCATool Adults, applied to 10 thousand respondents.	Brazil	PCATool Adults *Analysis of the national overall score* Unsatisfactory: Overall Score Note: National survey with unsatisfactory overall score average.
Queiroz et al.[27]	Evaluative, descriptive, and quantitative study, developed through the application of PCATool to 70 FHS professionals and 140 adolescents from the study areas.	Maringá (PR)	PCATool Child and Adolescents *(Only Family Orientation and Community Orientation were analyzed)* Unsatisfactory: Family Orientation and Community Orientation PCATool Professionals: (Only Family Orientation and Community Orientation were analyzed) Satisfactory: Family Orientation and Community Orientation Note: In this article, it was possible to observe that the Professionals version obtained different results from the version answered by users, pointing out different perceptions regarding healthcare needs.
Rasia et al.[11]	Cross-sectional study that applied the PCATool to the 50 managers of the Health Centers of the municipality.	Pelotas (RS)	PCATool Professionals Satisfactory: Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Essential Score, Overall Score Unsatisfactory: Access-Accessibility, Community Orientation Note: Authors emphasize that strong orientation does not guarantee quality in access if other attributes are unsatisfactory.

Chart 1. Continuation.

Reference	Methodology	Location	Evaluation of the attributes and authors' notes
Ribeiro and Scatena[22]	An evaluative, quantitative, cross-sectional study was conducted in 35 family health units. Data were collected through the application of a sociodemographic questionnaire and the PCATool to 397 adult users and 59 professionals of the aforementioned services.	Rondonópolis (MT)	PCATool Adults Satisfactory: Access-Use, Coordination-Information System Unsatisfactory: Access-Accessibility, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation, Essential Score, Overall Score PCATool Professionals Satisfactory: Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation, Essential Score, Overall Score Unsatisfactory: Access-Accessibility Note: The authors points to divergence between users and professionals regarding the need and perception of health.
Rocha et al.[13]	Cross-sectional, exploratory, and quantitative study, carried out on 116 medical and nursing professionals. Data were collected through the application of the PCATool.	Terra Indígena Alto Rio Negro, Amazonas Saúde; DSEI-ARN – Distrito Sanitário Especial Indígena Alto Rio Negro (Alto Rio Negro Special Indigenous Health District); SEMSA – Secretaria Municipal de Saúde (Municipal Department of Health)	PCATool Professionals (DSEI-ARN) Satisfactory: Access-Accessibility, Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Family Orientation, Overall Score, Essential Score Unsatisfactory: Continuity, Community Orientation PCATool Professionals (SEMSA) Satisfactory: Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Family Orientation, Overall Score Unsatisfactory: Access-Accessibility, Continuity, Community Orientation, Essential Score Note: The authors emphasize new strategies for improving unsatisfactory attributes.
Santos et al.[23]	Quantitative and cross-sectional study using structured interviews based on the PCATool. 41 FHS professionals linked to the *Mais Médicos* [More Doctors] Program and 437 users with diabetes mellitus followed up by these teams were interviewed.	Goiana (PE)	PCATool Professionals Satisfactory: Coordination-Integration of Care, Coordination-Information System, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation, Essential Score, Overall Score Unsatisfactory: Access-Accessibility PCATool Adults Unsatisfactory: Access-Accessibility, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Family Orientation, Community Orientation, Essential Score, Overall Score Satisfactory: Access-Use, Coordination-Information System, Continuity. Note: The authors point to divergence between users and professionals.

Chart 1. Continuation.

Reference	Methodology	Location	Evaluation of the attributes and authors' notes
Siqueri et al.[19]	Observational, quantitative, and cross-sectional study. PCATool was applied to 83 older adults users from five Health Centers.	São Paulo (SP)	PCATool Adults Satisfactory: Access-Use, Coordination-Information System, Continuity. Unsatisfactory: Access-Accessibility, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Family Orientation, Community Orientation, Essential Score, Overall Score Note: The authors emphasize the impairment of care to the older adult population.
Silvério et al.[20]	Cross-sectional, descriptive-analytical study, with a sample of 1,027 rural workers. PCATool-Brazil Adults version and a structured questionnaire were used for the collection of socioeconomic data, history of intoxication and hospitalization by pesticides, and use of personal protective equipment.	Minas Gerais (MG)	PCATool Adults Unsatisfactory: Access-Accessibility, Access-Use, Coordination-Information System, Coordination-Integration of Care, Integrality-Available Services, Integrality-Provided Services, Continuity, Family Orientation, Community Orientation. Essential Score, Overall Score Note: Low PHC orientation associated with greater intoxication and hospitalizations by rural workers.

