ORIGINAL ARTICLE

YOUNG PEOPLE IN WEB RADIO: SOCIAL REPRESENTATIONS ABOUT HUMAN PAPILLOMAVIRUS

JOVENS EM WEB RÁDIO: REPRESENTAÇÕES SOCIAIS SOBRE PAPILOMA VIRUS HUMANO

Araújo AF de, Castro Júnior AR de, Freitas MC de, et al.

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INTRODUCTION

Adolescence is understood as the transition between childhood and adulthood, and should be analyzed in a heterogeneous way for each individual and associated, in addition to physical growth, to the development of sexual behavior, which increases the risk for sexually transmitted infections (STIs). It is known, because it is a phase characterized by physical and psychological changes and in the way of relating, that arise questions about the body and health that, because they are not clarified in many of the cases, condition the young people to practices that can expose them to risks and grievances.1

Youth are developed in the personal and social perspectives, as subjects of rights and as actors with a special role of transformation of reality, centrally marked by processes of development, social insertion and definition of identities, which requires intense experimentation in several spheres of life, so that they cease to be conceptualized by their incompleteness or deviations.2,3

Considering their individual changes, aspects that influence this particular group are indicated, contributing to epidemiological risks that are exacerbated by family conflicts, exposure to violence, low self-esteem, cultural limits inherent to the symbolic fixation of information, the tendency to transgression and the educational system discouraging.4

The weaknesses or inconsistencies in the access and/or use of condoms and multiplicity of partners, as well as the early onset of sexual activity, are not highlighted, culminating, in most situations, in high rates of unplanned pregnancies and in the increase of cases of STI and AIDS in this group.5

The adolescent is defined as a representative group in terms of epidemiological risk for STIs, in particular, for human papillomavirus (HPV). This is one of the most prevalent viral infections in the sexually active population, classified as oncogenic and non-oncogenic.6

It is recognized that HPV is part of the Papovaviruses or Papovaviridae family, with about 120 types, 36 of which can infect the genital tract.1 According to the Brazilian Ministry of Health,7 oncogenic types 16 and 18 are related to cancers of the cervix, representing 70% of the cases in the world population, being associated with cancers of the anal, penile, vaginal, oral, among others, and that non-oncogenes six and 11 (prevalent), although considered low risk, are associated with injuries in women's health, such as anogenital warts.

According to the National Cancer Institute José Alencar Gomes da Silva (INCA)8, cervical cancer is the third most prevalent in Brazil, affecting women with an incidence of 16,340 cases in 2016, and the estimate for new cases was 16,370 in 2018, reaching a proportion of approximately 15.85 cases per 100,000 women, representing a major public health problem.

It should be noted that, as a prevention mechanism, the quadrivalent HPV vaccine covers the most prevalent types (six, 11, 16 and 18), a strategy adopted by the National Immunization Program (NIP) initially focused on the public a nine-to-13-year-old female adolescent, and subsequently reaching girls aged nine to 14 and boys aged 11 to 14 years, reducing cervical cancer with 80% -100% vaccine protection for anogenital warts and 60-80% reduction in new cases of premalignant lesions.9

It should be emphasized that adequate vaccination coverage depends on the population's knowledge of HPV and its repercussions on health, as well as the integration among adolescents, parents and professionals.10

It becomes necessary, understanding the adolescent as a being that presents a lifestyle related to behaviors and attitudes that sometimes expose him to certain situations of vulnerability, with interferences in his physical and mental development, to highlight the interpersonal relations established by through interaction with their peers, contributing to the sharing of experiences that build their social representations.

It is understood, considering the influence of the pairs in the life of these young people and the context coming from physical changes and the relations, the meanings and signifiers before their health habits and how their social representations (SR) are constructed.11

It is pointed out that the Theory of Social Representations (TSR), proposed by Serge Moscovici in the 1960s, portrays the production of social knowledge that occurs in everyday life and that belong to the lived world, in which people are active in the formation of social as a phenomenon immersed in a constantly rebuilt reality.12

Thus, the adolescent is understood as having many particularities, that the SRs are inserted and expanded in the production of knowledge to be shared in daily life, so that “to represent” is to be in the process of building society and of itself.12 The objective of this study was to demonstrate the social representations of schoolchildren about HPV through a web radio.

Web radio is a Digital Information and Communication Technology (DICIT), an open and innovative media tool that enables the formation of young people associated with health education care through dialogues with youth, generating theoretical and empirical elements for the analyzes of the demands of this public from the interactions coming from the school territory.13 To
that end, the choice of this methodological approach allowed an in-depth analysis of the central object of this research.

**OBJECTIVE**

- To learn the social representations of schoolchildren about human papillomavirus through a web radio.

**METHOD**

It is an exploratory and descriptive study, with a qualitative approach, since it presents the understanding and interpretation of the phenomena observed in a specific group of the study.

Media files of 215 young people from Ceará state public schools, from the municipalities of Hidrolândia, São Benedito, Sobral, Juazeiro do Norte and Fortaleza, were used, through the Urban Culture, Art, Science and Sports Center (CUCA), with participation in the program “In line with health”, of the web radio entitled Association of Young People of Irajá (Ajir), during the period from 2015 to 2017, totaling three radio programs on HPV transmitted simultaneously in these places.

