

Challenges and possibilities for health management in the perspective of syphilis prevention and treatment

To present the challenges and possibilities of prevention and treatment of syphilis for public health management, identified from studies surveyed in the Virtual Health Library (VHL). The work is an integrative literature review, since it is constituted by analyzing and synthesizing the information provided by all studies published in the database, from 1995 to 2021. It is considered that health education in the case of STIs and, specifically in the context of syphilis, in schools, should prioritize actions with informative, formative, and, especially, understanding about aspects of affective-emotional life involving youth and adulthood. Moreover, the expansion of professional training to be able to realize that STIs have several social, economic, and cultural determinants, reflecting the need to understand the health-disease processes in their configuration in society. About syphilis, it is particularly important, given the stigmas associated with sex life. Health surveillance has also emerged as an essential strategy for monitoring the pathology and guiding decision-making. Public health management must be well structured and organized to be able to develop health surveillance, health education and health education actions in primary, care to act effectively on these issues, considering the locoregional specificities.

Keywords: Unified Health System; Syphilis; Health Management.

Desafios e possibilidades para a gestão da saúde na perspectiva da prevenção e tratamento da sífilis

Apresentar os desafios e possibilidades da prevenção e do tratamento da sífilis para a gestão pública da saúde, identificados a partir dos estudos levantados junto à Biblioteca Virtual de Saúde (BVS). O trabalho trata-se de uma revisão integrativa de literatura, visto que esta é constituída através da análise e da síntese da informação disponibilizada por todos os estudos publicados na base, de 1995 a 2021. Considera-se que a educação em saúde no caso das ISTs e, especificamente no âmbito da sífilis, junto às escolas, deve privilegiar ações com caráter informativo, formativo, e, principalmente, compreensão sobre aspectos da vida afetivo-emocional que envolve a juventude e a idade adulta. Além disso, a ampliação da formação de profissional para estarem habilitados a perceber que as ISTs possuem variados determinantes sociais, econômicos e culturais, com reflexo na necessidade de compreensão dos processos saúde-doença em sua configuração em sociedade. No caso da sífilis, é particularmente importante, posto os estigmas associados à vida sexual. A vigilância em saúde emergiu também como uma estratégia imprescindível ao monitoramento da patologia e orientador à tomada de decisão. A gestão pública em saúde deve estar bem estruturada e organizada para conseguir desenvolver ações de vigilância em saúde, educação em saúde e educação na saúde no âmbito da atenção primária, de modo a atuar efetivamente sobre essas questões, considerando as especificidades locoregionais.


Palavras-chave: Sistema de Saúde; Sífilis; Gestão em saúde.


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INTRODUCTION

As many as 80% of the citizens in Brazil use the Unified Health System (SUS) as their health plan. Many health problems that frequently affect the population are avoidable. Generally, they are diseases already considered to be outdated and predictable. However, the sum of several vulnerability factors increases the risks of people acquiring diseases, since this public is under greater influence of social and health determinants, such as problems related to quality of life, working conditions, unhealthy conditions, low sanitary conditions, are aggravating factors.

Regarding syphilis, an infectious disease, of compulsory notification, with cure when diagnosed early and low-cost treatment, the World Health Organization states that, annually, it is estimated that 6 million new cases occur (KORENROMP et al., 2019), configuring itself as a Public Health problem (SOARES et al., 2020).

Having as etiological agent the bacterium *Treponema pallidum*, this infection has an incubation period of three weeks on average, and can vary between 10 and 90 days. Transmission most commonly occurs through sexual intercourse and from mother to fetus, and may occur through blood transfusion and direct contact with contaminated blood.

With four forms of manifestation, the symptoms of syphilis vary according to the stages of the disease. The primary stage is when symptoms appear and lasts from the 10th to the 90th day of infection. Its characteristic symptoms are painless, non-itchy, non-purulent and non-burning sores, accompanied or not by a sting at the site of entry of the bacteria, which is the most contagious stage (BRASIL, 2019).

