

KNOWLEDGE OF THE POPULATION ATTENDED IN BASIC HEALTH UNITS IN THE SOUTHWEST REGION OF ANÁPOLIS-GO ABOUT SYPHILIS

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ABSTRACT

Syphilis is a bacterial, systemic sexually transmitted infection (STI) caused by the etiological agent *Treponema pallidum*. There are three routes of transmission: sexual contact, mother-to-child during childbirth, or blood transfusion. Currently, there is no vaccine against syphilis, and infection does not confer protective immunity. Brazil is experiencing a syphilis epidemic, with the number of cases increasing every year. This study aims to analyze the knowledge of the population served by Basic Health Units (BHUs) in the Southwest region of Anápolis, GO, Brazil, about syphilis. It consists of an observational, cross-sectional, and descriptive study conducted in BHUs in the Southwest region of Anápolis, GO, Brazil, where a questionnaire was applied to assess the population's knowledge about syphilis. This research obtained 39 eligible participants. Of these, the majority were female, aged between 41 and 50 years, brown-skinned, and married. Most participants identified the wrong etiological agent, but correctly identified the forms of transmission and prevention and the clinical manifestations of the disease. When scoring their knowledge, 58.9% classified themselves as having some knowledge (11-15 points). Finally, this study may contribute to the development of health promotion interventions in the city of Anápolis, GO, on this subject.

Keywords: Sexually Transmitted Infections; *Treponema pallidum*; Public Health.

INTRODUCTION

Syphilis is a chronic and curable bacterial infection caused by *Treponema pallidum*, a Gram-negative bacterium of the spirochete group. Transmission occurs mainly through sexual contact, but can also occur vertically (from mother to child during childbirth) and through blood transfusion. The main sites of infection are the genitals, but may also include the lips, tongue, and adjacent skin. The disease is most contagious in its early stages and becomes less contagious as it progresses. Clinically,

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syphilis is classified into recent stages (primary, secondary, and recent latent) and late stages (late latent and tertiary) (BRAZIL, 2021a; BRAZIL, 2021b; BRAZIL, 2022a).

In terms of epidemiology, between 2011 and 2019, according to the Information System on Notifiable Diseases (SINAN), 844,373 cases of acquired syphilis were reported in Brazil. In Goiás, in 2019, there were 5,430 cases of acquired syphilis, 2,158 cases of syphilis in pregnant women, and 331 cases of congenital syphilis. In Anápolis, the increase in cases follows the national trend of the last 10 years (BRAZIL, 2020; BRAZIL, 2022b).

With regard to risk factors, more susceptible populations have been identified, such as men who have sex with men, sex workers, and incarcerated individuals. There are also sociodemographic factors, such as low education, low income, and marital status. Other factors include younger age, non-use of condoms, and use of psychoactive substances and illicit drugs (GUIMARÃES *et al.*, 2021).

Given this, there is a need for educational campaigns on the forms of transmission and preventive methods for syphilis, which, although known, the failure to implement them and the increase in cases indicate problems in the process. In addition, inadequate prenatal care coverage in Brazil also contributes to the late diagnosis of congenital syphilis (FREITAS *et al.*, 2021).

Given this scenario, health authorities recognized in 2016 that Brazil is experiencing a syphilis epidemic (CALDEIRA *et al.*, 2022). Thus, this study aims to assess knowledge about syphilis among the population served by Basic Health Units (UBS) in the Southwest region of Anápolis-GO.

METHODOLOGY

This is an observational, cross-sectional, descriptive study conducted to assess the knowledge of the population attended in Basic Health Units (BHUs), or UBSs (which stands for *Unidade Básica de Saúde*, in Brazil) in the Southwest region of Anápolis-GO about syphilis. The UBS were selected from lists provided by the Municipal Health Secretariat (SEMUSA). The sample calculation performed using Epi Info – StatCalc software® took into account only people over 18 (244,391 inhabitants), with random sampling, 95% power, 5% significance level, and 20% sample loss,

indicating the need for 270 participants. Thus, when calculating the number of participants for each Health Region (Northwest, Northeast, Southwest, and Southeast), the sample size required for this study was 67.5 people per region.

Participants were approached at the UBS facilities, informed about the objectives, procedures, risks, and benefits of the study, and received a free and informed consent form to read and sign. A questionnaire with 37 questions was applied, which was available in both printed and virtual versions via Google Forms. At the end, an educational booklet on syphilis was distributed to all participants.

To analyze the population's level of knowledge, a template was used for the questions on "knowledge about syphilis." Points were assigned (1 for correct answers and 0 for incorrect answers), resulting in a total score for each participant. The scores were classified into three levels of knowledge: no or low knowledge (≤ 10 points), some knowledge (11-15 points), and knows or understands the subject (≥ 16 points).

