

Research Article,

Main Barriers and Strategies Used In Prenatal Care as Prevention for Congenital Syphilis

Camila Bruneli do Prado¹, Mirela Dias Gonçalves², Gilson Silva Filho, PhD*³

1. São Camilo (SãoCamilo) University Center, Nursing graduated from the São Camilo-ES University Center. São Camilo de Lélis, 01. Campos 1. Bairro Paraíso, CEP 29.304-910, Cachoeiro de Itapemirim, Espírito Santo, Brazil. Email id:- bprado.camila@outlook.com

2. São Camilo (SãoCamilo) University Center, Master in Nursing in the Care Process, São Camilo (SãoCamilo) University Center.. São Camilo de Lélis, 01. Campos 1. Bairro Paraíso, CEP 29.304-910, Cachoeiro de Itapemirim, Espírito Santo, Brazil. Email.id:- mirelagoncalves@saocamilo-es.br

3. São Camilo (SãoCamilo), University Center / Federal University of Espírito Santo (UFES) and Professor in Postgraduate Program of the Engineering and Sustainable Development, Technological Center (UFES). São Camilo de Lélis, 01. Campos 1. Bairro Paraíso, CEP 29.304-910, Cachoeiro de Itapemirim, Espírito Santo, Brazil. Email id:- silva.filho.gilson@gmail.com

Correspondent author: Gilson Silva Filho, PhD

Received: 24 April | Accepted: 14 May 2020 | published: 18 May 2020

Abstract:

Background: The syphilis was considered a serious public health problem in Brazil in the year of 2016, and prevention of its vertical transmission is seen as a priority because a lot of cases of syphilis, 49,013, in pregnant women and 24,666 one were reported throughout Brazil. This study aims to know the possible barriers and strategies pointed out by professionals working in the management of syphilis in pregnancy.

Methods: This is a cross-sectional, quantitative and exploratory study, conducted with 41 nurses from the Family Health Strategy of a municipality in the southern state of Espírito Santo.

Results: The main results found are the non-attendance of the partner to the service for treatment (75.6%) and the late onset of prenatal care (68.29%). Related to the strategies, we highlight the need to facilitate treatment access to the partner (56.09%), as well as the early onset of prenatal care (48.78%). It was possible to identify the need for professionals in syphilis diagnosis training (41.46%) and STI / AIDS counseling training (41.46%). Among the main challenges faced for the prevention of congenital syphilis are the change of habits and behaviors of the population and the health professional's view of their practices.

Conclusions: recognizing the specific gaps in each barrier is essential to suggest improvements in the work process of Family Health Strategy nurses. Therefore, investments in Permanent Health Education are suggested as a possibility for advances and improvement of professionals to work in Primary Health Care, to improve the population's quality of life.

Keywords: Prenatal Care; Congenital syphilis; Family Health Strategy.

Background:

Syphilis is a sexually transmitted infection (STI) caused by *Treponema pallidum* and its main forms of transmission is the sexual and vertical routes. The result of vertical transmission during pregnancy or childbirth is congenital syphilis [1]. In 2016, syphilis was considered a serious public health problem in Brazil and prevention of its vertical transmission is seen as a priority. According to data from the Epidemiological Bulletin, in 2017 49,013 cases of syphilis in pregnant women and 24,666 cases of congenital syphilis were reported throughout Brazil [2]. Congenital syphilis is a preventable disease and its occurrence is considered indicative of failures in prenatal care [3]. Among the main factors associated with the occurrence of congenital syphilis is the late onset of prenatal care, fewer than six consultations, and no Venereal Disease Research Laboratory (VDRL) [4]. Effective measures to reduce and eliminate congenital syphilis rates are related to prenatal care, including appropriate management of syphilis during pregnancy, early diagnosis of syphilis, and adequate treatment of pregnant women and partners during prenatal care [5]. Knowing the importance of quality prenatal care as an indispensable tool for reducing harm in cases of syphilis in pregnancy, according to [6] congenital syphilis is a sentinel indicator of the quality of prenatal care. [7] Studies corroborate that even with the increase in prenatal coverage; there is still low effectiveness of prevention actions, indicated by the increase in cases of congenital syphilis, and possible failures in care, making necessary improvement. in prenatal care for women. Given the above, this study aims to know the possible barriers and strategies pointed out by professionals working in the management of syphilis in pregnancy.

