Early diagnosis of syphilis during pregnancy: Difficulties of screening from the optic of nurses

RESUMO
Objetivo: Compreender a percepção de enfermeiros sobre quais fatores são determinantes e impedimentos para o rastreio e diagnóstico precoce da sífilis durante a gestação. Método: Pesquisa exploratória e descritiva, com abordagem qualitativa, consistindo em estudo de campo, realizada entre os meses de setembro e dezembro de 2021 em um hospital público do Brasil, e contando com a participação de cinco enfermeiros. Foi realizada entrevista semiestruturada, onde os dados obtidos foram explorados por meio da análise de conteúdo de Minayo. A pesquisa obedeceu às normas da Resolução 466/12 e do Ofício Circular 2/2021, que trata das pesquisas com seres humanos e de estudos em ambientes virtuais. Resultados: A análise dos dados resultou em duas categorias que possibilitaram discutir os desafios da enfermagem no rastreio e diagnóstico precoce da sífilis na gestação, bem como os fatores que impedem esse processo. Conclusão: O estudo concluiu que a sífilis na gestação é um grave problema de saúde pública e necessita de suporte para o seu controle. As reflexões feitas corroboraram para a ampliação das discussões sobre o tema, e reforçam o papel que o enfermeiro exerce na prevenção e controle dessa infeção.


ABSTRACT
Objective: The objective was to understand nurses’ perception of which factors are determinants and impediments to the screening and early diagnosis of syphilis during pregnancy. Method: Exploratory and descriptive research, with a qualitative approach, consisting of field study method, carried out between September and December 2021 in a public hospital in Brazil, and with the participation of five nurses. A semi-structured interview was carried out, where the data obtained were explored through Minayo’s content analysis. The research complied with the rules of Resolution 466/12 and Circular Letter 2/2021, which deals with research with human beings and studies in virtual environments. Results: Data analysis resulted in two categories that made it possible to discuss the challenges of nursing in the screening and early diagnosis of syphilis during pregnancy, as well as the factors that impede this process. Conclusion: The study concluded that syphilis in pregnancy is a serious public health problem and needs support for its control. The reflections made corroborate the expansion of discussions on the subject, and reinforce the role that nurses play in the prevention and control of this infection.


RESUMEN
Objetivo: El objetivo fue comprender la percepción de los enfermeros sobre qué factores son determinantes e impedimentos para el tamizaje y diagnóstico precoz de la sífilis durante el embarazo. Método: Investigación exploratoria y descriptiva, con abordaje cualitativo, que consiste en estudio de campo, realizada entre septiembre y diciembre de 2021 en un hospital público de Brasil, y con la participación de cinco enfermeros. Se realizó una entrevista semiestructurada, donde los datos obtenidos fueron explorados a través del análisis de contenido de Minayo. La investigación cumplió con las normas de la Resolución 466/12 y la Circular 2/2021, que trata sobre investigaciones con seres humanos y estudios en ambientes virtuales. Resultados: El análisis de los datos resultó en dos categorías que permitieron discutir los desafíos de la enfermería en el tamizaje y diagnóstico precoz de la sífilis durante el embarazo, así como los factores que impiden este proceso. Conclusión: El estudio concluyó que la sífilis en el embarazo es un grave problema de salud pública y necesita apoyo para su control. Las reflexiones realizadas corroboran para la ampliación de las discusiones sobre el tema y reafirman el papel que juegan los enfermeros en la prevención y control de esta infección.

