

THE INFLUENCE OF THE USAGE OF THE MALE CONDOM BY SENIORS IN THE VULNERABILITY TO HIV: A SYSTEMATIC REVIEW WITH META-ANALYSIS

*INFLUÊNCIA DO USO DA CAMISINHA MASCULINA POR IDOSOS NA VULNERABILIDADE AO HIV:
UMA REVISÃO SISTEMÁTICA COM META-ANÁLISE*

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ABSTRACT

Introduction: Brazil has presented a rise of the population aged over 60 years. In addition to this change in demographic profile, there is an epidemic of worldwide, HIV infection. **Objective:** Was to ascertain the influence of the use of male condoms by seniors in vulnerability to virus infection. **Methods:** We developed a systematic literature review and meta-analysis of observational studies, research being conducted in the following databases: SciELO, LILACS, electronic library at UFMG and USP and Google Scholar. Results: A number of 38 articles were selected and after evaluation and application of the Physiotherapy Evidence Database (PEDro) scale, 6 of them were elected to compose the study sample. The statistical analysis obtained a summary measure (*odds ratio* – OR=1.643). **Conclusion:** From the analysis of the database, one realizes that the indicator found (summary measure), the condom use is ratified as a factor or protection against HIV infection, in other words, its adoption makes the individual less vulnerable.

Keywords: elderly; HIV; condoms; acquired immunodeficiency syndrome.

RESUMO

Introdução: O Brasil vem apresentando ascensão da população com idade igual ou superior a 60 anos. Além dessa mudança no perfil demográfico, há uma de caráter epidemiológico de âmbito mundial, a infecção pelo vírus da imunodeficiência humana (HIV). **Objetivo:** Averiguar a influência do uso da camisinha masculina por idosos na vulnerabilidade à infecção pelo vírus. **Métodos:** Desenvolveu-se uma revisão sistemática da literatura, com meta-análise, entre estudos observacionais, sendo realizadas pesquisas nas seguintes bases de dados: *Scientific Electronic Library Online* (SciELO), Centro Latino-Americano e do Caribe de Informação em Ciências da Saúde (LILACS), biblioteca eletrônica da Universidade Federal de Minas Gerais (UFMG) e da Universidade de São Paulo (USP) e Google Acadêmico. **Resultados:** Foram selecionados 38 artigos e, após avaliação e aplicação da escala *Physiotherapy Evidence Database* (PEDro), foram eleitos 6 deles para compor a amostra do estudo. Mediante análise estatística, obteve-se uma medida sumário (*odds ratio* – OR=1,643). **Conclusão:** A partir da análise dos dados, percebe-se, que a partir do indicador encontrado (medida sumário), o uso do preservativo é ratificado como um fator ou comportamento de proteção contra a infecção pelo HIV, ou seja, sua adoção torna o indivíduo menos vulnerável.

Palavras-chave: idoso; HIV; preservativo; síndrome da imunodeficiência adquirida.

INTRODUCTION

The increase of the life expectancy of the general population may be related to the quick advance of the therapeutic, pharmaceutical and technological sciences, which is providing the elderly with a better quality of life in the physiological and psychological aspects and also has increased their sexual longevity; Such event brings out the necessity from the health care professionals involved directly or

indirectly with the care of the elder to address this matter, and aim not just to treat but also prevent the occurrence of such diseases.

Whereas there were medicine development and hardware technologies to improve the sexual performance of the elderly population, little has been done by the health care services and the media to address the issues of the sexual life of the elderly, approaching it in a casual way and as a legitimate right⁽¹⁾.

Despite of the significant increase in the number of elderly people infected with the human immunodeficiency virus (HIV), usually this population is not considered vulnerable to this kind of infection, specially a stigmatizing sexually transmitted infection (STI) Therefore this way of approach can set a vulnerable behavior on the elderly population⁽²⁾.

