

Indicators for evaluating contraceptive care in primary health care: a scoping review



Indicadores para avaliação da assistência em contracepção na Atenção Primária à Saúde: revisão de escopo

Indicadores para la evaluación de la atención anticonceptiva en Atención Primaria: una revisión de alcance

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ABSTRACT

Objective: To map, in the literature, the indicators used to evaluate contraceptive care in Primary Health Care services.

Method: Scoping review based on the framework proposed by Arksey and O'Malley and on the recommendations of the Joanna Briggs Institute, encompassing studies published between 1994 and 2023. Six databases and two grey literature repositories were searched. Data collection was conducted in pairs and independently. The analysis employed a deductive approach, with indicators categorized into the dimensions of structure, process (clinical-care and organizational process), and outcome, as well as into subdimensions, according to Donabedian's framework.

Results: A total of 37 studies were included, mostly cross-sectional, focusing on women of reproductive age. Process-related indicators were the most frequent, particularly those linked to the clinical-care component. In the structure dimension, the availability and provision of contraceptive methods stood out. In the outcome dimension, contraceptive method use was the most frequently assessed aspect.

Conclusion: There is a need for more specific indicators to evaluate the content of information provided, user satisfaction, and contraceptive discontinuation rates. It is important to broaden the scope of evaluation by incorporating the perspectives of health professionals and addressing issues related to sexually transmitted infections within contraceptive care.

Descriptors: Contraception; Health evaluation; Primary health care; Reproductive and sexual health; Review literature as topic.

RESUMO

Objetivo: Mapear, na literatura, os indicadores utilizados na avaliação da assistência em contracepção em serviços de Atenção Primária à Saúde.

Método: Revisão de escopo baseada no referencial de Arksey e O'Malley e nas recomendações do *Joana Briggs Institute*, abrangendo estudos publicados entre 1994 e 2023. Foram utilizadas seis bases de dados e dois repositórios de literatura cinzenta. Os dados foram coletados em pares e às cegas. A análise utilizou abordagem dedutiva, sendo os indicadores categorizados nas dimensões estrutura, processo (clínico-assistencial e processo organizacional) e resultado; e subdimensões, conforme o referencial de Donabedian.

Resultados: Foram incluídos 37 estudos, majoritariamente transversais, com foco em mulheres em idade reprodutiva. Indicadores relacionados ao processo foram os mais recorrentes, principalmente os vinculados ao componente clínico-assistencial. Na dimensão estrutura, destacou-se a disponibilidade e oferta de métodos contraceptivos. Já na dimensão resultado, o uso de método contraceptivo foi o aspecto avaliado com maior frequência.

Conclusão: Há necessidade de indicadores mais específicos que avaliem o conteúdo das informações ofertadas, a satisfação das usuárias e as taxas de descontinuidade contraceptiva. Torna-se importante ampliar o escopo da avaliação, incorporando perspectivas dos profissionais de saúde e abordando questões relacionadas às infecções sexualmente transmissíveis na assistência em contracepção.

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Descritores: Contracepção; Avaliação em saúde; Atenção primária à saúde; Saúde sexual e reprodutiva; Literatura de revisão como tema.

RESUMEN

Objetivo: Mapear en la literatura los indicadores utilizados para evaluar la atención anticonceptiva en los servicios de Atención Primaria de Salud.

Método: Revisión de alcance basada en el marco de Arksey y O'Malley y en las recomendaciones del Joanna Briggs Institute, que incluyó estudios publicados entre 1994 y 2023. Se consultaron seis bases de datos y dos repositorios de literatura gris. La recolección de datos se realizó por pares y de forma independiente. El análisis empleó un enfoque deductivo, y los indicadores se clasificaron en las dimensiones de estructura, proceso (clínico-asistencial y proceso organizacional) y resultado, así como en subdimensiones, conforme al marco de referencia de Donabedian.

Resultados: Se incluyeron 37 estudios, principalmente transversales, centrados en mujeres en edad reproductiva. Los indicadores de proceso fueron los más frecuentes, sobre todo los vinculados al componente clínico-asistencial. En la dimensión estructura destacó la disponibilidad de métodos anticonceptivos, y en la de resultado, el uso de métodos.

Conclusión: Se requiere el desarrollo de indicadores más específicos que evalúen el contenido de la información brindada, la satisfacción de las usuarias y la discontinuidad anticonceptiva. Es necesario ampliar la evaluación incorporando la perspectiva de los profesionales de salud y considerando aspectos relacionados con las infecciones de transmisión sexual.

Descritores: Anticoncepción; Evaluación en salud; Atención primaria de salud; Salud sexual y reproductiva; Literatura de revisión como asunto.

INTRODUCTION

Contraceptive Care (CC), understood as “the provision of information, counseling, clinical follow-up and a range of contraceptive methods and techniques [...], in a context of free and informed choice⁽¹⁾”, has been configured as a relevant health action for the guarantee of sexual and reproductive rights, internationally recognized after the landmark of the IV International Conference on Population and Development (ICPD), held in Cairo, Egypt, in 1994. In addition, it remains referenced as a strategy for achieving health, well-being and gender equality, whose goals are established in the Sustainable Development Goals (SDGs)⁽²⁾.