PCATool: Primary Care Assessment Tool; FHS: Family Health Strategy; PHC: Primary Health Care.
Note: Satisfactory: ≥6.6; Unsatisfactory: <6.6.

In a simpler way, four articles evaluated two or fewer attributes alone, both in the Users and in the Professionals versions.[24-27] There is also one article whose authors calculated the mean of the national overall score[28] and another in which the average overall scores per federation region were estimated,[29] totaling two articles with overall scores only.

The results of the analysis of 17 articles that calculated the overall and essential scores considering all the investigated attributes of the PCATool instrument (short version or not), both of the Professionals and/or Users (adults and children) versions, are presented in Chart 1.

- Low orientation (overall score less than 6.6): ten results with low PHC orientation, being this result unsatisfactory only from the users' perspective.

- High orientation (overall score greater than or equal to 6.6): There were 11 results with services highly PHC-oriented, unanimously, from the perspective of the professionals interviewed and only for a single group of users.[18] Of these articles, none presented all attributes with high PHC orientation (satisfactory), although the overall and essential scores are above the 6.6 cutoff. Authors of only one article evaluated the derived attribute "cultural competence," which was unsatisfactory.[10]

Authors of articles that reviewed the overall scores at national and regional levels obtained low PHC orientation.[28,29]

Among articles whose authors individually evaluated some attributes, two considered the domain "access" unsatisfactory; in one of them, this attribute was evaluated only by users[24] and in another, by professionals.[25] As for family orientation, we observed that this attribute was considered satisfactory in the Professionals version,[26] but this same domain, when evaluated both in the Professionals and in the Users versions in the same study, obtained discordant results: users classified such attributes as unsatisfactory and professionals as satisfactory, respectively, in the study conducted by Queiroz et al.[27]

In nine articles, the instrument was applied only in its Professionals version, and one of the studies applied the instrument to two different teams.[13] The results of this evaluation can be observed in Graph 1.

We observed that the attribute "access-accessibility" was considered unsatisfactory in 90% of them. The attributes "continuity," "community orientation," and "cultural competence" were also deemed unsatisfactory. The other attributes were well evaluated in general. It is worth highlighting that the overall score was considered as strongly PHC-oriented, as shown in Graph 1.

In Graph 2, the use of the instrument in the Users version is evaluated.

PCATool Professionals version
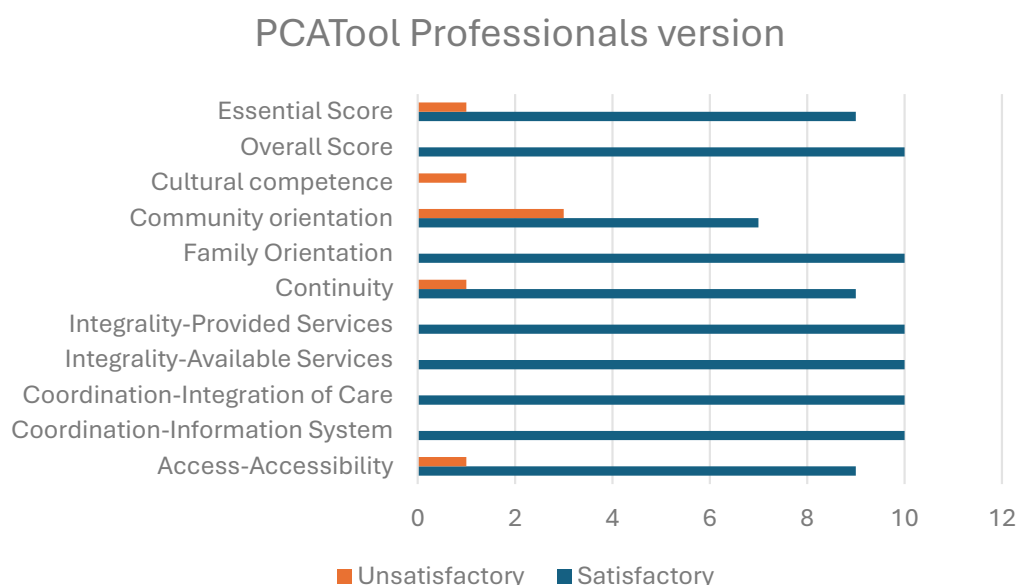
Graph 1. PCATool Professionals version (in which all attributes were evaluated in the same study): attributes x analyzed articles.