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INTRODUCTION

Sexually transmitted infections (STIs) are perceived as a serious public health problem, as they bring with them biological, social and health problems for the population, especially for the most vulnerable, including women and children.1

Regarding syphilis, it is an infectious disease with a chronic evolution caused by the bacterium Treponema pallidum, having man as its host (natural reservoir). It is transmitted sexually (orally, anal or vaginally), as well as vertically – from mother to child – in addition to indirect routes such as contaminated objects, tattoos or blood transfusions.2

Vertical transmission during pregnancy occurs when the mother is not treated correctly. The bacteria spread through the placenta, umbilical cord, membranes and amniotic fluid, and contagion can occur at any stage of pregnancy and with women at any age.3

Syphilis, during pregnancy, can also present in its different stages, which are: primary; secondary; tertiary; and latent. When not treated properly, syphilis brings risks to the life of the mother and fetus, and can cause premature birth, serious sequelae to the newborn, and in addition, it can even cause abortion.4

An important factor when dealing with syphilis in pregnancy is its early screening, as it is from this strategy that mechanisms to combat and control the disease are formulated. In primary care, nursing uses prenatal care to investigate and track cases, including requesting rapid test (TR) for syphilis and the Venereal Disease Research Laboratory (VDRL), because, the sooner performed, the faster the detection and the better the control of the disease, improving the chances of a safe pregnancy and delivery.5

Nursing plays a fundamental role in the early diagnosis of syphilis during pregnancy, as it avoids health problems for the mother-child binomial, during pregnancy and childbirth, including reducing the risk of maternal and newborn death.6

The interest in this research came from previous studies on the subject, which increasingly portray the incidence of syphilis in the gestational period, sometimes causing irreversible damage when not properly assisted by the health team, and in particular the nursing team, which is a protagonist in the prevention, promotion and protection of the population assisted in Primary Health Care (PHC) through the Unified Health System (SUS).

The study has a significant relevance for bringing to light the importance of understanding the knowledge of professional nurses on how to track women infected with Treponema pallidum during pregnancy, discussing, in particular, the difficulties faced. The data obtained allow academics and health professionals to better understand this phenomenon in public health, opening up possibilities to rethink how to do health for populations that face this problem even more intensely, in the case of social and health vulnerabilities.

It is well known that gestational syphilis is a health problem with a serious impact on public health, and, therefore, presents unique challenges for its screening and control, whether especially by the nursing team or in the multidisciplinary context.

Thus, the following guiding question was formulated: what are the main difficulties experienced by nurses in the face of screening and early diagnosis of syphilis in pregnancy? This research aimed to understand the perception of nurses about which factors are determining and impeding the screening and early diagnosis of syphilis during pregnancy.

METHOD

This research was conducted through an exploratory and descriptive methodology, with a qualitative approach of the field study type.6,7

The study was carried out in Brazil, between September and December 2021, in five units of the Family Health Strategy (FHS) located in the headquarters of Icó, a city located in the south-
Nursing plays a fundamental role in the early diagnosis of syphilis during pregnancy, as it avoids health problems for the mother-child binomial, during pregnancy and childbirth, including reducing the risk of maternal and newborn death.

The collected data were subjected to content analysis proposed by Minayo, where, sequentially, they were organized through the thematic categorization technique. 11

It is also emphasized that the guidelines of Circular Letter No. 2, of February 24th, 2021, which deals with guidelines for procedures in research with any stage in a virtual environment, were followed. 9

The data obtained through interviews and direct and/or indirect contacts, such as texts, images and/or audios, were stored by the responsible researcher, respecting the anonymity of the assignors, and will be destroyed after a period of five years, provided that their content is no longer needed by the researchers and/or the parties involved.

The present study was submitted to Plataforma Brasil and approved by the Research Ethics Committee (CEP) of Centro Universitário Doutor Leão Sampaio (UNILEAO), located at the Lagoa Seca Unit: Avenida Leão Sampaio, km 3 – Lagoa Seca, Juazeiro do Norte – Ceará/Brazil, on September 2, 2021 under CAAE No. 50841021.3.0000.5048.

The research involved minimal risks and brought significant benefits, reflecting in particular on the difficulties faced by nurses in screening and diagnosing syphilis during pregnancy, scientifically contributing so that academics and health professionals can rethink care in the face of this problem.

