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Implementation of health promotion in prenatal care at a public health service in Brazil

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Abstract

Prenatal care is the assistance to women throughout pregnancy, birth and puerperium which is an important tool of primary care in the prevention of maternal and child injuries. Prenatal care programs must be horizontal and multidisciplinar according to Ministry of Health's protocols in order to achieve improvements in maternal and child morbidity and mortality indicators. This study is an original interventional project that occurred at a public primary care service in a town of Bahia, Brazil. It was noted some aspects that could be adapted to the Ministry of Health protocols such as shared appointments based on scientific evidence, introduction of prenatal dental care and education actions carried out in a multidisciplinary way. All strategies were implemented in the prenatal care using very low cost tools such as conversation wheels and physical activity schedule. Conversation wheels between pregnant women and caregivers are included in the health humanization policy in Brazil. They are strategies for permanent education in health. Conversation wheels aimed to valorize pregnant women and their life experience in order to build an environment rich in learning and approached them to the health service. The encouragement of physical activity promotes well-being, a sense of belonging and improvements in risk factors for prevalent diseases during pregnancy. Continuing education promotes autonomy's pregnant women. Finally, the involvement of primary care professionals who address different aspects of health promotes co-responsibility and commitment to the adequacy of services offered to the population. The integration of health prevention and promotion actions should be seen as a stimulus to build relationships of trust and bond between users, managers and health professionals. Thus, the implementation of primary care actions during pregnancy expands the woman's connection with the health service at this stage of life and can contribute to better maternal and neonatal outcomes.

Keywords: primary care, health education, health promotion, prenatal, pregnancy

Abbreviations: BMI, Body Mass Index; SUS, Unified Health System of Brazil's public health system; WHO, World Health Organization

Introduction

Prenatal care aims to contribute to the reduction of maternal and infant morbidity and mortality. Since 2011, it is a strategy of woman care in Brazil.[1,2] The World Health Organization (WHO) recognizes the significant reduction of woman mortality in Brazil between 1990 and 2015 after some public policies proposed by the Ministry of Health such as care humanization, improved prenatal, birth and postpartum care and qualification of health professionals in the scope of primary care. However, high maternal mortality rates remain as a challenge and qualified assistance in prenatal can contribute significantly to the reduction of them and promote a safe motherhood.[1–3]

The gateway for each woman to the Health System (SUS) of Brazil is the primary care services.[1] In prenatal, professionals should follow protocols and standardization in each appointment such as risk rating, laboratory exams, vaccination, educational activities.[1] Protocols are useful because they guide and support the king of care according to the necessity of each pregnant woman. Reception is essential in the process of humanization of care and is established in a respectful relationship between professionals and users in order to generate greater autonomy of subjects and share responsibility between the pregnant woman and her support network including their partner which participation in prenatal care should be encouraged.[1,4,5] Good manners like calling users by name, answering questions, having an active listening with valorization of experiences, concerns and anxieties, ensuring privacy and confidentiality are examples of adequate reception. In this way, humanization of care by qualified listening and identifying of the real need of the user can retain the clientele and promote resolute health care even when it is necessary to articulate with other health services for the continuity of care.[5]

Some other well-established strategies in the care of pregnant women in primary health care are group discussions and conversation wheels between pregnant women and caregivers. These strategies are the most efficient ways of approaching themes about pregnancy, childbirth and puerperium.[1,2] A qualified listening without judgments which allows the woman to speak of their intimacy and expose their doubts, strengthens the pregnant woman and her family, contributing to a healthy delivery and birth. Welcoming means practicing quality attention listening and identifying the real need of the users and should be done by each professional of a multidisciplinary team: doctor, nurse, nursing technician, dentist, oral health assistant, community agent' - and other professionals who support the family health team such as nutritionists, physical educators, psychologists, physiotherapists that should be involved in the routine of prenatal prevention actions. The multidisciplinary approach allows the intersection of different aspects involved in physical, economic, family, social and emotional changes.[1,2,4] Physical, mental and emotional preparation enables the woman to experience pregnancy with pleasure, allowing her to fully enjoy her birth with satisfaction.[5]