PCATool Users, Adult-Child version
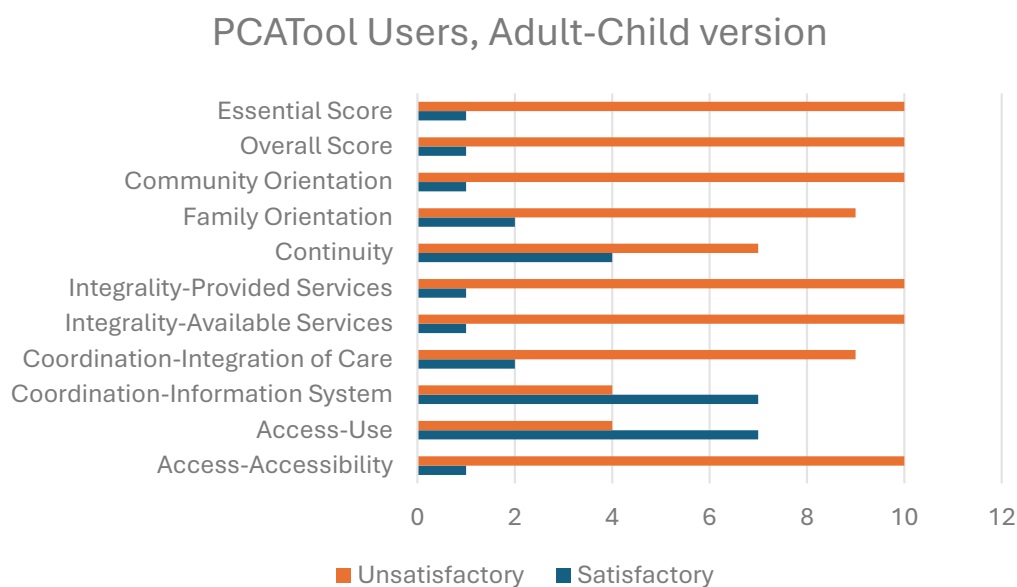
Graph 2. PCATool Users, Adult-Child version (in which all attributes were evaluated in the same study): attributes x analyzed articles.

The attributes that appear most often with the unsatisfactory score when analyzed together and separately are "access-accessibility", "integrality" (available services and provided services), and "community orientation", in the same proportion: 10 out of 11 articles that used PCATool fully and all its attributes (91%). Still among the users, the best attributes analyzed were "access-use" and "coordination-information system," considered PHC-oriented in 64% of the times the PCATool was applied to this evaluated sample. The attribute "access-accessibility" was the most poorly evaluated among users, as shown in Graph 2.

All articles emphasize the importance of all attributes to be satisfactory; when one of them is not, the overall score must be strongly PHC-oriented, in such a way that PHC can offer comprehensive care, as all these attributes depend on each other for a good provision of care for individuals.[5] See the notes in Chart 1, in which we show that almost all authors agree that even when one or a few attributes are unsatisfactory, care is compromised and should be improved.

DISCUSSION

We consider that the objective of improving, strengthening, and proposing improvements in the organization of PHC is carried out by acknowledging the reality of the provided services. Thus, we understand as a priority that professionals who work in the area appropriate an evaluation methodology capable of providing information, both by professionals and users, to identify the difficulties and challenges to be faced. Evaluating implies recognizing what is appropriate and modifying what is inappropriate or insufficient, aiming to improve the results to be achieved.

In this review, we evaluated the outcomes considering that the selected articles used different versions of the PCATool instrument: adults, child-adolescent, professionals, oral health professionals, and professionals providing care for older adults,[4,30] involving different objectives, and that some of them were intended to evaluate only one of the attributes or all of them. Despite these considerations, we could identify that important attributes were compromised, which may impair the good progress of services provided to the population.

