

## Interprofessional qualification of prenatal care in the context of primary health care

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**Abstract** *This study aims to describe and analyze an interprofessional educational intervention for the qualification of prenatal care in the context of primary health care. Method: action-research comprising a prenatal care qualification course with 65 primary health care professionals. Collaborative learning activities were conducted in synchronous and asynchronous meetings. Results: the reflexive thematic analysis of participants' experiences, views and perceptions on the meanings of the intervention revealed three categories: quality of prenatal care: conceptions and meanings; collaborative learning: strategy to overcome linear and isolated care; the need to evolve from acting locally to thinking globally. Conclusion: the analysis of the interprofessional educational intervention for the qualification of prenatal care in the context of primary health care showed that constructivist, participatory and interprofessional approaches are relevant and pertinent to broaden theoretical perceptions and give new meanings to the work process at different settings of the health network.*

**Key words** *Prenatal care, Health personnel, Primary health care, Qualitative research*

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## Introduction

Prenatal care is one of the pillars of care for pregnant women, and its relevance for reducing maternal and child morbidity and mortality has been long-established. Studies show that poor prenatal care often leads to negative repercussions during labor and birth, as well as in the puerperium and for the newborn<sup>1,2</sup>.

Despite the best efforts to expand the assistance to pregnant women in primary health care (PHC), both nationally and internationally, maternal and child health continues to be an important object of study due to the need to overcome fragmented and dichotomous models of education and intervention. The reduction of maternal and child mortality continues slowly and remains at the top of global political agendas and, therefore, it is still among the Sustainable Development Goals<sup>3,4</sup>.

Prenatal care encompasses a set of prospective measures that aim to contribute to favorable outcomes in childbirth, birth and postpartum. These multidimensional and interprofessional measures include interventions such as health promotion and education, disease detection and early treatment of complications<sup>5,6</sup>. In this study, the gestational period is considered a systemic phenomenon, as it is a unique and multidimensional path from prenatal to postpartum.

The development of internationally accepted and validated measures to qualify prenatal care are limited to the number of prenatal consultations, groups of pregnant women, disease prevention programs, inclusion of a companion or close person from prenatal care to delivery and birth, nutritional and medication guidelines, expansion and strengthening of the work of obstetric nurses, among others. These and other measures aim to contribute to an effective care through the development of knowledge and welcoming, interactive, and problem-solving practices in the care for pregnant women in the health service network<sup>7-11</sup>.

The training of professionals in a collaborative and interprofessional course is the central focus of this study. A previous study<sup>12</sup> has showed that investing in prenatal training based on constructivist, systemic and interprofessional approaches leads to gains for the different people involved. For health professionals, it leads to expanded knowledge and practices and more proactive attitudes in the care of pregnant women, and for women, it leads to favorable outcomes in

childbirth, including the reduction of maternal and neonatal morbidity and mortality.

Despite of the noticeable advances in prenatal care in the context of PHC, there are still important gaps at the national level with regard to the qualification of health professionals and organizational difficulties related to access, coverage and management aimed at qualifying prenatal care<sup>8</sup>. Thus, aiming to contribute to the qualification of prenatal care with an interprofessional perspective, this study intends to describe and analyze an interprofessional educational intervention for the qualification of prenatal care in the context of primary health care.

## Methods

### Type of study

This study is part of an expanded action-research project<sup>13</sup>, which aims both to act and to create knowledge or theory about that action. The method uses empiricism, considering things as they occur, that is, in the scope of care, as indicated in the general objective of this action-research. The Consolidated Criteria for Reporting Qualitative Research (COREQ) were considered in the construction of this study<sup>14</sup>.

### Study context

The intervention process was a qualification course on prenatal care, which aimed to qualify maternal and child health care. The course was organized and systematized with weekly activities, based on active methodologies, and the participants were health professionals who worked in Primary Care Center (PCC) in a provincial region in the South of Brazil. This region is organized in a state coordination that encompasses 33 small to medium-sized cities, which a coverage of the Family Health Strategy (FHS) of around 50%. Doctors, nurses and nursing technicians work in each UBS and, in several of them, there is also a dentist.