This negligent situation reaches a binomial situation between the Acquired Immunodeficiency (AIDS) and the elderly population, and it gets worse facing the stigmas related to the acceptance and perception of the sexuality of this group. The growing number of occurrences of STIs like the HIV the causative agent of AIDS

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among the elderly has come into special attention, affecting both men and women, casting out the idea that old people are asexual⁽³⁾.

These prejudices tend to difficult the contact between the health care professionals and the elderly and they are responsible for the lack of attention regarding the forms of prevention, which is reflected in the growing number of AIDS infections among the elderly. With the discriminatory character and the professional negligence in not addressing properly the use of preventive methods, regarding the sexual conducts of the elderly, this is not yet a common practice between sexual partners during intercourse, even after the known effectiveness in preventing HIV. Thus, the need of a multi professional care focused in the ways that the sexual practices are experienced in old age is utterly necessary, and with this minimizing the vulnerability during sexual intercourse.⁽⁴⁾

This restricted view related to sexuality, old age and unprotected sexual exposure is currently the main way of encouraging HIV infection among older adults. Among the various factors that can influence the non-use of condoms by this group, we highlight the lack of knowledge about the disease and the availability of condoms, cultural, social, economic and educational factors, Like the omission of health professionals and family on addressing the issue and providing information during consultations, and many other factors. However, the prejudice regarding the fact that elderly have an active sex life awakens in people a discriminatory exhaustive look, since they regard this act as something amoral, causing in the elderly a sense of shame in seeking information and prevention materials⁽⁵⁾.

Sex and old age most of the time seem as incompatible themes, because people never imagine that the elderly can maintain sexual relations with his(her) partner or outside their relationship. Because of that, it is possible to see the importance of research on how the preservatives, specially the male condom contribute to help the elderly prevent infections such as HIV. Thus, the following question comes into attention: what has been the influence of the use of the condom regarding the HIV infections in the elderly?

OBJECTIVE

The goal is to research of the use of male condom by the elderly in vulnerability to HIV infections.

METHODS

This is a review of the literature on the systematic type with a meta-analysis of observational studies. Meta-analysis is an appropriate statistical technique for combining results from different studies, thus producing estimates that summarize the whole, called meta-analytical estimates. In order to get a meta-analysis with a meaningful applied significance, the studies that compose the data of such technique should be the result of a systematic review⁽⁶⁾.

The research for articles to compose the sample was done with databases Scientific Electronic Library Online (SciELO), Latin American and Caribbean Center on Health Sciences for Health (LILACS), Medical Literature Analysis and Retrieval System Online (MEDLINE) and Excerpta Medica Database (EMBASE).

The study population was of a finite type, composed by all the articles found in the period from September to November 2013 in

these databases and are focused on the same theme: influence of condom use by the elderly in vulnerability to HIV infection. The sample was not probabilistic, defined from the inclusion criteria.

The following inclusion criteria were used:

- Being ranked in the magazine as abstract or full-text research article;
- Is available for free *online* access in any database mentioned in item type and location of the study of the methodology;
- Have been published by the magazine ranked by *qualis* Coordination of Improvement of Higher Education Personnel (CAPES);
- Have been published in the period 2005-2014;
- Articles that offered at least two comparative groups are sufficient to calculate the estimate or measure of effect, (*odds ratio* – OR) data;
- Have at least two strata;
- Have passed the qualifying criteria set by the scale *Physiotherapy Evidence Database* (PEDro)⁽⁷⁾ and have obtained a score equal or greater than four

The following exclusion criteria was used:

- Works that did not address the theme or the influence of the use of male condoms by seniors in vulnerability to HIV infection;
- Duplicated articles in the databases;
- Deleted when found in the second database.

An instrument for assessing the quality of the selected articles was used. The value 1 was assigned to each item that was evaluated and approved. Thus, the total score achieved may vary from zero (poor quality paper) to seven (good quality article).

The selection of articles was initially based on the analysis of the summary. After that, it is filtered by checking the inclusion criteria. Finally, the decision regarding the inclusion or exclusion was made jointly by the researchers involved in the application of quality of the PEDro scale.