In the secondary phase, the symptoms appear between 6 weeks to 6 months, in the same healing site of the primary phase, characterized by spots and swellings throughout the body including on the hands and feet, not pruritic and rich in bacteria, in addition to fever and headache (BRASIL, 2019). The tertiary phase, still, appears from 2 to 40 years after the onset of infection. In this phase, we have symptoms such as cutaneous, cardiovascular, bone and neurological lesions, which can lead to death (BRASIL, 2019).

Regarding congenital syphilis, it is considered "[...] one of the main causes of miscarriage, fetal death, stillbirth, low birth weight, prematurity, and congenital malformations" (SOARES et al. 2020), and the symptoms in the child can manifest soon after birth or after the first two years of the baby's life (BRASIL, 2019).

Educational intervention positively interferes in early discovery in the gestational period, reducing vertical transmission and infant mortality caused by syphilis, in addition to increasing the knowledge of professionals (LAZARINI et al., 2017). Measures are of vital importance to raise awareness of the risks of the disease, while Murad et al. (2018) present that the training of university students is one of the effective alternatives, with follow-up actions, counseling and diagnosis. Sfair et al. (2015) also state that the topic needs to be implemented in schools, so that young people acquire from an early age the necessary knowledge about the disease and start to prevent it properly.

Although the authors corroborate the importance of these measures, they also state that there is a

lack in their promotion, resulting in the increase of unaware individuals. The surveillance of professionals, according to Recktenwald et al. (2017) may represent strategies to ensure the development of these actions, since these professionals must act efficiently to achieve the integrity of the practices, which represents additional challenges, due to the conclusion of the study pointing to problems related to the performance of surveillance.

The devaluation of surveillance in cities leads to an increase in the number of cases, and in the case of pregnant women this problem is even greater, because the transmission occurs vertically, i.e., it is passed on to the child. In this case, Loureiro et al. (2012) state that dealing with this disease in pregnant women is still a challenge for public health management, and although there are cases that ensure an effective early diagnosis, this is not yet the decisive factor in improving the quality of life of these patients. Holztrattne et al. (2019) also point out that even with prenatal care, pregnant women and their partners need better health education, to minimize the number of cases, whose rates show growth.

Given the above, it is understood the need to verify the means to work on prevention, protection and information about syphilis, through the analysis and the point of view of public health management, since the fight against the disease will favor the reduction of public spending on treatment and rehabilitation in health, as well as the provision of social and welfare programs, emerging as a guiding question of this study: What are the challenges and possibilities for the treatment and prevention of syphilis? Therefore, this article aims to present the challenges and possibilities of prevention and treatment of syphilis for public health management identified from the studies surveyed in the Virtual Health Library (VHL).

The contribution points of the research reflect analysis on the operation of the SUS management; the understanding of the domains of prevention and assistance to the disease; the limits in the prevention of syphilis in the treatment of sexually transmitted infections; the knowledge, activities, and practices of professionals for the control of the disease; approach to the methods of combating the disease through information, prevention and treatment of the epidemic.

METHODOLOGY

This is an integrative literature review, which starts from the guiding question that aims to present challenges and possibilities of prevention possibilities of prevention and treatment of syphilis for public health management through integrative review, which, according to Cedeño et al. (2020), Torracó (2005) and Torracó (2016), contributes to present research gaps, directions and trends for studies.

The survey was conducted in the Virtual Health Library (VHL), of the Pan American Health Organization, considering all the results of the base for the theme, which resulted in 18 published texts, considering the descriptor 'syphilis', informed in the title, with the use of the Boolean operator AND, plus the descriptor 'health management', informed in the title, in the abstract or in the subject.

Considering the volume of published articles, it was chosen as inclusion criterion the 18 documents, with publications referenced from 1995 to 2021, available in Portuguese, English and Spanish languages, considering all the results of the search carried out on March 23, 2022.

