



“I just know it’s a disease”: pregnant women’s knowledge about syphilis

“Só sei que é uma doença”: conhecimento de gestantes sobre sífilis

“Solo sé que es una enfermedad”: conocimiento de embarazadas sobre sífilis

Natália da Silva Gomes 

Federal University of Pampa (*Universidade Federal do Pampa*) - Uruguaiiana (RS) - Brazil

Lisie Alende Prates 

Federal University of Pampa (*Universidade Federal do Pampa*) - Uruguaiiana (RS) - Brazil

Laís Antunes Wilhelm 

Federal University of Santa Catarina (*Universidade Federal de Santa Catarina*) - Florianópolis (SC) - Brazil

Jussara Mendes Lipinski 

Federal University of Pampa (*Universidade Federal do Pampa*) - Uruguaiiana (RS) - Brazil

Kelly Dayane Stochero Velozo 

Federal University of Pampa (*Universidade Federal do Pampa*) - Uruguaiiana (RS) - Brazil

Carolina Heleonora Pilger 

Federal University of Pampa (*Universidade Federal do Pampa*) - Uruguaiiana (RS) - Brazil

Rhayanna de Vargas Perez 

Federal University of Pampa (*Universidade Federal do Pampa*) - Uruguaiiana (RS) - Brazil

ABSTRACT

Objective: To analyze the knowledge of women who attended prenatal consultations concerning syphilis and the guidelines received about the prevention of gestational syphilis. **Methods:** It is qualitative and descriptive research, developed with eight pregnant women, in a unit of Primary Health Care (PHC), in a municipality of Fronteira Oeste, Rio Grande do Sul, Brazil, using the semi-structured interview technique from September to October 2019. The findings were interpreted using thematic analysis, with two thematic categories emerging: Knowledge about syphilis and Guidelines on the prevention of syphilis in pregnancy. **Results:** The investigated pregnant women demonstrated restricted knowledge about syphilis and gestational syphilis. They reported that the guidelines for prenatal care are superficial. They said that the transmission of syphilis happens through sex and showed surprise about the complications of the disease for the baby, showing the lack of knowledge about congenital syphilis. They mentioned the condom as a prevention method but reported not using it when the partner is fixed. They demonstrated limited knowledge about the interpretation of rapid tests, not to mention the non-treponemal exam as a diagnostic and confirmatory method of the disease. **Conclusion:** The gap identified by the limited knowledge of pregnant women investigated about syphilis, and the prevention of gestational syphilis can be filled by carrying out health education activities, with the nurse as a promoter.

Descriptors: Women’s Health; Syphilis; Syphilis Serodiagnosis; Pregnant Women; Pregnancy; Nursing.

RESUMO

Objetivo: Analisar o conhecimento de mulheres que realizaram consultas de pré-natal em relação à sífilis e as orientações recebidas acerca da prevenção de sífilis gestacional. **Métodos:** Pesquisa qualitativa e descritiva, desenvolvida com oito gestantes, em uma unidade de Atenção Primária à Saúde (APS), de um município de Fronteira Oeste, Rio Grande do Sul, Brasil, por meio da técnica de entrevista semiestruturada, no período de setembro a outubro de 2019. Os achados foram interpretados por meio da análise temática, emergindo duas categorias temáticas: Conhecimento sobre a sífilis e Orientações sobre a prevenção da sífilis na gestação. **Resultados:** As gestantes investigadas demonstraram conhecimento restrito sobre sífilis e sífilis gestacional. Relataram que as orientações no pré-natal são superficiais. Disseram que a transmissão da sífilis ocorre por via sexual e demonstraram surpresa quanto às complicações da doença para o bebê, evidenciando o desconhecimento sobre a sífilis congênita. Citaram o preservativo como método de prevenção, porém relataram não utilizar quando o parceiro é fixo. Demonstraram conhecimento



This Open Access article is published under the a Creative Commons license which permits use, distribution and reproduction in any medium without restrictions, provided the work is correctly cited

Received on: 05/21/2020

Accepted on: 09/21/2020

restrito sobre a interpretação dos testes rápidos, não mencionando a realização do exame não treponêmico como método diagnóstico e confirmatório da doença. **Conclusão:** A lacuna identificada pelo conhecimento limitado das gestantes investigadas sobre a sífilis e a prevenção da sífilis gestacional pode ser suprida por meio da realização de atividades de educação em saúde, tendo o enfermeiro como agente promotor.

Descritores: Saúde da Mulher; Sífilis; Sorodiagnóstico da Sífilis; Gestantes; Gravidez; Enfermagem.

