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Modelo de decisão sobre o uso de preservativos: uma regressão logística multinomial.

Decision model about condom use: a multinomial logistic regression.

Modelo de decisión sobre la utilización de condones: una regresión logística multinomial.

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RESUMO: O presente trabalho apresenta uma estratégia de estudo para auxiliar o processo de tomada de decisão sobre a autoeficácia no uso do preservativo por meio da regressão logística multinomial. Os dados analisados são referentes a uma amostra de 1260 brasileiros, dos quais 36% afirmaram sempre usar camisinha. De acordo com o modelo de decisão considerado, as variáveis analisadas revelaram que a decisão sobre o uso do preservativo é influenciada pela confiança que o indivíduo sente no sucesso do seu uso.

Palavras-chave: Autoeficácia, preservativos, modelo logístico.

ABSTRACT: This work aims to present a study strategy to assist the decision making process about self-efficacy on condom use by multinomial logistic regression. The data analyzed refers to a sample composed of 1260 Brazilians, of which 36% reported always using condoms. According to the decision model considered, the variables indicated that the decision on condom use is modulated by the confidence that the individual feels about the success of its use.

Keywords: Self-efficacy, condoms, logistic model.

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RESUMEN: Este trabajo presenta una estrategia de estudio para ayudar en el proceso de toma de decisiones, respecto a la autoeficacia en el uso de condones, mediante la regresión logística multinomial. Los datos analizados se refieren a una muestra de 1260 brasileños, de los cuales el 36% reportó usar siempre condones. De acuerdo con el modelo de decisión considerado, las variables indican que la decisión sobre el uso del condón se ve influenciada por la confianza que el individuo tiene sobre el éxito de su uso.

Palabras clave: autoeficacia, condones, modelo logístico.

INTRODUCTION

Self-efficacy is the measure of how competent the individual feels to do something, controlling their results. It is related with achievements, self-confidence, self-esteem and even by means of the subtle manipulations, it can affect sexual behavior. However, self-efficacy does not always offer positive points or benefits, thus being able to increase individual vulnerability through the illusory or unrealistic optimism, which it can generate. This is why realism can be the best option given the dangers of unrealistic optimism [1].

The term was derived from the theory of Social Learning of Bandura [2], in which the author has proposed that self-efficacy is an important mediator of behavior and is defined conceptually as 'a trial of one's own capacity to perform a given level of performance'. The theory also emphasizes the individual who is not worried about the skills they have, but with judgments about what they can do with the skills they have.'

The theory of self-efficacy has considerable importance in behavioral studies related to health, including self-prevention of sexual transmission of HIV and other sexually transmitted diseases, and the occurrence of unwanted pregnancy. It therefore has important implications for predicting and reducing risk health behaviors of individuals [3].

The condom is a resource available to men and women, which provides a secure, economical and efficient means that meets the double function, prevention of unwanted pregnancies and sexually transmitted diseases (STDS), when it is used consistently and appropriately. In addition, is relatively cheap, with little or no restriction on use, can be used with safety, without requiring any specific skill [4].

Even with all the facilities presented by the condom, individuals of both sexes still have explicit or veiled resistance to its use. This fact is directly related to the knowledge, attitude and practice that each individual has, by establishing a change in sexual life for those who do not have the habit of using it [5].

Due to the incurable nature of the Acquired Immunodeficiency Syndrome (HIV/AIDS), prevent HIV infection is a major public health challenges in much of the world. In this context, damage

reduction and prevention are highlighted as key strategies for combating the epidemic. However, the prevention strategy is undermined by the low use of condoms, especially for people living in areas where there is an HIV/AIDS epidemic, even with condoms readily available [6].

The spread of education about the sexual practices of people, becomes ever more relevant since the development of knowledge and personal skills consists of one of the health promotion strategies. Actions in this context may be capable of promoting autonomy and co-responsibility in care with the own body and in breaking the chain of transmission of sexually transmitted diseases, causing the individuals know several options of care and lead practices favorable to health [7].