Although there are all those well-established strategies and protocols for qualified prenatal care, some weaknesses were noticed in primary care services and all those could be adjusted using low cost tools. Prenatal care in this unit was shared between nurse and

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doctor, however there was a lack of alignment of clinical conducts as recommended by the Ministry of Health. There was no inclusion of dental prenatal care in the dentist's schedule. There was a lack of planning in educational activities such as waiting rooms. Most of the women were unaccompanied and few partners attended appointments. Postpartum women did not undergo postpartum appointments for lack of knowledge. Most of the weaknesses could be adjusted with planning and service organization.

This study aimed to create opportunities to implement prenatal care Ministry of Health's protocols for pregnant women in a primary care service by

1) Organizing prenatal practices per shared schedule between nurse, dentist and doctor
2) Promoting spaces for exchanging information and experiences related to pregnancy, childbirth and the postpartum period per weekly meetings with the group of pregnant and postpartum women
3) Encouraging low-impact physical activity in low-risk pregnant women per weekly participation of a physical educator
4) Disseminating knowledge and evidence-based practices about pregnancy, childbirth and the postpartum period per lectures and conversation circles on topics consolidated in the scientific environment
5) Providing family-centered and multiprofessional care during pregnancy and postpartum period per participation and engagement of doctors, nurses, nursing technicians, community agents, dentists, psychologists, nutritionists and physiotherapists
6) Creating space for building the autonomy of the pregnant women per increase the adherence of pregnant women and their partners.

Thus, valuing pregnant women from the door of SUS generates quality care with more solid results, strengthens the connections among all involved and expands the ability to transform the reality in which they live.

Material and methods

Problem definition and team formation

The intervention project was defined after detecting the problem and analyzing its feasibility by the professionals and municipal manager. Initially, the day of prenatal care was aligned to Thursdays among doctors, nurses, dentists and vaccinators of the family health unit. A physical educator, a psychologist and a nutritionist were contacted and agreed to participate in the project with no extra cost for the municipal manager or hours exceeded by the professional. A doula was also contacted who offered to act voluntarily. After the formation of the team, the programming of the topics to be discussed in the waiting rooms and conversation wheels was set up. Among the activities proposed for the prenatal care there are: registration, waiting rooms, low-impact physical activity, prenatal consultation with a doctor and nurse, carrying out rapid tests, dental care for pregnant women and partners, vaccination according the pregnant woman's basic calendar; supply of ferrous sulfate for prophylaxis or treatment of anemia and distribution of insect repellents.

Study design

We performed an original interventional project in a primary care service located in the center of Itacare city from December 2019 to February 2020.

Inclusion criteria

Pregnant women in the first, second or third trimester of pregnancy; who had registered in the group through a questionnaire.

Prenatal appointments

The prenatal consultations were scheduled to take place on Thursday mornings, alternating between a nurse and a doctor.

Dental prenatal appointments

Dental appointments for pregnant women and partners were scheduled for Thursday afternoons with the objective of evaluating oral health and the risk of caries and periodontal disease; performing prophylaxis to them and instructioning oral hygiene.

Planning educational activities

The educational activities took place in the auditorium located in the health unit on Thursdays. Prenatal consultations, dental consultations and vaccination took place, respectively, at doctors or nurse's room, dentist's room and vaccination room.

Waiting rooms

The themes of the waiting room included were about physiological and physical maternal organism's changes, the importance of prenatal care and prevalent pathologies of pregnancy and puerperium. The approach method were free according to the preference of the professional who would conduct the topic, with an average duration of 30 minutes.

Conversation wheels

The themes of the pregnant women's conversation wheels covered more social and philosophical aspects such as the rights of pregnant women. The approach method was defined by the doula who requested a screen projector to display videos and a sound box for music therapy with an average duration of 2 hours.

Low impact physical activity

The emphasis of physical activity in the context of pregnancy was to prepare the body for childbirth and the mind to live the pregnancy in a healthy way by breathing and muscle strengthening techniques. The approach method was defined by the physical educator with an average duration of 45 minutes.