RESULTS

The results of the study presented important facts on the subject emerging from the speeches of the five interviewees, which sought to understand the importance of screening and early diagnosis of syphilis during pregnancy, in order to understand, mainly, the possible difficulties faced by nurses in this process.

After content analysis, the results presented, respectively, two thematic categories, namely: Preventing factors for screening and early diagnosis of syphilis
during pregnancy; and Challenges in nursing for screening and early diagnosis of syphilis during pregnancy. These brought important reflections and contributions to the field of collective health, with a focus on public health, in the maternal and neonatal spheres.

The first category sought to reflect what are the impeding factors for carrying out screening and early diagnosis of syphilis during pregnancy, where, each professional reported the elements that they consider obstacles in their field of work, also considering the uniqueness of the populations assisted in their territories.

And to understand this scenario, the interviewees were encouraged to answer the following question: As a nurse, what do you consider as a determining and impeding factor for the screening and early diagnosis of syphilis during pregnancy? Justify your answer.

Nurse 1: “(...) it is a disease that has a cure, has treatment, but people are still afraid to seek the service or talk about it, they do not have much knowledge about the disease”.

Nurse 2: “For me, there is nothing impeding it, I just need to make the pregnant woman aware, because we have everything in our hands, and it is not even a case of having syphilis during pregnancy, because we have the facility to have the quick test”.

Nurse 4: “A determining factor is the early capture of pregnant women, she needs to perform these exams in a timely manner, which is still difficult for the structural reality of some health services”.

Nurse 5: “An important factor is the large number of areas discovered by the Community Health Agent (CHA). Sometimes these pregnant women test positive for syphilis and only arrive for prenatal care at sixteen or twenty weeks, which makes treatment very difficult, so tracking in the territory is a great challenge”.

Considering the answers obtained from the interviewees, this category allowed us to reflect on the main factors that make screening and early diagnosis difficult, highlighting the lack of information and the difficulty of dialogue, as well as, the structural obstacles that are faced in the SUS, such as the availability of supplies and the sizing of personnel for adequate time management.

In the second thematic section, we sought to formulate ideas - in light of the opinions given by the professionals interviewed - about the challenges that nurses face to screen and diagnose syphilis in pregnancy, encompassing the main obstacles that these professionals encounter in their daily lives within the FHS.

From this perspective, and in an attempt to identify the challenges, respondents were encouraged to answer the following question: As a Nurse, and based on your care practice, what are the main challenges faced in carrying out screening and early diagnosis of syphilis during pregnancy?

Nurse 2: “The great difficulty is to guide these young people, not only women, but men as well, towards good sexual health practices. Especially teenagers, which is a very difficult audience to work with, who are not found within UBS”.

Nurse 3: “When we need a serology and the result is delayed, that’s all. (...) a very big challenge is when the pregnant woman gives the reagent, to capture the partner is a challenge, they often do not want to go to the service. That’s why here at the post we do prenatal care with the partner”.

Nurse 4: “The first challenge for screening would be the availability and time of test results. (...) and I think the second point is that we should do a more effective preconception evaluation, however, unfortunately this does not happen, both because we as servants do not actually put it into practice and do not actively search for these women, and there is still the fact that there are not many planned pregnancies”.

Nurse 5: “A major challenge is to carry out the rapid test for syphilis in a timely manner, and also to offer these tests at the ESF, because it is not always that we have them in the unit, unfortunately they are even lacking, this has already happened. Other than that, there are still the multiple tasks in the unit that are sometimes overloaded, making it difficult for the nurse or CHA to contact the population. (...) Another challenge is that managers do not run out of supplies, which are very important for early detection”.

In this context, based on the answers obtained, a multiplicity of challenges faced by nurses were identified, highlighting the unavailability of supplies and the managerial aspects of PHC and, consequently, of the FHS, which impairs the screening and early treatment of syphilis acquired during pregnancy, constituting a recurrent problem that needs attention.