This coordination was chosen because it is the setting of an expanded action research whose general objective is “qualification of prenatal care” and, more importantly, because of the desire of local leaders who, in a pandemic period and with scarce human resources, were unable to advance in process of qualification of maternal and child health.

## Sampling

Sixty-five professionals who worked in an UBS in the region/coordination studied and who previously expressed their intention by signing a specific form participated in the intervention process, and 46 professionals participated in the process of signification of the interventions (8 doctors, 6 dentists, 3 psychologists and other nurses). The following inclusion criteria were considered: professionals who work in prenatal care at a UBS and who participated in the intervention stage - qualification course on prenatal care. Professionals who did not attend 75% of the activities proposed in the prenatal course were excluded from the study.

## Procedures

The beginning of the action research was focused on interventions aimed at the prenatal course, which had 40 hours and was organized in synchronous or asynchronous weekly meetings, from August to December 2021. In the synchronous meetings in the Google Meet platform, topics suggested by the participants were discussed, under the mediation of national and international experts (teaching professionals with a PhD). In the asynchronous meetings, the professionals enrolled in the course met with the other professionals from the UBS to discuss and deepen the theme previously presented and, from then on, create local strategies that would enable the qualification of prenatal care, which should be posted on Google Classroom.

In the evaluation activity of the prenatal course, the participants worked in small groups, divided by proximity, to develop a learning product that consisted of a flowchart image for quality prenatal care in their region. The result was posted on Google Classroom by one of the members and presented in a synchronous seminar in the last meeting.

The themes of the course were organized based on the demands from the participating professionals, which included: History of childbirth and Prenatal care; organization of the prenatal care network; quality indicators in prenatal health; prenatal care in a multiprofessional and interdisciplinary context; legal-judicial framework; *Rede Cegonha* (Stork Network) and regionalization of deliveries; the importance of rapid testing for HIV/AIDS and viral hepatitis in prenatal care; prenatal care in the international context, among others.

The themes were developed in a way that correlated theoretical knowledge and work experiences. At the same time, the meanings of the course for prospective professional practice in prenatal care were discussed and evaluated. The latter is the object that will be described and analyzed, as shown in Figure 1.

## Data collection technique

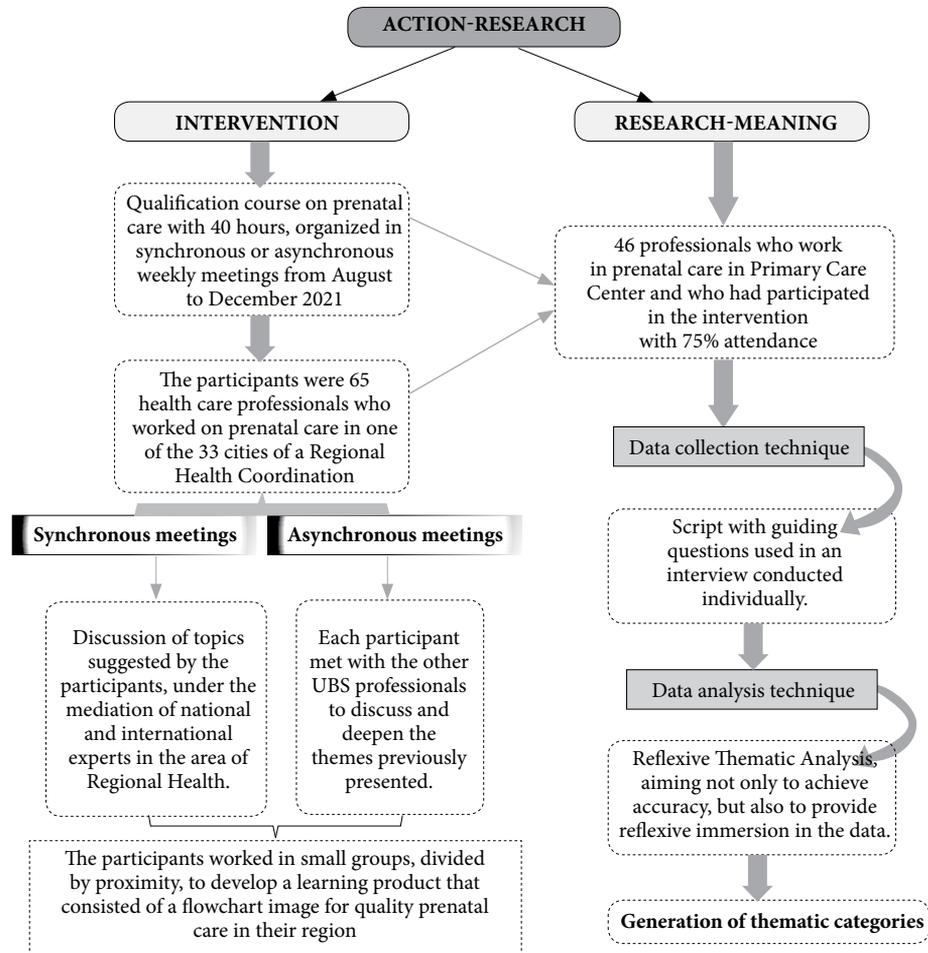
After the end of the units of the prenatal course, the investigation of the meaning of the intervention was conducted. For this purpose, a script with guiding questions was used in an interview conducted individually, on Google Meet, on previously scheduled meetings. The questions on the script, which were deepened throughout the interview, were: How was it for you to have participated in the prenatal course? What lessons did you learn? Based on the prenatal course carried out, what is the current situation of your workplace? What are your suggestions for continuing this work in other editions?