When the discussion of matters related to the use of condoms, prevention of STDS and sexuality are not a common practice and there is both a subjection to the standards of the group - community - or the cultural norms in the most diverse aspects, may arise with greater ease the acceptance of beliefs little appropriate in relation to condoms which may subsequently come to influence the protective behaviors. In this sense, the perception of self-efficacy or beliefs may be important variables, in so far as they may influence the behavior of individuals regarding the use of condoms[8].

In addition to factors such as knowledge and access, self-efficacy in condom use has been shown to be strongly associated with the behavior of each individual front to its use, being an important concept to be studied in the health area, motivating the development of the study in question, whose goal is to contribute to the discussion about the decision on the use of condoms and its relationship with self-efficacy.

METHODOLOGY

This is a descriptive exploratory study with a quantitative approach, that counted with a sample 1,260 people of the five regions of Brazil: Northeast (37.3%), Southeast (25%), Midwest (16%), North (8.7%) and South (12.6%). This was a non-probabilistic and convenience sample. The subjects were contacted via social networks, as well as by electronic mail to reply to the questionnaire. In this case, the results found here cannot be generalized. We tried to obtain a similar quantitative of subjects per geographical region, although this has not been achieved. The number of subjects was defined according to the demands of the statistical analyzes performed in other psychometric and stages of the research, such as Item Response Theory, Confirmatory factor analysis, among others.

In addition to a sociodemographic questionnaire, in which were asked to subject data as the city and state in which they reside, in addition to family income, age, marital status, level of schooling, sexual orientation, among others, the instrument was composed by scale derived from the search *Condom Use Self-Efficacy Scale - Ghana* [9]. The authors defend the concept of self-efficacy proposed by Bandura [2], whose general influences are linked to the capacity of trials of what one can do with their own skills. Also it emphasizes that self-efficacy reflects the level

of confidence for a person in their ability to control the environment [3,9]. The scale evaluates the self-efficacy in condom use, i.e. the perception of the individual to use condoms. This scale has 14 items distributed in a *Likert scale* with the following extremes: 1 = 'Strongly Disagree' and 5 'Strongly Agree'. The set of items is divided into four subscales: *Ability* (to put a condom in itself or in another); to *Assertiveness* (ability to convince a partner to use condoms); *Pleasure and drugs* (ability to use condoms when under the influence of any substance); and *sexually transmitted diseases* (fear that the partner thinks that they have a sexually transmitted disease).

The items in the Scale for *Condom Use Self-Efficacy Scale - Ghana (CUSES-G)* have been translated and adapted to the Brazilian culture through a semantic validation [10]. After approval of the Ethics Committee of the Lauro Wanderley University Hospital, with No. 17887013.1.0000.5183, took place for the application of the questionnaires via an online form, demanding the individual response of the participants, who were instructed not to identify in the questionnaire, ensuring the anonymity of their participation. It was indicated that they could leave the study at any time without penalty, ensuring the voluntary nature of participation. All agreed with a *Term of Free and Informed Consent* previously exposed, which presented the objectives of the survey and the information about the researchers, moment in which we were also exposed the instructions of each instrument.

The logistic regression analysis is a statistical technique that has as objective to produce, from a set of observations, a model that allows the prediction of values taken by a categorical variable, binary, often from a series of explanatory variables continuous and/or binary mixtures. In this study we employed a type of logistic regression called multinomial response, which allows the analysis of the explanatory variables with the response variable at its various levels, whose dependent variable has more than two mutually exclusive classes [11].

In the logistic regression model, whereas a situation in which the response variable could take only two possibilities of values, '0' or '1', it is assumed that the model has the following form:

$$Y_i = x_i^T\beta + \varepsilon_i Y_i = x_i^T\beta + \varepsilon_i, \qquad (1)$$

In which:

$$x_i^T = [1, x_{i1}, x_{i2}, \ldots, x_{ip}], [\beta_0, \beta_1, \ldots, \beta_p],$$

And the response variable $Y_i Y_i$ with distribution Bernoulli assumes the values 0 or 1 with the respective, probabilities

$$\pi_i = P(Yi = 1)\pi_i = P(Yi = 1) \text{ and } 1 - \pi_i = P(Yi = 0)1 - \pi_i = P(Yi = 0).$$