Based on these results, there is a need to discuss the topic and reflect on the role of nursing within health services in PHC, above all, considering the role that SUS management plays for the effectiveness of care - which is in fact difficult - when there is no effective support for the execution of primary health practices, which contemplates the current health model in Brazil.

**DISCUSSION**

**IMPEDITIVE FACTORS FOR SCREENING AND EARLY DIAGNOSIS OF SYPHILIS IN PREGNANCY**

Based on the testimonies collected, it became evident that there are still impeding factors, even with the advance in public health policies over the years, taking as an example the areas discovered by the CHA, the difficulty of dialogue, the taboo with the disease, and the ma-
management issues, making it exponentially difficult to provide nursing care to these pregnant women within the FHS.

An important factor identified is the lack of awareness of the population, especially pregnant women, to perform prenatal care responsibly. Many women seek to start prenatal care at an advanced gestational age and make it difficult to screen for problems in early pregnancy, which may, in the future, bring more severe damage. In addition, there are still those who do not seek the health unit, often facing severe pregnancy problems and without specific support and continuous monitoring.

In view of this scenario, it is pertinent to emphasize that on June 24th, 2011, the Stork Network was established through Ordinance GM/MS No. 1,459, a network that ensures care aimed at women with reproductive planning and humanized care for pregnancy, childbirth and the postpartum period. In addition to focusing on the child with the right to a safe birth, healthy growth and development.

Viana Filho et al. reinforce the existence of policies, programs and strategies that ensure maternal and fetal health, such as the Stork Network. It is important to discuss the problems that make it difficult to manage syphilis during pregnancy, given that theoretically these women should receive specific and continuous support, avoiding short- and long-term damage.

Although Rede Cegonha is one of these instruments and provides prenatal care through the prevention and treatment of STIs, it is still important to insist on the need to expand actions that promote the early diagnosis of these infections, especially in the gestational period, due to the risk of vertical transmission.

In this sense, the active search for these women must be carried out by nursing professionals together with the multidisciplinary health team, receiving continuous support from the CHA, considering that such professionals are the eyes of the unit within the community, and considering that nurses are often overloaded and have difficulty being present on the streets of their territory, characterized as a management problem, given that it lacks better staffing to meet territorial demands.

The thematic category listed important facts about the impeding factors in the screening and early diagnosis of syphilis during pregnancy, which are linked to the actions recommended and developed by the SUS in the field of women’s health care.

Therefore, such impeding factors significantly hinder the assistance of nurses - who sometimes cannot meet all existing demands - considering the obstacles arising from the management of the SUS. Such phenomena contribute drastically to the production of damages to the health of the woman and her fetus, considering that the planned strategies cannot be implemented in their entirety, and produce an aspect of insufficient health for the problems faced, as in the case, with syphilis during pregnancy.

**CHALLENGES IN NURSING FOR THE SCREENING AND EARLY DIAGNOSIS OF SYPHILIS IN PREGNANCY**

It is necessary to highlight a problematic phenomenon pointed out in the testimonies collected, the low availability of supplies and the delay in the results of laboratory tests. Although the SUS dispenses material for the FHS, it is extremely important that these resources are properly managed in order to effectively meet the demands of the population, in order to consequently change the health problems faced.

Given this scenario, Souza et al. point out that the professional nurse has a key role in the prevention and diagnosis of syphilis during pregnancy within the PHC, as it is he who makes the first contact with the woman, being responsible for performing the appropriate actions of individual and collective prevention. It is essential that there is managerial, logistical and material support so that good health practices in the field of health prevention and promotion are effectively offered, meeting the needs of women in their entirety.

Corroborating this, Lima et al. evidence the need for routine prenatal examinations and consultations, recommending that, in the first consultation, in addition to the RT for syphilis, the VDRL exam be performed, still emphasizing that these are repeated in the third gestational trimester, as well as other routine laboratory tests for the period, such events being important milestones to ensure the quality of healthcare for women and the fetus.