The choice of these territories is due to the fact that, in these municipalities, the program is transmitted weekly. Participants’ doubts and concerns were discussed through Skype juvenude@ajir.com.br, Facebook, Twitter, WhatsApp and, also, the message board of the website of the digital broadcaster.

The data was collected through the interaction of the digital communication channels web radio, Skype, Facebook, Twitter and WhatsApp, with the accomplishment of the program “In line with health”, about HPV. As data collection instruments, the on-site observation and the digital field diary (written interaction material) were recorded through the communication tools cited.

It is pointed out that the production of the data occurred from the questions-discourses that the participants sent through the channels of communication of the web radio during the interactions in the programs live. These questions-discourses were produced in the radio web interactions, expressing the ways of knowing that are discursive substrates of the youths in the schools. It is emphasized that the discourse-questions are discursive utterances (sayings) and their diagrams, whereby the mechanics of desire constitute the ways in which the subjects put their problematizations.14

The data was processed by Iramuteq® software (Interface de R pour les Analyses Multidimensionelles des Textes et de Questionnaires), version 2014, which enables diverse textual analyzes, ranging from basic lexicographies to multivariate analyzes.15

In order to capture the proposed objective, the use of the Descending Hierarchical Classification (DHC) method, word cloud, and similarity analysis by means of the maximal tree was chosen, considering that the graphic images produced by the program facilitate the visualization of the main elements of the textual corpus and of the relation established between them.

For the analysis of the data, TSR, 12 associated with the processing of the corpus in Iramuteq was used.15 The analysis of the thematic units by means of this technique is based on the development of the following operational stages: constitution of the corpus; floating reading; composition of the units of analysis; coding and trimming; categorization and description of categories.

It should be noted that after the emergence of the categories and the data processing in the Iramuteq software, the analyses were compared and discussed in the light of the TSR and the pertinent literature on the subject.

This was followed by the determinations of Resolution 466/2012 of the Ministry of Health / National Health Council16 on research involving human beings, with a follow-up of the objective - to analyze how students experience the use of web radio as digital technology in the training process for the practice of collective nursing, derived from the umbrella project “Digital technologies and education in Nursing: the experience of using the Web Radio Ajir as a pedagogical tool in the training of Nursing students of the State University of Ceará” (Opinion No. 424380/2011).

**RESULTS**

During the program, participants have the opportunity to ask questions and address their doubts in an interactive way, considering the use of the communication tools of their daily life (computer and internet), which facilitates dialogue, taking advantage of the use the Internet for health education and the development of social communication and community mobilization activities. The problematic thematic category was formulated.

**HPV: symptoms, transmission and prevention**

Figure 1 presents the questions-discourses developed by the young people; in which difficulties of understanding about the disease and curiosities regarding the development of HPV were identified. It should be noted that the participants questioned how to identify the HPV symptoms and the means of prevention, such as the vaccine and the ideal age to start prevention. Concern has been expressed about the virus, the development
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of the disease and the risks to the fetus, if the woman is affected by the virus during pregnancy.

<table>
<thead>
<tr>
<th>Discursive category</th>
<th>Discourse questions raised by young people</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV: symptoms, transmission and prevention</td>
<td>Hi, I am a boy, but I would like to know: what is a womb? What types of HPV can cause cancer? What is the Pap test and what kind of diseases can it diagnose? What is the main form of HPV transmission? What are the forms of transmission of the HPV virus? Does a person infected with the virus necessarily have signs or symptoms? It's easy to get HPV? Since when does this virus exist? How can people prevent HPV? What are the initial symptoms of HPV? From what age can a person get this disease? What are the causes of HPV? How is HPV transmitted? What is this HPV vaccine? Does this HPV vaccine give in the postim? Girls over 13 and no longer virgins take this vaccine? Who should do and when to take the preventive exam? What are and how are HPV vaccines? What are the symptoms of HPV? Do you have a specific treatment for HPV? What is the treatment for HPV infection? There is a risk of malformation of the fetus for pregnant women infected with HPV? What is the test that women do in the womb called the Pap smear? Is there an HPV vaccine? What types of HPV can cause cancer? What is the Pap test and what kind of disease can it diagnose? What is the main form of HPV transmission? What other ways? Does a person infected with the virus necessarily have signs or symptoms? Is it easy to catch? Since when does this virus exist? How can people prevent HPV? What are the initial symptoms of HPV, and from what age can the person get the disease? What are the causes of HPV? How do you get HPV? How long can the disease be considered serious? Why does the HPV vaccine have some side effects and what do I do to avoid those symptoms? Why women develop HPV and others do not?</td>
</tr>
</tbody>
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Figure 1. Discourse questions: corpi produced by young people in the programs from 2015 to 2017. Discursive category: HPV. Fortaleza (CE), Brazil, 2019 Source: Database of HPV web radio programs from 2015 to 2017.