Materials and methods:

This is a cross-sectional, exploratory and descriptive cross-sectional study conducted with 41 nurses working in the Family Health Strategy (FHS) in southern Espírito Santo (ES). The

research took place on the premises of a Basic Health Unit (BHU), in a private room and lasting an average of 20 minutes. According to the selection criteria eligible for this study, the following inclusion criteria were established: the professional nurses who were working at the time of the research and who freely agreed to participate in the study by signing the Informed Consent Form (ICF). According to the exclusion criteria: the professional nurses who were not working at the time of the research; who did not freely accept to participate in the study by signing the informed consent form. For data collection was used a semi-structured questionnaire, adapted from the study by Rodrigues [8], consisting of questions related to the characterization of professionals to the work process facing the issue of care for pregnant women with syphilis. After data collection, the results were compiled and stored in a Microsoft Office Excel® 2013 database, descriptively analyzed in absolute and relative frequencies. In the analysis phase, it was initially made a descriptive of the characteristics of health professionals, in relation to their professional education, specialization, place and time of operation, barriers / difficulties and strategies used by nurses in the management of pregnant women with syphilis. For the analysis of barriers, the organization was used in: a) barriers related to users; b) barriers related to professionals; c) service related barriers. As well as the organization of strategies: a) strategies related to users; b) strategies related to professionals; c) service-related strategies. Descriptive statistics were used to evaluate the main barriers faced in the family health strategy, using relative frequency analyses The ethical aspects of the study come in accordance with Resolution 466/12 of the National Health Council. This project was approved by the Research Ethics Committee (COEP) of the São Camilo São Paulo University Center, Ethics Approval No. 2,722,696. All precautions were taken to ensure the confidentiality and confidentiality of the information.

Results:

The data collected refer to the participation of 41 professionals for the study and the analyzes focus on four aspects: characterization of nurses who work in the FHS; access to technical manuals and training; barriers identified in the management of syphilis in pregnancy; strategies for improving care. Regarding age, we found 24 (58.53%) professionals in the age group 20-39 years and no professional over 60 years. Regarding gender, there is a predominance of females, with 34 (82.92%) professionals. Regarding the time of training, the study shows 21 (51.21%) professionals with more than 10 years of graduation. Regarding the time of work in the FHS, 23 (56.09%) professionals are under 10 years and 11 (26.82%) professionals over 10 years (Table1).

Table 1: distribution of nurses working in the family health strategy. 2019.

FEATURES	N	%
Age (n= 41)		
20 - 39 years	24	58.53
40 – 59 years	12	29.26
60 years or more	0	0
Did not answer	5	12.19
Sex (n= 41)		
Female	34	82.92
Male	4	9.75
Did not answer	3	7.31
Time of graduation (n= 41)		
Under 10 years	16	39.02
10 years or more	21	51.21
Did not answer	4	9.75
Performance time at FHS (n= 41)		
Under 10 years	23	56.09
10 years or more	11	26.82
Did not answer	7	17.07
Especialization (n=41)		
Yes	37	90.24
Not	3	7.317
Did not answer	1	2.43
Postgraduate type (n=41)		
Family health	36	87.8
Others	5	12.19

Source: (The Author. 2019)

The study shows that 37 (90.24%) of the professionals have postgraduate degrees and of these, 36 (87.8%) professionals are specialists in Family Health (Table1).

Table 2: nurses' access to technical manuals and syphilis management training during pregnancy. 2019.