In recent decades, countries have made significant investments to increase the use of modern contraceptive methods across diverse economic and social contexts and health system organizational arrangements^(3–4). The aim was to reduce unmet need for contraception and, consequently, rates of unintended pregnancies and maternal mortality. In the same direction, several governments have undertaken efforts to expand Primary Health Care (PHC) coverage⁽⁵⁾.

Despite these advances, monitoring and evaluation processes for CC are not permanent practices⁽⁶⁾ and, in most countries, are limited to occasional population-based studies, which are costly to implement. Moreover, many of these studies fail to consider the decentralized services where CC is actually delivered⁽⁷⁾.

Indicators are measures that reflect characteristics of a given reality, being widely used for monitoring

and evaluating health policies, programs, services and interventions⁽⁸⁾. The definition and identification of appropriate evaluation indicators at the service level therefore become essential, as they allow health care to be evaluated according to the characteristics of the context in which it is provided^(9–11).

However, evaluative studies on reproductive planning and CC within the context of services or integrated programs, such as those in PHC, are scarce^(12–13). The assessment of the impacts of CC has been reported, in large part, in programs that integrate it with services related to Human Immunodeficiency Virus (HIV), maternal, neonatal and child health^(12,14–16), however, with little representation of studies in PHC settings. The limitation of indicators related to the supply of services and quality of care has been pointed out as a weakness in CC evaluations⁽⁶⁾.

Given this scenario, mapping the evidence of indicators used to evaluate CC in PHC services emerges as a gap. Studies that address this topic can support researchers, managers, health professionals and stakeholders in developing evaluations of CC in a way that is more consistent with local realities. In this sense, the present study aimed to map, in national and international literature, the indicators used to evaluate contraceptive care in PHC services.

METHOD

This is a scoping review developed from the framework of Arksey and O'Malley⁽¹⁷⁾ and the recommendations of the Joanna Briggs Institute (JBI)^(17–19) and reported

according to the PRISMA Extension for Scoping Reviews (PRISMA-ScR) guideline⁽²⁰⁾.

The study protocol was registered in the Open Science Framework (OSF) and is available at https://osf.io/34ynk/?view_only=d1bfd67b82f6460db7b03aa46a-90dd45.

The acronym PCC (Population, Concept, Context)⁽²¹⁾ was used to formulate the following research question: "Which indicators have been used to evaluate CC in PHC services?"

Searches were conducted in October and November 2023. Eight databases were searched: MEDLINE via PubMed, SCOPUS, EMBASE, CINAHL, LILACS via the

Virtual Health Library (VHL), and Web of Science, in addition to two grey literature repositories: ProQuest Dissertations and Theses Global and the Brazilian Digital Library of Theses and Dissertations (*Biblioteca Digital Brasileira de Teses e Dissertações* - BDTD).

To identify search terms, two librarians were consulted. Controlled vocabularies in English, such as Medical Subject Headings (MeSH), Emtree terms (EMBASE thesaurus), and related free-text terms were examined to select the most appropriate descriptors combined with the Boolean operators AND and OR in order to formulate the search strategy (Chart 1).

Chart 1 - Terms used to construct the matrix search strategy. São Paulo, SP, Brazil, 2023

PCC	Search strategy
Population	("Program Evaluation" OR "Family Planning Program Evaluation" OR indicators OR Indicator OR assessment OR assessments OR measurement OR measurements OR measure OR measures OR evaluation) AND
Concept	("Contraception/methods" OR "Family Planning Services/methods" OR "Family Planning Services/statistics and numerical data" OR "Family Planning Services/standards" OR "Birth Control" OR "Contraceptive Methods" OR "Female Contraception" OR "Fertility Control" OR "Contraceptives" OR "Contraceptive" OR "Contraceptive Agents" OR "Reproductive health" OR "Family Planning" OR "Family Planning Programs") AND
Context	("Primary Health" OR "Primary Health Care" OR "Primary Healthcare" OR "Primary Care")

Original studies that used indicators to evaluate CC in PHC, published between January 1, 1994, and July 30, 2023, without language restrictions. The time frame was set because 1994 marked the IV ICPD, considered an international milestone for organizing contraceptive care from a sexual and reproductive rights perspective. Publications such as letters to the editor, author opinions, case reports, comments, narrative reviews, incomplete studies, conference abstracts, articles without abstracts, and studies reporting intervention outcomes were excluded.

In study selection, a researcher conducted the databases searches and removed duplicates using the ENDNOTE® web tool. Subsequently, two independent

and blinded researchers screened titles and abstracts using the Rayyan® reference manager.

To verify the reliability of the eligibility criteria, two researchers individually and blindly evaluated the first 25 titles and abstracts, and adjustments were made in a consensus meeting. After calibration, the reading of the remaining titles and abstracts, as well as the full texts, continued for the final selection of the collection. In cases where there was disagreement in these two stages, a third researcher was consulted to reach a consensus.

The data were extracted into a spreadsheet developed in Microsoft Office Excel®, completed independently and blindly by three researchers, containing the following data from the included articles: study title,

authors, year of publication, country of the study, region, country income level, study objective, study design, population/sample, data source, CC indicators used. The indicators were extracted from the methods and results sections of the studies. In the case of indicators not explicitly reported, the variables and measures⁽⁸⁾ used in the studies were considered and extracted. After extraction, and to confirm the consistency of the collected information, the data were independently reviewed and then submitted to a consensus meeting among the three researchers.

