



ORIGINAL RESEARCH ARTICLE

OPEN ACCESS

SYPHILIS AND PRE-NATAL CARE: INDICATORS OF THE MUNICIPALITY OF CAMPO GRANDE-MS, BRAZIL

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ARTICLE INFO

Article History:

Received 22nd August, 2018

Received in revised form

03rd September, 2018

Accepted 01st October, 2018

Published online 28th November, 2018

Key Words:

Syphilis. Public,
Prenatal Care, Health Surveillance.

ABSTRACT

Syphilis is one of the most prevalent sexually transmitted infections in Brazil. It is a systemic disease, with rapid tests available in Primary Care, that is, with rapid diagnosis. Nevertheless, the indicators of Gestational Syphilis continue in an upward curve and the curve of Congenital Syphilis follows the same way. Knowing that prenatal care focuses directly or indirectly on the reduction of maternal and perinatal mortality, this study aimed to describe the studies published and to relate to the indicators on syphilis and prenatal care in the municipality of Campo Grande, in the state of Mato Grosso do Sul, Brazil. This is a cross-sectional, descriptive study of the literature review and indicators on the thematic of the region. The studies indicate that even with a high prenatal coverage in the city, the indicators of GS and CS are not close to the goal agreed by the country. This study points out possible reflections and provides subsidies for the elaboration of a multiprofessional and interdisciplinary care proposal in the management of pregnant women with syphilis.

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Citation: Iara Barbosa Ramos, Diane Xavier dos Santos, Nathalia Novak Zobiole, Liara Ferreira dos Santos, et al., 2018. "Syphilis and pre-natal care: indicators of the municipality of campo grande-ms, brazil", *International Journal of Development Research*, 8, (11), 23936-23940.

INTRODUCTION

One of the most important axes of maternal and child health care is prenatal care (PNC) (MEDEIROS JUNIOR, *et al.*, 2014). The quality of care provided by the service and by the health professionals are decisive factors for adherence and continuity of prenatal care by pregnant women. In Brazil, the adherence is directly related to the reduction of cases of maternal and perinatal mortality (Romero-gutiérrez, *et al.*, 2005, Gomes, *et al.*, 2009; Alves, *et al.*, 2016).

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It is important that in the PNC the work is based on a multi professional and interdisciplinary team, where the care is carried out integrally and at the same time complementary (SANTIAGO, *et al.*, 2017). The Ministry of Health launched the Program for Integral Assistance to Women's Health (PIAWH) in 1984, which is the basis for conducting health-care services until present days. Previously, the response to the feminist movements against a service of this program, focused on the pregnancy and puerperal cycle and not the attendance with holistic vision. This program, when was launched, it covered actions related to family planning, prevention of breast and gynecological cancer, diagnosis and treatment of sexually transmitted diseases, from the childhood cycle to the climacteric period (BRASIL, 2004a; BRASIL 2004b). In 2004, the program became the current National Policy for Integral

Attention to Women's Health, which involves, beyond the situation of women, other social agents. As for politics, it made possible a focus on gender, ethnicity and race, as well as actions previously not valued as assisted human reproduction, attention to unsafe abortion, women: lesbians and bisexuals, deprived of liberty, black women, Indians, disabled, rural workers; besides enabling the participation of women in the proposals of the whole process of this policy (Brasil, 2004a; Brasil 2004b; Viola, 2009; Ratnner, 2014). To subsidize the conducting of the work, the Ministry of Health launched the Prenatal and Birth Humanization Program (PBHP) in 2000. Among its objectives the importance of attention to the care of the pregnant woman, directing the possibilities and innovations in the health practice is highlighted (Viola, 2009). One of the most prevalent sexually transmitted infections in developing countries, including Brazil, similar to other emerging diseases is syphilis, caused by the bacterium *Treponema pallidum*. In developed countries it still results in a major public health problem. The most affected are women of childbearing age, men who have sex with men, young people between the ages of 15 and 25, reaching all social classes (Belda Junior, *et al.*, 2009; Martí Pastor, *et al.*, 2015). Syphilis was previously classified as a Sexually Transmissible Disease (STD), which currently has new terminology "Sexually Transmitted Infection (STI)", considering that the change had already been adopted by the Pan American Health Organization (PAHO) as well as by the scientific society and also by other countries (Brasil, 2015). The Ministry of Health adopted as the goal agreed by the Pan American Health Organization (2012) to eliminate congenital syphilis in the Americas, with an occurrence of less than 0.5 cases / 1000 live births (BRASIL, 2015b). Syphilis is a systemic, curable, exclusively human disease that has not provided immunity and its reinfection is possible. It has as transmission routes: sexual (acquired syphilis), vertical (congenital syphilis), and blood transfusion. Among the diseases that can be transmitted during pregnancy and puerperium, syphilis is the one with the highest rates of transmission. National and international studies point out failures during prenatal consultations. Regarding the notifications and treatment, in 2009, 75.5% of the pregnant women attended in the country, only 5.4% were diagnosed with syphilis during the gestational period (Avelleira; Bottino, 2006; Brasil, 2010).