RESUMEN

Objetivo: Analizar el conocimiento de mujeres que tuvieron el prenatal sobre la sífilis y las orientaciones recibidas sobre la prevención de la sífilis gestacional. **Métodos:** Investigación cualitativa y descriptiva desarrollada con ocho embarazadas de una unidad de Atención Primaria de Salud (APS) de un municipio de la Frontera Oeste, Río Grande de Sur, Brasil a través de la técnica de entrevista semiestructurada en el periodo entre septiembre y octubre de 2019. Se ha interpretado los hallazgos a través del análisis temático del cual se ha identificado dos categorías temáticas a continuación: Conocimiento de la sífilis y Orientaciones sobre la prevención de la sífilis durante el embarazo. **Resultados:** Las embarazadas investigadas han demostrado poco conocimiento de la sífilis y de la sífilis gestacional. Ellas han relatado que las orientaciones del prenatal son superficiales, que la transmisión de la sífilis se da por la vía sexual y han demostrado sorpresa sobre las complicaciones de la enfermedad para el bebé lo que evidencia la falta de conocimiento de la sífilis congénita. Ellas han citado el condón como el método de prevención, sin embargo, relataron no usarlo cuando tiene más tiempo con su compañero. Las participantes han demostrado poco conocimiento de la interpretación de las pruebas rápidas y no han mencionado la prueba no treponémica como el método diagnóstico y confirmatorio de la enfermedad. **Conclusión:** Se puede arreglar la laguna del conocimiento limitado de las embarazadas investigadas sobre la sífilis y la prevención de la sífilis gestacional a través de actividades de educación en salud con el enfermero como el agente promotor.

Descriptores: Salud de la Mujer; Sífilis; Serodiagnóstico de la Sífilis; Mujeres Embarazadas; Embarazo; Enfermería.

INTRODUCTION

Syphilis is an infectious disease whose notification is compulsory caused by the bacterium *Treponema pallidum*. Infection can occur through sexual transmission, blood transfusion, organ transplantation or congenital transmission, thus being characterized as acquired syphilis, gestational syphilis and congenital syphilis⁽¹⁾.

In Brazil, gestational syphilis continues to be considered a serious health problem, even after the implementation of low-cost diagnostic mechanisms, such as rapid tests, and the discovery of penicillin treatment since the mid-1950s. Currently, the scenario of the disease is similar to that of vertical transmission of the human immunodeficiency virus (HIV)⁽²⁾.

In 2018, in Brazil, there was a detection rate of 21.4 cases of syphilis in pregnant women per every 1,000 live births (LB). In 2013, in the state of Rio Grande do Sul (RS), Brazil, 1,224 cases of syphilis were reported in pregnant women. Five years later, in 2018, the number rose to 4,049, reaching a rate higher than the national average, that is, 28.6 cases per 1,000 LB. Furthermore, RS is one of the states with the highest proportions of untreated pregnant women (7.9%)⁽³⁾.

With regard to congenital syphilis (CS), Brazil reached the rate of 9.0 cases per every 1,000 LB in 2018, and RS, once again, reached a rate higher than the national average, with 13.9 per 1,000 LB⁽³⁾. In addition, it is necessary to consider underreporting, that is, cases that have not been notified and that may increase these numbers even further⁽⁴⁾.

In that regard, the Family Health Strategy (*Estratégia Saúde da Família – ESF*) has been the main scenario for the occurrence of notified cases. ESF has been understood as users' point of entry to the Unified Health System (*Sistema Único de Saúde – SUS*), since it represents the main source of health information for individuals and can contribute to the change in the epidemiological picture of syphilis⁽⁵⁾.

Thus, public policies are needed to promote, raise awareness and train professionals in prenatal care, especially with regard to the management of the disease during pregnancy⁽⁶⁾. Thus, the nurse, as one of the health professionals responsible for the prenatal care of pregnant woman, needs to provide guidance on sexually transmitted infections (STIs), especially syphilis, given the complexity of the consequences generated by late diagnosis of this disease⁽⁷⁾.

Furthermore, it should be noted that studies on syphilis are considered a research priority on the agenda of the Ministry of Health (MoH)⁽⁸⁾ because the Sustainable Development Goals (SDGs) of the 2030 Global Agenda of the United Nations (UN) include, in the Brazilian context, goals related to the pathology, such as ending the epidemics of communicable diseases and reducing neonatal mortality to a maximum of five per thousand LB⁽⁹⁾.

In that regard, the National Health Promotion Policy highlights the importance of mainstreaming health promotion in Health Care Networks, thereby favoring humanized care practices based on people's needs and comprehensive care⁽¹⁰⁾.

With regard to syphilis, health promotion policies are essential to assist professionals in implementing strategies aimed at managing the disease. Thus, this study can be a driver in the creation of health education actions and in the proposal of studies that contribute to the eradication of syphilis in Brazil. In light of the considerations outlined above, this paper presents the results of a study conducted at a Federal University located in the municipality of Fronteira do Oeste in Rio Grande do Sul, Brazil, guided by the following question: "what is pregnant women's knowledge about syphilis and guidelines received on prevention during pregnancy?"

