

Barriers and facilitators to the implementation of group prenatal care: a scoping review protocol

Barreiras e facilitadores da implementação do pré-natal em grupo: um protocolo de *scoping review*

Luara de Carvalho Barbosa¹
ORCID: 0000-0002-0090-3408

Flávia de Oliveira Motta Maia¹
ORCID: 0000-0001-5960-3621

Elenice Valentim Carmona¹
ORCID: 0000-0001-9976-3603

Erika Christiane Marocco Duran¹
ORCID: 0000-0002-9112-752X

Talita Balaminit¹
ORCID: 0000-0002-9746-3102

Maria Helena Baena de Moraes
Lopes¹
ORCID: 0000-0001-7747-1140

¹University of Campinas, Campinas, SP,
Brazil

Editors:

Ana Carla Dantas Cavalcanti
ORCID: 0000-0003-3531-4694

Paula Vanessa Peclat Flores
ORCID: 0000-0002-9726-5229

Cláudia Maria Messias
ORCID: <https://orcid.org/0000-0002-1323-0214>

Corresponding author:

Luara de Carvalho Barbosa
E-mail: luara.obstetricia@gmail.com

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ABSTRACT

Objective: To map group prenatal care (GPC) models to identify barriers, facilitators, implementation challenges, and maintenance of GPC. **Methods:** This protocol describes a scoping review conducted using the methodology outlined by the Joanna Briggs Institute (JBI). The research question guiding this review is: "What are the existing GPC models, barriers, facilitators, and challenges in implementing and sustaining these models?". The search will be conducted in eight databases and include gray literature searches. Rayyan software will be used to manage the article selection process. Two reviewers will independently assess the title and abstract of the articles. Those that meet the inclusion criteria will be selected for full-text reading. A third reviewer will be consulted to resolve disagreements in case of discrepancies. Data synthesis will be performed descriptively, with a narrative summary of the results presented in tables, describing how these results relate to the objective and research question.

Descriptors: Prenatal Care; Prenatal Education; Implementation Science; Maintenance.

RESUMO

Objetivo: Mapear modelos de Pré-Natal em Grupo (PNG) para identificar barreiras, facilitadores, desafios de implementação e manutenção do PNG. **Métodos:** Este protocolo descreve uma *Scoping Review* desenvolvida de acordo com a metodologia do Joanna Briggs Institute (JBI). A questão de pesquisa que norteia esta revisão é: "Quais são os modelos de PNG existentes, as barreiras, facilitadores e desafios na implementação e manutenção desses modelos?". A busca será conduzida em oito bases de dados e incluirá a pesquisa em literatura cinzenta. O *software* Rayyan será utilizado para gerenciar a seleção dos artigos. Dois revisores realizarão a avaliação do título e resumo dos artigos de forma independente. Aqueles que atenderem aos critérios de inclusão serão selecionados para a leitura completa. Em caso de divergências, um terceiro revisor será consultado para resolver as discordâncias. A síntese dos dados será realizada de forma descritiva, com um resumo narrativo dos resultados apresentado em tabelas, descrevendo como esses resultados se relacionam com o objetivo e a questão de pesquisa.

Descritores: Cuidado Pré-Natal; Educação Pré-Natal; Ciência da Implementação; Manutenção.

INTRODUCTION

Prenatal care aims to ensure a safe pregnancy and is considered one of the key preventive healthcare services worldwide. Gestational care typically involves individualized care provided by healthcare professionals such as midwives, obstetric nurses, obstetricians, family physicians, or general practitioners in health units, clinics, hospitals, or at home⁽¹⁾.

The International Confederation of Midwives (ICM) released the 2021-2023 Strategic Plan, a global document updating the practices and competencies of midwives and obstetric nurses. The plan outlines ICM's strategic priorities for the next three years, emphasizing professional autonomy in women's reproductive, gestational, delivery, and postpartum care. It highlights integrative competencies, such as diagnosis, interventions, and emergency procedures

in women's healthcare, as well as participation in professional training and the production of new scientific evidence⁽²⁾.