FEATURES	N	%
1) Participation in training (n=41)		
Yes	32	78.04
Not	9	21.95
2) Time of last training (n=41)		
Less than 1 year	12	29.26
1 to 5 years	15	36.58
Over 5 years	1	2.43
Did not answer	13	31.7
3) Access to Ministry of Health annuals (n=41)		
Yes	37	90.24
Not	4	9.75
4) Full reading (n=41)		
Not	0	0
Yes. totally	7	17.07
Yes. partially	27	65.85
Did not answer	7	17.07

Source: (The Author. 2019)

Regarding the access of professionals to technical manuals and training, it was observed that 32 (78.04%) nurses, that is, most reported having participated in syphilis training during pregnancy, and 15 (36.58%) professionals between 1 and 5 years old and 12 (29.26%) for less than 1 year. Regarding the access to the technical manuals, 37 (90.24%) professionals claim to have access, however, when asked about the complete reading of the instruments, 27 (65.85%) professionals reported reading partially and 7 (17.07%) read the manuals completely.

Table 3 presents the main barriers faced by participants in the management of syphilis in pregnancy, related to the user, professional and service. Among them, difficulties in caring for pregnant women with syphilis were identified and the most cited was the non-attendance of the

partner for treatment (75.60%), followed by late prenatal care (68.29%), the non-performance of prenatal examinations (53.65%) and non-adherence of pregnant women to prenatal (48.78%).

Table 3: barriers identified by nurses in the management of syphilis during pregnancy in the family health strategy. 2019.

Barriers / Difficulties	N	%
1) User related barriers (n=41)		
Late onset of prenatal	28	68.29
Failure of examinations by pregnant women	22	53.65
Adherence of pregnant women to treatment	20	48.78
Partner No Show	31	75.6
2) Professional-related barriers (n=41)		
Little confidence in syphilis test result	0	0
Difficulty in accessing treponemal confirmatory examinations	0	0
Difficulty interpreting exam results	1	2.43
Disagreement with the treatment protocol recommended by the Ministry of Health	0	0
3) Service-related barriers (n=41)		
Difficulty in accessing treponemal confirmatory examinations	2	4.87
Lack of professional referral for attending STIs	1	2.43
Delay to receive syphilis test result	16	39.02
Penicillin application at BHU	0	0
4) Other (n=41)	0	0
5) I have no difficulty (n=41)	3	7.31

Source: (The Author. 2019)

Regarding barriers related to health professionals, only one of the participants stated difficulties in interpreting test results. Regarding the barriers related to the service, we highlight the delay in receiving the syphilis test result (39.02%); the difficulty of access to confirmatory examinations (4.87%) and lack of professional referral to attend the Sexually Transmitted Infections (STI) in the municipality (2.43%).

Table 4 presents participants' responses regarding strategies for improving care for pregnant women

with syphilis and prevention of congenital syphilis.

Table 4: strategies for improving care for pregnant women with syphilis in the fhs and prevention of congenital syphilis. 2019

STRATEGIES	N	%
1) User-related strategies (n=41)		
Strategies to facilitate early prenatal onset	20	48.78
Strategies to Facilitate Partner Treatment	23	56.09
Educational work with the general population	15	36.58
2) Professional-related strategies (n=41)		
Syphilis diagnosis and treatment training	17	41.46
STI / AIDS counseling training	17	41.46
Access to scientific technical manuals	4	9.75
Access to information on cases of syphilis in pregnancy and congenital syphilis at the BHU	9	21.95
Access to information on cases of pregnancy syphilis and congenital syphilis in the municipality	10	24.39
3) Service-related strategies (n=41)		
Guarantee of good quality exams	7	17.07
Referral services for pregnant women with penicillin allergy	12	29.26
4) Other (n=41)	2	4.87

Source: (The Author. 2019)

Regarding users, 56.09% reported that it is necessary to facilitate access to partner treatment and 48.78% to facilitate early prenatal care. Regarding strategies related to health professionals, it was emphasized the need for syphilis diagnosis training (41.46%), as well as training on STI / AIDS counseling (41.46%). Another aspect raised was the access to epidemiological data by professionals regarding cases of syphilis in pregnancy and congenital syphilis in the basic health Unit BHU (21.95%) and in the municipality (24.39%). Regarding the strategies related to the service, participants highlighted the reference service for pregnant women with penicillin allergy (29.26%) and quality assurance (17.07%) (Table 4).