All selected studies were presented descriptively in tables of descriptive statistics. We conducted meta-analysis by the methods of random effects considering as hypotheses to be tested:

H_0 : the male condom influence, regardless of the size and characteristics of the sample, the vulnerability of the elderly to HIV; Likewise, in all situations (fixed effect model).

H_1 : male condom influences, in different ways, considering the size and characteristics of the sample, the vulnerability of the elderly to HIV (random effects model).

The database of the study, containing estimates or measures of effect, was developed in *Excel for Windows 2007* and converted to tab-delimited text (.txt). We used the R *software* to conduct the statistical procedures and the elaboration of the *forest plot*. This, indicated the extent meta-analytic estimates and their respective statistical significance.

We took on consideration the significance level of 5% ($\alpha=0,05$). And we used the Cochrane Q statistic and the I^2 test of Higgins and Thompson.

RESULTS AND DISCUSSION

These papers were researched in the health sciences databases, by the descriptors combination and selected in case they

showed any relation regarding the theme of the use of condom by the elderly. Initially it was found a number of 17.898 articles according to **Table 1**. From these articles, just 191 were selected to further research, using the inclusion criteria to compose the final sample narrowing down the process with the use of the PEDro scale in 42 scientific articles.

After the evaluation of the papers that fitted in the established inclusion criteria and the theme of the study, from the 38 articles found, just 6 contained sufficient and consistent data to conduct the meta-analysis procedures.

The meta-analysis is a statistic technique fit to combine results from different studies, thus producing the estimative that can summarize the whole, that is why it is the best statistical method to be used after a systematic review in order to integrate the results of the studies analyzed. To summarize, the meta-analysis is a efficient way to combine results from different studies allowing the researchers to combine the data and analyze them like they were part of a single large work⁽⁶⁾.

Table 1 – Scientific publications on the use of the male condom by the elderly, HIV/AIDS and sexuality of the elderly.

| Database | Articles (n) | Sorting (n) | Articles to evaluate |
|----------------|--------------|-------------|----------------------|
| SciELO | 1,055 | 50 | 06 |
| LILACS | 98 | 46 | 12 |
| UFMG | 677 | 20 | 02 |
| USP | 591 | 15 | 02 |
| Google Scholar | 15,477 | 60 | 16 |
| TOTAL | 17,898 | 191 | 38 |

SciELO Scientific Electronic Library Online; LILACS: Latin American and Caribbean Center for Information on Health Sciences; UFMG: Universidade Federal de Minas Gerais; USP: Universidade de São Paulo

That brings out perspectives on the realization of meta-analytical procedures in different studies with different clippings of time and space and even different methodological approaches, as we can see in **Chart 1**.

The values of preservative usage by the elderly were extracted from the articles utilized in the meta-analysis. We used the age-range of “equal of 50 years or older” because the latency period of the HIV virus. This age definition aims to include the individuals of between the ages of 50 and 60 and the ones that got infected with more than 60 years of age.

Besides, the international age classification criteria was respected, since in some of the countries where the studies on HIV/AIDS are conducted, the life expectancy is lower than the one in developed and developing countries.

It is important to pay attention to the fact that the systematic review aims to map a knowledge on an issue; however, this question cannot be as detailed. A fact that occurred regarding the requirements to compose the sample in some studies selected for review from the PEDro scale. Quoting:

- Rocha FCV, Freitas Filho FC, Macêdo Júnior JA, Rosa YRD. Entitled: Conhecimento dos idosos sobre HIV/AIDS. 2013. Reason of exclusion: Because it is a review on literature, conducted through the methodological approach suggested by Marconi and Presotto.
- Serra A, Sardinha AHL, Lima SRCS, Pereira ANS. Entitled: Perfil comportamental de idosos com HIV/AIDS atendidos em um centro de referência. Reason of exclusion: low score on the PEDro scale
- Alencar RA. Entitled: O idoso vivendo com HIV/AIDS: a sexualidade, as vulnerabilidades e os enfrentamentos na atenção básica. Reason for the exclusion: Qualitative focus.
- Garcia GS, Lima LF, Silva JB, Andrade LDF, Abrão FMS. Entitled: Vulnerabilidade dos idosos frente ao HIV/AIDS: tendências da produção científica atual no Brasil. Reason of exclusion: An integrative review of the literature