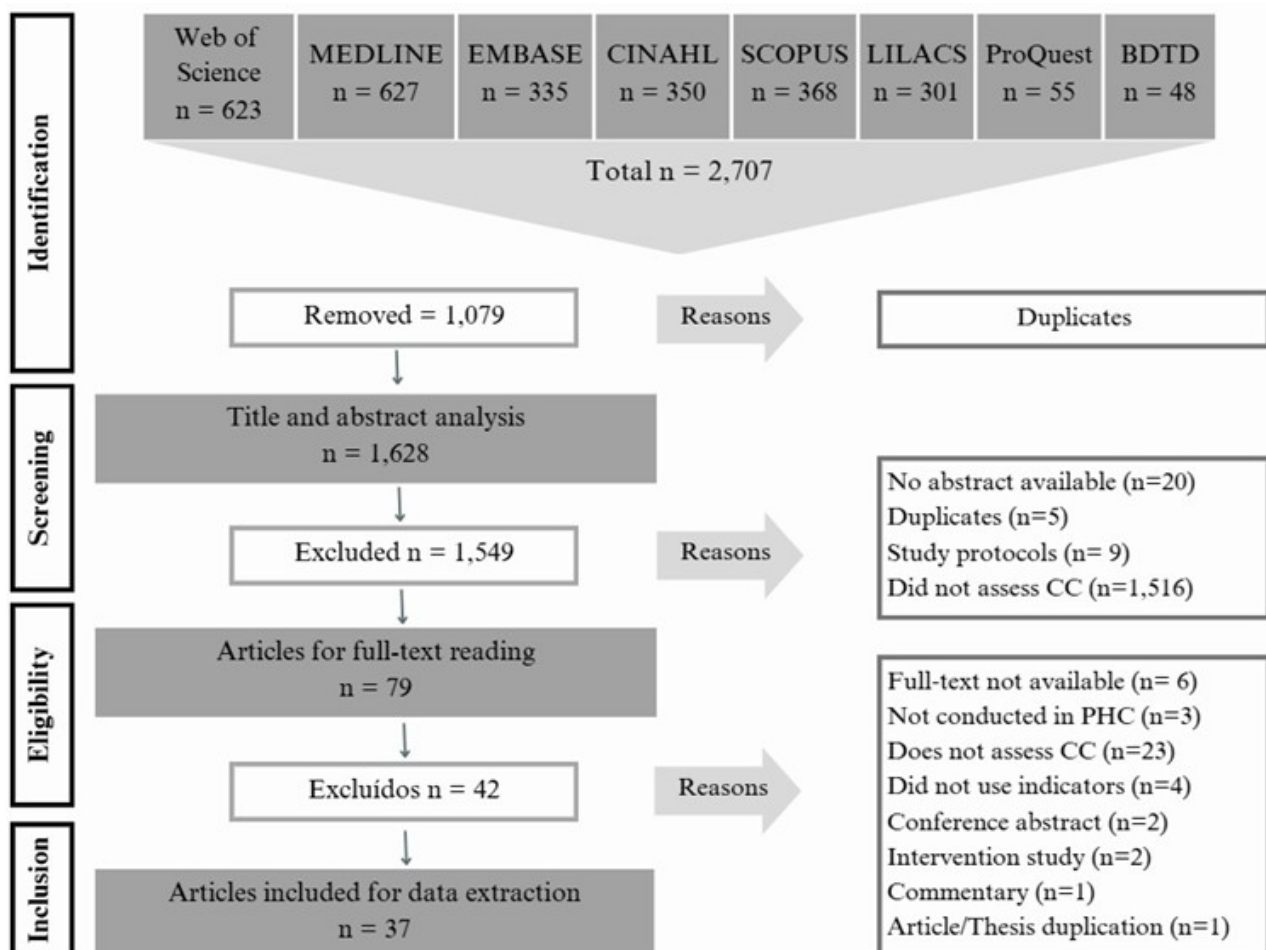
The indicators were analyzed considering the Donabedian theoretical framework for health evaluation⁽⁹⁻¹⁰⁾, widely used in the evaluation of healthcare services in various contexts, including in the field of sexual and reproductive health (SRH)⁽²²⁻²³⁾. The author^(9,10) considers three dimensions of indicators for evaluation: structure, process, and outcome. Structure indicators

encompass the characteristics of the environment and setting in which care is delivered; process indicators refer to the activities performed, how care is provided, and what the team and its members do in relation to a service user; and outcome indicators address the effects of care and services on users' health conditions^(9,10). Based on this understanding and through a deductive approach⁽²⁴⁾, using the NVIVO® software the extracted indicators were categorized by two reviewers into the dimensions and subdimensions of structure, process (clinical-care and organizational), and outcome.

RESULTS

The database search identified 2,707 publications, and after removing duplicates (n=1,079), 1,628 remained. Reading the titles and abstracts allowed 79 articles to be selected for full-text reading, of which 37 studies met the inclusion criteria (Figure 1).

Figure 1 - Flowchart of the study identification and selection process for the scoping review. São Paulo, SP, Brazil, 2023



The studies were published between 2001 and 2023. The regions of Latin America and the Caribbean, Sub-Saharan Africa, Europe, and Central Asia accounted for most of the studies, especially upper-middle-income (n=13) and high-income (n=13) countries. Brazil was the country with the highest number of included studies (n=10).