Discussion:

From the data presented, the length of work of professionals may be related to their policy of linking them in Primary Health Care (PHC). Professional turnover may represent a difficulty for the health system, considering that working with families is associated with strengthening the bond and the bond of trust between the team and the community.

The short time working in the FHS found in the study has been corroborated by Galavote et al. [9] and Firmino et al. [10] who observed in their studies that most nurses of PHC teams have been working for less than 10 years. In addition, professional turnover weakens the establishment of bonds with the community, implying the operationalization of the longitudinality of care as an attribute of PHC [11]. In this sense, professional qualification, with specialization in Family Health, allows the professional a more humanized view of care, through the construction of bonds and appreciation of the family and community; expansion and development of knowledge and skills, enabling better community participation; and recognition of the importance of teamwork [12]. The analysis of the results reveals professionals aware of the labor market and the need for specialization in specific areas for effective action.

Despite the specialization in the area, the Ministry of Health (MS) assumed, through the Department of Health Education Management (DeGEs), the responsibility of reorienting training actions of health professionals that focus on new ways of caring and teaching in health. Cheers. Professional training activities, such as Permanent Health Education (PHE) have been developed with the support of the federal government, with the purpose of qualifying health professionals to work in the FHS, in order to face the challenges arising from the work performance of health professionals. health professionals in the different

scenarios of the Unified Health System [13]. Another important aspect analyzed is the high adherence of professionals in training / updates on syphilis in pregnant women, with a frequency of PHE not very relevant, considering the epidemiological impact of congenital syphilis in the region. Thus, the aspects analyzed reveal the fragility of the health service and the need for professional improvement to work in the FHS and better organization of the work process of the teams. There is the importance of providing support and training for professionals to develop more effective communication with the community [14]. Thus, the Basic Family Health Units are also spaces for the construction of knowledge, research and training of human resources [15]. The Ministry of Health has advocated the training of professionals as a permanent education instrument, recognizing and valuing the training of workers as a component of the workforce qualification process in order to contribute decisively to PHC implementation [15]. The PHE consists of a process of qualification and training of professionals, organized based on health needs, focusing on the transformation of professional practices and the organization of the work process. The PHE activities are configured in important collective learning spaces, providing reflection on the reality of health services in which they are inserted [16].

Although the Ministry of Health elaborates and provides technical manuals for instrumentation of professionals, it was observed that professionals are not sensitive to the culture of reading and study of the documents in full. The barriers that hinder the health service in the care of pregnant women with syphilis are those related to the user as presenting difficulties in partner attendance and late prenatal care, non-performance of examinations by the pregnant woman and difficulty in adhering the pregnant woman to treatment. The coverage of prenatal care in Brazil is practically universal, with high values in all

regions of the country and in women of different demographic, social and reproductive characteristics. Nevertheless, the adequacy of this assistance is still low, with most women starting prenatal care late. Characteristics related to the lack of prenatal care or late initiation of follow-up evidenced social inequalities, with lower access of indigenous and black women, lower education, higher number of pregnancies, and residents in the North and Northeast regions [17]. Given the impact that these issues can have on the population's health and the increase in cases of congenital syphilis, stresses the importance of rethinking the health practices adopted by PHC professionals, seeking proactivity in problem solving and planning. In health focused on the local reality, with a view to comprehensive, equitable and continuous care. Health planning actions should be present in the daily routine of care practice. Knowing the local reality is essential, because the work process of the FHS teams requires professionals to recognize the local reality to act more specifically in the prevention and control of diseases and diseases. The planning, monitoring and evaluation actions of PHC actions in the territories are the responsibility of all government spheres [15, 18]. The work process of the FHS teams needs to meet the demands and respect the principles and values, such as strengthening the bond, contributing to overcoming possible barriers in the health system. PHC, as the main gateway and care organizer, encompasses a set of actions at the individual, family and collective levels, including harm reduction, developed through integrated care practices and qualified management, carried out with a team multiprofessional and population-oriented [15]. Educational practices, such as health education activities, when incorporated in the prenatal context, guarantee the assistance provided more effectively. For this, it is necessary that professionals are prepared to perform such activities during the prenatal routine. Thus, they believe that these actions would reduce the