Chart 1 – Characteristics of the articles selected for the meta-analysis.

| Author | Year | Title | Target of study |
|----------------------------|--------------------|--|--|
| Lima TC e Freitas MIP | 2012 ⁸ | Health behaviors of the population with HIV / AIDS | Identifying health behaviors in a population aged 50 years or older with HIV / AIDS and analyzing the association of these behaviors with sex. |
| Melo HMA et al. | 2012 ⁹ | The knowledge about AIDS in elderly and young adult men: a study on the perception of this disease | Compare the perception of elderly to young adults about AIDS men considering the level of education. |
| Araújo VLB | 2009 ¹⁰ | Targets people aged 50 years old and older living with HIV / AIDS in Ceará, Brazil | It aims to describe the epidemiological characteristics of people aged 50 and older living with HIV / AIDS attending a tertiary hospital of Ceará, in the period 1983-2008. |
| Olivi M et al. | 2008 ¹¹ | Targets behaviors, knowledge and risk perception of sexually transmitted diseases in a group of people aged 50 or more | It describes characteristics of sexual behaviors, knowledge about STD / AIDS and risk perception in people aged 50 years and older and assess the association between risk perception and aspects of behavior and knowledge. |
| Sormante M and Shibusawa T | 2007 ¹² | <i>Predictors of condom use and HIV testing among midlife and older women seeking medical services</i> | Aims to examine correlates and predictors of sexual HIV risk reported by a sample of middle-aged and older women. |
| Brazil | 2006 ¹³ | Analyses sexual behaviors of the Brazilian Population and Perceptions of HIV / AIDS | Identifying representations, behaviors, attitudes and sexual practices of the Brazilian population, and knowledge about HIV / AIDS, with a view to developing strategies for preventing STDs and HIV. |

HIV: human immunodeficiency virus; AIDS: Acquired immunodeficiency syndrome; STD: Sexually transmitted diseases.