Methodologically, cross-sectional studies prevailed (n=30), with questionnaires being the most frequently used data collection instrument. Women of reproductive age constituted the participants in most studies (n=18), followed by health unit managers (n=9), health

professionals (n=3), adolescents (n=3), and postpartum women (n=1) (Chart 2).

In 17 studies, indicators related to the structure dimension were used; in 29 studies, indicators referred to the process dimension, of which 21 were related to the clinical-care process and 19 to the organizational process. In 18 studies, indicators from the outcome dimension were identified, as shown in Chart 3.

The structure indicators were organized into 10 subdimensions, the clinical-care process into 27 subdimensions, and the organizational process into 15 subdimensions. In the outcome dimension, nine subdimensions were identified (Chart 4).

Chart 2 – Characteristics of the studies included in the scoping review according to country, country income level, study design, population, and data collection source. São Paulo, SP, Brazil, 2023

Authors and year of publication	Country	Country income level	Study design	Study population	Data sources
Free et al., 2001 ⁽²⁵⁾	United Kingdom	HI	Cross-sectional	Women of reproductive age	Secondary data
Erci, 2002 ⁽²⁶⁾	Turkey	UMIC	Cross-sectional	Married women of reproductive age	Multiple sources ^a
Douthwaite & Ward, 2005 ⁽²⁷⁾	Pakistan	LMIC	Case-control	Married women of reproductive age from rural areas	Questionnaire
Uzuner et al., 2005 ⁽²⁸⁾	Turkey	UMIC	Cross-sectional	Health professionals	Questionnaire
Osis et al., 2006 ⁽²⁹⁾	Brazil	UMIC	Cross-sectional	Managers of Basic Health Units	Questionnaire
Klerman et al., 2007 ⁽³⁰⁾	USA	HI	Cross-sectional	Directors of Health Units	Questionnaire
Serra-Torres et al., 2007 ⁽³¹⁾	Spain	HI	Cross-sectional	Women of reproductive age	Questionnaire
Varma & Babu, 2007 ⁽³²⁾	India	LMIC	Cross-sectional	Married women of reproductive age from rural areas	Questionnaire
Soranz, 2008 ⁽³³⁾	Brazil	UMIC	Cross-sectional	Women of reproductive age	Questionnaire

Chart 2 – Cont.

Authors and year of publication	Country	Country income level	Study design	Study population	Data sources
Charandabi, 2009 ⁽³⁴⁾	Iran	LMIC	Cross-sectional	Health professionals and women of reproductive age	Questionnaire
Nagahama, 2009 ⁽³⁵⁾	Brazil	UMIC	Evaluative study	Directors of Basic Health Units	Questionnaire
Mayeye, Lewis & Oguntibeju, 2010 ⁽³⁶⁾	South Africa	UMIC	Cross-sectional	Adolescents	Questionnaire
Sannisto et al., 2010 ⁽³⁷⁾	Finland	HI	Cross-sectional	Medical and nursing directors	Questionnaire
Figueiredo e Paula, 2013 ⁽³⁸⁾	Brazil	UMIC	Cross-sectional	Municipal health managers	Questionnaire
Parsons et al., 2013 ⁽³⁹⁾	United Kingdom	HI	Cross-sectional	Women of reproductive age	Multiple sources ^b
Tafese, Woldie & Megerssa, 2013 ⁽⁴⁰⁾	Ethiopia	LIC	Cross-sectional	Women of reproductive age	Multiple sources ^c
Crabb, 2015 ⁽⁴¹⁾	United Kingdom	HI	Cross-sectional	Women of reproductive age	Medical records
Nunes, 2015 ⁽⁴²⁾	Brazil	UMIC	Cross-sectional	Women and men aged 18 years and older	Questionnaire
Nasser, 2015 ⁽⁴³⁾	Brazil	UMIC	Evaluative study	Managers of Primary Health Care Units	Questionnaire
Schubert, Bishop & Gold, 2016 ⁽⁴⁴⁾	USA	HI	Cross-sectional	Health units	Mystery client
Kanwal et al., 2017 ⁽⁴⁵⁾	UAE	HI	Cross-sectional	Mothers	Questionnaire
Mathur, Goyal & Mathur, 2017 ⁽⁴⁶⁾	India	LMIC	Cross-sectional	Health units	Medical records
Khalil, Alzahrani & Siddiqui, 2018 ⁽⁴⁷⁾	Saudi Arabia	HI	Cross-sectional	Women of reproductive age	Questionnaire
Vinhal, 2018 ⁽⁴⁸⁾	Brazil	UMIC	Cross-sectional	Managers of Primary Health Care Units	Questionnaire

Chart 2 – Cont.