Vaccine calendar

Tetanus, Hepatitis B and Influenza vaccines were offered on Thursday mornings.

Strategies for project implementation

There were previous meetings with professionals and municipal manager. These meetings favored the alignment of actions and multidisciplinary participation. All activities with pregnant women that already took place at the unit were rescheduled to take place on Thursdays. "The pregnant woman's Thursday" was created to optimize the presence of the target audience at the unit and increase adherence to the project.

The dissemination took place in the unit through individual invites, exposure of leaflets at the reception and during a health program on the local radio during two consecutive weeks prior to the beginning of the group of pregnant women.

Rubber mats to accommodate pregnant women in the room, a fan, stationery items, and gymnastics balls were purchased with their own

resources. Students of the technical nursing course and a volunteer student of Medicine developed activities with the pregnant women, such as registration, decoration of the auditorium, presentation dynamics and participation in waiting rooms, enriching the activities.

Strategies for project evaluation: Testimonies about the experienced activities were recorded.

Results

Work process organization

The project implementation process took place without major difficulties as we used the available resources such as the rooms and auditorium of the primary care unit building, which did not have furniture. Rubber mats and material for making the panel, such as rubber, hot glue, scissors, legal paper, were obtained by their own means and donations. The health department provided paper, notebook and ink printers to obtain the printed material, as well as a sound box and screen projector. To soften the hot environment, we use borrowed fans.

Organizing the prenatal program between doctor and nurse at the basic health unit contributed a lot to optimizing educational actions and adherence of pregnant women to prenatal care. Referrals for consultations with nutritionists and psychologists began when indicated, expanding the approach to the nutritional and psychological aspects of pregnancy. From the intervention project, dental prenatal care and puerperal consultations also began.

Register of pregnant women

As the pregnant women arrived at the unit, they were invited to participate in the group. Two pregnant women came to the unit showing interest in participating in the activities after hearing the radio broadcast. All pregnant women had free access to educational activities regardless of gestational age, whether or not they were enrolled in the group of pregnant women, whether or not they were linked to the territory covered by this specific primary care unit. Thus, there were no impediments to their participation. In all meetings, the presence of the partner and/or companion was suggested to in all activities. Eight pregnant women participated in the registration of the group. In addition, fifteen other pregnant women participated in at least one meeting. Three partners were present at one meeting at least.

According to the answer of the register questionnaire, the participants age were between 16 and 37 years old, with an average age of 27 years. 87.5% (7/8) was a stable union and 12.5% (1/8) was married. 25% (2/8) were students; 25% (2/8) were housewives, 12.5% (1/8) were self-employed, 12.5% (1/8) were endemic agents, 25% (2/8) were cashiers. 25% (2/8) were primiparous; 25% (2/8) were high-risk pregnancies (one of them was a twin and the other had a diagnosis of gastroschisis). All were in the second or third trimester at the time of enrollment. 62.5% (5/8) had an adequate pre-gestational Body Mass Index (BMI), 25% (2/8) were overweight and 12.5% (1/8) were obese. Of these, only 12.5% (1/8) were underweight, 50% (4/8) were at adequate weight, 37.5 (3/8) were overweight, the same as those who were overweight in the pre-gestational period. 62.5% (5/8) had never been consulted by a nutritionist. Among those who received nutritional counseling by a nutritionist at least once, 33.3% (1/3) was underweight; 33.3% (1/8) had adequate weight; 33.3% (1/8) were overweight. 37.5% (3/8) had never been consulted with an oral health professional. Among these, they were 30 and 37 years old. 75% (6/8) had never been consulted by a professional psychologist. 87.5% (7/8) do not smoke. 75% (6/8) do not drink alcohol. 87.5% (7/8) are not illicit drug users. 62.5% (5/8) are sedentary. Among the preferred sports modalities of pregnant women were walking, swimming, running, and functional. 12.5% do not like any sport. 37.5% (3/8) had never heard anything about humanized childbirth and did not know its meaning. Of these, only 12.5% (1/8) were primiparous, that is, 25% (2/8) had already experienced prenatal care, however, in no previous meeting had it been approached about its meaning. 75% prefer normal delivery. Among those who prefer cesarean delivery, 50% (1/2) prefer it to perform tubal ligation in the same surgical procedure and 50% (1/2) prefer it due to the understanding of the current situation of high-risk pregnancy. 50% (4/8) have never heard about breastfeeding techniques. Among them, only 25% (1/4) are primiparous. 50% (4/8) never attended a lecture on pregnancy, childbirth and/or puerperium. Among the objectives of joining a health promotion group are: Learning about pregnancy, childbirth and the puerperium (87.5%); Feeling better (75%); Improve nutrition (62.5%); Improve muscle condition (62.5%); Improve flexibility (50%); Reduce stress (50%); Have more access to health services (50%); Getting closer to health professionals (50%); Participate in a group (50%); Improve cardiovascular fitness (37.5%); Losing weight (12.5%); Occupying time (12.5%).