- Melo HMA. Entitled: O conhecimento sobre AIDS de homens idosos e adultos jovens: um estudo sobre a percepção desta doença. Reason of exclusion: no present data on condom use.
 - Melo MC, Pimenta AM. Entitled: Característica epidemiológica da AIDS na população com mais de 50 anos em Betim e microrregião. Reason of exclusion: no present data on condom use.
 - LPS Souza Oliveira MVR, Silveira WRM, Figueiredo MFS, Messias RB, Silva JR. Entitled: Análise da clientela idosa portadora de HIV atendida em um centro ambulatorial em Montes Claros, Minas Gerais. Reason of exclusion: low score on the PEDro scale
 - Baldoni AO, Pereira LRL. Entitled: O impacto do envelhecimento populacional brasileiro para o sistema de saúde sob a óptica da farmacoepidemiologia: uma revisão. Reason of exclusion: narrative review, with a qualitative synthesis
 - Baptist AFO, APO Marques Leal ACC, Marino JG, Melo HMA. Entitled: Idosos: associação entre o conhecimento da AIDS, atividade sexual e condições sociodemográficas. Reason of exclusion: low score on the PEDro scale
 - Frugoli A, Magalhães-Junior CAO. Entitled: A sexualidade na terceira idade na percepção de um grupo de idosas e indicações para a educação sexual. Reason of exclusion: A research with a qualitative exploratory approach.
 - Laroque MF, Affeldt AB, Cardoso DH, Souza GL, Santana MG, Lange C. Entitled: Sexualidade do idoso: comportamento para a prevenção de DST/AIDS. Reasons of exclusion: It is a qualitative, exploratory and descriptive study.
 - Maschio MBM, Balbino AP, De Souza AFR, Kalinke LP. Entitled: Sexualidade na terceira idade: medidas de prevenção para doenças sexualmente transmissíveis e AIDS. Reason of exclusion: A prospective, quantitative and descriptive study.
 - Moraes KM, Vasconcelos DP, Silva ASR, RCC Silva, Santiago LMM, Freitas CASL. Entitled: Companheirismo e sexualidade de casais na melhor idade: cuidando do casal idoso. Reason of exclusion: a case study with a qualitative approach.
 - DC Oliveira, Oliveira EG, Gomes AMT, Teotônio MC, Wolter RMCP. Entitled: O significado do HIV/AIDS no processo do envelhecimento. Reason of exclusion: a case study with a qualitative approach.
 - Santos AFM, Assis M. entitled: Vulnerabilidade das idosas ao HIV/AIDS: despertar das políticas públicas e profissionais de saúde no contexto da atenção integral: revisão de literatura. Reason for the exclusion: It is a non systematic review of the literature
 - Souza NR, Bernardes EH, Carmo TMD, Nascimento E, Silva ES, Souza BNA, et al. Entitled: Perfil da população idosa que procura o centro de referência em DST/AIDS de Passos/MG. Reason for exclusion: no present data on condom use.
 - CC Torres, VP Bezerra, Pedroza AP, Silva LM, Roberts TP, Coutinho NJM. Entitled: Representações sociais do HIV/AIDS: buscando os sentidos construídos por idosos. Reason for exclusion: no present data on condom use.
 - Andrade HSA, Sharma SK. Entitled: AIDS em idosos: vivências dos doentes. Reason of exclusion: a study with a qualitative approach.
 - Garcez BS, Garcez JS, Paixão MRP, Fernandes ACV, Santos RB. Entitled: Conhecimento e percepção do grau de risco sobre DST e HIV/AIDS e a utilização do preservativo entre idosos: o autocuidado sadio e a enfermagem neste contexto. Reasons for exclusion: It is a cross-sectional descriptive and retrospective study.
 - Lopes FMVM. Entitled: Vulnerabilidade da mulher idosa frente ao HIV/AIDS. Reason of exclusion: a case study with a qualitative approach.
 - Pereira GS, Borges IC. Entitled: Conhecimento sobre HIV/AIDS de participantes de um grupo de idosos, em Anápolis-GO. Reason for exclusion: low score on the PEDro scale
 - Silva SFR, Pereira MRP, Neto RM, Ponte MF, Ribeiro IF, Costa PFTF, et al. Entitled: AIDS no Brasil: uma epidemia em transformação. Reasons for exclusion: It is a retrospective, descriptive and observational study.
 - Toledo LSG, Maciel ELN, Rodrigues LCM, Tristão-Sá R, Fregona G. Entitled: Características e tendência da AIDS entre idosos no Estado do Espírito Santo. Reason for exclusion: no present data on condom use.
 - AC Sousa, Suassuna DSB, Costa SM. Entitled: Perfil clínico-epidemiológico de idosos com AIDS. Reason for exclusion: no present data on condom use.
 - Veras R. Entitled: Envelhecimento populacional contemporâneo: demandas, desafios e inovações. Reason of exclusion: a study with a qualitative approach.
 - Berquó E, Barbosa RM, Lima LP. Entitled: Uso do preservativo: tendências entre 1998 e 2005 na população brasileira. Reason for exclusion: low score on the PEDro scale
 - Lazzarotto AR, Kramer AS, Hädrich M, Tonin M, Caputo P, Sprinz E. Entitled: O conhecimento de HIV/AIDS na terceira idade: estudo epidemiológico no Vale dos Sinos, Rio Grande do Sul, Brasil. Reason for exclusion: no present data on condom use.
 - Souza JL. Entitled: Sexualidade na terceira idade: uma discussão da AIDS, envelhecimento e medicamentos para disfunção erétil. Reason of exclusion: a case study with a qualitative approach.
 - Souza CF. Entitled: O uso/não-uso de preservativo entre mulheres residentes em Belo Horizonte e Recife, 2002: um estudo de fatores associados. Reason for exclusion: low score on the PEDro scale
 - Zornitta M. Entitled: Zornitta M. Os novos idosos com AIDS: sexualidade e desigualdade à luz da bioética [tese]. Reason of exclusion: a study with a qualitative approach.
 - Castro MP. Entitled: O viver com HIV/AIDS na perspectiva das pessoas idosas atendidas em ambulatório especializado da cidade de São Paulo. Reason for exclusion: low score on the PEDro scale
 - Cunha JVQ. Entitled: Vulnerabilidade, gênero e HIV: um estudo sobre mulheres e homens heterossexuais, Brasil-1998. Reason for the exclusion: Qualitative focus.
- After reviewing the selected articles, the ones without enough descriptive information that their results could allow the OR calculation were excluded. Likewise, the ones evaluated by the PEDro scale in order of eligibility to compose the sample were excluded if they obtained a low score facing the criteria that the scale dictates. Also excluded among the studies evaluated are the ones without