## Data analysis technique

Reflexive thematic analysis was used, as it allows the systematic recording of ideas and insights and provides a fluid and flexible codification of the meanings attributed by the participants. This analysis was intended not only to achieve accuracy, but also to provide a reflexive immersion in the data. For this purpose, the six phases of the thematic analysis were followed: familiarization with the data through repeated readings and a draft list of ideas; generation of initial codes, manually, by systematizing relevant extracts; search for themes based on the classification of different codes; refinement of the themes after validation of the initial themes; naming the themes based on the essence of their set of codes; and production of the report, which offered a reflexive description of the experience<sup>15</sup>.

## Ethical aspects

Throughout the action research process, the recommendations of Resolution no. 466/2012 of the National Health Council<sup>16</sup> and the recommendations of the Curricular Letter no. 2 of 2021 on research in times of pandemic<sup>17</sup> were followed. The study was approved by the Research Ethics Committee under opinion 5,183,232. After accepting to participate, the participants signed the Informed Consent Form. To maintain their



**Figure 1.** Details of the action research path adopted in this study.

Source: Authors.

anonymity, the speeches of the participants were identified in the text by the letter “P” for Participant, followed by a number corresponding to the order of the speeches: P1, P2... P46.

## Results

The organized and analyzed data resulted in three thematic categories, namely: quality of prenatal care: conceptions and meanings; collaborative learning: strategy to overcome linear and isolated care; the need to evolve from acting locally to thinking globally. The process of refinement of the thematic categories is shown in Chart 1.

### Quality of prenatal care: conceptions and meanings

In the participant’s perception, the quality of prenatal care is related to the institutionalization of protocols, flowcharts and manuals from the Ministry of Health, scientific evidence from the gynecology and obstetrics society, among other guidelines. To ensure quality, under this approach, the PHC organize prenatal care according to local regulations established by the municipal maternal and child care line, as expressed:

*We follow guidelines from the municipal care line. This line organized our actions (P11).*

**Chart 1.** Summary of information obtained through strategic analysis.

Thematic categories	Initial codes
Quality of prenatal care: conceptions and meanings	<ul style="list-style-type: none"> <li>. Normative guidelines</li> <li>. Municipal agreements</li> <li>. Scientific evidence</li> <li>. Interprofessional approaches</li> </ul>
Collaborative learning: strategy to overcome linear and isolated care	<ul style="list-style-type: none"> <li>. Fostering collaborative spaces</li> <li>. Sharing diverse experiences</li> <li>. Perception of lifelong learning</li> <li>. Innovative Approaches to Continuing Education</li> </ul>
The need to evolve from acting locally to thinking globally	<ul style="list-style-type: none"> <li>. Understanding the local reality with an expanded perspective</li> <li>. Intervention strategies in the local context and between the various settings of the network</li> <li>. Exchange of experiences between urban and rural realities</li> <li>. Exchange of knowledge and coordination between theory and practice</li> </ul>

Source: Authors.