All these recommendations aim to achieve the targets set in the third Sustainable Development Goal (SDG) - Good Health and Well-being, which seeks to reduce maternal and infant morbidity and mortality, along with improving interpersonal relationships between women and healthcare professionals throughout prenatal, delivery, and postpartum care^(3,4).

Furthermore, the World Health Organization (WHO), the United Nations Population Fund (UNFPA), and the ICM advocate for the implementation of innovative and evidence-based models of continuous obstetric care, with the active presence of a qualified and updated multidisciplinary team during prenatal, delivery, and postpartum periods⁽¹⁻⁴⁾.

Group Prenatal Care (GPC) was developed in the United States in 1993, based on a model called Centering Pregnancy. It is considered an innovative approach to prenatal care as it is the first model conducted in a group setting⁽⁵⁻⁸⁾.

With almost 30 years of existence, GPC involves group meetings and is regarded as a strategy to improve perinatal outcomes. Its results and considerations are disseminated in the global obstetric scenario^(6,9,10), as there is evidence that prenatal education can be more feasible and effective than information provided during labor⁽¹¹⁾. Non-randomized studies have shown that GPC results in a lower risk of preterm birth, low birth weight, and reduced cesarean section rates⁽¹²⁾, enhancing women's and their families experience and satisfaction^(6,13).

According to Grenier et al.⁽¹¹⁾, GPC is a viable, effective, and safe intervention that reduces the incidence of early hospital visits by increasing a woman's ability to identify latent labor and stay in her environment, seeking the hospital only when in advanced labor, thus avoiding unnecessary interventions.

From the perspective of participating women, GPC is seen as a model that values the uniqueness of the collective, individual life stories, and through the development of self-care skills during pregnancy and postpartum, provides a supportive environment where women feel empowered to take care of themselves. It also promotes women's ability to make decisions and solve problems, valuing themselves and offering mutual support. It also enables women to take responsibility for their health during pregnancy

and feel more prepared to experience labor and delivery^(11,14,15).

Concerning other studies on the subject, a systematic review by Cochrane compared the effectiveness of GPC with individual prenatal care and analyzed perinatal outcomes, including preterm birth, low birth weight, neonatal intensive care unit (NICU) admission, and breastfeeding⁽¹⁶⁾. The data demonstrated that GPC reduced the risk of preterm birth in African American women by three cases per 100 live births. However, the authors reported that it was not possible to evaluate other outcomes, such as postpartum depression, initiation of contraception, patient satisfaction, and professional satisfaction, due to the heterogeneity in how these outcomes were assessed in the primary studies⁽¹⁶⁾.

In another more recent systematic review, no significant differences were observed between the two prenatal care models regarding preterm birth rates and the proportion of small-for-gestational-age babies. However, the authors considered that the new model favors support and continuous care provided by the involved professionals, potentially helping to reduce depressive symptoms and improve satisfaction with care⁽¹⁷⁾.

Despite the favorable and beneficial results, implementing GPC can be challenging as it represents a fundamental paradigm shift compared to conventional individual prenatal consultations⁽⁶⁾. Some challenges can be considered as barriers to implementing GPC in healthcare services and ensuring access for pregnant women, including ongoing costs for group activities, structural issues, setting up and dismantling the care space, institutional policies and guidelines, lack of appropriate protocols, weak informational content and methodology, lack of trained professionals, consultation location, prejudice, lack of familiarity with the model, as well as participant-related issues such as inflexible appointment times, lack of privacy, transportation, preferences, and other motivational, cultural, and social factors⁽¹⁸⁾.

A preliminary search for other reviews has been conducted, but studies covering only some factors that can impact the GPC model have been identified. Therefore, to provide a comprehensive identification of challenges, opportunities, and characteristics of GPC concerning the current model of prenatal care and to contribute to the dissemination and expansion of knowledge about the GPC model among healthcare professionals and service managers, the development

of a scoping review is proposed to address the following question: "What are the existing GPC models, barriers, facilitators, and challenges in implementing and maintaining these models?". The results are expected to enhance knowledge about the GPC model among healthcare professionals and service managers, contributing to the expansion and improvement of prenatal care and, consequently, perinatal outcomes.