Based on the above, this study aimed to analyze the knowledge of women who attended prenatal consultations concerning syphilis and the guidelines received about the prevention of gestational syphilis.

METHODS

This qualitative descriptive field study was conducted in the municipality of Fronteira Oeste in Rio Grande do Sul, Brazil. The qualitative approach was used because it allows the analysis of the sociocultural dimension, in which beliefs, values, opinions, representations, forms of relationship, symbols, uses, customs, behaviors and practices of individuals are present⁽¹¹⁾. Data collection took place in September and October 2019. The setting for recruiting participants was a Primary Health Care (PHC) center in the municipality where the highest rates of gestational syphilis in 2018 were identified using information provided by Municipal Health Secretariat.

Participants were pregnant women invited to participate in the study through calls to their telephone numbers registered at the center or after prenatal care consultations. Inclusion criteria were pregnant women, regardless of parity, in the third trimester of pregnancy, as it was considered that during this period they would have already been instructed on gestational syphilis and would also have performed all the laboratory tests recommended in prenatal care, including those linked to the disease. Exclusion criteria were not established, and, during the study, there were five refusals. Pregnant women who refused to participate justified their belief that participation in the study could interfere with care at the ESF and, therefore, considered it more prudent not to express their opinion, although they were instructed that this would not occur. Others showed interest in participating but said they did not have time to do so. In the end, eight pregnant women were recruited, and the inclusion of new participants was terminated when data saturation occurred⁽¹¹⁾.

Semi-structured interviews⁽¹²⁾ were used for data collection. It consisted of two stages: first, interviewee's identification data were collected covering variables such as age, education, marital status, occupation, information on with whom they lived, household income, obstetric antecedents, and gestational period. The second part consisted of two questions aligned with the objective of the study: what is your knowledge about syphilis? What guidelines did you receive about preventing syphilis during pregnancy?

The interviews took place on an individual basis and were recorded after authorization by the participants. Data production took place at the center and was performed after prenatal consultation in an unoccupied office, or at home, when requested by the pregnant woman. At home, the interviews took place in the living room. It should be noted that they took place in an atmosphere of cordiality between the interviewee and the interviewer and lasted approximately thirty minutes.

The data were submitted to thematic analysis⁽¹²⁾, which was divided into three stages: pre-analysis, when the data were organized, through skimming the interviews; exploration of the material, in which the categorization of data was performed; and interpretation of results based on the theoretical framework of the field. Thus, two thematic categories emerged: Knowledge about syphilis and Guidelines on the prevention of syphilis in pregnancy.

The study complied with ethical aspects and respected the rules contained in Resolution No. 466/12, being approved by the Research Ethics Committee of the local university on August 27, 2019, with Ethical Review Approval No. 3.535.878. The pregnant women signed an Informed Consent Form. The identity of the participants was preserved, and, for this purpose, each received a specific nomenclature: the letter "P", followed by random numbering.

RESULTS AND DISCUSSION

The interviewees' characterization data will be presented below. Then, the thematic categories that emerged from the study will be presented and discussed: Knowledge about syphilis and Guidelines on the prevention of syphilis in pregnancy.

Characterization of the participants

The eight pregnant women interviewed were in the age range between 19 and 32 years old and between the 32nd and 39th gestational week. All of them received prenatal care in the PHC center. Five had a household income of up to one minimum wage and three had a household income of up to two minimum wages. Seven lived with their partner and one with her father. Only two did not have children, but among those who were already mothers, only two said they lived with their children and other people. Only one had a paid job, albeit she worked occasionally.

With regard to obstetric antecedents: two women were in their first pregnancy; two were in their third pregnancy had had two vaginal deliveries; one was in her fourth pregnancy and had had three previous vaginal deliveries; one was in the fifth pregnancy, with four previous cesarean sections; one was in her second pregnancy, with a previous cesarean section; and one was in the seventh pregnancy and had experienced two vaginal deliveries, two cesarean sections and two miscarriages.

Level of education ranged from complete (two women) and incomplete (three women) secondary education to complete (two women) and incomplete (one woman) primary education.

The pregnant women's identification data allowed to identify a profile of young women with economic vulnerability, mostly married, with low education levels, and without paid job. Most had obstetric antecedents. Although these data are not determinants of the results found, they contribute to the analysis of the group. Thus, it is believed that there may be a correlation between the profile of the participants and their testimonies.

In that regard, a study carried out with 41 pregnant women found similar results: the age range between 20 and 29 years old was also predominant, with approximately 27 women having a history of previous vaginal deliveries, 18 being married and having only completed primary education, and 38 not having a paid job. Therefore, it is possible to identify a profile of vulnerability, and there may be an association between low education and STI⁽¹³⁾.

With regard to married pregnant women, these findings may be in line with those in the same study, in which an association was found between being married or in a stable relationship and a propensity for STIs as a result of not wearing condoms⁽¹³⁾.