asymmetry in the relationship of pregnant women with the health service and improve the quality of primary health care, and consequently would positively reflect the indicators of maternal and child morbidity / mortality [19]. In addition to providing prenatal care to pregnant women, health education can act to raise awareness of male participation during follow-up. A study by Fagundes and Oliveira [20] showed that when questioning pregnant women about what should be a health education work, the first reflection was about the lack of participation of men during the prenatal period and about the need for male consciousness became reflective.

The approach of the man in the prenatal routine allows the creation of affective and bonding feelings, bringing the family closer and contributing to a healthy and welcoming relationship, mainly representing the baby's acceptance, besides giving confidence to their partners in times of difficulty [21]. In addition, the involvement of men in the context may allow early testing, diagnosis and treatment of STI, reducing the vertical transmission of syphilis and SIDA [22]. Although they do not identify barriers related to the professional, a significant need of professionals was identified regarding the improvement of knowledge for better performance and quality of care. The lack of knowledge of FHS professionals about the management of pregnant women with syphilis may be reflecting on actions that need to be reinforced through PHE, in order to promote quality care to pregnant women with syphilis [23]. We identified the existence of barriers related to the service, and the most cited was the time to receive the test result for syphilis in pregnant women. In a broader approach, considering the completeness of the actions and the need to ensure adequate care for pregnant women, it was observed that this can be a hindering point in the work process of the teams and may result in delayed treatment of syphilis in pregnant women irreversible damage. Quality

prenatal care with early pregnancy uptake, diagnosis and treatment enables greater treatment success by avoiding late complications. Andrade, Santos and Duarte [24] point out that the difficulty of access to the first care, the waiting time in the lines to make appointments and exams and the lack of bond with the professional who performs the care, are considered threats in the early capture of pregnant women. and difficulties in follow-up [25, 26]. Failure to identify infection early in pregnancy is severe for the baby and may lead to prematurity, miscarriage, stillbirth and neonatal death [13].

The result found contradicts the care protocols of the Ministry of Health, where it is recommended to start the investigation of syphilis by the treponemal tests, available at the BHU; facilitating early access to diagnosis. The rapid test is recommended at the first consultation, at the beginning of the 3rd trimester, at birth or in case of abortion, risk exposure and sexual violence. According to Ministry of Health guidelines, treatment should begin after the first treponemal or non-treponemal nonreactive result [26]. The rapid test when performed together with the VDRL (non-treponemal test) is due to the possibility of false negative results of the non-treponemal test. False negative results may occur in the early stage of the disease, late latent syphilis and late syphilis, as well as a result of the prozone effect [26]. Still regarding the participants' proposals regarding the improvement of care, the results indicate failures in communication between sectors, making strategies necessary to improve access to information in the UBS and municipality. The fact that they have distinct roles there is a need for integration and articulation for the effectiveness of actions. It is of fundamental importance to use integrated Information Systems with potential for collecting, consolidating, analyzing data and generating and disseminating information in order to contribute to the planning, monitoring and evaluation activities in a timely

manner [27]. In addition, the return of information on cases of congenital syphilis occurring in the city and in the service, itself should also be used in training [3]. When asked about the strategies related to the service most remembered was the reference service for pregnant women with penicillin allergy. This issue refers to the management of the service in the various points of attention. Concern about the need for support services for pregnant women with penicillin allergy can be overcome considering the most recent studies that make the chance of allergy occurring in 0 to 3 per 100,000 pregnant women, being considered a rare event [28].

