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# Men who have sex with men: knowledge, empowerment for human immunodeficiency virus pre-exposure prophylaxis

Hombres que tienen sexo con hombres: conocimiento, empoderamiento para la profilaxis previa a la exposición al virus de la inmunodeficiencia humana

Homens que fazem sexo com homens: conhecimento, empoderamento a profilaxia pré-exposição ao vírus da imunodeficiência humana

#### ABSTRACT

Objective: To analyze the knowledge and empowerment of men who have sex with men about Human Immunodeficiency Virus pre-exposure prophylaxis. Method: This is an integrative review. A survey was conducted in the database of the Virtual Health Library, in their respective databases Latin American and Caribbean Health Sciences and Medical Literature Analysis and Retrieval System Online. It used the descriptors registered in the Health Sciences Descriptors Portal (DeCS) and (MESH): "pre-exposure prophylaxis for hiv" AND "men who have sex with men" OR "gay" OR "homosexual" OR "msm" with boolean operators AND and OR. Results: Of the 325 studies found, O3 answered the research question. Conclusion: The availability of some preventive methods individually benefits the protection at different times of the HIV transmission chain and their complementary use promises consistent advances in response to the epidemic with an impact on reducing incidence.

DESCRIPTORS: Pre Exposure Prophylaxis; Men who have sex with men; Knowledge; Homosexual.

#### RESUMEN

Objetivo: analizar el conocimiento y el empoderamiento de los hombres que tienen sexo con hombres sobre la profilaxis previa a la exposición del virus de la inmunodeficiencia humana. Método: esta es una revisión integradora. Se realizó una encuesta en la base de datos de la Biblioteca Virtual en Salud, en sus respectivas bases de datos en línea del Sistema de Análisis y Recuperación de Literatura Médica y Ciencias de la Salud de América Latina y el Caribe. Se utilizaron los descriptores registrados en el Portal de Descriptores de Ciencias de la Salud (DeCS) y (MESH): "profilaxis previa a la exposición para el VIH" Y "hombres que tienen sexo con hombres" O "gay" O "homosexual" O "msm" con operadores booleanos AND y OR. Resultados: De los 325 estudios encontrados, 03 respondieron la pregunta de investigación. Conclusión: La disponibilidad de algunos métodos preventivos beneficia individualmente la protección en diferentes momentos de la cadena de transmisión del VIH y su uso complementario promete avances consistentes en respuesta a la epidemia con un impacto en la reducción de la incidencia. **DESCRIPTORES:** profilaxis preexposición; Hombres que tienen sexo con hombres; Conocimiento; Homosexual.

# RESUMO

Objetivo: Analisar o conhecimento e empoderamento de homens que fazem sexo com homens sobre a profilaxia pré-exposição ao Vírus da imunodeficiência Humana. Método: Trata-se de revisão integrativa. Foi realizado um levantamento no banco de dados da Biblioteca Virtual em Saúde, em suas respectivas bases Literatura Latino-Americana e do Caribe em Ciências da Saúde e Medical Literature Analysis and Retrieval System Online. Utilizou os descritores cadastrados no Portal de Descritores das Ciências da Saúde (DeCS) e (MESH): "pre-exposure prophylaxis for hiv" AND "men who have sex with men" OR "gay" OR "homossexual" OR "msm" com os operadores booleanos AND e OR. Resultados: Dos 325 estudos encontrados, três responderem a pergunta da pesquisa. Conclusão: A disponibilidade de alguns métodos preventivos beneficiam, em âmbito individual, a proteção nos diferentes momentos da cadeia de transmissão do HIV e seu uso complementar promete avanços consistentes na resposta à epidemia com impacto na redução da incidência.

DESCRITORES: Prevenção; Homens que fazem sexo com Homens; Conhecimento; Homossexual.