Assuming that $E(\varepsilon_i) = 0E(\varepsilon_i) = 0^{E(\varepsilon_i)} = 0E(\varepsilon_i) = 0$, the expected value of the response variable is given by

$$E(Y_i) = [1 \times (\pi_i)] + [0 \times (1 - \pi_i)] = \pi_i E(Y_i) = [1 \times (\pi_i)] + [0 \times (1 - \pi_i)] = \pi_i,$$

This implies that

$$E(Y_i) = x_i^T \beta = \pi_i E(Y_i) = x_i^T \beta = \pi_i,$$

Therefore, the expected value for random variable YY, amended by response function

$$E(Y_i) = x_i^T \beta E(Y_i) = x_i^T \beta,$$

Is the probability of the response variable YY take the value 1 [12].

However, there are some problems with the regression model expressed in (1). Note that if the answer is Binary, Error $\varepsilon_i \varepsilon_i$ could take only two values

- $\varepsilon_i = 1 - x_i^T \beta \varepsilon_i = 1 - x_i^T \beta \varepsilon_i = 1 - \mathrm{x_i^T \beta} \quad \varepsilon_i = 1 - x_i^T \beta$, when $Y_i = 1 Y_i = 1, \mathrm{y_i} = 1$ $y_i = 1$
- $\varepsilon_i = -x_i^T \beta \varepsilon_i = -x_i^T \beta$, when $Y_i = 0 Y_i = 0$, $\mathrm{y_i} = 0 \mathrm{y_i} = 0$

Consequently, the errors of this model does not have the possibility of being normal and not be constant variance. Finally, there is a restriction of the response function, because

$$0 \leq E(Y_i) = \pi_i \leq 10 \leq E(Y_i) = \pi_i \leq 1.$$

This restriction may cause serious problems with the choice of the linear function for the response variable, as expressed in the expression (1), because in this case the model could be adjusted with out of range predictive values [0, 1]. Generally, when the response variable is binary, there is empirical evidence that the form of the response function is non-linear. In this case it employs a transformation in expression (1) what response function logistics, according to the previous authors, in the form

$$E(Y_i) = \frac{\exp(x_i^T \beta)}{1 + \exp(x_i^T \beta)} E(Y_i) = \frac{\exp(x_i^T \beta)}{1 + \exp(x_i^T \beta)},$$

or equivalent

$$E(Y_i) = \frac{1}{1 + \exp(-x_i^T \beta)} E(Y_i) = \frac{1}{1 + \exp(-x_i^T \beta)}.$$

The Logistic function can be easily linearized rate by processing $logitlogit$, defined by:

$$\eta_i = ln\left(\frac{\pi_i}{1 - \pi_i}\right) \eta_i = ln\left(\frac{\pi_i}{1 - \pi_i}\right),$$

Where $\eta_i = x_i^T \beta \eta_i = x_i^T \beta$ is called linear predictor.

In the multinomial logistic regression model is considered to be a collection of independent variables, denoted by $X = (X_0, X_1, \ldots, X_r) X = (X_0, X_1, \ldots, X_r)$, where $x = (x_0, x_1, \ldots, x_r)$ $x = (x_0, x_1, \ldots, x_r)$ with $x_0 = 1 x_0 = 1$ and YY a nominal random variable which can assume levels $0, 1, \ldots, q 0, 1, \ldots, q$, and comparing $Y = kY = k$ with $Y = 0Y = 0$, to $k \in \{1, 2, \ldots, \mathrm{q}\}$ $k \in \{1, 2, \ldots, \mathrm{q}\}$. The *zero* value is then called the *reference category* [13] .