Knowledge about syphilis

This category, knowledge about syphilis, refers to the idea that prenatal care can be considered a primary step in the prevention of diseases. Thus, informing pregnant women about STIs, especially about syphilis, can be determinant for the prevention of gestational syphilis and, consequently, congenital syphilis, neonatal death, miscarriage, and premature birth.

In that regard, the pregnant women were asked about their knowledge regarding the pathology. They reported the guidance provided during the school period. However, they did not know how to explain what the disease was about:

"I've heard a lot about it [syphilis] in high school, mainly in lectures, a thousand years ago, when I graduated from high school." (P3)

"All I know is that they say it's a disease, but what it is, I don't know." (P5)

Other participants gave some information about syphilis. They reinforced that it was an STI that needs to be taken care of:

"There is a case of syphilis in my family, not long ago, but I only know the basics, what we hear: oh, that person got it, it is a sexually transmitted disease." (P4)

"I know it's a sexually transmitted disease... I just heard that it's like AIDS, sexually transmitted." (P6)

From this perspective, the condom emerged in the statements of the participants as an essential element for the prevention of syphilis. They stressed the importance of wearing it and reinforced sexual intercourse as a way of transmitting the disease, not to mention other ways of contagion:

"[...] to take care of yourself, you have to wear a condom every time you have sex, because you can get it even if it breaks. So, you have to be careful." (P1)

"It occurs through sexual intercourse without a condom, through skin contact as well. Nowadays, it is very difficult to get it, because everyone already knows that they have to wear condoms." (P3)

"We know that, with the husband, we don't wear it [condom], otherwise we wouldn't be pregnant, right? But, if you don't know the person, you have to wear it, because there are people who have sex with strangers and get these diseases and have to live with it for the rest of their lives." (P4)

Regarding this last statement, from P4, a study refers to the issue of the low perception of women about their vulnerability to STIs due to not wearing condoms, which is justified by the fact they have a steady partner. Thus, authors reinforce that syphilis can be prevented through measures such as wearing a condom, even with a steady partner, and also non-adherence to drugs and others. Although they are aware of preventive care, not all research participants adhere to preventive care, probably due to a feeling of omnipotence, because they believe they are invulnerable to any problem, and thus end up exposing themselves indiscriminately⁽¹⁴⁾. In general, there was a lack of knowledge of the forms of contagion, with sexual intercourse emerging, in some cases, as the only route of transmission. A study also identified similar data when observing the pregnant women's restricted knowledge about syphilis⁽¹⁴⁾.

Regarding the strictly sexual transmission, P3 demonstrates this in her statement:

"If you are to get them, you get these diseases, even wearing condoms. As much as it has decreased a lot today, compared to the old days, if you have to get it, you can prevent yourself as much as possible, but you'll end up getting it during intercourse." (P3)

It was observed that many factors can contribute to the vulnerability to syphilis and other STIs in this researched group, such as the inadequate or inconsistent use of condoms in all sexual relations, the lack of information, the low level of education, the low socioeconomic level, and the poor health services. Guidance on the risks related to *T. pallidum* infection through sexual transmission is relevant for these women, who must maintain safe sex practices, with regular condom use (male or female). It also reinforces the need to inform them about other forms of transmission of syphilis. In this context, nurses play an important role in prenatal care as they promote health education actions in primary care, thus contributing decisively to the fight against syphilis⁽⁷⁾.

Guidelines on the prevention of syphilis in pregnancy

With regard to this category, the participants were asked about the guidelines received about the prevention of syphilis during pregnancy. It was found that during the prenatal care of some women there was insufficient guidance. In addition, the false idea that only women who do not have a stable relationship need differentiated care due to their greater vulnerability to STIs has emerged again.

Regarding the complications of syphilis for the mother, the baby and the partner, there were fragmented reports that the child could be born with the disease or with some alteration and they were unaware of the treatment for the child. They also cited the possibility of miscarriage and that the partner could also be contaminated.

Regarding the lack of guidance on gestational syphilis, it is possible to note what P2 said:

"All my pregnancies... I am already in my third pregnancy, they never told me anything. I see it like this, you arrive, sit there at the center and see the posters, but having someone say: that's it, this and that, explaining it right to us, they never said anything. They didn't say anything in consultations, it must be because since the first pregnancy I had the same husband. With other women it must be different." (P2)

It can be noted, from P2's statement, that it is still necessary to consider that this pregnant woman believes that she did not receive guidance on syphilis, because she was married, that is, because she had a steady partner. This finding is in line with another study in which women also said that, for those who do not have a steady partner, the care provided and the guidelines must be different⁽⁶⁾, that is, they must be reinforced. There is no need to pay so much attention to this pregnant woman, because she "has no risk".