The selection of primary studies was carried out by two researchers, independently. Each researcher arrived at primary studies; the two lists were compared, so that a single compilation of studies remained. An attempt was therefore made to explore the available knowledge on the topic in the results obtained, with the results being read in full.

RESULTS AND DISCUSSION

The search for scientific texts on the challenges and possibilities presented by public management in the treatment and prevention of syphilis in the VHL databases and published between 1995 and 2021, according to Table 1, allowed the identification of 17 articles on the subject and a doctoral thesis.

Table 1: Articles from the base published in the year 2021*.

Author	Title	Journal	Year
Gelabert et al.	Automated system for the surveillance of syphilis (SAVS)	Revista Cubana de Salud Pública	1995
Benzaken et al.	Detection of acquired syphilis in hard-to-reach communities in the Amazon region: a challenge to be overcome with the use of rapid tests	Tese	2009
Bradley et al.	Can the Perinatal Information System in Peru be used to measure the proportion of adverse birth outcomes attributable to maternal syphilis infection?	Revista Pan American Journal of Public Health	2014
Soeiro et al.	Syphilis in pregnant women and congenital syphilis in Amazonas State, Brazil: an approach through database linkage.	Caderno Saúde Pública.	2014
Moraes et al.	Strategic planning and implementation of hiv, syphilis and viral hepatitis rapid tests in a Brazilian capital: an experience report.	Revista Brasileira em Promoção da Saúde	2016
Suto et al.	Prenatal care to pregnant women diagnosed with syphilis.	Revista de Enfermagem e Atenção à Saúde	2016
Sortica et al.	Health care network and health education, the necessary intersection: syphilis in pregnant women and congenital syphilis in the municipality of Esteio.	Boletim da Saúde	2017
Guanabara et al.	Access of pregnant women to technologies for prevention and control of congenital syphilis in Fortaleza-Ceará, Brazil.	Revista Salude Publica	2017
Ahumada et al.	Gestational syphilis: disease of public health interest, Cordoba-Colombia, 2015.	Revista Cuidart (Bucaramanga, 2010)	2017
Macêdo et al.	Risk factors for syphilis in women: a case-control study.	Revista Saúde Publica	2017
Moreira	Epidemiology of congenital and maternal syphilis in a public hospital in the municipality of Carapicuíba-SP	J. Health NPEPS	2019
Nemes et al.	The QualiRede intervention: improving performance of the continuum of care for HIV, congenital syphilis and hepatitis C in health regions	Revista Brasileira Epidemiol	2019
Araújo et al.	Line of care for pregnant women with syphilis based on the nurses' view.	Rev Rene	2019
Silva et al.	Collective construction of a flowchart for monitoring of pregnant women with syphilis in the municipality of São José-SC	Cogitare Enfermagem	2020
Andrade et al.	The influence of the Syphilis No Project on hospitalizations for congenital syphilis between 2018 and 2019	Brazilian Journal of Sexually Transmitted Diseases	2020
Lobato et al.	Congenital syphilis in the Amazon: unveiling the fragility in treatment	Revista Enfermagem UFPE online	2021
Kosa et al.	Investigation of congenital syphilis cases: tool for surveillance, continuing education and management		2021
Medeiros et al.	Acquired syphilis in the population 50 years and older: geographic distribution and trends	Scientia Medica	2021

Source: Survey data. Note: Survey conducted on March 23, 2022.

Considering the analysis of Table 1, it is observed that the largest volume of publications comprises the years 2014 to 2021, with a gap from 1995 to 2009, which comprises 14 years of productions indexed in the VHL without approaching the theme.

Taking into account the scientific articles on the challenges and possibilities presented by public

management the treatment and prevention of syphilis in the VHL databases published in the period 1995 to 2021, there is a greater appropriation of this knowledge by journals in the Nursing area compared to other areas and disciplines of health, covering topics related to health surveillance and health education. However, it is noted that the journals of the Interdisciplinary area have appropriated themes of syphilis in health education.