Syphilis is a transmissible sexually infection that is easily and quickly diagnosed. It presents innovations for the diagnosis through rapid tests, which are available in the health units, with results in up to 30 minutes (BRASIL, 2016). Its treatment is known, but the quality of Primary Care (PC) remained precarious over the years, with professionals who often have done no treatment in a correct and proper way according to ministerial guidelines (Rodrigues, *et al.*, 2008; Tridapalli, *et al.*, 2007; Rodrigues, *et al.*, 2008). It is estimated that among the infected pregnant women (around 1.8 million in the world) less than 10% will be diagnosed and treated properly (Klausner, 2014). In Brazil, the estimated cases of syphilis during pregnancy are nearly 48,000 cases/year. A 2014 study found a prevalence of syphilis at pregnancy of 1.02. This study also revealed that the lowest test coverage (for syphilis) was found in the pregnant women of the North, Northeast and Central West Regions (Domingues, *et al.*, 2012). This study aimed to describe the published studies and indicators on Syphilis and Gestational Prenatal in the city of Campo Grande - MS, capital of the state of Mato Grosso do Sul, Brazil.

MATERIALS AND METHODS

This is a cross-sectional, descriptive, bibliographic review of the capital of Mato Grosso do Sul state. Regarding the cross-sectional design, these studies describe the situation, phenomenon and/or the relationships among the phenomena surveyed at a given fixed point of time. As for the study being quantitative, the researcher starts from a starting point to the final point and follows a standardized sequence, analyzing the data through numbers (Polit; Beck, 2011). According to IBGE (2017), the estimated population of Mato Grosso do Sul is 2,682,386 inhabitants, Campo Grande, the state capital, is the most populous city in the state, with 863,982 inhabitants. The Primary Care is being reorganized and has the ESF as the gateway to the Unified Health System (SUS), and in Campo Grande the ESF covers 40.6% of its population. Its minimum team consists of nurses, physicians, nursing assistants and community health agents. The dental surgeon and auxiliary/dental technician can be added to this team. The ESF has a premise the link between community and staff, given that the service is in a delimited (attached) area and with an attached population of up to 4 thousand inhabitants, which allows, for example, a pregnant woman to always consult with the same professionals (physician and nurse) of her team.

RESULTS

In Mato Grosso do Sul, 4,141 of 153,857 pregnant women were infected, revealing a prevalence of 2.69% (BOTELHO, *et al.*, 2008). Another study on the frequency of *Treponema pallidum* infection from 2003 to 2008 in the state of Mato Grosso do Sul found a frequency of 2.2% for gestational syphilis and an incidence of congenital syphilis of 2.08 per 100,000 live births (LOUREIRO, 2009). A study conducted in Campo Grande - MS found a prevalence of Congenital Syphilis (SC) of 2.3% (Figueiró Filho, *et al.*, 2007). Regarding the quality of prenatal care in Campo Grande - MS, it was pointed out a deficiency regarding the population coverage of prenatal (PN) examinations, since only 75% of the pregnant women with syphilis had the necessary follow-up (Figueiró-Filho, *et al.*, 2007). A comparative study of the years 2006 and 2011 revealed that the care during PN in Campo Grande - MS showed no significant improvement in relation to the adequate treatment of pregnant women, their partners, guidance regarding the tracing of their children and found a prevalence of CS 2, 34% (12/512) and 0.58% (3/512) 2006 and 2011 respectively, not reaching the index recommended by the Ministry of Health, which is one case per each thousand live births (Freire, 2012). The tables below demonstrate the temporal range from 2007 to 2017 of live births, incidence and number of reports of Gestational Syphilis (GS) and Congenital Syphilis (CS). According to the Health Department of Mato Grosso do Sul (Sesau), there was a significant increase in cases of gestational syphilis. In 2014, 901 patients were diagnosed and in 2015 there were 1102 cases (MALAGOLINI, 2016). According to the Municipal Health Department of Campo Grande, in 2016, 404 pregnant women with syphilis were diagnosed in Campo Grande and 138 were diagnosed as having congenital syphilis, that is, 34.15% of pregnant women with syphilis were not treated at the appropriate time or according to ministerial guidelines in this period. Even with a high prenatal coverage of over 95% in Campo Grande (Loureiro, *et al.*, 2012), both indicators of syphilis in pregnant women and congenital syphilis point to the need to improve the PC quality provided in services of health.