The essential attributes (first-contact access, continuity, integrality, coordination of care) and derived attributes (family orientation, community orientation, and cultural competence) are unsatisfactory when analyzed separately in several articles, pointing to the compromise of PHC — or comprehensive care. This observation was also noticed more broadly when calculating the overall and essential scores. It is a great challenge for healthcare managers and professionals to implement and adapt the attributes deemed as essential.

Special attention was drawn to the results obtained from the "access" attribute. PHC is considered the main gateway to the Brazilian health system, and the impairment of this domain was the one that obtained the worst evaluation both from the perspective of professionals and the users. Thus, we wonder what are the issues faced by PHC to have the attribute "access-accessibility" as the most poorly evaluated in the articles used in this analysis and how efficient PHC is with these issues.

Another result that is worth highlighting is related to the difference between the perception of users regarding the quality of the provided service when compared to the perception of professionals. We observed that healthcare professionals have, most of the time, a more positive evaluation of attributes (except access-accessibility) compared to the same evaluation by the users. Even in the case of attributes that were considered unsatisfactory (cutoff below 6.6) in the professionals' view, the average value was higher compared to that found when users were inquired. Hence, we perceive that the Users and Professionals

versions of PCATool, applied simultaneously, differ regarding the perception of the one who provides the service in relation to the one who receives it.

It is noteworthy that only one article used the derived attribute "cultural competence" when applying the PCATool. Researchers have shed light on this insufficiency in an extremely diverse country.[10] In a country of continental dimensions such as Brazil, whose regions have dialects, traditions, habits, and culture that can be so different from one neighboring municipality to another, how can healthcare professionals provide care in a comprehensive manner if they probably do not understand the sociocultural context of their patients?

The divergence of the results obtained from users and professionals may point to the need for actions aimed at health education of professionals as well as the general population. This would allow a better understanding of this population concerning their own needs in a heterogeneous health system, as well as the improvement of the technique by healthcare professionals and managers.

The use of an evaluation instrument that allows the reproduction and comparison in different practice scenarios can help managers and professionals understand the importance of PHC as the main gateway for users, in addition to comparing the different services and their structures for the further strengthening of those that are more efficient. For instance, this comparison is present in two of the articles whose authors show, although with insufficient scores, better results in the units where there are residents in family and community medicine.[12,26] We believe that the recognition and adequacy of the shortcomings can somewhat guarantee the universality, integrality, and equity of care. We emphasize that one of the limitations of this review is related to the context of the analyzed period, especially regarding the COVID-19 pandemic, which afflicted the country in the beginning of 2020.[31]

CONCLUSION

We verified a significant inadequacy in the PHC orientation of most of the services evaluated in this article. We observed that most of the selected studies were not undertaken in the COVID-19 pandemic period, possibly due to the need for intensive combat and displacement of healthcare professionals to cope with the virus. However, if the evaluation of comprehensive care to individuals was momentarily left aside, PHC has the responsibility to resume it in this post-pandemic period.

Finally, this review points to the need to collect scientific evidence that can justify changes in the way PHC is being implemented. The use of PCATool, in its different versions, can be considered a type of evaluation that allows not only providing information on the quality of primary health care provided, but also a justification for the introduction of the FHS and the consistent implementation of the residency in Family and Community Medicine in the Brazilian territory, and thus for its consolidation.

CONFLICT OF INTERESTS

Nothing to declare.

AUTHORS' CONTRIBUTIONS

IZM: Data curation, Investigation, Writing – original draft, Writing – review & editing, Methodology. MAG: Data curation, Investigation, Writing – original draft, Writing – review & editing. LAI: Data curation,

Investigation, Writing – original draft, Writing – review & editing. AMVC: Data curation, Investigation, Writing – original draft, Writing – review & editing. UC: Data curation, Investigation, Writing – original draft, Writing – review & editing.