Furthermore, it should be noted that in addition to gestational syphilis, transmitted during sexual intercourse, the disease can manifest itself congenitally via the transplacental route, through the transmission of the gram-negative bacteria *Treponema Pallidum*⁽¹⁵⁻¹⁷⁾ from the mother to the baby, which is called congenital syphilis (CS). This piece of information caused surprise in some pregnant women when they were asked about the complications of the disease for the baby, as observed in the following statements:

"I really don't know. I never heard this disease is bad for the baby." (P2)

"I think that if I get it I can pass it on to my husband, but as to the baby, I don't know anything, I didn't even know that a baby might get it, because it's sexually transmitted, right? Just through sex." (P4)

"I know that the woman can have a miscarriage if she has that, or the child can come with that disease, microcephaly. If I had it, my husband would get it, and vice versa." (P7)

The statements show the participants' fragile knowledge about the possibility of transmitting syphilis to their child. The same was observed in a study that showed that pregnant women with a positive Venereal Disease Research Laboratory (VDRL) were not aware of the transmission of the disease to their children^(18,19).

Regarding the treatment of syphilis, the pregnant women mentioned the medication to be used and the need for the partner to receive the treatment. In contrast, they did not demonstrate information on the number of doses required and confused the medication and the vaccine:

"I know it's benzetacil," (P7)

"I know that if my partner gets infected, he has to take the medicine too, because it's a cocktail, right?!" (P3)

"The vaccines, those you take when you are a baby." (P6)

When left untreated, gestational syphilis can result in miscarriage and premature births in addition to skin, bone, cardiovascular and neurological alterations^(15,20). With regard to the baby, some participants in the current study were limited to informing that syphilis could have repercussions such as miscarriage and malformations, showing little understanding of the severity of the disease for the fetus, as well as the possibility of its treatment.

It should be noted that, for clinical and care purposes, some factors are considered for the adequate treatment of pregnant women with syphilis, such as: administration of benzathine benzylpenicillin; start of treatment up to 30 days before delivery; therapeutic scheme according to the clinical stage; compliance with the recommended dose range; assessment of the risk of reinfection; documentation of drops in titers in nontreponemal tests, and other therapeutic measures according to the protocol⁽¹⁵⁾.

Thus, in view of the diagnosis of gestational syphilis, it is essential that nurses guide the woman and her partner about the necessary treatment in order to prevent congenital syphilis and negative pregnancy outcomes. Therefore, it is essential that nurses clarify about medications and the importance of treatment and the consequences when therapy is interrupted or not completed⁽⁷⁾. Also, it is worth highlighting the need for nurses to actively trace couples who have not completed treatment, reiterating that syphilis is a compulsory notification disease⁽²¹⁾.

Finally, we also observed false information as they said there is a vaccine administered in childhood that prevents the disease. This limited knowledge of pregnant women about treatment can be seen as an alert for the care provided in public health care settings and demonstrate the need to reorganize the approach to STIs⁽¹⁴⁾.

Knowledge about the prevention of gestational syphilis, with the use of condoms during sexual intercourse and the performance of rapid tests, was also mentioned. In the diagnosis of the disease, in addition to performing the rapid test, it is also necessary to understand the results of the test:

"Here at the center, I was told that you have to wear a condom to prevent it." (P7)

"The girls [nurses and nursing technicians] have already instructed me on how not to get it [...] I always do those tests quickly, if it is negative, it is because I don't have it. The girls always explain to me when I go check it [...] We didn't have these tests before, so I don't know how they knew we didn't have it." (P8)

Still, as sources of information about the disease, the investigated pregnant women mentioned the television, posters, and the school. They said that in the health center there are posters on the prevention of syphilis, as well as in television advertisements and in the content covered during the school period. Despite that, some pregnant women did not remember exactly what was covered in these means of dissemination/guidance:

"They advertise on TV about it, that if you don't wear a condom, you can get it." (P2)

"I think I only saw a poster once." (P5)

"There was even a poster here at the center that said that I had to wear a condom." (P7)

Although the findings demonstrate restricted knowledge of pregnant women about the disease and the routes of transmission, some participants cited condoms as a disease prevention strategy. Thus, it is necessary to emphasize that one of the health intervention strategies used worldwide starts from the idea that the control and prevention of syphilis need to be added to the current and appropriate use of this contraceptive method. However, the rejection of condom use still prevails, whether due to an uninformed choice, or because of the lack of credibility regarding the effectiveness of the method, or because of the belief that being in a stable relationship can guarantee protection against STIs^(22,23). Therefore, the belief that the condom is not necessary in marriage relationships is cultivated because they are considered permanent and safe, with people restricting its use only to unknown partners⁽²⁴⁻²⁵⁾. Added to this is

the concept of relationship stability, the judgment of mutual fidelity, commitment to the relationship and trust, which compromise the perception of risk of contamination through sexual intercourse⁽²⁴⁾.