Denotes the function $logitlogit$ as being

$$g_k = ln\left[\frac{\mathbb{P}(Y = k|x)}{\mathbb{P}(Y = 0|x)}\right]$$

$$= \beta_{k0}x_{k0} + \beta_{k1}x_{k1} + \ldots + \beta_{kr}x_{kr}$$

$$. \quad = x^T\beta_k = x^T\beta_k. \qquad (2)$$

Adopting nn independent observations YY, the associated values of $x_i = (x_{i0,} \ldots, x_{ir})$ $x_i = (x_{i0,} \ldots, x_{ir})$, for $i \in \{1, 2, \ldots, \mathrm{n}\} i \in \{1, 2, \ldots, \mathrm{n}\}$, logit expressed in (2) is given by

$$g_{kn} = \beta_{k0}x_{n0} + \beta_{k1}x_{n1} + \ldots + \beta_{kr}x_{nr} + \varepsilon_n g_{kn} = \beta_{k0}x_{n0} + \beta_{k1}x_{n1} + \ldots + \beta_{kr}x_{nr} + \varepsilon_n,$$

being $x_{i0} = 1 x_{i0} = 1$, $i \in \{1, 2, \ldots, \mathrm{n}\} i \in \{1, 2, \ldots, \mathrm{n}\}$ that the errors, $\varepsilon_i \varepsilon_i$, follow the following assumptions:

$$E(\varepsilon_i) = 0; Var(\varepsilon_i) = Var(Y_i); Cov(\varepsilon_i, \varepsilon_l) = 0, \; sei \neq l$$
$$E(\varepsilon_i) = 0; Var(\varepsilon_i) = Var(Y_i); Cov(\varepsilon_i, \varepsilon_l) = 0, \; sei \neq l.$$

In this way, the multinomial logistic regression model is defined as:

$$\pi_{ki}(x) = \frac{\exp(g_{ki})}{1+\exp(g_{ki})} \pi_{ki}(x) = \frac{\exp(g_{ki})}{1+\exp(g_{ki})},$$

in which $g_{ki} g_{ki}$ it is obtained (2), $x_{ij} x_{ij}$ is a known constant, $\beta_{kj} \beta_{kj}$ is an unknown parameter and assuming the error assumptions $\varepsilon_i \varepsilon_i$.

The confidence interval $100(1 - \alpha)\% 100(1 - \alpha)\%$ de $\beta_{kj} \beta_{kj}$ is given by:

$$[\widehat{\beta_{kj}} \pm z\tfrac{\alpha}{2}\widehat{SE}(\widehat{\beta_{kj}})] \, [\widehat{\beta_{kj}} \pm z\tfrac{\alpha}{2}\widehat{SE}(\widehat{\beta_{kj}})],$$

Where $z\frac{\alpha}{2} z\frac{\alpha}{2}$ is the quantile of a normal pattern and $\widehat{SE}(\widehat{\beta_{kj}})] \widehat{SE}(\widehat{\beta_{kj}})]$ represents the estimator of standard deviation of $\widehat{\beta_{kj}}. \widehat{\beta_{kj}}$.

The Wald statistic, given an array of information $I(\hat{\beta}) I(\hat{\beta})$, is based on the statistics

$$W = \hat{\beta}^T [I(\hat{\beta})] \hat{\beta}^T$$

It is known that under $H_0 : \beta = 0 H_0 : \beta = 0$ the statistic W has Chi-square distribution with

$q(r+1)q(r+1)$ degrees of freedom[13].

The confidence interval $100(1-\alpha)\%100(1-\alpha)\%$ of $\pi_k(x)\,\pi_k(x)$ is given by

$$\left[\frac{\exp[\widehat{g_k}(x)\pm z\frac{\alpha}{2}\sqrt{\widehat{Var}[\widehat{g_k}(x)]}]}{1+\exp[\widehat{g_k}(x)\pm z\frac{\alpha}{2}\sqrt{\widehat{Var}[\widehat{g_k}(x)]}]}\right]\left[\frac{\exp[\widehat{g_k}(x)\pm z\frac{\alpha}{2}\sqrt{\widehat{Var}[\widehat{g_k}(x)]}]}{1+\exp[\widehat{g_k}(x)\pm z\frac{\alpha}{2}\sqrt{\widehat{Var}[\widehat{g_k}(x)]}]}\right],$$

where $z\underline{\alpha}z\underline{\alpha}$ it is the quartile in a normal pattern, and $\widehat{Var}[\widehat{g_k}(x)\widehat{Var}[\widehat{g_k}(x)]= x'\widehat{Var}[\widehat{\beta_k}(x)] = x'\widehat{Var}[\widehat{\beta_k}(x)]$.