Health surveillance has its importance in monitoring for the expansion of screening and treatment of syphilis, in view of configuring the process "[...] of collection, consolidation, analysis and dissemination of data on health-related events, aiming at the planning and implementation of measures" for health protection, "the prevention and control of risks, injuries and diseases and for health promotion" (TEIXEIRA, 2018).

In the research by Lobato et al. (2021) it was identified that in the municipality of Macapá there is still a lack of surveillance of the disease, because it was a study focused on pregnant women, the interviewees were not aware of the risks involving the child. In addition, the professionals involved do not have knowledge of the state protocols, leading to inadequate treatment for those involved. Suto et al. (2016) also demonstrate the lack of health surveillance in pregnant women, so much so that prenatal care is performed only once, from the third month of pregnancy, leading to inadequate treatment, since the Ministry of Health recommends a minimum of six consultations.

As reported by Recktenwald et al. (2017), since the decentralization of health surveillance, the actions required by the Ministry of Health for the transfer of funds were passed on to the municipalities. Thus, the authorities had to seek ways to respond to these requirements with the available funding, also necessary the change of the model of care for the effectiveness of prevention practices and health promotion, the appreciation and planning of health surveillance practices in certain municipalities.

Sortica et al. (2017) explain that there are places where managers are not aware of the amount of money available and the financial management is performed in other secretariats, resulting in inefficient actions, since they do not understand the true need of the moment. Moreover, this difficulty in resource management is seen by the authors as a barrier to better access to educational information.

Given this context, it is observed the 225% increase of congenital syphilis in Brazil, in the period from 2006 to 2015, demonstrating that the realization of prenatal care did not ensure adequate treatment to pregnant women and their partners (HOLZTRATTNER et al., 2019), and neither ensures the non-contamination, because Suto et al. (2016), report that, generally, the diagnosis is identified only from the third month of gestation, which may also be the result of a contamination in the gestational period.

In Santa Catarina, the growth was twice compared to the national average, and most of them were aged 50 years or older. Among the possible causes of this increase are, for example, the reduction of pleasure because of condoms, availability of drugs to enhance erectile function, lack of information about the risks of the disease (MEDEIROS et al., 2021). In Peru, the research by Bradlye et al. (2014), identified that in the period from 2000 to 2010, that among 120,000 births, about 99,000 were tested for syphilis, 1,000 were diagnosed, and 619 were stillborn.

In the study by Andrade et al. (2020) about 100 of the studied municipalities showed a 59% hospitalization rate for syphilis in the period from 2015 to 2018. With this context, it is evident that, although the diagnosis is efficient, it does not guarantee the improvement in the quality of health care to pregnant women with this pathology (LOUREIRO et al., 2012).

The risks of syphilis in pregnant women go beyond hospitalization, since it involves abortion and stillbirth. In Amazonas, for example, the percentage of stillbirths is considered low, with a value of 0.04%, between the years 2007 to 2009 (SOEIRO et al., 2014). This fact reverberates for the development of actions to promote health and prevent this disease, among which are cited actions of health and health education.

In this sense, it is important to deprecate health education as an educational process for the construction of knowledge by the population whose goal is to increase individual and collective autonomy (SEABRA et al., 2019), focused on the specificities of each person (BEZERRA et al., 2020).

Strategic actions for the treatment and diagnosis of syphilis should be based on sociodemographic and behavioral aspects with a focus on vulnerability, because they are factors that influence the growth of the disease (MACÊDO et al., 2016). Kosa et al. (2021), corroborate this statement, since in their survey the term 'low income' was listed 21 times in the year 2018 by carriers of the disease and 'alcohol users' about 50 times in the year 2019.

The Project Without Syphilis, highlighted by Andrade et al. (2020), presents benefits in reducing the hospitalization of carriers of the disease, the project aims surveillance, assistance, communication and research on the subject, the reduction of hospitalizations in the research, presented a data of about 20%.