Trust in the partner is also a determinant for women not to seek information about STIs. Therefore, strategies are needed to sensitize them and encourage them to self-care and to prevent these infections⁽²²⁾. Linked to this is the role of the nurse, who needs to inform the pregnant woman of the importance of preventing syphilis and its consequences⁽⁷⁾. The nurse needs to implement strategies that can reduce the occurrence of new cases of syphilis. These strategies range from disease prevention, through diagnostic tests and forms of treatment, to the development of health education activities⁽⁷⁾.

It is also necessary to consider that the level of education also interferes with the interpretation of information⁽¹⁴⁾. Therefore, the information may have been provided, but not in an understandable way. Therefore, it is inferred that the team needs to adapt to the reality of each woman and find a way in which these guidelines are passed on and fully understood⁽¹⁴⁾. To do so, strategies that break with the traditional model of health education can be effective.

We found that rapid tests were seen as a diagnostic method for the disease. In contrast, the VDRL exam was not mentioned, which is controversial, since it must be requested in the first and third trimesters of pregnancy and at the time of hospitalization, which could be recognized by pregnant women⁽²⁵⁾.

Rapid tests and the VDRL are measures nurses can use to trace and control syphilis in Primary Health Care. In addition, when performing/requesting these tests, nurses have an opportune time to guide women about the importance and performance of these and other tests necessary during prenatal care, thus developing their role as a promoter of health education actions^(21,26). In that regard, pregnant women often perform the VDRL but do not know what serology is about. Thus, it is possible to suggest that health professionals request the tests, but do not provide guidance on their purpose⁽¹⁸⁾.

Finally, television and the posters in the ESF and the school appeared as sources of information. Based on that, the educational practice in the ESF can be understood as an effective strategy when accompanied by the explanation of the posters offered and the guidelines during consultations. In addition to that, there is the school, where health education practices can also be carried out^(27,28). However, for the actions to be meaningful and become health promotion and self-care practices, it is necessary that health professionals use other means of communication, such as television, which can be an important means of transmitting health education, although it is just a means of communication.

It should be noted that the findings of this study allow to suggest a gap in the quality of prenatal care with regard to the dissemination of knowledge about syphilis among the women interviewed. The little knowledge about the disease points to the need to reformulate the approach to STIs among women so that they can empower themselves with the knowledge that covers the transmission of health problems and the relevance of treatment in the prevention of vertical transmission of diseases, particularly congenital syphilis.

Thus, the impacts of this study for the National Health Promotion Policy⁽¹⁰⁾ translate into the fostering of pregnant women's autonomy through health education with the help of health professionals with the aim of strengthening health-promoting and protective factors and the daily confrontation of injuries and diseases, such as syphilis.

The non-participation of the partners constituted a limitation of the study because even if these were not part of the objectives of the study, it is understood that it is essential to encourage their participation in prenatal consultations so that the couple can empower themselves for self-care, thereby preventing or treating gestational syphilis and hence congenital syphilis and becoming health-multiplying agents in the community and within their families.

FINAL CONSIDERATIONS

Pregnant women's knowledge about syphilis is related to the understanding that the disease is an STI, which can be prevented by using a contraceptive method and that has the rapid test as a means of detection. On the other hand, they showed surprise about the complications of the disease for the baby, showing the lack of knowledge about congenital syphilis. They were unable to provide information about drug treatment and did not mention the VDRL test as a diagnostic and confirmatory method for the disease.

The study suggests a gap in prenatal care with regard to guidelines on syphilis and gestational syphilis. Therefore, we found a limited knowledge on the topic among the pregnant women analyzed, demonstrating they received little guidance from health professionals. Such findings may reveal flaws in the guidelines on syphilis provided by health professionals or even the difficulties pregnant woman have in assimilating and understanding such information.

Therefore, it can be inferred that the knowledge about the disease among the pregnant women analyzed is superficial and there is a need to invest in educational actions, which can guide pregnant women and, at the same time, favor the reduction of cases of gestational and congenital syphilis.

CONFLICTS OF INTEREST

The authors declare that there were no conflicts of interest during the development of the research project and in the preparation of the manuscript.

CONTRIBUTIONS

Natália da Silva Gomes and **Lisie Alende Prates** contributed to the study conception and design; the acquisition, analysis and interpretation of data; and the writing and/or revision of the manuscript. **Lais Antunes Wilhelm, Jussara Mendes Lipinski, Kelly Dayane Stochero Velozo, Carolina Heleonora Pilger, Rhayanna de Vargas Perez** contributed to the acquisition, analysis and interpretation of the data; and the writing and/or revision of the manuscript.

