







## **EDUCATIONAL INTERVENTION ON HIV/AIDS WITH ELDERLY INDIVIDUALS: A QUASI-EXPERIMENTAL STUDY**

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### **ABSTRACT**

**Objective:** to analyze the knowledge of the elderly assisted by the Unified Health System (*Sistema Único de Saúde*, SUS) about HIV/AIDS infection in a health unit, before and after an educational intervention.

**Method:** a quasi-experimental study analyzing the changes related to the knowledge about HIV/AIDS of 60 elderly individuals divided into two groups, who participated in an educational intervention, in an outpatient clinic of a SUS rehabilitation center in the second half of 2016. To evaluate the effectiveness of the teaching/learning process, a semi-structured questionnaire called QHIV3I was applied before and after the intervention. For data analysis, the generalized version of McNemar's chi-square test was used.

**Results:** comparing the knowledge of the elderly before and after the educational intervention showed a higher number of correct answers, with a minimum percentage of 3.34% and a maximum of 75%. Significant statistical differences were found in one of the questions in the concept, transmission and treatment domains; and in the two vulnerability questions.

**Conclusion:** it was found that the educational intervention contributed to the improvement of knowledge about HIV/AIDS in the elderly population. Thus, it is reasserted that the health promotion policy finds its essential foundation in health education strategies.

**DESCRIPTORS:** HIV. AIDS. Health education. Elderly Health. Nursing.

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## INTERVENÇÃO EDUCATIVA COM IDOSOS SOBRE HIV/AIDS: UM ESTUDO QUASE EXPERIMENTAL

### RESUMO

**Objetivo:** analisar o conhecimento dos idosos atendidos pelo Sistema Único de Saúde (SUS) acerca da infecção do HIV/aids numa unidade de saúde, antes e após intervenção educativa.

**Método:** estudo quase-experimental, em que se analisou as mudanças relativas ao conhecimento sobre HIV/aids de 60 idosos subdivididos em dois grupos, que participaram de intervenção educativa, num ambulatório de um centro especializado em reabilitação do SUS no segundo semestre de 2016. Para avaliar a eficácia do processo de ensino/aprendizagem, aplicou-se questionário semiestruturado denominado QHIV3I, antes e após a intervenção. Na análise dos dados, utilizou-se a versão generalizada do teste qui-quadrado de McNemar.

**Resultados:** a comparação dos conhecimentos dos idosos antes e depois da intervenção educativa evidenciaram maior número de acertos, com percentual mínimo de 3,34% e máximo de 75%. Diferenças estatísticas significativas foram encontradas em uma das questões nos domínios conceito, transmissão e tratamento; e nas duas questões sobre vulnerabilidade.

**Conclusão:** constatou-se que a intervenção educativa contribuiu para o aprimoramento de conhecimentos sobre HIV/aids na população idosa. Com isso, reafirma-se que a política de promoção da saúde encontra nas estratégias de educação em saúde seu alicerce essencial.

**DESCRITORES:** HIV. Aids. Educação em saúde. Saúde do idoso. Enfermagem.

## INTERVENCIÓN EDUCATIVA SOBRE VIH/SIDA CON ANCIANOS: UN ESTUDIO CUASI-EXPERIMENTAL

### RESUMEN

**Objetivo:** analizar el conocimiento de los ancianos atendidos por el Sistema Único de Salud (SUS) acerca de la infección por VIH/SIDA en una unidad de salud, tanto antes como después de una intervención educativa.

**Método:** estudio cuasi-experimental en el que se analizaron los cambios relacionados con el conocimiento sobre VIH/SIDA de 60 ancianos subdivididos en dos grupos y que participaron de una intervención educativa en el área de atención ambulatoria de un centro especializado en rehabilitación del SUS, durante el segundo semestre de 2016. Para evaluar la eficacia del proceso de enseñanza/aprendizaje se aplicó un cuestionario semiestruturado denominado QHIV3I, antes y después de la intervención. En el análisis de los datos se utilizó la versión generalizada de la prueba de chi-cuadrado de McNemar.