*Prenatal care follows a protocol since the confirmation of pregnancy, based on usual risk and high-risk prenatal care (P18).*

The quality of prenatal care is also associated with improved communication between professionals, active participation in decision-making processes, and promotion of interprofessional approaches that lead to comprehensive care. The effort to qualify prenatal care was evident, as participants highlighted comprehensive and continued care from prenatal to postpartum:

*Care is clearly improving when it comes to flowcharts and the work of the multiprofessional team, who is present from the confirmation of pregnancy to the postpartum period, providing family planning and other care related to women's health after childbirth (P26).*

*Prenatal care needs to encompass the journey from pregnancy to postpartum and include the companion throughout the process (P33).*

Quality is also associated with the recommended number of prenatal consultations, alternating between medical professionals and nurses. Participants mentioned that when a pregnant woman misses the prenatal consultation, the professionals perform an active search to identify the reasons for non-attendance.

*The protocols are completely followed in our city, mainly in relation to the number of consultations (P1).*

*The number of prenatal consultations is always monitored and the active search for missing pregnant women is undertaken by all (P9).*

Even though it follows the same protocols and flowcharts, prenatal care in rural areas does not as linear and predictable as the care provided in urban regions. In addition to the high number of pregnant women in rural regions and/or in vulnerable situations, prenatal consultations do not always coincide with the schedule of the public transport schedule. This process is aggravated by the lack of autonomy and empowerment of pregnant women, especially with regard to decision-making, as expressed:

*In our rural unit, there is always a high number of pregnant women. Most of them are women in different situations of vulnerability and with difficult access to services. Many of them come to need high-risk pregnancy prenatal care (P16).*

When it is a high-risk pregnancy, the pregnant woman needs referrals and displacements, which are even more difficult in more vulnerable situations/realities. In these cases, according to the participants, the protocols and flowcharts must be considered carefully, so that the pregnant woman is placed at the center of care and welcomed in her needs and singularities.

#### **Collaborative learning: strategy to overcome linear and isolated care**

The speech of participants revealed the importance of collaborative spaces that are open to different realities, enabling sharing of experiences, collective reflection, theoretical-practical connectivity, and perception of lifelong learning,

in a way similar to the approach adopted in the course offered:

*We were able to visualize the events of our daily practice and create strategies to share experiences between different realities, which allowed new ideas and a broader perspective (P19).*

*This exchange of experiences between different realities made me value more the things that are already working and those that can be improved (P31).*

The prenatal course previously carried out, which is the focus of this study, enabled the understanding of new national and international realities and the expansion of perspectives that transcend institutional directives. The course allowed personal and collective reflections that led to the self-assessment of the work process.

*It is interesting to see how other regions of Brazil work and how they manage to meet the goals. These exchanges were very inspiring (P27).*

*Getting to know the reality of Portugal made me better understand the reality of health in our country (P33).*

The dialogue with other professionals, realities, scenarios and countries led the participants to expand their world view and realize that prenatal care is not reduced to local, regional or national norms. In this direction, the participants demonstrated that, in addition to institutional protocols, new intervention approaches based on an expanded view of what happens in other realities are necessary.

*With the topics discussed and the analysis of the recommended readings, I started to reflect more on the importance of knowing other realities and developing new skills so that I can recognize what is good and what can be better in my workplace (P45).*

It was demonstrated that, despite of the regional policy of continuing education in health, not all services are able to effectively put it into practice. Participants mentioned the need to devise new methods of continuing education that can provide a space for sharing knowledge and practices with other realities and services. Under this approach, the discussions in the prenatal course favored the dialogue between action-reflection-action, as mentioned.

*I believe that we must advance in continuing education in health, as we need to see the reality of other places and expand our knowledge and health care, encompassing all the particularities of the human beings and perceiving the complexity of each place (P33).*

*This course helped me to understand and revisit the work process, based on reflection and dis-*

*ussion with the knowledge of other professionals (P37).*

In the participants' perception, continuing education in health must generate a collaborative and prospective movement that must be undertaken by each health professional. *I try to take advantage of every opportunity. We learn a lot when we collaborate with other professionals. We have many options in our favor, but they require personal motivation (P42). I realize that some professionals expect everything from managers, but I understand that we are also responsible for our training (P45).*

In this context, collaborative learning was a formative and self-evaluative process, as it allowed transcending traditional perspectives of continuing education in health. In short, collaborative learning unveiled a process of reflection and self-criticism among the professionals who participated in the study.