Authors and year of publication	Country	Country income level	Study design	Study population	Data sources
Nagai et al., 2019 ⁽⁴⁹⁾	Philippines	LMIC	Cross-sectional	Women of reproductive age	Questionnaire
Bomfim et al., 2020 ⁽⁵⁰⁾	Mozambique	LIC	Cross-sectional	Adolescents	Questionnaire
Canario et al., 2020 ⁽⁵¹⁾	Brazil	UMIC	Prospective cohort	Postpartum women	Questionnaire
Tessema et al., 2020 ⁽⁵²⁾	Ethiopia	LIC	Cross-sectional	Health units and women of reproductive age	Survey
Woods & Sheeder, 2020 ⁽⁵³⁾	USA	HI	Retrospective cohort	Adolescents	Medical records
Bryson, Cabral & Coles, 2021 ⁽⁵⁴⁾	USA	HI	Coorte Retrospective cohort	Women of reproductive age, LARC users	Medical records
Ruivo et al., 2021 ⁽⁵⁵⁾	Brazil	UMIC	Comparative study	Basic Health Units	Survey
Paiva, 2021 ⁽⁵⁶⁾	Brazil	UMIC	Service evaluation	Managers and health professionals	Questionnaire
Callegari et al., 2022 ⁽⁵⁷⁾	USA	HI	Cross-sectional	Women of reproductive age	Questionnaire
Pires et al., 2022 ⁽⁵⁸⁾	Mozambique	LIC	Cross-sectional	Family planning service clients	Questionnaire
Pope et al., 2022 ⁽⁵⁹⁾	Mozambique	LIC	Cross-sectional	Managers and staff of Basic Health Units	Survey
Obong e Oyibo, 2023 ⁽⁶⁰⁾	Nigeria	LIC	Cross-sectional	Managers of Basic Health Units and reproductive health supervisors	Multiple sources ^d
Wali et al., 2023 ⁽⁶¹⁾	Saudi Arabia	HI	Cross-sectional	Women of reproductive age, implanon users	Questionnaire

Legend: HI - High Income; LIC - Low Income; UMIC - Upper-Middle Income; LMIC - Lower-Middle Income; LARC - Long-acting Reversible Contraceptives.

^(a) Questionnaire and scale developed by the authors; ^(b) Questionnaire, service records, mystery client; ^(c) Questionnaire and direct observation; ^(d) Observational checklist and interview guide.

Chart 3 - Characterization of the studies included in the scoping review according to author and dimension of indicators used to evaluate contraceptive care in Primary Health Care. São Paulo, SP, Brazil, 2023

Authors	Indicator dimensions			
	Structure (n=17)	Clinical-care process (n=21)	Organizational process (n=19)	Outcome (n=18)
Free et al. ⁽²⁵⁾	×		×	×
Erci ⁽²⁶⁾				×
Douthwaite & Ward ⁽²⁷⁾				×
Uzuner et al. ⁽²⁸⁾		×		×
Osis et al. ⁽²⁹⁾	×			
Klerman et al. ⁽³⁰⁾	×		×	
Serra-Torres et al. ⁽³¹⁾				×
Varma & Babu ⁽³²⁾		×		×
Soranz ⁽³³⁾		×	×	×
Charandabi ⁽³⁴⁾		×		×
Nagahama, 2009 ⁽³⁵⁾	×	×	×	
Mayeye, Lewis & Oguntibeju ⁽³⁶⁾		×		
Sannisto et al. ⁽³⁷⁾	×	×	×	
Figueiredo e Paula ⁽³⁸⁾	×		×	
Parsons et al. ⁽³⁹⁾		×	×	×
Tafese, Woldie & Megerssa ⁽⁴⁰⁾	×	×	×	×
Crabb ⁽⁴¹⁾		×		
Nunes ⁽⁴²⁾	×	×	×	×

Chart 3 – Cont.

Authors	Indicator dimensions			
	Structure (n=17)	Clinical-care process (n=21)	Organizational process (n=19)	Outcome (n=18)
Nasser ⁽⁴³⁾	×	×	×	
Schubert, Bishop & Gold ⁽⁴⁴⁾	×		×	
Kanwal et al. ⁽⁴⁵⁾				×
Mathur, Goyal & Mathur ⁽⁴⁶⁾			×	
Khalil, Alzahrani & Siddiqui ⁽⁴⁷⁾				×
Vinhal ⁽⁴⁸⁾	×	×	×	
Nagai et al. ⁽⁴⁹⁾		×		×
Bomfim et al. ⁽⁵⁰⁾		×		
Canario et al. ⁽⁵¹⁾			×	×
Tessema et al. ⁽⁵²⁾	×	×	×	
Woods & Sheeder ⁽⁵³⁾			×	
Bryson, Cabral & Coles ⁽⁵⁴⁾		×	×	×
Ruivo et al. ⁽⁵⁵⁾	×			
Paiva ⁽⁵⁶⁾	×	×	×	
Callegari et al. ⁽⁵⁷⁾	–	×	×	
Pires et al. ⁽⁵⁸⁾	×	×		×
Pope et al. ⁽⁵⁹⁾	×		×	
Obong & Oyibo ⁽⁶⁰⁾	×			
Wali et al., 2023 ⁽⁶¹⁾		×		×

Chart 4 – Dimensions and subdimensions of the indicators used to evaluate contraceptive care in Primary Health Care based on the studies included in the scoping review. São Paulo, SP, 2023