To assess the quality of the fit of the multinomial logistic regression model, will be used in this study the Pseudo R^2R^2 by *Nagelkerke*, which explains the full power of the independent variables in the model[14].

RESULTS AND DISCUSSION

Seeking to evaluate self-efficacy in condom use were studied 1260 people, who answered a questionnaire composed of *Self-efficacy scale in the Use of Condoms*, which has four factors, ability, assertiveness, pleasure and drugs and STDs. The sample was composed mainly of female individuals (65.6%), with ages ranging between 18 and 62 years (M = 23.9; SD = 6.5), heterosexual (86.5%), single (73.6%), with incomplete higher education (69%), and have income from 1 to 3 minimum salaries (25.7%). In relation to the use of condoms, 36.3% said they always use and 56% use a condom even having a fixed partner.

After the study period it was found that the degree of self-efficacy in condom use for each individual, through multinomial logistic regression technique, applied through the version 3.1.3 software R[15]. The following variables were defined for the study:

- The response variable - condom use, which is a polychotomous variable and assumes the values 1, 2, 3, 4 and 5, respectively, use always, use often, use sometimes, use rarely and never uses.

- Dependent variables - The dependent variables analyzed are shown in the following table:

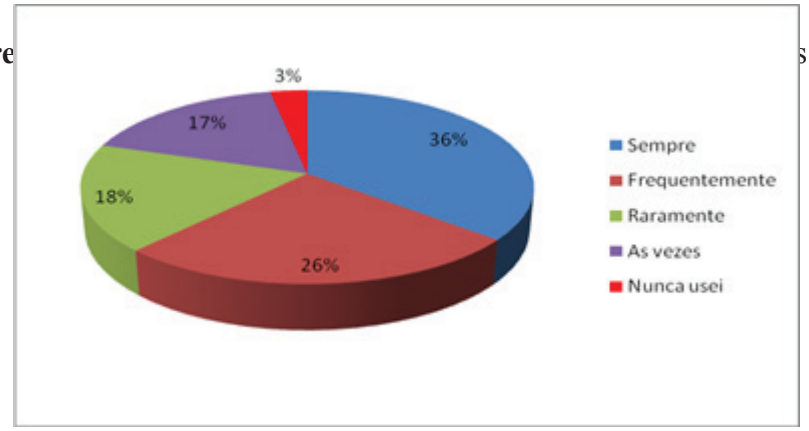
Table 1 - Description of variables used in the factors of the scale.

Variable	Description
EAUP1	I feel ashamed to put a condom on me or my partner
EAUP2	I am confident that I could quietly place or remove a condom when I have relations.
EAUP3	I feel confident in my ability to put a condom on me or my partner during the preliminary part
EAUP4	I am confident that I can use a condom with my partner without disrupting the moment
EAUP5	I am confident that I can use a condom with success
EAUP6	I feel confident in my ability to discuss condom use with any partner I may have
EAUP7	I feel confident in my ability to suggest the use of a condom with a new partner.
EAUP8	I feel confident that I could suggest using a condom without my partner feel 'sick '.
EAUP9	I feel confident that I can use a condom during a relationship without diminishing sexual pleasure
EAUP10	I feel confident that I can remember to use a condom even after having ingested alcoholic beverages
EAUP11	I feel confident that I can remember to use a condom even after having using drugs.
EAUP12	I wouldn't feel confident suggesting the use of a condom to a new partner, because I fear him thinking that I've have had homosexual experiences
EAUP13	I wouldn't feel confident suggesting the use of a condom to a new partner, because I fear him thinking that I have a sexually transmitted disease
EAUP14	I wouldn't feel confident suggesting the use of a condom to a new partner, because I fear him thinking that I've have had a sexually transmitted disease

Source: Self-translation.

Figure 1 presents the frequency with which individuals use condoms. It can be seen that only 3% of respondents reported never having used condoms, 17% say they sometimes use, 18% say they use rarely, 26% say they often use, and finally 36% reported always using condoms.

Figure s.



Source: Self elaboration.