METHODS

This review will follow the methodology established by the Joanna Briggs Institute (JBI) for scoping reviews⁽¹⁹⁾. The entire protocol for this scoping review has been submitted to the Open Science Framework (OSF) and can be accessed using the DOI number 10.17605/OSF.IO/MFS65.

Review question

The following review question was formulated: "What are the existing models of GPC, barriers, facilitators, and challenges in implementing and sustaining these models?".

Inclusion Criteria

Participants/Population

Studies that address GPC will be included in this review with no participant restrictions. GPC is an alternative model of prenatal care organized in group meetings and considered a strategy to improve perinatal outcomes. Therefore, studies addressing GPC will be considered regardless of the characteristics of the participants⁽⁵⁾.

Concept

Several characteristics related to the implementation and maintenance of GPC can be identified, including physical and organizational aspects, integration into health services, human resources (including skills and training of professionals), challenges that hinder the progress of this activity, and access to pregnant women, among others.

Context

The research context will be broad, aiming to identify the health services that have implemented the GPC model in the scientific literature without limitations regarding the geographical context.

Types of sources

All methodological research designs that address the characteristics of GPC implementation and

maintenance in health services will be included, including primary studies, literature reviews, experience reports, conference abstracts, books, theses, and dissertations. In addition, institutional materials, guidelines from health authorities, and governmental and non-governmental organizations that present relevant population and conceptual characteristics will be considered. The analysis will be based on materials published from 1993 (the year the GPC model was developed) through December 2022, with no language restrictions.

Search strategy

Search strategies will be developed in three stages: initial search, secondary search, and search for additional materials. A professional in the field of library science will supervise all stages. The initial search was conducted in Medical Literature Analysis and Retrieval System Online (MEDLINE/PubMed) and Cumulative Index to Nursing and Allied Health Literature (CINAHL) via EBSCOhost databases to identify articles related to the topic. The search strategy used terms and keywords found in relevant articles, as shown in Figure 1. Subsequently, in the secondary search, this initial search strategy will be adapted for the other databases selected for this review. The databases included are MEDLINE (PubMed), CINAHL (EBSCOhost), EMBASE, Web of Science, Scopus, Lilacs, Cochrane Library, and Epistemonikos. The search process at each stage is conducted with a librarian's assistance to ensure the search's accuracy and completeness.

The search for grey literature, including institutional materials, guidelines from health authorities, and governmental and non-governmental organizations, will be conducted using Google Scholar. Once these materials have been identified, the reference lists of selected articles will be reviewed to identify other relevant articles that may not have been captured by the search strategies, thus completing the search for additional materials.

An experienced librarian will supervise the entire process of developing and refining the search strategy to ensure the quality and comprehensiveness of the search. The publication period for the articles considered will be from 1993 to December 2022, with 1993 chosen as the starting year because it marks the creation of the GPC reference model. There will be no language restrictions in the search.

Source	Search strategy
PUBMED	(((((("Group Prenatal Care") OR ("Group pregnancy care")) OR ("Centering Pregnancy")) OR (centeringpregnancy)) OR ("group prenatal care (GPC)")) OR ("group prenatal"))
CINAHL - The Cumulative Index to Nursing and Allied Health Literature	"Group Prenatal Care" OR "Group pregnancy care" OR "Centering Pregnancy" OR centeringpregnancy OR "group prenatal care (GPC)" OR "group prenatal"

Figure 1 - Research strategy. Campinas - São Paulo, Brazil, 2023

Source: Prepared by the authors, 2023.

Selection of evidence sources

Once the search is complete, all identified records are grouped and imported into the EndNote Web Reference Manager, where duplicates are removed. The articles are then exported to the Rayyan software (Qatar Computing Research Institute, Doha, Qatar), where the study selection phase occurs in two stages.