REFERENCES

1. Pinto LF, Soranz D, Ponka D, Pisco LA, Hartz ZM. 40 anos de Alma-Ata: desafios da Atenção Primária à Saúde no Brasil e no mundo. Ciênc Saúde Coletiva. 2020;25(4):1178. https://doi.org/10.1590/1413-81232020254.01012020
2. Brasil. Ministério da Saúde.Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Política nacional de atenção básica. Brasília: Ministério da Saúde; 2012.
3. Brasil. Presidência da República. Casa Civil. Subchefia para Assuntos Jurídicos. Emenda constitucional nº 95, de 15 de dezembro de 2016. Altera o Ato das Disposições Constitucionais Transitórias, para instituir o Novo Regime Fiscal, e dá outras providências. Brasília: Diário Oficial da União; 2016.
4. Brasil. Ministério da Saúde. Secretaria de Atenção em Saúde. Departamento de Atenção Básica. Manual do instrumento de avaliação da Atenção Primária à Saúde: Primary Care Assessment Tool PCATool-Brasil. Brasília: Ministério da Saúde; 2010.
5. Starfield B. Atenção primária: equilíbrio entre necessidades de saúde, serviços e tecnologia. Brasília: UNESCO; Ministério da Saúde; 2002.
6. Souza MT, Silva MD, Carvalho R. Revisão integrativa: o que é e como fazer. Einstein. 2010;8(1 Pt 1):102-6.
7. Abrantes RS, Monteiro DLA, Luz APRG, Olinda RA, Padilha WWN. Assessment of primary health care attributes in Campina Grande, Paraíba, Brazil. Rev Bras Enferm. 2020;73(suppl 5):e20200128. https://doi.org/10.1590/0034-7167-2020-0128
8. Costa APB, Guerra MR, Leite ICG. Avaliação dos atributos da atenção primária à saúde sob a ótica dos profissionais médicos. Rev Bras Med Fam Comunidade. 2022;17(44):3085. https://doi.org/10.5712/rbmfc17(44)3085
9. Maia LG, Silva LA, Guimarães RA, Pelazza BB, Leite GR, Barbosa MA. A qualidade de serviços de atenção primária, a formação profissional e o Programa Mais Médicos em uma região de saúde do sudoeste goiano. Rev Bras Epidemiol. 2020;23:e200014. https://doi.org/10.1590/1980-549720200014
10. 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 Promoç Saúde. 2021;34:114831. https://doi.org/10.5020/18061230.2021.11483
11. Rasia ICRB, Silveira DS, Olea PM, Rasia BB. Estruturação e orientação da atenção primária à saúde em um município no extremo sul do Brasil. Rev Gest Sist Saúde. 2020;9(2):193-214. https://doi.org/10.5585/rgss.v9i2.14493
12. Costa LB, Mota MV, Porto MMA, Fernandes CSGV, Santos ET, Oliveira JPM, et al. Avaliação da qualidade da atenção primária à saúde em Fortaleza, Brasil, na perspectiva dos usuários adultos no ano de 2019. Ciênc Saúde Colet. 2021;26(6):2083-96. https://doi.org/10.1590/1413-81232021266.39722020
13. Rocha ESC, Toledo NN, Pina RMP, Fausto MCR, D'Viana AL, Lacerda RA. Primary health care attributes in the context of indigenous health. Rev Bras Enferm. 2020;73(5):e20190641. https://doi.org/10.1590/0034-7167-2019-0641
14. Coêlho BP, Miranda GMD, Silva MCNA, Torres TCO, Oliveira TF. Atenção primária no contexto da epidemia zika e da síndrome congênita da zika em Pernambuco, Brasil: contexto, vínculo e cuidado. Ciênc Saúde Coletiva. 2022;27(3):861-70. https://doi.org/10.1590/1413-81232022273.44782020
15. Costa AKC, Mesquita AKN, Farre AGMMC, Cavalcante KMH, Barreiro MSC. Evaluation of primary health care for children under 5 years old in the municipality of Lagarto-SE. R Pesqu Cuid Fundam. 2020;12:758-66. https://doi.org/10.9789/2175-5361.rpcfo.v12.6582
16. Figueira MCS, Silva WP, Marques D, Bazilio J, Pereira JA, Vilela MFG, et al. Atributos da atenção primária na saúde fluvial pela ótica de usuários ribeirinhos. Saúde Debate. 2020;44(125):491-503. https://doi.org/10.1590/0103-1104202012516
17. Martins DC, Silva GM, Pesce GB, Fernandes CAM. Assessment of the attributes of Primary Health Care with women of reproductive age. Rev Bras Enferm. 2022;75(3):e20210015. https://doi.org/10.1590/0034-7167-2021-0015
18. Masochini RG, Farias SNP, Sousa AI. Avaliação dos atributos da atenção primária à saúde na perspectiva dos idosos. Esc Anna Nery. 2022;26:e20200433. https://doi.org/10.1590/2177-9465-EAN-2020-0433
19. Siqueri CASA, Pereira GA, Sumida GT, Mafra AC, Bonfim D, Almeida LY, et al. What are the implications of problem-solving capacity at primary health care in older adult health? Einstein (São Paulo). 2022;20:1-8. https://doi.org/10.31744/einstein_journal/2022GS6791
20. Silvério ACP, Martins I, Nogueira DA, Mello MAS, Loyola EAC, Graciano MMC. Avaliação da atenção primária à saúde de trabalhadores rurais expostos a praguicidas. Rev Saúde Pública. 2020;54:9. https://doi.org/10.11606/s1518-8787.2020054001455
21. Costa MA, Alves MTSSB, 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;24(suppl. 1):e190628. https://doi.org/10.1590/Interface.190628
22. Ribeiro LA, Scatena JHG. Avaliação da qualidade da estratégia de saúde da família em um município de porte médio. Saúde Debate. 2019;43(spe7):126-40. https://doi.org/10.1590/0103-11042019S710