**Resultados:** en la comparación de los conocimientos de los ancianos antes y después de la intervención educativa se evidenció una mayor cantidad de respuestas correctas, con un porcentaje mínimo de 3,34% y uno máximo de 75%. Se encontraron diferencias significativas en una de las preguntas de los dominios de concepto y de transmisión y tratamiento, además de en las dos preguntas sobre vulnerabilidad.

**Conclusión:** se constató que la intervención educativa contribuyó a mejorar los conocimientos sobre VIH/SIDA en la población de la tercera edad. Esto reafirma que la política de promoción de la salud encuentra sus fundamentos esenciales en las estrategias de educación en salud.

**DESCRIPTORES:** VIH. SIDA. Educación en salud. Salud de los ancianos. Enfermería.

## INTRODUCTION

Demographic transformation has been occurring unevenly. Compared with the entire world population, in Brazil this change is defined as the increase in the adult and elderly population relative to the total population. Thus, the elderly constitutes a significant population group, requiring a series of new health conditions and demands to ensure the active access of the elderly in social life.<sup>1-2</sup>

Epidemiological studies of the last 14 years related to AIDS, by age group, in Brazil, show an 80% increase in HIV detection rates related to the public of 60 years old or older.<sup>3</sup> The possibility of the virus spreading in the elderly population is pointed out as an ignored aspect in the elaboration of public policies, since some existing campaigns are aimed primarily at the younger population.<sup>4-5</sup>

This pathology expresses a relevant problem in Brazilian public health, not only due to its debilitating physiological elements, but to the detriment of the psychic and social issues linked to the stigma imposed on the disease.<sup>6</sup> When assessing the regions, the Northeast has a continuous predisposition regarding the growth of the HIV detection rate, with a value of 15.2 cases/100 thousand inhabitants. In 2017, 285 new cases were reported in the state of Alagoas.<sup>3</sup>

Multiple causes contribute to increase the vulnerability of the elderly to HIV/AIDS infection, namely: increased use of drugs to control sexual impotence; prejudice regarding sexuality in old age; neglect to use condoms, especially when related to sexual practice with a stable partner in which there is trust in the relationship; insufficient and little investment in health strategies to generate information for the elderly about the prevention of sexually transmitted infections (STIs) and AIDS, since the actions for information about AIDS directed to the elderly still present certain discontinuity.<sup>7-8</sup>

The advances in science are already capable of maintaining the quality of life of infected people, as well as of prolonging the physiological conditions conducive to the development of sexual practices in the elderly; however, the discussion about sexuality and the practice of safe sex with this subject is still taboo with this population.<sup>7</sup>

To address HIV infection in the elderly population, the execution emerges of health education strategies that underpin actions to promote sexual health with this population group. Thus, it is important to consider that there is a gap in the actions aimed at the elderly population regarding HIV/AIDS prevention. It is also known that health education actions should be rethought, since the approach to the elderly cannot be the same as that used for other age groups. Thus, it is mandatory to think of health education strategies that involve the elderly in the teaching-learning process, respecting and valuing the cultures and knowledge of the population and stimulating their active participation in the reconstruction of knowledge, overcoming prejudice and stigma.<sup>9</sup>

Given the lack of information in this population due to the fact that it is the target audience of few campaigns and little guidance from health professionals,<sup>10</sup> this study aims to analyze the knowledge of the elderly attended by the Unified Health System (*Sistema Único de Saúde*, SUS) about HIV/AIDS infection in a health unit, before and after an educational intervention.

## METHOD

This is a quasi-experimental and non-randomized study based on pre- and post- intervention. Changes related to knowledge about HIV/AIDS occurred in the elderly before and after the implementation of the educational intervention were analyzed, following an intra-subjective<sup>11</sup> delineation developed in the outpatient clinic of a specialized rehabilitation center, characterized as a philanthropic service with exclusive assistance to the users of the SUS.

The study population consisted of 60 elderly individuals followed at the health unit, from June to December 2016. The sample was selected by analyzing the medical records of the elderly, by means of inclusion/exclusion criteria during the recruitment phase of subjects to compose the study

sample. The study's inclusion criteria were elderly individuals aged 60 years old or older who were being monitored by the health team of the referred service. Regarding the exclusion criterion, the elderly who participated in other educational intervention groups, who had a record in the diagnosis of cognitive deficit, memory deficit and did not attend any of the meetings previously scheduled with the group were disregarded.