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#### INTRODUCTION

n the early 1980s, the human immunodeficiency virus - HIV was shown to be a high epidemic, worrying and mobilizing health authorities at that time. <sup>1</sup> Pointed and labeled by prejudice, the Acquired Immunodeficiency Syndrome - AIDS was seen as the 5H disease, that is, Homosexuals, Hemophiliacs, Haitians, Heroin and Hookers. <sup>2</sup>

In the 1990s, data at the international level indicated that, after reaching the peak of more than 3 million, the worldwide occurrence of HIV would have remained relatively constant since 2005, with more than 2,5 million new infections annually. In contrast, the number of people living with HIV shows an upward trend, reaching around 38,8 million people in 2015, thus referring to the fact that mortality decreases, accumulating, in the same year, less than 1,3 million deaths. <sup>3</sup>

Epidemiological data also verifies the expansion of cases, thus breaking the distorted view that AIDS was restricted to certain "risk groups". Thus, it has come to be considered that regardless of race, age, gender, sexual option and socioeconomic condition, anyone is prone to exposure to the virus. Thus, it became employed the concept of vulnerability, which comprises situations that you expose yourself in a situation of illness and/or weakness.<sup>2</sup>

Currently, in Brazil, Men who have Sex with Men (MSM) are one of the catego-

ries most affected by HIV. Strategies have been applied to face the epidemic, such as the involvement of civil society and the government in community actions for the prevention of MSM and the destigmatization of homosexuals in society. <sup>4</sup> Thus bringing health promotion measures with free distribution of condoms; accessibility to pre-exposure prophylaxis (PREP), testing for the general population, and antiretroviral therapy for people living with HIV and AIDS (PLWHA). <sup>5</sup>

Nevertheless, while the estimated HIV prevalence for the general population (13 to 49 years old) is 0,6% (0,8% for men), <sup>6</sup> a study carried out in 2008 and 2009 showed that the prevalence of MSM in 10 cities ranged between 5,2% (Recife) and 23,4% (Brasília), with an average of 14,2% - two and three times higher than estimated for women sex workers and drug users, respectively. Of the 3.449 study participants, 36,5% reported unprotected receptive anal intercourse (URAI). <sup>8</sup>

Men who practice IARD are at greater risk of infection than those who perform unprotected insertive anal intercourse (UAI). In addition, factors such as scarce knowledge about HIV pre-exposure prophylaxis, which has been an HIV prevention method, demonstrate the vulnerability of this population.<sup>10</sup>

Although there are data released in the last 4 years by the Ministry of Health on the knowledge of HIV preventive practices - the most common being the condom, even so, more than 45% of the sexually active population in the country does not use it in sexual relations. <sup>11</sup>

Faced with this scenario, new prevention strategies emerge as complementary tools to face the HIV epidemic, expanding the range of options that individuals will have to prevent themselves against the virus and offering more alternatives scientifically effective - in relation to the only option available until recently: the condom. <sup>11</sup> Among the new strategies are the use of treatment as a preventive to Pre--Exposure Prophylaxis (PrEP).

PrEP is an antiretroviral medication used by those individuals who are not infected with HIV, but are at risk of infection. With medication circulating in the blood at the time of contact with viruses, HIV will be prevented from establishing itself in the body. <sup>12</sup> The medication consists of the combination of two drugs in a single tablet: tenofovir disoproxil fumarate (TDF - 300mg) and emtricitabine (FTC - 200mg), and it is used daily, orally.<sup>12</sup> In Brazil, PrEP started being made available by SUS in December 2017 and is available in 36 health services in 22 Brazilian cities. Thus, the challenges inherent to knowledge and the empowerment of the use of this prophylaxis in men who have sex with men increase the risk of HIV infection, however most of the problems evidenced by this population may be linked to the need to implement strategies aimed at your current health situation. In addition, socially constructed stereotypes in relation to the disease as well as prejudices in relation to sexual orientation. <sup>12</sup> In this sense, the importance of reflecting and discussing the theme is emphasized: What is the knowledge and empowerment of Men who have sex with men about HIV pre-exposure prophylaxis in their current context. Thus, the study aims to analyze, from scientific production, the knowledge and empowerment of men who have sex with men about HIV pre-exposure prophylaxis.