Dimension: Structure		
Subdimensions	Availability and supply of contraceptive methods	Infrastructure and equipment for contraceptive care
	Availability of education, information, and communication resources and materials for contraceptive care	Mechanisms for recording and monitoring contraceptive care
	Team qualification for contraceptive care	Availability of SRH services for contraceptive users
	Standardization of practices and care pathways in contraceptive care	Conditions for access and accessibility to contraceptive care
	Availability of professionals for contraceptive care	Health unit opening hours
Dimension: Clinical-Care Process		
Subdimensions	Provision of information or counseling on contraceptives to users	Guidance on the use of the contraceptive method
	Guidance on side effects of the contraceptive method	Clarification of the user's health status during care
	Follow-up and monitoring of contraceptive users	Assessment of the user's reproductive intention
	Guidance on the advantages and disadvantages of contraception	Assessment of previous contraceptive use
	Referral for surgical contraception and LARC	Assessment of gynecological history
	Use of education, information, and communication materials in contraceptive care	Guidance on contraception when communicating pregnancy test results
	Professionals' knowledge regarding contraceptive care	Guidance on where and when to obtain or reapply the method
	(In)appropriate prescription of the contraceptive method	Guidance on the possibility of changing methods
	Respectful treatment of the user during contraceptive care	Guidance on how contraceptive methods work

Chart 4 – Cont.

Dimension: Clinical-Care Process		
Subdimensions	Counseling on STIs, HIV, and AIDS	Guidance on what to do in case of problems with the contraceptive method
	Technical competence in performing procedures	Guidance on what to do in case of unprotected sexual intercourse
	Availability of the user's preferred contraceptive method	Professional bias regarding contraceptive methods
	Assessment of the partner's opinion regarding contraceptive use	Emphasis on a specific contraceptive method during care
	Assessment of doubts or concerns about contraceptive methods	
Dimension: Organizational Process		
Subdimensions	Evaluation and monitoring of care	Forecasting and provision of contraceptives
	Systematization of contraceptive records	Approach to contraception at the first consultation
	Consultation duration and scheduling time for contraceptive care	User feedback mechanisms
	Organization of access to consultations for contraceptive care	Approach to contraception among adolescents
	Planning and implementation of educational activities on contraception	Approach to contraception in previous consultations
	Community-based approach to contraception	Approach to contraception in men's health
	Approach to contraception in the postpartum period	Approach to reproductive planning in the Health Unit
	Approach to contraception in women's health	
Dimension: Outcome		
Subdimensions	Use of contraceptive methods by clients	Unmet contraception needs
	User satisfaction with care or healthcare services	Pregnancy planning

Chart 4 – Cont.

Dimension: Outcome		
Subdimensions	Users' knowledge about contraceptive methods	Discontinuation of contraceptive method use
	Pregnancy termination	Adolescent pregnancy
	User satisfaction with the contraceptive method	

Legend: STI (Sexually Transmitted Infection); AIDS (Acquired Immunodeficiency Syndrome).

All indicators and their measurement methods are categorized by dimension, subdimension, and authors in the "Files" tab of the OSF, available at https://osf.io/34ynk/?view_only=d1bfd67b82f6460db7b03aa46a-90dd45.

In the structure dimension, the availability and supply of contraceptive methods was the most frequent subdimension (n=13), including a variety of methods, with emphasis on emergency contraception and the copper IUD. The availability of education, information, and communication resources and materials (n=6) emphasized how information was provided in services, such as posters, leaflets, display materials, and reproductive system models. Team qualification (n=6) focused on quantifying professionals trained in reproductive planning or contraception and the duration of such training.

In the subdimensions of the clinical-care process, the provision of information and counseling on contraceptive methods stood out, including topics such as the types of methods, their side effects, advantages, and disadvantages. Guidance on the side effects of the contraceptive method and the follow-up and monitoring of users were also frequent, encompassing the provision of return visits and discussion about the method use.

Clarifications about the users' health status, investigation of reproductive intentions and history of contraceptive use, guidance on changing methods, what to do in case of problems or unprotected sex, professional biases, and emphasis on specific methods were less frequent approaches.

When analyzing the subdimensions of the organizational process, six studies addressed the evaluation and monitoring of care and the systematization of contraceptive records. Five publications included indicators related to consultation duration and scheduling time for CC and the organization of access to CC consultations. In three studies, indicators related to the planning and implementation of educational activities on contraception and community-based approaches to contraception were identified. These subdimensions were the most frequent among the studies included in the review.

Among the outcome subdimensions, those addressing the use of contraceptive methods by clients (n=14), user satisfaction with care or health services (n=6), and users' knowledge about contraceptive methods (n=4) were the most prominent. Among the indicators related to the use of contraceptive methods by clients, only one specifically assessed the use of long-acting reversible contraceptives (LARC) and the use of the preferred method. In the subdimension of user satisfaction with the care received or with health services, the evaluation was based on characteristics of the interaction between professionals and users (respect, information provided, privacy, comfort) and on aspects of the structure offered by the health service (cleanliness, convenience, ease of access to the facility). Less frequent evaluation perspectives among outcome indicators included subdimensions related to unmet need for contraception (n=2), pregnancy planning (n=2), discontinuation of contraceptive method use (n=2), and adolescent pregnancy (n=2).

■ DISCUSSION

This study summarized the indicators used to evaluate contraceptive care in PHC services. The most frequent indicators were those monitoring and evaluating the process dimension of CC among women of reproductive age, particularly in middle- and high-income countries in Latin America and the Caribbean, sub-Saharan Africa, Europe, and Central Asia.