To evaluate the effectiveness of the teaching/learning process of the educational intervention with the elderly, a semi-structured questionnaire was applied called QHIV3I, before and after the intervention.<sup>12</sup> QHIV3I is composed of initial questions that address the characterization data of the elderly, followed by 17 questions that address the five domains on HIV/AIDS: concept, transmission, prevention, vulnerability and treatment.

For the intervention development, 60 elderly individuals were equally divided into two groups. Each group participated in three meetings lasting one hour and 30 minutes, with one meeting per week. In the elderly group first meeting, priority was given to welcoming, socializing and applying the pre-test questionnaire. At first, the elderly were invited to participate in a conversation-wheel dynamic, so that each participating elderly could present individually; after this moment, each elderly person was asked to answer the QHIV3I questionnaire (pre-test) in a room reserved for previous analysis of their knowledge about the subject to be discussed later.

In the second meeting, a dialogical theme approach was carried out, based on the valorization of the previous knowledge of the group in articulation with the scientific contextualized and meaningful to the interests and demands of the group. In this stage, an audiovisual slide projection resource was used, in which the following domains were addressed: concept (synonymous of HIV/AIDS, definition of the disease), transmission (etiological agent, epidemiology), treatment (signs and symptoms, diagnosis and possible treatments). Immediately afterwards, an educational video about the experience of elderly people with HIV/AIDS was shown. Throughout this educational instrument, the influence and peculiarities of the virus in the elderly are discussed.

In the third meeting, the educational activity continued, addressing the domains of vulnerabilities and preventive actions for the elderly population, demonstrating the correct use of male and female condoms, using anatomical acrylic parts of the male and female genital region as didactic resources. Then all the elderly received condoms so that they could perform the procedure.

After the development of condom handling skills, the group was encouraged to write a text on the studied theme. The group's cultural influence contributed to the final making of a copy along the lines of cordel literature - a popular literary genre often written in rhyming form, sourced from oral accounts and later printed in leaflets - entitled: HIV/AIDS: life and health of the elderly. Soon after, the post-intervention QHIV3I questionnaire was applied.

Data analysis was obtained from the elderly responses to the QHIV3I questionnaire before and after, which were tabulated and classified as "true", "false" and "I don't know". For comparison purposes, the generalized version of the McNemar's chi-square test was used. The Null Hypothesis (NH) of the test is that the proportions of the table marginals are equal to the 5% significance level ( $\alpha$  0.05). To perform the analyses, the R program, version 3.0 was used.

The development of this study respected the ethical precepts of research with human beings, in accordance with Resolution No. 466/12 of the National Health Council. The participants signed the Free and Informed Consent Form (FICF) confirming their consent to participate in the study.

## RESULT

The study participants group consisted of 60 elderly individuals, 51 (85%) women and 9 (15%) men, with a mean age of 68 years old. Regarding schooling, 17 (29%) reported having four to seven years of study. Regarding monthly income, 33 (55%) of the survey participants receive up to one minimum wage, 25 (41.67%) receive one to three minimum wages and two (3.33%) chose not to answer. 46 (76.67%) reported practicing the Catholic religion, 13 (21.66%) are Evangelical, and one (1.67%) individual has no specific religion. As for the stable partner, 35 (58.33%) did not have any and 25 (41.67%) did (Table 1).

**Table 1** – Distribution of the elderly according to gender, schooling, monthly income, religion and spouse. Maceió, AL, Brazil, 2016. (N=60)

Frequency	n	%
Gender		
Female	51	85
Male	9	15
Schooling		
None	7	11.67
1 to 3 years	14	23.33
4 to 7 years	17	29
8 to 11 years	11	18
12 or more years	11	18
Monthly income		
Up to less than 1 wage	33	55
Between 1 and 3 wages	25	41.67
I prefer not to answer	2	3.33
Religion		
Catholic	46	76.67
Evangelical	13	21.66
Does not have any	1	1.67
Partner		
No	35	58.33
Yes	25	41.67

Table 2 presents the results related to the knowledge of the elderly about HIV/AIDS before and after the educational intervention, verifying an increase with a minimum percentage of 3.34% and a maximum of 75%. Significant statistical differences were appreciated in the following areas: concept; transmission and treatment (one question only); and vulnerability (on both existing questions). Thus, it was evident that the educational intervention contributed to the construction of knowledge about HIV/AIDS by the elderly.