## **METHOD**

This integrative review followed all the recommended steps. First, the study theme and objective was defined, with the research question emerging. Then, the analysis was carried out based on scientific productions on the knowledge and empowerment of men who have sex with men on HIV pre-exposure prophylaxis. For the preparation of the review, the following steps were taken: First Stage: an online search was carried out, through a survey in the Virtual Health Library (VHL) database, in their respective Latin American and Caribbean Literature in Health Sciences (LILACS) and Medical Literature Analysis and Retrieval System Online (MEDLINE) ) due to the amount of scientific production related to the theme; in the next step, the descriptors registered in the Health Sciences Descriptors Portal (DeCS) and (MESH) were selected: "pre-exposure prophylaxis for hiv" AND "men who have sex with men" OR "gay" OR "homosexual" OR "msm". These descriptors were combined with the Boolean operators AND and OR in order to refine the studies according to the topic in question. Then, the following filters were applied; full texts available, national and international databases, main subject where selected, pre-exposure prophylaxis, HIV, male homosexual and men who have sex with men, in addition to languages in English, Spanish and Portuguese. The search took place from June 2019 to July 2019; following the third step, following

the PRISMA recommendation, following the flowchart of (Figure 1).

Continuing, the next step occurred through data extraction following the guidance of a structured form and validated by Ursi (2005)<sup>13</sup>, adapted to the guiding questions of the present study.

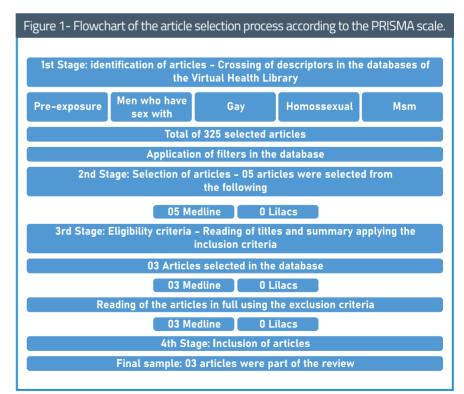
In order to assess the methodological quality of the selected articles, the Critical Appraisal Skills Program - CASP instrument was applied. This instrument has 10 items that are scored, including: 1) objective; 2) adequacy of the method; 3) presentation of theoretical methodological procedures; 4) sample selection criteria, 5) sample details; 6) relationship between researchers and subjects; 7) respect for ethical aspects; 8) rigor in data analysis; 9) property to discuss the results and 10) contributions and limitations of the research. Where at the end it is considered:

A (06 to 10 points) - A2, A3, A4. Studies with good methodological quality and reduced bias. B (at least 05 points) - A1, A5. Studies with satisfactory methodological quality, but with increased potential for bias.

The second instrument used to assess the level of evidence was the Hierarchical Classification of Evidence for the Evaluation of Stillwell Studies 4 the studies being classified in the following levels: (I) systematic review or meta-analysis; (II) randomized clinical trials; (III) clinical trial without randomization; (IV) cohort and case-control studies; (V) systematic review of descriptive and qualitative studies and (VI) single descriptive or qualitative study. Finally, the last stage was presented by the selected studies and categorized by themes in order to be used as a basis to support the reflections on the object of study.

## RESULTS

Of the total of 325 studies found in the databases, they were synthesized in only three articles because they answered the research question, it is worth mentioning that the articles were in the English language. An important point is that the articles fit only in the time frame from 2014 to 2018 and as for the nature of



these, three studies were classified as research. It is shown that the studies were published in Germany, the United States and Brazil.

They were also classified as to the level of evidence, as shown (Chart 1).

After analyzing the content of the publications, a category emerged with the following theme: Pre-exposure prophylaxis for transsexual men and women who have sex with men in Brazil: opportunities and challenges.

#### DISCUSSION

From the studies developed on the knowledge of men who have sex with men on the prevention method PrEP - pre-exposure prophylaxis to HIV, showed that there was a reduction in the incidence of HIV, although there are still many challenges to be faced about the theme, this corroborates with the study by Ricardo Niklas Werner (2018) which showed that HIV infections in Berlin suffered a decline due to the use of PrEP and was associated with accessibility through communication channels. <sup>15</sup> In this same survey, the participants felt they were knowledgeable and well informed, the average age of the participants was 37,4 years, range 18-79. The majority reported having sex without condoms with two or more partners in the last six months and that they felt concerned about the lack of information about the use of PrEP. <sup>15</sup>

In the study by Alia A. Al-Tayyib (2014) in addition to the knowledge among men who have sex with men, the willingness to use PrEP was also evaluated, in this research a study was examined examining the knowledge of PrEP in 2008 and in 2011, the results were not satisfactory, since less than 30% of the participants reported not knowing the pre-exposure prophylaxis. <sup>16</sup>

In the two studies cited above, it is clear that factors associated with scarce knowledge about HIV PrEP further reinforce the vulnerability of this population. <sup>11</sup> Such results may be associated with the inefficiency of health promotion

Chart 1 - Distribution of the articles analyzed by title/year author objective type of study and main conclusions of

that is part of the education process offered by health professionals. It is emphasized, therefore, the continuous need for the necessary support of the professionals involved in this process and their understanding of the need to know and disseminate this specific care.