The **clinical-care process** and **organizational process** indicators used to evaluate CC in the PHC context were predominant in the included studies. These indicators mainly measured the frequency of various types of guidance and information exchanged between professionals and service users during care. The exchange of information about contraceptive methods is recognized as an important component of interpersonal relations within the quality framework for reproductive planning defined more than 30 years ago⁽⁶²⁾ – and revised by authors⁽⁶³⁾ from a rights-based family planning perspective. Bidirectional communication, a key element of process evaluation, enables users and professionals to share relevant information that contributes to satisfactory, informed, and safe choices, ensuring the effective use of the contraceptive method⁽⁶⁴⁾.

Limited studies have focused on evaluating health professionals, which have been limited to assessing care based on information collected from women. In the context of reproductive health and contraception, there is an emerging concern about issues related to the behaviors, attitudes, and biases of health professionals^(65–67), and the repercussions on care and health outcomes for users. Results from a quick review of measures and methods for evaluating the behavior of health professionals identified that the focus of about 60% of the studies was contraception and reproductive health, even with limited evaluative studies⁽⁶⁸⁾. The results of this study therefore indicate the need for further investigations involving health professionals in the PHC context, especially when the evaluation objective is centered on the characteristics of the care process.

It was observed that process indicators, despite being frequent in the included studies, focused on broadly identifying the provision and exchange of information or contraceptive counseling, with little

depth regarding the content of the guidance. This generic approach to evaluation may, however, mask the identification of incorrect or omitted information provided by professionals to users, and indicates the need for more specific indicators that detail the content of information and guidance shared between both parties.

The questionnaire was the main data collection instrument used by most studies in this review, which may have limited the measurement of more specific process indicators and overestimated process-related measures⁽⁶⁹⁾. Several evaluative studies in health services have invested in the use of more robust data collection techniques, such as mystery or simulated client techniques, which allow overcoming limitations in the evaluation of the interaction between providers and users^(70–71). Among the studies included here, only two used such techniques and all were conducted in high-income countries.

Only three studies used indicators to assess the characteristics of the professional-user relationship in contraceptive care, especially those related to privacy, confidentiality, autonomy, and non-discrimination. These basic principles of human rights must be respected in contraceptive care⁽⁷²⁾, as they address aspects of respectful treatment of users in primary care services. However, none of these studies were conducted in Brazil.

Important limitations were found in the approach to STIs, HIV, AIDS and in the availability of SRH services to contraceptive users, such as pregnancy testing. Ensuring users have access to information and other SRH services in the context of primary care is an important factor in guaranteeing sexual and reproductive rights and quality in CC^(62–63). These data may indicate that a scope of SRH actions may not be adequately integrated into Health Units in Primary Care or that these do not elicit evaluative interest, suggesting an important approach for further research. It is important, however, to recognize that the integration of contraceptive care with other services remains a challenge in several countries that intend to expand the coverage of health services and systems^(73–74).

Regarding the dimension of the process, it is worth highlighting the studies that used organizational process indicators, which evaluated the actions and

activities developed by professionals or teams in health-care services, aiming at the organization of access, planning, execution, monitoring and evaluation of CC in the context of primary care. The incorporation of these indicators in the context of PHC is fundamental for identifying gaps and weaknesses in the routines of teams, professionals and health services, allowing the adequate mobilization of resources for service reorganization and qualification⁽⁷⁵⁾, since work processes in PHC still figure as limiting factors for users' access to reproductive health and contraception⁽⁷⁶⁾.

About 50% of the included studies used indicators categorized in the **outcome** dimension, and most of them assessed the use of methods by clients and knowledge about contraceptive methods. User satisfaction with the contraceptive method, unmet contraceptive needs, and contraceptive discontinuation were only modestly addressed. In this regard, only two studies addressed satisfaction with the method, one of which was conducted in Brazil. User satisfaction with the contraceptive method may have originated from high-quality counseling and the information exchanged between professionals and women during contraceptive care⁽⁷⁷⁾, however, it may also have been affected by the structural limitations of services and reproductive planning policies in providing varied contraceptive options to women⁽⁷⁸⁾. Studies in other contexts of CC provision have highlighted the relationships between the structure of health services and the professional-user interaction with contraceptive discontinuations^(79–81), in addition to unmet contraceptive needs⁽⁸²⁾. The findings of this scoping review indicate that these aspects represent gaps that should be better investigated in PHC services, from the perspective of high-quality CC.^(62–63)

Among the studies in the **structure** dimension, the evaluation of the availability of contraceptive methods in health services prevailed, confirming the importance attributed to service readiness for providing supplies^(83–84). Moreover, it was possible to observe the approach on the availability of resources and materials for education, information and communication. The relevance of this approach is understood, since the existence and use of these resources in health services can support the offer and exchange of information with users⁽⁸⁵⁾, improving knowledge about methods

and available services. However, it was identified that few studies used indicators to assess issues related to health unit opening hours and conditions for access to care. These structural characteristics of health services are important for ensuring quality from the perspective of service availability and equity⁽⁸⁶⁾.