In the “concept” domain, before the educational intervention (pre-test), 80% (48) of the participants considered that the HIV virus was the cause of AIDS, while in the post-test this knowledge increased to 96.67% (58) with  $p=0.001$ , showing that the elderly began to recognize HIV as the etiological agent that causes AIDS.

Faced with the following question: “Will the person with the AIDS virus always have the symptoms of the disease?”, it was verified that 11.67% (7) of the participants answered correctly; after the educational intervention, there was an increase of correct answers in 86.67% (56) of the participants. In this question, it is worth noting that the false alternative is considered as an assertive answer. Thus, it was possible to observe that the elderly acquired a better understanding of the clinical phases that involve HIV/AIDS infection.

When asked in the pre-test if the AIDS virus is identified through laboratory tests, 90% (54) of the participants answered correctly, rising to 95% (57) in the post-test.

In the “transmission” domain, it was observed that during the pretest there were doubts about the forms of HIV transmission, in which 71.67% (43) answered this question assertively; however, in the post-test, 100% (60) of the participants understood the forms of HIV transmission. As can be verified in the other questions related to this domain: “Can the AIDS virus be transmitted by a hug, a kiss on the cheek, a drink in the same cup and *chimarrão*?” and “Can the AIDS virus be transmitted by a mosquito bite?”, a pre-test score of 78.33% (47) was verified and 43.33% (26) in the post-test, respectively; however, the correct answer corresponded to 100% (60) and 95% (57). The demystification of the mosquito as an HIV transmitter had a statistically significant p value ( $p=0.002$ ).

In the comparative evaluation of the “prevention” domain, a higher number of pre-test participants who knew about the covered contents was found in relation to the other domains. In the post-test, a total of correct answers by the elderly in the recognition of condoms as a preventive measure was obtained, as well as the possibility of HIV infection through the sharing of syringes.

In the “vulnerability” domain, there was a decrease in the percentage of errors after the educational intervention. In the pre-test, 70% (42) of the elderly evaluated answered the following question correctly: “Is AIDS a disease that occurs only in male homosexuals, prostitutes and drug users?” In the post-test, the number of correct answers corresponded to 90% (54), with a statistical significance of  $p=0.005$ .

Another pertinent question to this same domain verified whether the elderly population needs to be aware of situations of exposure to HIV. Given the results obtained, there was an increase of 21.66% in the correct answers of this question, with a significance of  $p=0.002$ .

Regarding the “treatment” domain, which investigates the knowledge of the elderly about the existence of treatment for AIDS, it was identified that, in the pre-test, 66.67% (40) were correct, while in the post-test, the number of correct answers was 95% (57), with a significance of  $p=0.001$ . The question that addresses the existence of a cure for AIDS showed an increase in assertive responses in the post-test; however, it was not significant.

Considering a cultural and religious dimension that involves the elderly, the understanding of AIDS was evidenced as a punishment of God for those who committed sins in 16.67% (10) of those interviewed in the pre-test, showing greater resistance to change. After the educational intervention, 13.33% (8) of the elderly maintained this assertion, illustrating the resistances that involve subjectivity in the construction of health knowledge.