Conclusions:

Recognizing the specific gaps in each barrier was fundamental for proposing improvements in the work process of Family Health System-FHS nurses. One of the challenges to be faced in the prevention of congenital syphilis is related to the sensitivity of health professionals critically about their practices, as well as the ability to promote behavioral change in the population served. Incorporating the figure of the partner in the context of prenatal care is essential, providing greater involvement of men and the exercise of their rights in pregnancy, childbirth, puerperium and baby care. Greater management investments are suggested for the establishment of professionals in the municipalities and agility of laboratory test results, compromising with the guarantee of the population's right to health. There is a need for qualification of professionals working in PHC in order to improve their skills to strengthen quality prenatal care. Thus, it is suggested investments in PHE in service as a possibility for advancement and improvement of professionals to work in PHC, aiming at improving the population's quality of life.

Acknowledgements:

To the São Camilo University Center for allowing the development of the work. To the Espírito

Santo Research and Innovation Support Foundation - FAPES for granting the scientific initiation scholarship to the Camila Bruneli do Prado. FAPES for granting the scientific initiation scholarship to the Camila Bruneli do Prado under grant term = 175/2018. To the municipal and state health departments for authorization to carry out the research.

Declarations:

Ethics Approval and Consent to Participate

We the authors of this manuscript declare that a research was submitted to the Research Ethics Committee at the São Camilo University Center, campus of the Pompéia in the São Paulo city in Brazil, under the Certificate of Presentation for Ethical Appreciation (CAAE in Portuguese) number 91024318.9.0000.0062. A research was approved under number 2,722,696 on June 19, 2018. For more information, contact the Ethics and Research Committee by email coep@saocamilo-sp.br or by phone number 55 11 3465-2654.

List of Abbreviations:

AIDS – Acquired Immune Deficiency Syndrome

BHU - Basic Health Unit

ICF - Informed Consent Form

COEP - Research Ethics Committee at the São Camilo University Center in São Paulo, Brazil

FHS - Family Health Strategy

MS - Ministry of Health

PHC - Primary Health Care

PHE - Permanent Health Education

STI - Sexually Transmitted Infection

VDRL - Venereal Disease Research Laboratory

References:

1. Brasil. Ministério da Saúde. Portal da Saúde. Saúde de A a Z. Sífilis. Brasília: Ministério da Saúde; 2017a. Disponível em: <<http://portalms.saude.gov.br/saude-de-a-z/sifilis-2>>. Acess in: 29 de ago 2019.
2. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de DST, AIDS e Hepatites Virais. Boletim Epidemiológico - Sífilis, Volume 48, N° 36. Brasília: Ministério da Saúde; 2018b. Disponível em: <<http://www.aids.gov.br/pt-br/pub/2018/boletim-epidemiologico-de-sifilis-2018>> . Acess in: 29 ago. 2019.
3. Domingues, RMSM et al. Manejo da sífilis na gestação: conhecimentos, práticas e atitudes dos profissionais pré-natalistas da rede SUS do município do Rio de Janeiro. Ciênc. saúde coletiva, Rio de Janeiro , v. 18, n. 5, p. 1341-1351, Mai 2013a. <https://doi.org/10.1590/S141381232013000500019>
4. Nonato, SM, Melo, APS, Guimaraes, MDC. Sífilis na gestação e fatores associados à sífilis congênita em Belo Horizonte-MG, 2010-2013. Epidemiol. Serv. Saúde, Brasília, v. 24, n. 4, p. 681-694, Dez. 2015. <http://dx.doi.org/10.5123/S1679-49742015000400010>
5. Brasil, Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Doenças de Condições Crônicas e Infecções Sexualmente Transmissíveis. Protocolo Clínico e Diretrizes Terapêuticas para Prevenção da Transmissão Vertical do HIV, Sífilis e Hepatites Virais. Ministério da Saúde, Brasília. Ministério da Saúde; 2019. Disponível em: <<http://www.aids.gov.br/pt-br/pub/2015/protocolo-clinico-e-diretrizes-terapeuticas-para-prevencao-da-transmissao-vertical-de-hiv>>. Acess in: 29 ago. 2019.
6. Domingues, RMSM et al. Sífilis congênita: evento sentinela da qualidade da assistência pré natal. Rev. Saúde Pública, São Paulo, v. 47, n. 1, p. 147-157, Fev. 2013b. <https://doi.org/10.1590/S0034-89102013000100019>
7. Domingues, RMSM et al. Adequação da assistência pré-natal segundo as características maternas no Brasil. Revista Panamericana de Saúde Pública, 2015, v.37, n.3, p. 140–7. Disponível em:

- <<https://www.scielo.org/article/rpsp/2015.v37n3/140-147/>>. Acess in: 29 ago. 2019.
8. Rodrigues, DC. Conhecimentos, atitudes e práticas dos profissionais da Estratégia Saúde da Família de Teresina para o controle da sífilis em gestante. Rio de Janeiro. Dissertação [Mestrado Profissional em Epidemiologia em Saúde Pública] - Escola Nacional de Saúde Pública Sergio Arouca; 2015. Disponível em: <<https://docplayer.com.br/82829233-Conhecimentos-atitudes-e-praticas-dos-profissionais-da-estrategia-saude-da-familia-de-teresina-para-o-controle-da-sifilis-em-gestante.html>>. Acess in: 29 ago. 2019.
9. Galavote, HS et al. O trabalho do enfermeiro na atenção primária à saúde. Esc. Anna Nery, Rio de Janeiro, v. 20, n. 1, p. 90-98, Mar. 2016. <https://doi.org/10.5935/1414-8145.20160013>
10. Firmino, AA et al. Atuação de enfermeiros na estratégia de saúde da família em um município de Minas Gerais. Saúde (Santa Maria), [S.l.], p. 49-58, Jun. 2016. <http://dx.doi.org/10.5902/2236583418694>
11. Starfield, B. Atenção primária: equilíbrio entre necessidades de saúde, serviços e tecnologia. Brasília: UNESCO; Ministério da Saúde, 2002. Disponível em: <<https://www.nescon.medicina.ufmg.br/biblioteca/imagem/0253.pdf>>. Acess in: 26 ago. 2019.
12. Scherer, MDA et al. Cursos de especialização em Saúde da Família: o que muda no trabalho com a formação?. Interface (Botucatu), Botucatu, v. 20, n. 58, p. 691-702, Set. 2016. <https://doi.org/10.1590/1807-57622015.0020>
13. Silva, TAM, Fracolli, LA, Chiesa, AM. Trajetória profissional na Estratégia Saúde da Família: em foco a contribuição dos cursos de especialização. Rev. Latino-Am. Enfermagem, Ribeirão Preto, v. 19, n. 1, p. 148-155, Fev. 2011. <https://doi.org/10.1590/S0104-11692011000100020>
14. Silva, MF, Conceição, FA, Leite, MMJ. Educação continuada: um levantamento de necessidades da equipe de enfermagem. Arq. bras. ciênc. Saúde, v. 34, n. 1, p. 15-21, jan.-abr. 2009. <https://doi.org/10.7322/abcs.v34i1.140>
15. Brasil. Ministério da Saúde. Portaria no. 2.436 de 21 de setembro de 2017. Brasília: Diário Oficial [da] República Federativa do Brasil, 2017b. Disponível em: <http://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt2436_22_09_2017.html>. Acess in: 26 ago. 2019.
16. Ferreira, L et al. Educação Permanente em Saúde na atenção primária: uma revisão integrativa da literatura. Saúde debate, Rio de Janeiro, v. 43, n. 120, p. 223-239, Mar. 2019. <https://doi.org/10.1590/0103-1104201912017>
17. Viellas, EF et al. Assistência pré-natal no Brasil. Cad. Saúde Pública, Rio de Janeiro, v. 30, supl. 1, p. S85-S100, 2014. <https://doi.org/10.1590/0102-311X00126013>
18. Ufma. Universidade Federal do Maranhão. UNA-SUS/UFMA. Processo de trabalho e planejamento em saúde. Ana Cleide Mineu Costa; Judith Rafaelle Oliveira Pinho (Org.). - São Luís: EDUFMA, 2016. Disponível em: <http://www.unasus.ufma.br/site/files/livros_isbn/isbn_sf03.pdf>. Acess in: 29 ago. 2019.
19. Souza, VB, Roecker, S, Marcon, S.S. Ações educativas durante a assistência pré-natal: percepção de gestantes atendidas na rede básica de Maringá-PR. Rev. Eletr. Enf., v. 13, n. 2, abr/jun 2011. <http://dx.doi.org/10.5216/ree.v13i2.10162>
20. Fagundes, DQ, Oliveira, AE. Educação em saúde no pré-natal a partir do referencial teórico de Paulo Freire. Trab. educ. saúde, Rio de Janeiro, v. 15, n. 1, p. 223-243, Abr. 2017. <https://doi.org/10.1590/1981-7746-sol00047>
21. Pereira, VESC et al. The Partner's Involvement in the Prenatal Routine Through the Pregnant Women Perspective. Revista de Pesquisa: Cuidado é Fundamental Online [S.l.], v. 10, n. 3, p. 856-862, Jul 2018. <http://dx.doi.org/10.9789/2175-5361.rpcf.v10.6252>
22. Herrmann, A. Guia do Pré-Natal do Parceiro para Profissionais de Saúde. Rio de Janeiro, Ministério da Saúde, 2016. Disponível em: <<https://portalarquivos2.saude.gov.br/images>