Strategies of actions

The schedules are described in the Table 1 & Table 2 below.

Table 1 Schedule of prenatal and health promotion activities to the pregnant woman on Thursdays

Time	Prenatal and health promotion activities
7:00	Wait room
8:00	Low impact physical activity, stretching and relaxing
9:00	Shared prenatal care (doctor, nurse, dentist)
10:00	Shared prenatal care (doctor, nurse, dentist)
11:00	Shared prenatal care (doctor, nurse, dentist)
12:00	Lunch
13:00	Circles of conversation/vaccination
14:00	Circles of conversation/vaccination
15:00	Circles of conversation/vaccination
16:00	Closure

Table 2 Organization of prenatal activities

Activities	Periodicity	Place
Wait room	Weekly	Reception
Low impact physical activity, stretching and relaxing	Weekly	Auditorium
Dental prenatal care	Weekly	Odontological Office
Prenatal appointments	Weekly	Nurse Office and Doctor Office
Vaccination	Weekly	Vaccination Room
Nutritional Appointments	Weekly	Extra room
Psychological Appointments	Weekly	Extra room
Rapid tests and preventive Gynecological	Biweekly	Nurse Office
Circles of Conversation	Biweekly	Auditorium
Puerperal Appointments	Biweekly	Doctor Office

Some programmed activities were not fulfilled. Among the 12 waiting rooms, there were 7 (58.3%). The topics covered were: Welcome and importance of prenatal care; Importance of physical activity; Preeclampsia and gestational hypertension; Importance and Techniques of breastfeeding; Gestational diabetes; Importance of screening tests in pregnancy with emphasis on gestational syphilis;

importance of postpartum and childcare appointments. The non-compliance with the entire program was due to the end-of-year recess and the lack of adherence of higher education professionals responsible for conducting the activities. Among the 6 meetings of conversation circles, 4 (66%) took place, whose themes were: Physiology of pregnancy, childbirth and puerperium; physical and emotional changes; importance of father's participation during all phases related to pregnancy cycle. There was a need to change the time of the conversation circles. Initially they were scheduled to take place in the afternoon. However, the first meeting was not attended by pregnant women. So it was rescheduled to run from 9 am to 11 am. While the pregnant women were waiting for the prenatal consultation, they attended and participated in the conversation circle, being able to return after the appointment. For these reasons, it was decided to modify the schedule of this activity, with good adherence in the morning.