Assuming the multinomial logistic regression model, one of the categories of response variable must be designated as the reference category and the other will be compared with this category. As the choice is arbitrary, in this case, it is assumed as a reference category to the variable 'never used '.

The *Nagelkerke* pseudo R^2R^2 presented a12% value, providing evidence that the multinomial logistic regression model captured a small part of the influence suffered by the dependent variable with respect to the factors used in this analysis. One must take into consideration that the measure is a pseudo R^2R^2, and may not fully reflect the explanatory power of independent variables.

According to table 2, it can be said that there is no evidence that the coefficients that describe the model are null, because the significance levels presented in the tests are less than or equal to 5%, which was the level adopted for this study. And yet, the factors considered important, that is, those which were significant for the model were EAUP5 – "I feel confident that I can use a condom with success", EAUP9-"I feel confident that I can use a condom during a relationship without diminishing sexual pleasure" and EAUP10-"I feel confident that I can remember the condom use even after having ingested alcoholic beverages", all with $p < 0,05p < 0,05$.

Table 2 - Contribution test of the model variables

Effect	Qui-square	Degree of Freedom	P value
EAUP5	10.128	4	0.03
EAUP9	36.115	4	0.00
EAUP10	9.435	4	0.05

Source: Self elaboration.

Table 3 presents the results of the model that shows evidence that the use of condoms is influenced by the established levels: 'use always', 'use often', 'use sometimes', 'use rarely' and 'never used', and by the EAUP5 variable, which was considered the most significant variable. As the reference category is 'never used' then it means that the use of condoms is explained by the influence of reliability that the individual has in the success with condoms. A confidence interval represents a range of values that has a high probability of containing the true population value. Thus, one can say that with 95% of confidence the variation in a unit in condom use involves for the function $logitlogit$, a variation between 1, 179 and 2, 378, to whom he always uses, between [1, 175; 2, 399] for those who use often, [1, 272; 2, 687] for anyone who uses the times and finally, [1, 087; 2 265] to whom rarely uses.

The column $ExpExp$ indicates the odds ratios in the independent and dependent variables, i.e. the increase in condom use entails increased in function $logitlogit$, since its value is greater than

one. When the individual relies on the success of condom use, then there is an increase in its use in 67.5% in relation to the category of individuals who claim to never use a condom. For those that use often this chance is well next, reaching 67.9% of using it more in relation to the category of that claim they never use it. To those who say they use sometimes the chance of use increases even more: 84% more than when they rely on the success of condom use. For those who rarely use condoms the chance is reduced to 56.7% when one relies on its success.

Table 3 - The estimated parameters for the multinomial logistic model

Coefficient	B	Wald	Degree of Freedom	P value	Exp(B)	A confidence interval of 95% for exp(B)	
						Lower Limit	Upper Limit
Always use	0.516	8.309	1	0.004	1.675	1.179	2.378
Use often	0.518	8.089	1	0.004	1.679	1.175	2.399
Use sometimes	0.614	10.367	1	0.001	1.849	1.272	2.687
Use rarely	0.450	5.775	1	0.016	1.569	1.087	2.265

Source: Self elaboration. Note: Reference category never used.

While, according to Table 3 the Wald statistic data were significant, thus, reject the null hypothesis that the coefficients are equal to zero and the selected independent variable has no effect on the dependent variable. Therefore, the multinomial logistic regression model was fitted and the decision variable, the use of condoms is influenced by the confidence that the individual has on the success of its use. That is, the decision to use condoms is influenced by the level of self-efficacy of individuals to accomplish this task properly. Therefore, it becomes important to undertake interventions in the field of health and education that foster the development of self-efficacy in the use of condoms to the population, in order to increase choice for this method of protection and reduce vulnerability to sexually transmitted diseases and unwanted pregnancies.

The sample evaluated in the study despite having picked up a small part of the influence suffered by the dependent variable with respect to the factors adopted in this analysis, presented in a meaningful way to the end of the study, showing that significant variable most relevant to the model was the related the trust of the people. Thus, there is the importance of trust not only in the partner, but also in the choice of a preventive method to disease and even unwanted pregnancy.