The QualiRede intervention is a model proposed by the authors Nemes et al. (2019), to promote a continuous process of self-care of patients with communicable diseases, its methodology consists of the development of actions that based on indicators, results and impacts of each stage of care. This model also has web-based consultation. However, the authors point out that the inefficient evaluation and monitoring culture of SUS may negatively impact the number of consultations in this project, in addition to the lack of internet access for some individuals, providing a negative impact for the QualiRede.

According to research, there will be no effective prevention without sex education, whether related to Syphilis or any other Sexually Transmitted Infections (STIs). If people do not have access to education and learn safe practices, with access to quality information, the path to achieving results will become more difficult. For Araújo et al. (2019), Permanent Education should be the pillar of primary care. It is necessary for health management to enjoy good materials for the dissemination of information, with health education. This point broadens the discussion, since for health management to obtain desirable results, it is necessary to consolidate health education as a strategy for health promotion, protection, and recovery.

For Bastos et al. (2016), educational workshops on HIV and Syphilis, for example, are an effective intervention when referring to the assimilation of knowledge. In this sense, Sfair et al. (2015) spoke of the need for schools to take ownership of the topic, fostering educational actions aimed especially at children and adolescents, in order to favor the promotion of mechanisms and prevention of sexual health, considering the community as a partner in this process. For these authors, the paths of the social, cultural and historical

construction of sexuality and sex are essential because they reflect the way public documents focus on them (SFAIR et al., 2015).

Furthermore, it was evidenced that, although there have been several campaigns and governmental actions on STIs, of which syphilis is included, a study with students from a School of Youth and Adult Education Program reveals that there is still a need for other guidelines on these infections, explaining how health services act in the prevention, diagnosis and treatment, since students do not have any other programming to discuss this topic, besides the campaigns (MURAD et al., 2018).

It was also noticed that the training of multipliers on public actions available for counseling, diagnosis and treatment of these infections was pointed out as an effective alternative to contribute to the reduction of the population's health vulnerability (MURAD et al., 2018), since the involvement of the prevention multiplier academics with the community brought new knowledge to the formative process.

Still on this perspective, Siqueira et al. (2011) evidenced the absence of educational activities on sexual health directed to the male audience, the low demand for health services by this population, in addition to the unpreparedness of professionals in approaching men. Thus, they mentioned that it is imperative to conduct health education aimed at the promotion, prevention and treatment of syphilis to the entire population, as well as the training of professionals to work with this audience.

It is salutary that the training of professionals, whether in the modality of continuing education or permanent education, is in the scope of health education, whose definition comprises, in short, educational practice aimed at health performance (ARAÚJO et al., 2019). The professionals involved in the treatment of cases are essential, but it is still perceived the scarcity of their presence in this environment, which is observed in the research of Lobato et al. (2021), conducted in Macapá. In this study, about 89% of respondents said they had no knowledge of positive cases in their area of expertise, even though they were aware of the risks, evidencing the fragility of the field of professionals. In the study by Kosa et al. (2021), conducted in Niterói, 4% of the cases were not detected by the professionals during prenatal care, 4% did not have prenatal care, 12% of the detected cases were not treated, and 16% did not receive the appropriate treatment for their condition.

Guanabara et al. (2017), point out that it is necessary to expand humanization in care. Based on a survey conducted in Fortaleza, the authors observe that care is performed mechanically, disregarding individual demands. The prenatal care occurs quickly, making a greater interaction between doctor-patient impossible, resulting in a lack of counseling of professionals with pregnant women, besides not carrying out an educational process with the partners. This fact is no different in other countries, such as Colombia, for example, where about 69% of partners also have neither diagnosis nor treatment (AHUMADA et al., 2017).