A study that deserved mention was that of Brenda Hoaglan (2017) who, in addition to the knowledge of men who have sex with men about HIV Pre-exposure Prophylaxis, also sought to analyze the opportunities and challenges that therapy has been facing in Brazil. In it, the main aspects of the AIDS epidemic among men who have sex with men and the comprehensive response to the epidemic are presented throughout the national territory.<sup>17</sup>

In this article, also, universal access to health services provided by the Unified Health System (SUS) and the range of prevention and care services are available throughout the country for individuals with HIV positive and those who are at risk for infection, thus identified as the

the study. Recife – PE, 2019.				
ARTICLES	TITLE/YEAR/AUTHOR	OBJECTIVE OF THE STUDY	METHODOLOGICAL DESIGN / LEVEL OF EVIDENCE OF THE STUDY	CONCLUSION/ OUTCOME
01	Knowledge and use of HIV pre-exposure prophylaxis among men in Berlin - multi-centre, cross sectional survey / 2018/ Ricardo Niklas Werner et al.	Investigate the knowledge and use of pre-exposure prophylaxis among men who have sex with men in Berlin and predictive factors of the desire to use prophylaxis and medi-cation history.	Cross-sectional quanti- tative study / CASP: A1 Level of evidence: VI	High awareness of PrEP was found among men who have sex with men in Berlin, but also a strong need for cont- nuing education on the topic.
02	Knowledge of pre-exposure Prophylaxis (PrEP) for HIV prevention among men who have sex with men in Denver, Colorado / 2014/ Alia A. Al-Tayyib et al.	Assess knowledge of pre- exposure prophylaxis - PrEP and willingness to use therapy	Descriptive quantitative study / CASP: A1 Level of evidence: VI	Few men who have sex with men are aware of HIV pre- exposure prophylaxis, and edu-cation must be includ-ed as a form of preven-tion.
03	Pre-exposure prophylaxis for men and transgender women who have sex with men in Brazil: Opportunities and challenges / 2017/ Brenda Hoaglan et al.	Describe the perception of PrEP and disposition about the use of medication among men who have sex with men	Cross-sectional cohort study / CASP: A1 Level of evidence: IV	The awareness of PrEP was reported in some vulnerable groups, it is clear that there is a scarcity of health education aimed at pro-moting this therapy.

main groups for the implementation of PrEP. It was also identified the know-ledge limited to the pre-exposure prophylaxis and the low perception of HIV risk, thus representing challenges to be addressed. <sup>17</sup>

Thus, it is worth noting the advances in relation to HIV treatment and, consequently, a significant reduction in the number of AIDS cases, in addition to access to SUS. But there is still much to be discussed and disseminated, as figures show unprotected sex with more than one partner, and deficient information about HIV pre-exposure prophylaxis so that people, especially men who have sex with Men, feel empowered to carry out your sexual practice safely and with that live a better quality of life.

## CONCLUSION

The objective of this study was achieved, but the need for educational actions on the pre-exposure prophylaxis to the acquired immunodeficiency virus is perceived. The freedom and availability of the diversity of preventive methods, on an individual basis, and protection at different times in the HIV transmission chain, is essential. However, new means of therapy that are prophylactic do not exist if there are no consequences of the multidisciplinary team in the articulation of educational actions in populations vulnerable to HIV and, at the same time that these measures are taken, the empowerment of these individuals is increasingly reinforced.

Therefore, in the programmatic pers-

pective, as already widely recognized by several actors, the position of health professionals should be geared towards promoting and preventing HIV and, above all, reinforcing the improvement of access to PrEP, including those more classic preventive methods, such as condoms.

It is essential that the evidence found in this research can support the implementation of public policies in this field. In view of this reality, this set of articulated and harmonized actions at the different levels of care, can face the structural barriers that, in addition to reducing the persistent stigma related to sexual orientation, will also contribute to the strengthening and right of individuals to access methods and strategies of prevention more appropriate to their context of life.

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