23. Santos MPR, Albuquerque MSV, Lyra TM, Mendes ACG, Silva FL, Diniz GTN. Qualidade da atenção aos pacientes com Diabetes Mellitus no Programa Mais Médicos, em um município da região metropolitana do Recife (PE), Brasil. Saúde Debate. 2020;44(125):384-99. https://doi.org/10.1590/0103-1104202012508

24. Alves NA, Coura AS, França ISX, Magalhães IMO, Rocha MA, Araújo RS. Acesso de primeiro contato na atenção primária: uma avaliação pela população masculina. Rev Bras Epidemiol. 2020;23:e200072. https://doi.org/10.1590/1980-549720200072

25. Bispo GMB, Rodrigues EMD, Carvalho ACO, Lisboa KWSC, Freitas RWJF, Damasceno MMC. Assessment of access to first contact in the perspective of professionals. Rev Bras Enferm. 2020;73(3):e20180863. https://doi.org/10.1590/0034-7167-2018-0863

26. Corrêa RD, Leite ICG. Qualificação em Medicina de Família e Comunidade e orientação comunitária da Estratégia Saúde da Família. Rev Bras Educ Med. 2022;46(1):e027. https://doi.org/10.1590/1981-5271v46.1-20210199

27. Queiroz RO, Moroskoski M, Shibukawa BMC, Uema RTB, Oliveira RR, Higarashi IH. Orientação familiar e comunitária na adolescência: avaliação na estratégia da saúde da família. Rev Latino-Am Enfermagem. 2021;29:e3457. https://doi.org/10.1590/1518-8345.4599.3457

28. Pinto LP, Silva VSTM. Primary Care Assessment Tool (PCAT): a construção de uma nova linha de base para avaliação dos serviços de saúde no Brasil. Ciênc Saúde Coletiva. 2021;26(2):651-6. https://doi.org/10.1590/1413-81232021262.42552020

29. Pinto LF, Quesada LA, D'Avila OP, Hauser L, Gonçalves MR, Harzheim E. Primary Care Assessment Tool: regional differences based on the National Health Survey from Instituto Brasileiro de Geografia e Estatística. Ciênc Saúde Colet. 2021;26(9):3965-79. https://doi.org/10.1590/1413-81232021269.10112021

30. Guimarães MA, Fattori A, Coimbra AMV. PCATool versão profissionais cuidando da saúde do idoso: adaptação, análise de conteúdo e desempenho do instrumento. Ciênc Saúde Colet. 2022;27(7):2911-9. https://doi.org/10.1590/1413-81232022277.19292021

31. Daumas RP, Silva GA, Tasca R, Leite IC, Brasil P, Grego DB, et al. O papel da atenção primária na rede de atenção à saúde no Brasil: limites e possibilidades no enfrentamento da COVID-19. Cad Saúde Pública. 2020;36(6):e00104120. https://doi.org/10.1590/0102-311X00104120