Before the material selection phase, the researchers involved in the development of the review will be trained. The software tools and the review protocol will be presented, and any doubts regarding the established workflow and selection criteria (inclusion and exclusion criteria) will be clarified. This training will be conducted remotely. To increase the inter-rater agreement, a pilot test will be conducted with 10% of the selected articles. The material selection process will be carried out in two stages: in the first stage, the titles and abstracts will be reviewed independently and blindly by two researchers. Then, the selected materials will undergo a full-text reading to verify that the selection criteria have been met. Finally, the blind phase is completed, allowing for a thorough evaluation of the selected materials by the researchers. Reasons for exclusion of full-text articles will be recorded and reported in the scoping review. In case of disagreement between the reviewers at any stage of the selection process, a third reviewer will be consulted to deliberate and resolve the impasse to reach a consensus.

Data extraction

Relevant data will be extracted from the articles included in the scoping review by two indepen-

dent reviewers using a data extraction form developed by the research team for this study. The extracted data will be entered into a Microsoft Excel spreadsheet, as shown in Figure 2. Any necessary modifications to the data extraction form will be reported in the final version of the review.

Similar to the study selection phase, any discrepancies between the reviewers will be resolved by consensus with the involvement of a third reviewer. If missing or additional data are required, the authors of the articles will be contacted to request this information.

Data analysis and presentation

Data will be analyzed descriptively and presented in tables or graphs to provide a simple count of concepts and attribute frequencies in quantitative articles. A meta-synthesis will be performed for qualitative findings. The results obtained will be presented in their entirety in the final scoping review, following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) methodology⁽²⁰⁾.

*Paper extracted from the PhD thesis entitled "Barriers and facilitators to the implementation of group prenatal care: a scoping review", presented to University of Campinas, Campinas, SP, Brazil.

CONFLICT OF INTERESTS

The authors have declared that there is no conflict of interests.

Bibliographic information	Details
Title	Original title of publication
Authors	Last name and initials of authors' names
Year	Year of publication
Country	Country where the study was conducted
Type of publication	Published or unpublished theses, dissertations, articles, primary studies, reviews, editorials and opinion pieces.
Analysis	Review name
Institution	Institutional affiliation of lead author
Study characteristics	
Objective	To describe the objectives of the study
Theme/subject	Main theme/subject of the article
Method	Quantitative, qualitative or mixed method
	Year of study
	Type of research, whether case study, cohort, observational study, clinical trial or other.
	Type of prenatal care: mixed or collective
	Study participants: pregnant women, health professionals, managers and others
	Focus of the study
Main results	To describe the main results of the study
	To describe the facilitators
	To describe the barriers
	To describe the limitations related to GPC
	Other results found
Recommendations	To describe the main recommendations of the study
Limitations	To describe the limitations of the study
Prospects for further research	To describe the prospects for new research identified by the authors.
Conclusions of the study	To describe the findings of the study

Figure 2 - Data extraction tool. Campinas, SP, Brazil, 2023

Source: Prepared by the authors, 2023

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AUTHORSHIP CONTRIBUTIONS
Project design: Barbosa LC, Maia FOM, Lopes MHBM
Data collection: Barbosa LC, Maia FOM, Lopes MHBM
Data analysis and interpretation: Barbosa LC, Maia FOM, Carmona EV, Duran ECM, Balamint T, Lopes MHBM
Writing and/or critical review of the intellectual content: Barbosa LC, Maia FOM, Carmona EV, Duran ECM, Balamint T, Lopes MHBM
Final approval of the version to be published: Barbosa LC, Maia FOM, Carmona EV, Duran ECM, Balamint T, Lopes MHBM
Responsibility for the text in ensuring the accuracy and completeness of any part of the paper: Barbosa LC, Maia FOM, Carmona EV, Duran ECM, Balamint T, Lopes MHBM



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