**Table 2** – Elderly knowledge about HIV/AIDS, before and after the health education intervention. Maceió, AL, Brazil, 2016. (N=60)

Variables	Before (%)			After (%)			p-value
	True	False	I don't know	True	False	I don't know	
<b>“Concept” domain</b>							
1. Does the HIV virus cause AIDS?	80	1.67	18.33	96.67	3.33	0	<b>0.001</b>
2. Does a person with the virus always present the symptoms of the disease?	75	11.67	13.33	13.33	86.67	0	<b>0.007</b>
3. Is the AIDS virus identified through lab exams?	90	6.67	3.33	95	3.33	1.67	<b>0.331</b>
<b>“Transmission” domain</b>							
4. Can the AIDS virus be transmitted by soap, towels, and toilet seats?*	15	71.67	13.33	0	100	0	–
5. Can the AIDS virus be transmitted by a hug, kiss on the cheek, drink in the same cup and <i>chimarrão</i> ?*	16.67	78.33	5	0	100	0	–
6. Can the AIDS virus be transmitted by mosquito bites?	45	43.33	11.67	5	95	0	<b>0.002</b>
<b>“Prevention” domain</b>							
7. If someone uses a condom when having sexual relations, do they prevent the transmission of the AIDS virus?*	86.67	10	3.33	100	0	0	–
8. Is there any specific condom for women?	86.67	3.33	10	98.33	0	1.67	<b>0.021</b>
9. Is AIDS transmitted when several people use the same syringe or needle?*	100	0	0	100	0	0	–
<b>“Vulnerability” domain</b>							
10. Is AIDS a disease that affects only male homosexuals, prostitutes/taxi boys and drug users?	30	70	0	10	90	0	<b>0.005</b>
11. Elderly people should not worry about AIDS, as it only affects young people.	23.33	73.34	3.33	5	95	0	<b>0.002</b>
<b>“Treatment” domain</b>							
12. Is there any treatment for AIDS?	66.67	23.33	10	95	5	0	<b>0.001</b>
13. Is there any cure for AIDS?	21.67	68.33	10	6.67	83.33	10	<b>0.092</b>
14. Is AIDS God's punishment for those who sinned?	16.67	80	3.33	13.33	83.34	3.33	<b>0.424</b>

\* For variables number 4,5, 7 and 9, it was not possible to perform the statistical test, due to the lack of response in the post-test.

Concerning the questioning of the elderly about the knowledge of someone with HIV, there was a similar proportion of answers, in which 53.33% (32) confirmed that they knew someone living with HIV/AIDS. Considering the participants' sexual health behavior before and after the health education intervention, it was possible to observe that there were changes in the behavior of these individuals, since, in the pre-test, most of the elderly - 71.67% (43) - did not made use of condoms as a preventive form; in the post-test, the number of elderly people who still did not use this preventive method decreased to 35% (21). Regarding the pre-test anti-HIV test, only 43.33% (26) of the elderly reported having performed it; After the educational intervention, the number of elderly people who underwent rapid testing in health facilities increased to 65% (39), thus evidencing a better understanding of the importance of this resource in care in relation to sexual health and the need safer sex practices to modify the sexual behavior of this population (Table 3).

However, it deserves to be considered a weakness to note the impact of educational action by assessing the answers obtained, since after the educational intervention, based on the knowledge learned, the elderly may feel induced to respond positively.

**Table 3** – Participants' sexual health behavior before and after the health education intervention. Maceio, AL, Brazil, 2016. (N=60)

Variables	Before %			After %		
	Yes	No	Rarely	Yes	No	Rarely
Have you already performed the anti-HIV test?	43.33	56.67	0	65	35	0
Do you use condoms?	10	71.67	18.33	40	35	25

## DISCUSSION

The assessment of the knowledge about HIV/AIDS is relevant as it is a determinant for risk exposure. In the literature, there are many articles that bring information about HIV/AIDS but, until 2015, only 23% of them addressed the theme in the elderly population.<sup>13</sup>

The profile of the individuals studied is in line with the current trend of participation of elderly groups, reinforcing the possible trend in which the epidemic may expand.<sup>14</sup> In a study conducted with the elderly in the Polyclinic in Santiago, Cuba, a distinction was found between gender and schooling, in which the primary level of education prevailed in females and high school in males, while under graduation was absent in both genders.<sup>15</sup>

The low purchasing power, added to the poor schooling and active sexual life of the elderly, are highlighted in the literature as situations of vulnerability to their health. Thus, it can be noted that the elderly participants in the study are prone to risk behaviors, thus highlighting health education as the driving force for establishing a bond, in order to ensure the principle of equity in the construction of knowledge in health for self-care.<sup>8,16</sup>