data regarding the use of male condom by the elderly during sexual intercourse.

In other words, the systematic review using the meta-analysis, aims to put together the results and compare it with the results of many studies correlated. the relevant ones are quantified in a way that the resulting values are displayed in a common scale. Given that, it is necessary that the selected studies have a quantitative character, not just qualitative⁽¹⁴⁾.

The data analysis was based in a model of fixed effects, where the statistical inference is conditioned on previous studies, the study has a retrospective characteristic. In order to do that, we present a summary measure of the Mantel-Haenszel OR, with confidence intervals (CI), the significance level of 0.05, as shown in the forest plot (Figure 1).

Using the *forest plot* (Figure 1), It is possible to see that the summary measure (OR=1.643) supports the use of condoms as a factor or behavior of protection against HIV infections, and the usage of such measures makes the individual less vulnerable. With this synthetising measure, it is possible to note that the non-use of condoms may increase by 1.64 times the chances elderly people being infected with HIV.

The elderly are a minority group regarding the use of condom, as common use or in case of a “casual relation”. This fact corroborates the study by Pereira and Borges⁽¹⁵⁾, showing the results that 69% of elderly people with an active sexual life will never use condoms, and that 15.5% do so occasionally.

When it comes to condom usage among the most recent sexual intercourses, 82.2% of older people do not use condoms, 16.8% that are adopting this method of sexual prevention⁽¹⁵⁾.

The professionals who are assisting the elderly person with the possession of a scientific knowledge and are aware of studies that

prove a patient can be senile due to HIV infection, should know how to connect this clientele with the health service and pay attention to the social, economic and cultural factors that may mask the real situation of sexuality experienced by this group, implying the low adherence to condom use.

Facing the importance of the use of the condom as a preventive way of HIV infections, the individualizing approach given by the risk view and, it's influence on the vulnerability, we can see the necessity of avoid tendentious ways(bias) in the studies. In this scenario of controversies and uncertainty, the statistical validation of the results can direct the scientific thought towards a better interpretation of the results.

With this in mind, we used a statistical method to test the heterogeneity of studies data based on the general variant, calculating the statistical value Cochran Q (sorting the test of χ^2 with different levels of freedom — total number of studies minus one) to the chosen group of studies. The significance value of 0.05 was fixed in order to reject the hypothesis of homogeneity in the studies⁽¹⁶⁾.

There were a statistical significance of the summary measure (IC 0.952–2.836 ; $p < 0.001$), the latter with a significant at 99%. Furthermore, the test for the heterogeneity of the studies, from the value of χ^2 test, rejected the null hypothesis (H_0) of uniformity, with $p < 0.0001$, accepting that there are significant differences at the level of 99%. . Therefore, the selected studies present different measures of the OR for condom use by seniors.