Health educative activities

Regular health educational activities in prenatal care at the basic health unit were very well evaluated during activities and prenatal appointments when pregnants were questioned about the experience, criticism and suggestions. Note that this space is extremely important for users. One of the members of the group described the following message: *"As a first-time mother and as dependent on the SUS system, the pregnant wheels were essential for both my partner and me to generate more trust and connection with our pregnancy. It made us safer to follow, as well as more informed. It should be part of the basic service."*

It is necessary to develop evaluative strategies that show the effect of these activities during the gestational period. At the moment, only acknowledgments are evident that the activities had an effect. As for multidisciplinarity and greater participation of health professionals, it can be said that there was low adherence. One of the healthcare professionals described the following message: *"The project was nice. I want to congratulate you for the initiative. I had never seen work like this with pregnant women. The participation of future mothers was cool, many had doubts about the practice of physical exercises (stretching and relaxation) in this period of pregnancy. And we can contribute a little to this audience, explaining and guiding the benefits of stretching and relaxation exercises for future moms. I would like this project to remain longer, and with a more assiduous participation of the pregnant women's companions. It would be very interesting if other primary care units implemented this project, there is a great lack in peripheral neighborhoods in relation to good assistance for pregnant women".*

Discussion

Building spaces rich in learning are important within a basic health unit once knowledge brings autonomy and can contribute to promote health and prevent diseases. It is important to consider important aspects that are related to the adherence of pregnant women such as climatization of the environment once it directly interferes with attention, comfort and learning. Some materials that could be purchased to improve comfort would be pillows, as most pregnant women attend the unit wearing a dress and felt inhibited at times because they were sitting on the floor. Although they were told about the need to wear workout clothes such as shorts and pants due they are more appropriate for physical activity, some pregnant women did not perform physical activity due to clothing. Another important point to highlight was the use of music with ambient sound during physical activity and pregnant women's circles. Music has a powerful effect on people's minds and emotions. Music soothes, reassures, makes you connect with yourself. Thus, during activities that had background music, pregnant women showed greater well-being. Snacks were offered in the morning to better welcome the participants, since they generally stayed at the unit all morning. Therefore, greater involvement of the team and accountability in the preparation of healthy snacks is necessary, for example, having community health agents in charge of the acquisition and supply of snacks and organization of the room the day before. It would be equally important to involve pregnant women and companions in the construction of their space, bringing pillows for their own use or even donations of pillows and collaboration in the organization of the room. It was noted that pregnant women felt more comfortable staying in the pregnant women's room after activities while waiting for the prenatal consultation instead of waiting at reception. As usual, they use this moment to exchange experiences. In the pregnant women's room, it was noted that they were more comfortable, more relaxed and closer to others. It is worth mentioning that pregnant women attend the unit, predominantly, if they have a prenatal appointment scheduled. In general, they do not usually attend the unit exclusively for educational activities.

Lifestyle habits should be investigated at the beginning of pregnancy, and activities to raise awareness of the importance of lifestyle changes during this period of life are essential for an adequate outcome. Low impact activities such as walking, swimming, stretching and yoga are generally low cost and should be encouraged in municipal actions to exercise in this coastal city. Those activities were also important to bring partners and companions closer to the unit and link them to prenatal care, making them responsible and clarifying the physical, emotional, psychological, economic and social issues involving pregnancy.

Data about absence of dental care is extremely relevant, as it denotes the need to intensify actions aimed at oral health in pregnant women. It is known that pregnancy itself promotes bone demineralization and the incidence of gingivitis and dental caries. Scientific evidence corroborates the association between dental caries and prematurity [1,3]. Simple measures such as learning to clean teeth correctly should be encouraged in the primary care setting.

Thus, it is evident the importance that a primary care unit has from the user's point of view to fill gaps about pregnancy, childbirth and puerperium: as well as the desire and need to improve physical aspects and well-being. It is worth mentioning that the needs of each pregnant woman must be individualized and seek to solve them with the existing tools of primary care, including supporting health professionals such as nutritionists, psychologists and physical educator.[1]

Conclusion

Implementation of improvements in prenatal care in a family health basic unit contributes to the adequacy of the health establishment to its function of welcoming and valuing the pregnant woman. It is necessary to improve prenatal care from the identification of weaknesses of each institution such as clinical follow-up of pregnant women since the beginning of pregnancy using Ministry of Health's protocols; continuing education; encouraging health promotion and prevention activities; besides commitment of all professionals and users of the basic health unit. Thus, the implementation of primary care actions during pregnancy can contribute to better maternal and neonatal outcomes.

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Conflicts of interest

There are no conflicts of interest.

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