The results show that the elderly disregard the possibility of contagion during the asymptomatic period of the disease, since the person with the AIDS virus will always have the symptoms of the disease. For this group, when thinking about HIV/AIDS, it is related to a severe and incurable disease, not understanding the difference between being a carrier of the HIV virus and manifesting the symptoms of the disease.<sup>17</sup>

Thus, it is clear that there are many confusing concepts about how HIV is transmitted, and it is well known that recognizing such forms is of great relevance for both, young and elderly, since if



one comes to understand therefore understand what preventive means are required.<sup>18</sup> For the elderly, there is an even greater importance, since the lack of knowledge regarding the causes of the disease may favor the spread of the virus, as well as the delay in diagnosis and treatment, which may result in death in a shorter time compared to a younger person.<sup>8</sup>

In addition, it is noted that before the educational intervention, most participants responded that they do not use condoms during their sexual relations. Among the resistances for condom use, men report fear regarding loss of erection, difficulty in condom handling, decreased pleasure and sexual performance, emphasizing that care is only essential in relationships with sex workers. Women, on the other hand, do not feel the need to request condoms, since they are no longer of reproductive age and believe that they no longer need prevention, in addition to the inability to negotiate condom use, submission to their partner and trust in a stable relationship.<sup>19-20</sup> In this sense, elderly have knowledge about the use of condoms as a form of effective prevention; however, they do not understand its real importance during sexual relations.<sup>14</sup>

Several studies show that the insufficient knowledge of the elderly regarding the ways of HIV transmission is directly related to unsafe sexual practices, since they do not use condoms.<sup>17</sup> Moreover, studies show that older and less educated people believe that the simple practice of genital lavage after sexual intercourse is sufficient to prevent contagion, revealing an inadequate knowledge about the ways of HIV transmission. These data indicate the vulnerability of these elderly individuals, as they are not considered susceptible to acquiring STIs/AIDS.<sup>17</sup>

Regarding the cases of HIV-infected elderly people in the state of Alagoas in 2018, there are a high number of those who have multiple partners and do not use condoms.<sup>21</sup> One hypothesis for this high rate may be the advances of the pharmaceutical industry as well as medicine, which favors the continuity of active sex life in the elderly population.<sup>22</sup>

Regarding "vulnerability", several studies on HIV/AIDS knowledge in the elderly highlight that the elderly do not consider themselves vulnerable to HIV infection and associate this possibility with young people, drug users, homosexuals and sex workers.<sup>17</sup>

Still in the results of the current study, it was identified that, before the educational intervention, many participants answered that they had never performed the anti-HIV test, thus highlighting the state of vulnerability these elderly people were in. This data indicates that there may be more elderly people with HIV than those reported, as they do not perform the test regularly.<sup>23</sup>

It is believed that this understanding is due to the fact that the health services do not have any special care regarding the attention to the sexuality of the elderly and the STIs, evidencing an invisibility of the disease given by the health professionals.<sup>8,21</sup> These are taboos that favor the late diagnosis of infection in the elderly population.<sup>24</sup>

Difficulty in gaining access to information about sexuality in the perception of the elderly evidenced the lack of knowledge about the subject and that they did not receive information about sexuality in adolescence. A study states that most elderly believe in the possibility of having an active and healthy sex life after 50 years old; however, there are still questions to be clarified.<sup>18</sup>

This lack of knowledge, coupled with the idea that only young people can be infected with the HIV virus, allied with the invisibility of the disease in this age group by the health professionals, certainly results in late diagnoses, thus leaving this population unassisted.<sup>24</sup> These data are directly related to the stigma that the disease represents, which increasingly exposes the elderly to risk behaviors, making diagnostic tests difficult and compromising prevention and care measures.<sup>25</sup>

Thus, in order to identify the demands of the elderly's sexuality, it is necessary to establish a professional-patient bond for an effective approach.<sup>23</sup> For this, it is vital that the professional approaches the patient in the context of comprehensiveness, listening and welcoming their concerns and doubts,

developing skills to ask about the intimate life, in order to propose actions that facilitate reflection, adopting safe practices in search of improved quality of life.<sup>14,24</sup>

The implementation of comprehensive care addressing the aspects of human sexuality in promoting the health of the elderly requires the formation of professional nurses specializing in gerontology, with skills for interdisciplinary work.