The Q value obtained from the Cochran heterogeneity test was 31.9026 with 2 degrees of freedom. There was a Q value = 83.989 for the general heterogeneity test, and the same amount of degrees of freedom.

The I^2 test also showed statistical evidence of heterogeneity. However, the existing portion between the sample studies ($I^2 = 94\%$)

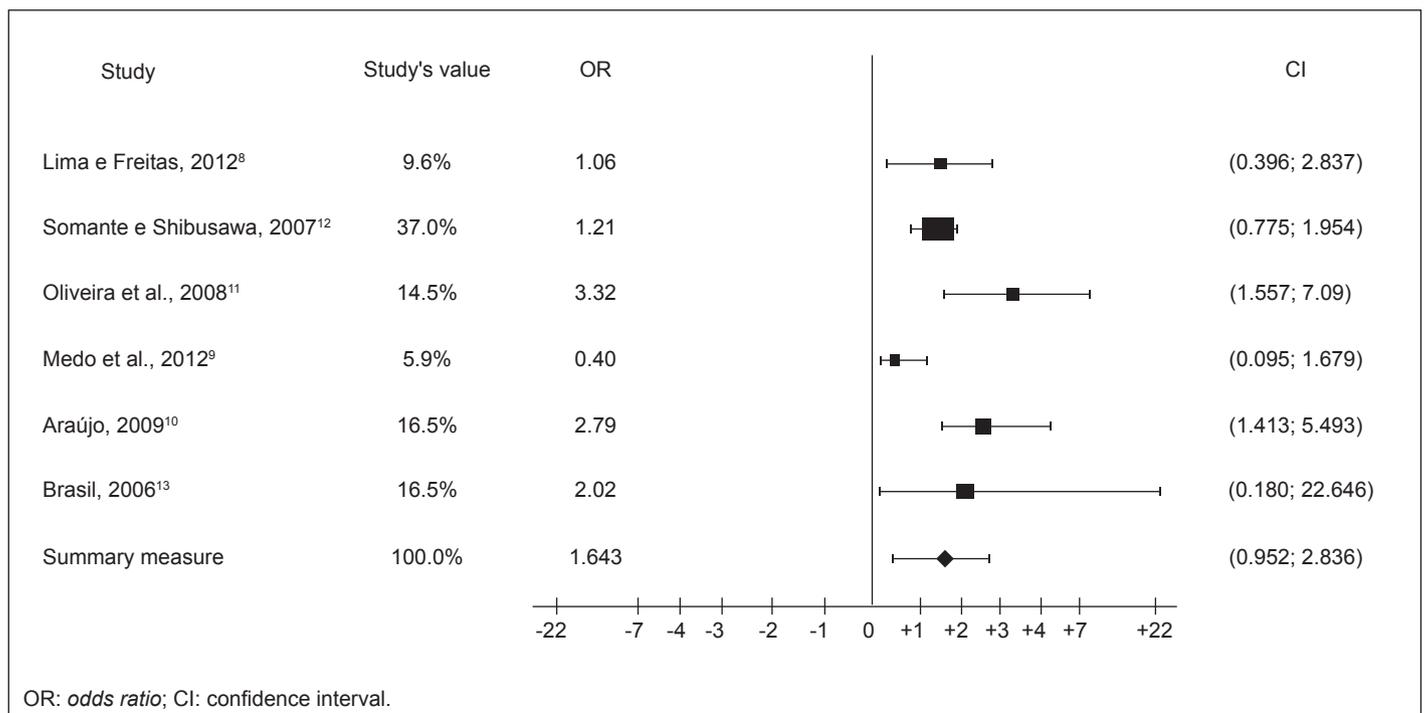


Figure 1 – Displaying a *Forest plot* with the estimated extent of the hazard ratio for non-condom use among elderly.

difference may be caused by methodological heterogeneity or by chance. This indicator (I^2) could be minimized by the inclusion of other studies, with less distinct objects of study.