Lazarini et al. (2017), when conducting an educational intervention on congenital syphilis with professionals from primary care and maternal and child health services in the city of Londrina from 2013 to 2015, found that the professionals' knowledge increased, since they had a 21.3% increase in correct answers after the training sessions. In addition, they identified the contribution of this intervention in the indicators of vertical transmission of syphilis in the city, since from 2013 to 2015, the infection rate decreased 34.8%,

as well as in the years 2014 and 2015 there were no records of mortality related to this grievance. However, in the study by Araújo et al. (2019), the professionals stated that they face difficulties related to municipal management regarding working conditions, influencing the process of care of pregnant women and also in the treatment.

An alternative for health management presented by Silva et al. (2020), is the use of the Standard Operating Procedure (SOP) tool. Because it is a disease that requires primary care, errors occur in the control and treatment of pregnant women and their partners. In this sense Silva et al. (2020) state that standardization of care is necessary, with effective tools, and SOP is a good choice because it allows the description of the most critical steps and sequential control of necessary activities. Moreover, the tool can also be implemented together with the flowchart, thus facilitating the understanding of the managers involved.

The implementation of the Situational Strategic Planning (SEP) also provides benefits to the treatment and diagnosis of syphilis. The rapid tests in the municipality of Cuité, for example, is still seen understood as a process that needs to be improved, because, they are still made available reduced number, considering the local demand as emphasizes Araújo et al. (2019), but, Benzaken (2009) states that it is through these tests that professionals will be able to more quickly control the disease.

In the context of medications, Moreira (2019) highlights the use of crystalline penicillin, used in about 50% of those involved in his research, this drug is recommended because it is more common, cheaper and presents faster in the process. In his research it is considered a positive treatment, because no deaths occurred, however, even with this drug, actions are needed to inform, raise awareness, and educate people about the risks of the disease.

As discussed in the texts, it is inferred that the development of continuing education actions on syphilis is essential for the dissemination and appropriation of knowledge by professionals, so that they can act qualitatively in the prevention and treatment of this comorbidity and consequently in reversing the high rate of syphilis (HOLZTRATTNER et al., 2019).

CONCLUSIONS

Education in Brazil needs to be considered a priority, especially health education, with broader offers and intensified campaigns, in order to ensure approach to the topic of Sexually Transmitted Infections in schools, considering challenges related to professional training and also knowledge about the topic under study, Syphilis.

In the perspective of performing an integrative review of literature on the subject of syphilis in the context of public health management, the research identifies that the theme is still little explored, since the search that presents, in the totality of the BVS, a volume of 18 texts. The reading of these leads to the understanding that syphilis is a challenge for public health management, since the low density of research on the subject, which can also reflect in challenges to professional development and expansion of the discussion with approaches to self-care, which health education can promote.

Objectively, the increase in reinfection of syphilis can be directly associated with the lack of information, since it was perceived lack of knowledge and appropriation of prevention, treatment, and diagnosis of this disease by the population and also by health professionals. Thus, campaigns can add value by informing about the disease, prevention, types of treatment, and where help can be sought.

It is considered essential to recognize that since syphilis is an STI, the theme also assumes social stigmas that further challenge approaches to health promotion, prevention, and recovery related to the infection. Thus, recognizing STIs together, based on sex education in schools, with support from professionals used to situating the discussion in line with the 'breaking' of taboos, and also associating sex life to the dynamics of youth, including the intensity of emotions characteristic of the phase, can be favorable to the approach to the theme.

Thus, it is considered that health education in the case of STIs, and specifically in the context of syphilis, in schools should focus on informative and formative actions, and especially on understanding the aspects of affective-emotional life involving youth and adulthood. In addition, professional training must be expanded in order to be able to realize that STIs have several social, economic, and cultural determinants, reflecting the need to understand the health-disease processes in their configuration in society. In the case of syphilis, it is particularly important, given the stigmas associated with sex life.

In this sense, the public health management must be well-structured and organized to be able to develop health surveillance actions, comprehensive health education and health education in primary care in order to act effectively on these issues, considering the loco-regional specificities.

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