### **The need to evolve from acting locally to thinking globally**

The qualification course on prenatal care allowed the participants to have a better understanding of their local reality, based on collective and systemic reflection. The participants recognized that sharing knowledge and practices is essential for the success of local intervention strategies and for the development of regional and national policies.

*I understand that our action must be local, but we need to understand that everything is connected to the whole (P14).*

Several participants mentioned the need for greater integration and sharing of experiences between the different settings of the health network, to qualify the flows followed by pregnant women. Although there are regional work flowcharts, the participants identified the need for better alignment with the specificities of each local unit.

*We need to understand more about the flows, as I see that this is a difficulty in the health service, considering that we have local specificities and demands (P9).*

*Flowcharts are very interesting to understand the different settings of the network, but it is difficult to coordinate the whole network (P37).*

Some participants identified weaknesses related to understanding and acting in a network, emphasizing that health professionals often only recognize their restricted space of action. According to the participants, this reductionist way of thinking and acting leads to discontinuity in the care of pregnant and postpartum women.

*We need to know more about the organization and dynamics of the health network, beyond our unit (P25).*

*I see that everyone tries to do their best, but sometimes the work process is very restricted (P41).*

In this same direction, it was possible to perceive a desire to look beyond each service/territory to understand and expand the dialogue with services at regional and national levels: *The next course can be focused on each service/practice, with a global perspective, so that we can see ourselves oneself within the network as a whole (P32).*

Participants reiterated the importance of an expanded discussion of themes, focused on the process of pregnancy to postpartum, from the perspective of professionals from other cities, states, and countries. This dialogue broadens perspectives and allows the identification of local demands and the realization that it is necessary to think about health problems must globally, while acting locally.

*The prenatal course in this modality allowed professional renewal in a global perspective, as well as reflections on the practice developed by each one locally (P2).*

*I realized that I need to have a broader view. The tendency is for me to stay in my circle (P19).*

The qualification course on prenatal care allowed expanded and comparative reflections and discussions related to the difficulties and problems common to all units. Participants recognized that common demands must be addressed within the scope of public health policies.

*It is interesting to note that many problems are common. These are problems that must be addressed collectively (P38).*

*The problems should be discussed widely and get more attention in public policies (P42).*

The study participants referred several times to the qualification of managers. They recognize that local managers need to have a broader view and follow references that support local actions that are integrated and coordinated within networks with the various sectors that provide prenatal care.

*I suggest developing workshops with managers so that they have a new perception of health and care not only in this area, and so that they can support the qualification of employees and better direct local actions (P20).*

*Many managers do not have a vision of the whole and this hinders progress (P31).*

Other speeches were related to the exchange of experiences between professionals who work in urban and rural units, with the objective of

strengthening initiatives, enhancing interprofessional cooperation, and consolidating the different parts of the maternal and child health network.

*The exchange of experiences with other professionals who work in rural units broadened our view and demonstrated the need to seek new references (P27).*

*I understand that our view must be broad. We cannot just look at the units downtown (P44).*

It was possible to notice that the participants had a strong desire to continue qualifying prenatal care at the local and regional level. They recognize, however, that it is necessary to advance in the exchange of knowledge and practices between the various components of the network and strengthen interprofessional cooperation in health.

## Discussion

In the last two decades, there have been important advances in the area of maternal and child health, which is partially due to the new technologies and normative guidelines brought forth by governmental institutions. The reduction of maternal and neonatal mortality rates, however, remains slow and still requires new and different approaches. A study<sup>18</sup> shows that perinatal and neonatal mortality is largely associated with the quality of prenatal care and delivery.

The pregnancy-postpartum cycle is a period that requires monitoring and individualized attention due to its influence (positive and/or negative) on maternal and child health<sup>19</sup>. As well as prenatal care, the postpartum period requires special and qualified care. Recent figures indicate that there are 303,000 maternal deaths from complications related to pregnancy, childbirth, or the postpartum period annually. These complications can be an indicator of the poor quality of prenatal care<sup>20</sup>.