The heterogeneity of effect measure found in the study is established from the test Cochran Q or by the statistic I^2 of Higgins and Thompson⁽¹⁶⁾. The calculated p value indicates whether the heterogeneity is significant or not, if different from zero. The Q value can vary between 0 and infinity, while the I^2 statistic may vary from negative values to 100%. An I^2 value close to 0% indicates no heterogeneity between studies, close to 75 or 100% indicates high heterogeneity, and when the value is negative, it is set equal to 0⁽⁶⁾.

All studies selected after application of the PEDro scale, evidence the no condom use as a risk factor for HIV infection, except Melo et al. (2012)⁽⁹⁾, which may be related to the sample size and have significantly contributed to the increased heterogeneity. Another factor that may have influenced this result is that the study sample includes young and old adults.

There is another important interpretation to be made regarding the ICs. These results, while very comprehensive, may indicate inadequate sampling of case studies and representativeness of the deviation indicator for less, reflecting possibly a low level of test power (β value).

All measurements, including meta-analytic showed positive values. The analysis of ICs, can infer that none of the studies was found possible to introduce the OR value equal to zero. However, the analysis of ICs, there is a possibility of the studies that compose the sample had an OR equal to one, indicating no relationship between the factor studied (condom use) and the outcome (HIV infection), contradicting the causal relationship between non-condom use and HIV infection.

Given this event, it is possible to see, in the *forest plot*, that the IC summary measure includes the value one. This probably is due the effects of heterogeneity and the small number of published studies on the subject, which could constitute the sample

Through the value of OR found it is possible to establish whether the variable studied is a protective factor or not. Regarding the variables found having lower values than one indicates that this is a protective factor, greater than one indicates the variables as risk factors values, and equal to a point that there is no association between the variables.

It is possible to understand that not using condoms makes the elderly vulnerable to HIV. The right to have safe sexual practices whatever kind they may be, with fixed partners, non fixed partners hetero or homosexual is a irrefutable right not only of the elderly, thus, being able to access the health services and to have social condition which allows them to promote prevention practices is also a huge asset in order to exercise safety in sex⁽¹⁷⁾.

The healthcare professionals, do not often see the elderly as a sexually active person, who thinks about sex and is able to arouse sexual desire in other people. To all health professionals, especially those in nursing, it is a more accurate performance in primary care programs, specifically in the Family Health Strategy (FHS), disseminating protection inputs and information on the correct use of condoms and warning that population about the risks of acquiring HIV / AIDS, especially when practicing unprotected sex⁽¹⁸⁾.

There is an urgent need for interaction between health professionals and the elderly, in order to gain understanding of the spreading process of HIV / AIDS in this age group. Understanding the elderly as a sexually active and exposed to risks of unsafe sex allows the execution of actions for the development of preventive conducts⁽¹⁵⁾.

With that said, these professionals will be approach the sexual health of the elderly in a holistic way, thus preventing HIV infection and minimizing biological and social effects of AIDS. Only then, with this dialog, using a common language spoken among professionals, public policies and users, you can change behaviours and improve the adhesion of individuals in this age range to prevention methods.

CONCLUSION

The results were satisfactory in the proof of the usage of the male condom as a positive influence on the prevention of HIV among the elderly. Besides, the statistical tests conducted confirmed the existence of clear evidences on the benefits of preservative usage in this age group, aiming to mitigate their vulnerability towards HIV.

However, there are some considerations to be made, considering most of the academic work developed originated some limitations. There are very few representative studies approaching this issue or making any correlation between the sexual practices of elderly people and the non-usage of condom to prevent HIV/AIDS. These elements permeate the uncertainties and inaccuracies limiting health actions.

Therefore is necessary, a greater scientific production targeting the sexuality of the elderly, given the continuous inversion that the age pyramid is suffering. With this, a new epidemiological characterization has represented and demanding specific interventions for this reality.

Conflict of interests

The authors report no conflict of interests.

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