In addition to the management and resource problems, the speeches identify the difficulty in treating the sexual partner, sometimes coexisting with a multiplicity of problems, which include the difficulty and/or resistance in communication. Bringing the partner to the FHS is a challenge, even though it is extremely important to carry out the exam, as well as the treatment (if necessary), phenomenon that significantly hinders the control of the disease, especially in the case of humans, who are the natural reservoir of Treponema pallidum.

In this context, Lima et al. also point out that in addition to the delay in the delivery of test results, another challenging factor is the lack of treatment of the sexual partner of most pregnant women, a phenomenon that contributes significantly to the spread of the bacteria, thus allowing a possible reinfection and failure in the treatment of these women, which brings significant damages in terms of public health.

In view of the above, the absence of men in the FHS is notorious, reflecting how society is still sexist and prejudiced, where all responsibility for prenatal care falls solely on women. It is also pertinent to emphasize that the woman, when testing positive for syphilis, when performing her treatment, will still be subject to the risk of reinfection, considering that her partner will not be identified and treated, which causes harm to the health of the woman and the fetus.
Observing this context, it is necessary to pay attention to the active search of these women and their partners in areas discovered by the CHA, which makes it impossible — drastically — to diagnose, assist and effectively monitor the problem. And in an even more complex way, population diversity makes this access difficult, as nurses, in addition to dealing with syphilis during pregnancy, sometimes need to take care of an unplanned pregnancy or during adolescence, which makes it even more difficult to carry out prenatal care.

Pereira et al. say that it is difficult to obtain quality results in the FHS when the multidisciplinary team is committed. The nurse, sometimes, in addition to managing the unit, needs to guide his team so that the work takes place successfully, in order to serve the population of the territory through actions of prevention, promotion, protection and rehabilitation of health. 16

Santos et al., as well as Machado et al., reinforce that nursing professionals have important roles in the FHS, as these professionals work in promoting actions aimed at coping with community problems in the health-disease process, seeking measures for collective and individual care. 17 18

Having such issues observed, it is essential that nursing be strengthened within the PHC, as its professionals play fundamental roles in controlling diseases and also infections, such as STIs. In this sense, it is essential that the SUS strengthen PHC spaces, providing material and human resources, in addition to strengthening its multidisciplinary teams, in order to significantly improve collective health.

Finally, this thematic category raised important issues for public health, and showed the reality of the challenges that nurses face in their daily lives in the face of this health support in PHC. The tasks performed are not easy, requiring dedication, preparation and knowledge of professionals, so that the attempt to minimize the health problems faced by the community, especially regarding syphilis during pregnancy, is successful.

**CONCLUSION**

The prevention of syphilis during pregnancy directly involves health education actions for the population. The importance of prevention should be discussed through safe sexual habits, in addition to general care, in order to avoid transmission and infection by Treponema pallidum, being one of the responsibilities of the professional nurse to offer such guidelines, as well as the training of the nursing team and CHA for effective tracking, thus favoring treatment in the FHS.

There are many challenges faced by nurses in the fight against syphilis during pregnancy, and these were evidenced in the results of this study. However, despite the obstacles, nursing cannot give in in the face of such issues, and it is important that there is a charge vis-à-vis the managing bodies, and that the professional nurse persists in guiding the population about STIs, especially to pregnant women and their partners, regarding the possible damage caused by syphilis, whether for maternal, neonatal or human health.

The study provides greater understanding and reflection on the main challenges and impeding factors for screening and early diagnosis of syphilis in pregnancy, enabling the way of doing health to be rethought in order to fully address such vulnerabilities, also alerting municipal, state and federal managers to pay greater attention to this serious public health problem.

It is concluded that syphilis during pregnancy is a common problem and needs more support for its control and prevention. The reflections corroborate to broaden discussions on the subject and develop multiple knowledge about professional and management skills for care, which as a consequence will bring short and long-term benefits to the entire assisted population.
REFERENCES