Considering the religious context, it is still observed that the elderly consider AIDS as a condemnation of the divine for those who practiced desecration. This data was also verified in a study, in which a similar proportion (23.8%) was found; thus, it is noted that there are still many questions and clashes that need to be studied, which are directly related to moral codes.<sup>22</sup>

In this perspective, it is noteworthy that the public health policies directed at the elderly population are still insufficient, since specific guidelines for the request of anti-HIV serology for the elderly are lacking. This absence contributes to the failures during the care of this population in health services, especially in primary care, which is considered the gateway to the health system.<sup>24</sup> To contain the progress of HIV/AIDS among these individuals, such public policies must take into account the new population profile of these elderly.<sup>17,26</sup>

Given the severity of the disease and its rapid spread due to the increase in the number of infected elderly, it is considered necessary and with some urgency to build public policies that address this issue.<sup>27</sup> It is also identified the lack of preparation of health professionals to carry out education on sexuality and safe sex with this group, which is resistant to adherence to treatment and acceptance of seropositivity.<sup>24</sup> In this context, it is evident that assistance to the elderly public requires considering its peculiarities, focusing on basic care and protection, especially the elderly living in regions of social vulnerability.<sup>28</sup>

## CONCLUSION

The educational intervention contributed to the improvement of knowledge regarding the concept, transmission, prevention, vulnerability and treatment of HIV/AIDS in the elderly population. The educational activities implemented were based on participatory approaches, promoting a dialogical arena between the elderly and the researchers to provide interaction, clarification and knowledge sharing. The elderly's role in the construction of knowledge was gradually developed and assimilated significantly by their involvement in health education on safe sex and prevention of HIV/AIDS. The effectiveness of educational actions that promote sex education with the elderly population is based on scientific evidence and comes from a planning articulated with the interests and demands of this population group, with co-responsibility of the nurse and the interdisciplinary team, with the necessary management support.

This study reasserts that the health promotion policy finds in education strategies an essential foundation for the critical and reflective construction of the ways in which the elderly experience their sexuality, in order to ensure the perception of their vulnerability to HIV infection, as well as to have access to knowledge that presents possibilities of behavior and decisions committed to the practice of safe sex, and the empowerment of the elderly population in view of the epidemiological growth of HIV in this population group in the Brazilian reality.

It is required that the professionals in the area, with emphasis on those who work in the primary health care network, acquire competences and skills to discuss sexuality with the elderly population, breaking taboos and prejudices that contribute to the greater vulnerability of this group to acquire HIV.

Attention to the elderly emerges based on health educational strategies capable of promoting systematic, individual and group activities, creating dialogical and participatory scenarios; based on active methodologies. Health education needs to stimulate the protagonism of the elderly, providing the development of contextualized, critical and reflective knowledge on the subject, aiming at overcoming

stigmas and incorporating an attitude of commitment to the full experience of their sexuality by incorporating the use methodical and systematic use of condoms.

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## NOTES

### ORIGIN OF THE ARTICLE

Text extracted from the course conclusion paper - Popular Health Education: the knowledge of the elderly attended by the SUS about HIV/AIDS infection in a health unit in Maceió-AL, presented in *Centro Universitário Maurício de Nassau*, in 2016.

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Analysis and interpretation of data: Araújo WJS, Nascimento KC, Tavares CM, Camargo RAA.

Discussion of the results: Araújo WJS, Bragagnollo GR, Monteiro EMLM.

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Review and final approval of the final version: Araújo WJS, Monteiro EMLM.

### ETHICS COMMITTEE IN RESEARCH

Approved by the Research Ethics Committee of the Center for Higher Studies of Maceió (*Centro de Estudos Superiores de Maceió*, Cesmac) Protocol No.1,539,876, CAAE 54801516.1.0000.0039.

### CONFLICT OF INTEREST

There is no conflict of interest.

### HISTORICAL

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