Table 1. Live Births and Incidence of Gestational Syphilis. Campo Grande (MS), Brazil (2007 – 2017)

Year of Birth	Live Birth	Incidence	Number of Reporting of Gestational Syphilis
2007	12279	8,31	102
2008	12824	11,0	141
2009	12380	12,36	153
2010	12801	9,53	122
2011	13047	10,35	135
2012	13541	14,47	196
2013	13695	18,33	251
2014	14205	17,32	246
2015	14469	23,15	335
2016	13726	29,43	404
2017	14298	37,14	531

Source: SINASC/SINAN/SESAU, 2018

Table 2. Live Births and Incidence of Congenital Syphilis. Campo Grande (MS), Brazil (2007 – 2017)

Year of Birth	Live Birth	Incidence	Number of Reporting of Congenital Syphilis
2007	12279	1,95	24
2008	12824	2,34	30
2009	12380	4,12	51
2010	12801	3,28	42
2011	13047	4,14	54
2012	13541	6,72	91
2013	13695	6,72	92
2014	14205	6,20	88
2015	14469	7,40	107
2016	13726	10,05	138
2017	14298	10,49	150

Source: SINASC/SINAN/SESAU, 2018

The Basic Health Care has been expanded through the Family Health Strategy (FHS) in order to advance the improvement of indicators of prevention and control of syphilis and other health problems, as well as guarantee a wide and quality assistance, so that both diagnosis, and the treatment is performed in an appropriate time (Araujo, *et al.*, 2012). Studies point out to the need for personal commitment, frequent continuing education in service (preferably by problematizing the work process), the importance of sharing local health indicators in order to transform professional practices, as well as a minimum structure in health services (Schmeing, 2012; Brasil, 2015a; Vasconcelos, *et al.*, 2016). According to Domingues *et al.*, (2012), there are failures in the prescription of the treatment for pregnant women with syphilis, especially when the tests indicate low titration, absence of treatment in patients with reactive serology, routine failure to request the examination at the first visit, and beginning of the third gestational trimester, as recommended by the Ministry of Health (Brasil, 2015a, Brasil, 2016). Other Brazilian studies also pointed to insufficient knowledge of health professionals regarding the control, prevention and transmission of syphilis, demonstrating insufficient technical qualification to lead the pregnant woman with syphilis (Rodrigues *et al.*, 2008; Blomcowe *et al.*, 2011; GOMES, 2013; Lazari *et al.*, 2017). The technical qualification of the prenatal professionals of the public health units may be related to staff turnover, lack of curriculum of the graduates, making health education a key instrument for improving the management and management of cases of gestational syphilis by professionals (Brazil, 2015b). Some work difficulties found in Campo Grande FHS: it is not routine the shared agenda among professionals, which makes it tiring and non-linear the care of pregnant women; there is no determination of periodicity of team meetings (it can be weekly or biweekly), some units may not be present all staff members; there is a shortage of rooms, where in general each team doctor has his or her office, but it is unlikely that the nurse of each team has

his or her own. The physician should attend at least 10 (ten) patients per period and 5 (five) nurses, per patients screened (blood pressure, capillary glycemia, weight, height) by the nursing technicians. As there is no pharmacist, the control of prescription recipes and failures go unnoticed, considering that the professional who delivers the medication has no training for such a function. When training for professionals occurs, only one may be participating and sharing the knowledge learned. With excessive service demands and non-mandatory participation in team meetings, case discussions do not occur properly and the knowledge to be shared is not realized.

Final considerations: Taking into account the scarcity of local studies about the subject in the state capital region and this state is bordered by countries that are on underdevelopment and with reports of difficult management and evaluation, and the professionals who will monitor the low risk prenatal of the public network, it is unknown, effectively, where there is the failure to treat pregnant women with syphilis which are resulting in newborns with congenital syphilis. It should be highlighted that there is no Research Committee for Vertical Transmission of HIV and Syphilis, there is only the Committee on Maternal and Child Mortality with discussion shared with the state secretariat. This makes it impossible to deepen the failures in the management and prevention of sexually transmitted infections and especially syphilis in pregnant women. Based on this premise, the expectation of this study was to foster reflections and provide support for the elaboration of a proposal for multiprofessional and interdisciplinary care in the management of pregnant women with syphilis. It is also hoped that the results of this study can contribute to improve the flow of care and management of gestational syphilis as recommended by the ministry, whose results are also used in continuing education services, aiming to qualify professionals to care for this population. *Special thanks to the Nurse Michela Paula Pimpinatti Mauro from the Municipal Health Department of Campo Grande for the*

collaboration in this work with the sharing real time indicators.

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