The advances related to prenatal care, reinforced by the participants of this study, are strongly associated with the normative guidelines brought forth by the Ministry of Health of Brazil and agreed in the states and municipalities. The advances are related to the institutionalization of protocols, flowcharts and manuals, which resulted in an increase in the number of prenatal consultations and in the active search for pregnant women, as well as in the strengthening of the bond between professionals and users, among others. These initiatives are important and nec-

essary, but not sufficient to reduce maternal and child morbidity and mortality rates<sup>21</sup>.

In addition to normative strategies and technologies (protocols, flowcharts, manuals), it is increasingly necessary to promote interprofessional cooperation in health and provide coordinated approaches in collaborative networks. In this context, intervention studies focusing on interprofessional collaboration are important to investigate the repercussions of interprofessional interventions on the quality of the care provided<sup>22</sup>.

One of the most important changes in health care in recent years is related to the reorganization of the work process, based on multidisciplinary knowledge and practices and collaborative networks. This requirement is related to the coordination between the different lines of care, such as the line of maternal and child health care, which defines the actions and services that must be developed in the different settings of the health network<sup>23</sup>.

In this direction, in Brazil, increasing efforts have been made to include new professional categories, broadening and qualifying prenatal and postpartum care in an expanded and complementary way. The inclusion of the Obstetric Nurse, for example, demonstrates advances related to the support of exclusive breastfeeding for up to six months, among other advances<sup>24</sup>.

However, the obstetric nurse requires an expanded knowledge, interconnected with the work of other health professionals, so that they can understand and deal with the complex issues of maternal and child health pointed out by the participants of this study. Considering the growing complexity of health care, interprofessional collaboration has been identified as a resource that can be used to expand and favor continuity and effectiveness in health, especially in the pregnancy-postpartum cycle. However, interprofessional collaboration will only be achieved through collective actions that encourage effective and permanent exchange of information for shared decision-making<sup>25</sup>.

In this direction, the World Health Organization reinforced its commitment to interprofessional training and education in health by highlighting interprofessional collaboration as a promising strategy for the development of prospective skills for collaborative and systemic health care practice. In its document, the WHO highlights the importance of interprofessional and collaborative practices, especially in low-in-

come and developing countries, where health systems need to strengthen initiatives and maximize resources<sup>26</sup>.

The results of this study demonstrated the importance of collaborative spaces for the construction of knowledge and practices aligned with the real needs of health work. This line of thought can be traced back to traditional approaches on Continuing Health Education. In addition to formal structured programs, it is necessary to stimulate training and educational processes throughout life, based on horizontal, reflective and prospective approaches at the individual and collective level, in which each professional is the protagonist of new knowledge and practices<sup>27</sup>.

The contributions of this study are associated with the perception that it is necessary to overcome the idea of fragmented care and excessive standardization, which is translated into the uncritical use of protocols, flowcharts, and manuals, by designing prospective approaches aimed at developing interprofessional knowledge and practices. Understanding prenatal and postpartum care as a unique process is fundamental to reach new, creative approaches and enable close, dialogic, and humane relationships.

A limitation of this study was the impossibility of carrying out the prenatal course in the face-to-face modality, which was desired by the participants but not possible due to the pandemic. This factor also contributed to the lack of deepening of some aspects, as face-to-face meetings could have given rise to more productive and prospective strategies.

## Conclusion

The analysis of the interprofessional educational intervention for the qualification of prenatal care in the context of Primary Health Care showed that constructivist, participatory and interprofessional approaches are relevant and pertinent to broaden theoretical perceptions and give new meanings to the work process at different settings of the health network.

The present study emphasizes the importance of interprofessional collaboration and recommends new qualitative studies on prenatal qualification in the context of PHC. It should be noted that qualitative investigations enable subjective and meaningful understandings of real life, which can hardly be seen in quantitative features of health care.

## Collaborations

AC Veiga, LS Medeiros, DS Backes and LSB Haeffner: conception and design; article writing and approved the final version. FGM Souza e K Hämel: conception and design; article writing, critical review and approved the final version. CS Krueel: worked on the project, article writing, critical review, validation and approved the final version.

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