RESULTS

This study included 39 eligible participants. Of these, 61.5% were female, 35.9% were between 41 and 50 years of age, 58.9% considered themselves brown, 46.1% were married, and 97.4% had a religion. Regarding educational level, 46.1% had completed high school. In terms of income, 51.2% earned one minimum wage (R\$1,320.00) per month and 51.2% were employed.

In terms of sexual behavior, 87.1% were heterosexual and 66.6% had a steady partner. Of these, 71.8% had sexual intercourse with their steady partner in the last 6 months, and 56.4% did not use a condom. Regarding sexual intercourse with more than one partner in the last 6 months, 7.7% reported this condition, of which 2.6% did not use condoms.

When analyzing the population's knowledge about syphilis (Table 1), 77% stated that they knew what syphilis is, but only 35.9% correctly identified the etiological agent. Regarding the mode of transmission, three alternatives were correct (sexual contact, blood transfusion, and mother-to-child during childbirth), and these three options were the most frequently selected by participants, with 97.4% selecting sexual

contact, 46.1% selecting blood transfusion, and 28.2% selecting the option “mother-to-child during childbirth.”

Table 1. Population knowledge about syphilis

QUESTIONS AND ANSWERS	n
Do you know what syphilis is?	
Yes	30
No	9
Do you think syphilis is caused by:	
A virus	15
Bacteria	14 (35.9)
Fungi	5 (12.8)
Protozoa	1 (2.6)
I don't know	4 (10.25)
How do you think you got syphilis?	
Hug	2
Kisses	6 (15.4)
Sexual contact	38 (97.4)
Coughing or sneezing	5 (12.8)
Blood transfusion	18
Mother to child during childbirth	11
I don't know	2
Ways to prevent syphilis:	
Sexual abstinence	13
Antibiotics	8 (20.5)
Contraceptives	6 (15.4)
Condoms always	35 (89.7)
Change of underwear	13
Condom with strangers	8
Vaccination	12
Pregnant women – prenatal care	22
What are the symptoms of syphilis?	
Fever and weakness	19 (48.7)
Lesions near the genitals	31 (79.4)
Cold sweat and nausea	9
Painless lesion in the mouth and/or genital region	28
Headache	11
Lesions mainly on the feet and hands	12 (30.7)
Itchy skin	14 (35.9)
Do you know what sexually transmitted infections (STIs) are?	
Yes	31 (79.4)
No	8
Can someone who has had syphilis get it again?	
Yes	23
No	16
Can a person who looks healthy have syphilis?	
Yes	35
No	4
In your opinion, is there an epidemic (many cases) of syphilis in Anápolis?	
Yes	7
No	31

n = absolute frequency; % = relative frequency. Source: Author (2024).

Regarding prevention methods, the correct options were also the most frequently selected, namely: always use condoms (89.7%), prenatal care for pregnant women (56.4%), and sexual abstinence (33.3%). Regarding clinical manifestations, there were four correct options, with “lesions near the genitals” chosen by 79.4%, “painless lesions in the mouth and/or genital region” by 71.8%, “fever and weakness” by 48.7%, and “lesions mainly on the feet and hands” by 30.7% of participants.

The classification of the score regarding the population's knowledge found that, of the 39 participants, 23% know or understand the subject, 58.9% have some knowledge, and 20.5% have no or low knowledge about syphilis. Given this, among participants with 11 to 15 points, 35.9% were women, 20.5% were between 21 and 30 years of age, and 25.6% had a high school education. As for participants who scored more than 16 points, 12.8% were female, 7.7% were between 41 and 50 years old, and 12.8% had a high school education. However, the highest score (19 points) was recorded by a female participant aged between 21 and 30 years old with a college degree.

CONCLUSION

It can be concluded that, in relation to the sociodemographic profile, most participants were female, aged between 41 and 50 years old, brown-skinned, and married. Regarding the level of knowledge about syphilis, most participants were incorrect about the etiological agent, but they were correct about the forms of transmission, prevention, and clinical manifestations of the disease. Regarding the correlation between knowledge level and sexual behavior, it was observed that even though they had good knowledge about the need to use condoms during sexual intercourse, 56.4% of individuals who had a steady partner and 2.6% of those who had more than one partner did not use them. Regarding the score, the highest score (19 points) was recorded by a female participant in the 21-30 age group with higher education. This study had limitations in terms of the reach of the initially calculated population sample due to the large number of refusals and the exclusion of incomplete questionnaires. Finally, it is important to highlight that this study may contribute to the development of health promotion interventions in the city of Anápolis-GO on this topic.

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