- /pdf/2016/agosto/11/guia_PreNatal.pdf>.
Acess in: 29 ago. 2019.
23. Silva, DMA et al. Conhecimento dos profissionais de saúde acerca da transmissão vertical da sífilis em Fortaleza. Texto contexto - enfermagem, Florianópolis, v. 23, n. 2, p. 278-285, Jun 2014.
<https://doi.org/10.1590/0104-07072014000510013>
 24. Andrade, UV, Santos, JB, Duarte, C. A percepção da gestante sobre a qualidade do atendimento pré-natal em UBS, Campo Grande, MS. Rev. Psicol. Saúde, Campo Grande, v. 11, n. 1, p. 53-61, Abr. 2019.
<http://dx.doi.org/10.20435/pssa.v0i0.585>
 25. Padovani, C, Oliveira, RR, Pelloso, SM. Sífilis na gestação: associação das características maternas e perinatais em região do sul do Brasil. Rev. Latino-Am. Enfermagem, Ribeirão Preto, v. 26, e3019, 2018. <https://doi.org/10.1590/1518-8345.2305.3019>
 26. [26] Andrade, ALMB et al. Diagnóstico tardio de sífilis congênita: uma realidade na atenção à saúde da mulher e da criança no Brasil. Rev. paul. pediatr, São Paulo, v. 36, n. 3, p. 376-381, Set. 2018.
<https://doi.org/10.1590/1984-0462/2018;36;3;00011>
 27. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Fica instituída a Política Nacional de Vigilância em Saúde (PNVS), aprovada por meio desta resolução. Resolução MS/CNS nº 588, de 12 de julho de 2018. Diário Oficial da República Federativa do Brasil, Brasília (DF), 2018a. Disponível em:
<<http://conselho.saude.gov.br/resolucoes/2018/Reso588.pdf>>. Acess in: 29 ago. 2019.
 28. Dalle, J et al. Oral Desensitization to Penicillin for the Treatment of Pregnant Women with Syphilis: A Successful Program. Rev. Bras. Ginecol. Obstet., Rio de Janeiro, v. 40, n. 1, p. 43-46, Jan. 2018 <https://doi.org/10.1055/s-0037-1606274>