Despite Brazil accounted for the largest number of studies^(29,33,35,38,42–43,48,51,55–56), most of them included structural indicators, focusing on the availability of contraceptive methods in health units. All studies that addressed process evaluation used organizational process indicators, especially regarding the monitoring and evaluation of actions performed by health teams and units. Six of them evaluated aspects of the clinical care process and, similarly to the included international studies, there was, in general, great emphasis on the provision of information or advice on contraceptive methods. The outcome dimension was less addressed, and the use of contraceptive methods prevailed in all, showing that in this dimension other aspects need further investigation, such as satisfaction with the method and the occurrence of contraceptive discontinuations, going beyond results limited to the availability of methods⁽⁸⁷⁾. It is worth highlighting that only one study in Brazil used indicators on the qualification of professionals or teams in CC. Despite the recognized advances in contraceptive coverage in Brazil⁽⁸⁷⁾, the findings indicate the need to broaden the evaluative scope of CC beyond the coverage of method use, addressing more in-depth characteristics of structural and care quality – including the treatment offered to users – and the repercussions on women's health conditions in PHC.

It was also found that women of reproductive age were the main participants in the included studies, indicating that responsibility for contraception is still attributed to women, and this is reflected in PHC research, despite evidence of the importance of men's involvement and their greater acceptability of currently available and under development methods^(88–90). These findings are similar to those observed in an African-based bibliometric study on men's involvement in reproductive planning, in which more than 60% of the publications used data collected from women and only 20% from men⁽⁹¹⁾.

Similar data were also observed regarding the adolescent population, which was included in only three of the studies included, signaling an important limitation to be overcome, since CC is a relevant intersectoral action for expanding access to SRH for adolescents and young people, as well as for achieving the SDGs related to gender equality and health⁽²⁾. Despite the recognized difficulties experienced by adolescents in accessing SRH services, it is understood that there may be little interest in the context of primary care in investigating aspects of care and in seeking ways to improve care for this population⁽⁹²⁾.

Limited studies were identified on the evaluation of CC from the perspective of postpartum women in primary care services. Previous research has reaffirmed the provision of contraceptive counseling as an essential practice during prenatal care and as an important strategy to increase contraceptive method use in the postpartum period, including LARC. This finding may positively impact the prevention of unintended pregnancies and safe birth spacing, resulting in better health outcomes for mothers and babies^(93–95). In this sense, conducting studies that evaluate the provision of information about contraceptive methods during prenatal care may help identify weaknesses in women's care and improve the organization of care and health services.

The findings of this scoping review corroborate the ongoing difficulties in the production and use of data on CC at the health services level. This is confirmed by verifying that only five included studies used data from medical records, medical records or more robust techniques, such as the mystery client method, and almost all of them were developed in high-income and upper-middle-income countries^(25,39–41,44,46,53,54). Overall, these countries have higher percentages of universal health coverage and investments in primary care⁽⁹⁶⁾, characteristics that seem to contribute to the production and use of information on CC.

Studies on routine reproductive planning data in low- and middle-income countries have identified several factors that limit or compromise information quality, such as low infrastructure and lack of standardization of information, indicators, and data collection methods^(97–98). These factors can decisively affect

planning and decision-making by managers and health professionals, hindering the implementation of measures to improve care provided in PHC.

Health systems face difficulties in making data available and accessible, especially in the context of healthcare services and PHC⁽⁹⁹⁾, where the integration of information systems is still incipient. Despite this, experiences with the use of data supported by information technology in PHC have proven successful in improving planning and quality of care^(100–102).

In Brazil, the implementation of the eSUS Strategy – Primary Care (*Estratégia eSUS – Atenção Básica* - eSUS-AB) has enabled the integration of various information systems and the timely recording of care practices at the local level⁽¹⁰³⁾. The improvement of systems with the inclusion of new indicators, based on the indicators reported in this review, can contribute significantly to the monitoring, evaluation and quality of CC in PHC as well as serve as a basis for critical analysis by health professionals and managers to improve services and work processes.

Given the diversity, complexity, and low specificity of many indicators across the different dimensions, the creation and adaptation of standardized and comprehensive indicators through Delphi research or expert consensus are considered relevant to qualify the evaluation of CC, with indicators that are easy to apply and meaningful to PHC contexts.

Although this review did not include official documents from relevant entities or organizations on the investigated topic, nor did it consider the existence of a theoretical model adopted in the studies as an inclusion criterion, it highlights a novel and didactic categorization of indicators into dimensions (structure, clinical-care process, organizational process, and outcome) and subdimensions based on the Donabedian theoretical framework^(9–10) – seminal and widely used in the field of health services evaluation. This approach allowed original detailing and understanding of evaluative practices conducted over the past decades in the context of Primary Health Care. This made it possible to identify the main aspects addressed in the evaluation of contraceptive care in PHC and to compare them with other contexts of contraceptive care provision.

CONCLUSION

This review identified a range of possible indicators for the rational and strategic monitoring of CC in the context of PHC, including their purposes, data extraction sources and measurement methods.

Process-related evaluation indicators were the most frequent in the 37 included studies, especially those related to the clinical-care process, which are present in 27 subdimensions, with a strong emphasis on the provision of information and counseling on contraceptive methods. In the structure dimension, the evaluation approach focused on the availability and supply of contraceptive methods, which prevailed among the 10 categorized subdimensions. In the outcome dimension, there was a strong emphasis on evaluation indicators related to the use of modern contraceptive methods by clients.

The synthesis of the indicators revealed that the evaluation of CC is a multifaceted and complex field, and that important advances can still be made to evaluate the quality and effectiveness of contraception-related services in PHC.

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■ Data and material availability

Access to the dataset is available upon request from the corresponding author.

■ Authorship contribution

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