Relations between couples are complex and have several factors related to their sexual behavior and practices. The choice for the use of condoms is related to the inadequate knowledge, unsafe practices and attitudes that distort the reality of individuals analyzed, generating changes in their marital or individual life plans. One of the reasons that lead the couples don't use condoms is the fear that their partner thinks that he/she have a sexually transmitted disease[16].

In terms of gender differences, the Brazilian culture, found machismo still influences in attitudes regarding sexuality and their values by imposing certain social pressure in the negotiations and discussions about condom use, not always raised in a healthy way by men, because they approach the issue with prejudice, causing embarrassment to their partner. As a result, the partner ends up ceding not just for confidence, but to be affectively involved, have a lasting relationship and even by the fear of losing a partner. With that, the efforts of HIV prevention in women, will succeed only effective in dependence of the female awareness and behavior change, with the increase in condom use[17].

The relation to HIV prevention and condom use still ends up being built in adolescence, with the onset of sexual life. Sexual relationships without penetration can be predicted by the positive attitudes towards condoms and sex with penetration can be for things like personal and school adjustment[18], highlighting the importance of the age of first sexual intercourse as crucial to risky sexual behavior.

However, a negative image of condoms produced by unsuccessful personal experiences, by reputation and by myths, being associated with some times dirt, illicit sex and infidelity may arise not only in the period of adolescence, as in any time over the life of each person. In this perspective, so that the decision is favorable towards the use of condoms, some of the great Brazilian challenges is to strengthen the quality of care of the unified health system (SUS), promote awareness about the risk of unprotected sex and ensure the support of the commitment between the spheres and governmental policies in providing material resources and qualified and motivated professionals to work continuously such issues as sexuality, knowledge and confidence, covering individuals of all ages and thus promoting the increase in adherence to condom use, mainly consciously of the benefits generated by that decision[19].

FINAL CONSIDERATIONS

The rapid globalization that is taking place brings with it a greater concern about the sexual health of individuals, and some of the reasons that influence this reality is the fact of sexual behavior not be something static and the multitude of factors that are related to that involve the need for periodic evaluations[20].

The changes under the sexual behaviors were able to generate important impact on sexually transmitted diseases and HIV/AIDS, especially in the 1980s, giving prevention methods a new emphasis. Among the various forms of STD prevention, several health agencies, governmental or non-governmental, have focused, with greater commitment, the spread of condom use, also known as rubber, taking into consideration its high degree of protection documented risk of acquisition given STDs, including HIV/AIDS[4].

The countries began the social marketing of condoms in sync with the global family planning

efforts in development, and was dramatically expanded as a rapid response to AIDS. With this, there was a coordinated effort to ensure a stable supply of quality condoms. locally in the countries and the use of condoms as a means of mutual protection of the partners, requesting the inclusion of men in sexual and reproductive life decisions of the couple[21].

In the significant approach of condom use, it is important to consider the Self-Efficacy Theory, since this raises behavioral studies related to health, considering such important implications for predicting and reducing risk health behaviors of individuals. Relating self-efficacy and taking forward the decision to use condoms, in the present study, the classical logistic regression model could not be used as the response variable 'uses a condom' was not previously categorized in binary form, with 0 as 'do not use' and one as 'uses a condom', as this would lead to a loss of information for statistical analysis. Therefore, the method used to analyze the variables presented, appropriately, was the multinomial logistic regression, which made possible a more precise analysis of the results. This model has advantages that the logistic model classic does not consider, keeping every level of the response variable.

For this research, by means of the multinomial logistic regression, it is concluded that the individual was the most important variable for such analysis, i.e. exerts important influence upon the decision for condom use. Thus, it is possible to notice that to increase adherence to condoms, it is not enough simply to increase its distribution, but rather invest simultaneously in the increased discussions about the theme, promoting more openness in the media to deal with lack of awareness of the people, sensitizing them to consider issues such as the question of the trust you have in relation to your partner as in yourself.

From the study it is also noted that there is a lack of articles that address the question of confidence in relation to the use of condoms in existing literature, and we need greater investment in scientific productions on the subject and the approach raised, which thereby, contributes further to the practices regarding decisions taken given the population towards their sexual and reproductive health.

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