REFERENCES

1. Dantas LA, Jerônimo SHNM, Teixeira GA, Lopes TRG, Cassiano AN, Carvalho JBL. Perfil epidemiológico de sífilis adquirida diagnosticada e notificada em hospital universitário materno infantil. *Enferm Glob* [Internet]. 2017 [accessed on 2020 Aug 28];16(46). doi: 10.6018/eglobal.16.2.229371
2. Cavalcante PAM, Pereira RBL, Castro JGD. Sífilis gestacional e congênita em Palmas, Tocantins, 2007-2014. *Epidemiol Serv Saúde* [Internet]. 2017 [accessed on 2019 Nov 21];26(2):255-64. doi: 10.5123/S1679-49742017000200003
3. Ministério da Saúde (BR). Boletim Epidemiológico de Sífilis [Internet]. Brasília: Ministério da Saúde; 2019 [accessed on 2019 Nov 21]. Available from: <http://www.aids.gov.br/pt-br/pub/2019/boletim-epidemiologico-sifilis-2019>
4. Marques JVS, Alves BM, Marques MVS, Arcanjo FPN, Parente CC, Vasconcelos RL. Perfil epidemiológico da sífilis gestacional: clínica e evolução de 2012 a 2017. *Sanare* [Internet]. 2018 [accessed on 2020 Aug 28];17(2):13-20. doi: 10.36925/sanare.v17i2.1257
5. Araújo WJ, Quirino EMB, Pinho CM, Andrade MS. Percepção de enfermeiros executores de teste rápido em Unidades Básicas de Saúde. *Rev Bras Enferm* [Internet]. 2018 [accessed on 2020 Aug 28];71(supl1):676-81. doi: 10.1590/0034-7167-2017-0298
6. Suto CSS, Silva DL, Almeida EC, Costa LEL, Evangelista TJ. Assistência pré-natal a gestante com diagnóstico de sífilis. *Rev Enferm Atenção Saúde* [Internet]. 2016 [accessed on 2019 Nov 21];5(2):18-33. Available from: <http://seer.uftm.edu.br/revistaeletronica/index.php/enfer/article/view/1544/pdf>
7. Nunes JT, Marinho ACV, Davim RMB, Silva GGO, Feliz RS, Martino MMF. Sífilis na gestação: perspectivas e condutas do enfermeiro. *Rev Enferm UFPE* [Internet]. 2017 [accessed on 2020 Aug 30];11(12):4875-84. doi: 10.5205/1981-8963-v11i12a23573p4875-4884-2017
8. Ministério da Saúde (BR). Agenda de Prioridades de Pesquisa do Ministério da Saúde – APPMS [Internet]. Brasília: Ministério da Saúde; 2018 [accessed on 2019 Nov 21]. Available from: https://bvsmms.saude.gov.br/bvs/publicacoes/agenda_prioridades_pesquisa_ms.pdf
9. Ministério do Planejamento, Desenvolvimento e Gestão (BR). Metas nacionais dos objetivos de desenvolvimento sustentável [Internet]. Brasília: MPDG; 2018 [accessed on 2019 Nov 21]. Available from: http://www.ipea.gov.br/portal/images/stories/PDFs/livros/livros/180801_ods_metas_nac_dos_obj_de_desenv_susten_propos_de_adequa.pdf
10. Ministério da Saúde, Secretaria de Vigilância em Saúde (BR). Política Nacional de Promoção da Saúde (PNPS) [Internet]. Brasília: Ministério da Saúde; 2018 [accessed on 2020 Aug 28]. Available from: http://bvsmms.saude.gov.br/bvs/publicacoes/politica_nacional_promocao_saude.pdf
11. Minayo MCS. Amostragem e saturação em pesquisa qualitativa: consensos e controvérsias. *Rev Pesqui*

- Qualitativo [Internet]. 2017 [accessed on 2019 Nov 17];597:1-12. Available from: <https://editora.sepq.org.br/index.php/rpq/article/view/82/59>
12. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 14^a ed. São Paulo: Hucitec-Abrasco; 2014.
 13. Araújo EC, Monte PCB, Haber ANCA. Avaliação do pré-natal quanto à detecção de sífilis e HIV em gestantes atendidas em uma área rural do estado do Pará, Brasil. *Rev Pan-Amaz Saude* [Internet]. 2018 [accessed on 2020 Aug 28];9(1):33-9. doi: 10.5123/S2176-62232018000100005
 14. Costa JS, Vasconcelos PRSS, Carvalho HEF, Julião AMS, Sá MIMR, Monte NL. O conhecimento de gestantes com diagnóstico de sífilis sobre a doença. *Rev Interd* [Internet]. 2016 [accessed on 2019 Nov 21];9(2):79-89. Available from: <https://revistainterdisciplinar.uninovafapi.edu.br/index.php/revinter/article/view/881>
 15. Ministério da Saúde (BR), 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. Brasília: Ministério da Saúde; 2019.
 16. Wahab AA, Ali UK, Mohammad M, Moto EMM, Rahman MM. Syphilis in pregnancy. *Pak J Med Sci* [Internet]. 2015 [accessed on 2019 Nov 21];31(1):217-19. doi: 10.12669/pjms.311.5932
 17. Manolescu LSC, Boeru C, Căruntu C, Dragomirescu CC, Goldis M, Jugulete G, et al. A Romanian experience of syphilis in pregnancy and childbirth. *Midwifery* [Internet]. 2019 [accessed on 2020 Aug 30];78:58-63. doi: 10.1016/j.midw.2019.07.018
 18. Padovani C, Oliveira RR, Pelloso SM. Sífilis na gestação: associação das características maternas e perinatais em região do sul do Brasil. *Rev Latino-Am Enferm* [Internet]. 2018 [accessed on 2020 Aug 28];26:e3019. doi: 10.1590/1518-8345.2305.3019
 19. Chotta NAS, Msuya SE, Mgongo M, Hashim TH, Stray-Pedersen A. Mother's knowledge on HIV, syphilis, rubella, and associated factors in northern Tanzania: implications for MTCT elimination strategies. *Int J Pediatr* [Internet]. 2020 [accessed on 2020 Aug 30];7546954. doi:10.1155/2020/7546954
 20. Ministério da Saúde (BR). Sífilis: estratégias para diagnóstico no Brasil [Internet]. Brasília: Ministério da Saúde; 2010 [accessed on 2019 Nov 21]. Available from: https://bvsmms.saude.gov.br/bvs/publicacoes/sifilis_estrategia_diagnostico_brasil.pdf
 21. Santana MVS, Barbosa PNG, Santos JFL. Sífilis gestacional na atenção básica. *Diversitas J* [Internet]. 2019 [accessed on 2020 Aug 30];4(2):403-19. doi: 10.17648/diversitas-journal-v4i2.783
 22. Nascimento EGC, Cavalcanti MAF, Alchieri JC. Adesão ao uso da camisinha: a realidade comportamental no interior do nordeste do Brasil. *Rev Salud Pública* [Internet]. 2017 [accessed on 2019 Nov 21];19(1):39-44. doi: 10.15446/rsap.v19n1.44544
 23. Barbosa KF, Batista AP, Nacife MBPSL, Vianna VN, Oliveira WW, Machado EL, et al. Factors associated with non-use of condoms and prevalence of HIV, viral hepatitis B and C and syphilis: a cross-sectional study in rural communities in Ouro Preto, Minas Gerais, Brazil, 2014-2016. *Epidemiol Serv Saude* [Internet]. 2019 [accessed on 2019 Nov 19];28(2):e2018408. doi: 10.5123/S1679-49742019000200023
 24. Dourado I, MacCarthy S, Reddy M, Calazans G, Gruskin S. Revisitando o uso do preservativo no Brasil. *Rev Bras Epidemiol* [Internet]. 2015 [accessed on 2019 Nov 21];18(Suppl 1):63-88. doi: 10.1590/1809-4503201500050006
 25. Ministério da Saúde (BR). Atenção ao pré-natal de baixo risco [Internet]. Brasília: Ministério da Saúde; 2012 [accessed on 2019 Nov 21]. Available from: http://bvsmms.saude.gov.br/bvs/publicacoes/cadernos_atencao_basica_32_prenatal.pdf
 26. Vasconcelos MIO, Oliveira KMC, Magalhães AHR, Guimarães RX, Linhares MSC, Queiroz MVO, et al. Sífilis na gestação: estratégias e desafios dos enfermeiros da atenção básica para o tratamento simultâneo do casal. *Rev Bras Promoç Saúde* [Internet]. 2016 [accessed 2020 Aug 30];29(Suppl):85-92. Available from: <https://periodicos.unifor.br/RBPS/article/view/6409/5216>
 27. Wu X, Hong F, Lan L, Zhang C, Feng T, Yang Y. Poor awareness of syphilis prevention and treatment

knowledge among six different populations in south China. BMC Public Health [Internet]. 2016 [accessed on 2020 Aug 30];16(287). doi: 10.1186/s12889-016-2966-4

28. Ramos CFV, Araruna RC, Lima CMF, Santana CLA, Tanaka LH. Práticas educativas: pesquisa-ação com enfermeiros da Estratégia de Saúde da Família. Rev Bras Enferm [Internet]. 2018 [accessed on 2019 Nov 21];71(3):1211-8. doi: 10.1590/0034-7167-2017-0284

Firs author's address:

Natália da Silva Gomes
Universidade Federal do Pampa
BR 472 - Km 585
CEP: 97501-970 - Uruguaiiana - RS - Brasil
E-mail: nataliasilvag_@hotmail.com

Mailing address:

Lisie Alende Prates
Universidade Federal do Pampa
BR 472 - Km 585
CEP: 97501-970 - Uruguaiiana - RS - Brasil
E-mail: lisieprates@unipampa.edu.br

How to cite: Gomes NS, Prates LA, Wilhelm LA, Lipinski JM, Velozo KDS, Pilger CH, et al. "I just know it's a disease": pregnant women's knowledge about syphilis. Rev Bras Promoç Saúde. 2020;33:10964.