From the corpus processing with the Iramuteq software, DHC was arranged through the dendogram. It was constituted the corpus by 75 questions-speeches. The DHC was used to obtain the classes of text segments that, in addition to presenting similar vocabulary to each other, show differences of text segments in relation to other classes. Seven semantic classes related to the perception of adolescents participating in the web radio on HPV were identified. The relationship between the classes in a dendogram is illustrated, as can be observed in figure 2.
In this type of analysis, the graphical presentation of associations and dissociations between the variables that emerged from the representation of young people's thinking about their understanding of HPV expressed in the transmissions of the programs broadcast by the web radio.

It is understood that in the classes exposed by the dendrogram, the representation of the young people on HPV prevailed from the perspective of the concern with the treatment of the disease and its routes of transmission, not taking into account, in most cases, the methods of prevention. It was also identified the approximation of significance among some classes. The words used for the denomination of each class are shown in figure 3, considering that each group of words generated a sense nucleus, thus grouping itself into a class.

<table>
<thead>
<tr>
<th>Classes</th>
<th>Example of related word</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV Grievances</td>
<td>Start, catch, person, prevent, exist, when, easy, since</td>
</tr>
<tr>
<td>Most exposed risk group</td>
<td>Sign, boy, girl, virgin, one, other, catch, mainly, infect</td>
</tr>
<tr>
<td>HPV ratio in pregnancy: fetal implications</td>
<td>Treatment, infection, type, vertical, son</td>
</tr>
<tr>
<td>Forms of transmission of HPV</td>
<td>Stay, get, say, come, want</td>
</tr>
<tr>
<td>Symptoms and treatment</td>
<td>Pap smear, infected, woman, risk, pain, examination, perform, bad, vaccine</td>
</tr>
<tr>
<td>Prevention of HPV</td>
<td>Take, preventative, vaccine, examination, who, how</td>
</tr>
<tr>
<td>Definition HPV</td>
<td>HPV, virus, virgin, girl, transmission, sex, pregnancy, risk, child, fetus</td>
</tr>
</tbody>
</table>

It is possible, from the analysis of the evocations observed in figure 3, to organize the elements of the classes, aggregating them into categories that anchor senses regarding the young people's considerations about HPV, and performing, in this sense, the analysis of similarity between classes. There is, therefore, the unveiling of three categories (Knowing HPV, Health Ailments and Prevention).

Classes 7, 4 and 5 (HPV Definition, HPV Transmission Forms and Symptomatology and Treatment) are added to the category "Knowing HPV", which anchor the understanding of these youths about the disease, demonstrating the knowledge of the young on the characteristics of the disease. In class seven, the words HPV, virus, virgin, girl, transmission, sex, pregnancy, risk, child and fetus are highlighted. In class four, young people's perceptions about the forms of HPV transmission through the verbs stand, catch, say, come and want, which were the most representative, are shown in class four; already class five brings the words Pap smear, infected, woman, risk, pain, examination, carry out, bad and vaccine.

It is evaluated that the clustered classes refer to the understanding of HPV as a disease, in which youngsters ask from the definition, to the symptoms and the transmission, bringing the perception of "HPV disease". It is observed that the issues presented here refer to the difficulties of understanding the disease with the collective...
representativeness of STIs lack of knowledge and its repercussions on health.

It is evident, through the question-speech, the low understanding of the clinical signs and symptoms and mechanisms of transmission of HPV, in which gaps in the health education of these young people that need to be worked in several spaces are evident. It is emphasized that this representation prevents an amplification of the act of looking at one’s own body and the perception about what is not healthy.

**What is the main form of HPV transmission? There are others? (J4)**

Does a person infected with the virus necessarily have signs or symptoms? (J5)

How is HPV transmitted? (J11)

**What are the symptoms of HPV? (J15)**

Do you have a specific treatment for HPV? (J16)

**What is the treatment for HPV infection? (J17)**

Classes 1 and 3 (HPV disorders and HPV ratio in pregnancy: fetal implications) are included in the category “Health disorders”. It relates the class one to the words start, pick up, person, prevent, exist, when, easy and since, while class three is associated with treatment, infection, type, vertical and child. In this sense, the two classes point to the curiosity of young people regarding the behavior of HPV and its complications and injuries. It is observed that, when they refer to pregnancy, the questions emerge relating pregnancy and the risks of HPV. There is evidence of the non-identification of their causes and the concern with the perception of the symptoms, which are not clear to the young, as well as the treatment of the disease and its complications.

**What types of HPV can cause cancer? (J2)**

Is there a risk of malformation of the fetus for pregnant women infected with HPV? (J36)

**What are the types of HPV that can cause cancer? (J20)**

In the “Prevention” category, classes two and six (HPV Prevention and Most Exposed Risk Group) are concentrated. It is worth noting that class two deals with the risk group most exposed to HPV in the perception of these schoolchildren, defined from the words sign, boy, girl, virgin, one, other, mainly, and infect. It is observed that the classes are related to the doubts and desires of young people about HPV, bringing, in a general way, words that demonstrate the need to approach this theme in a more in depth way with the youths, considering their context, the behavior changes and the vulnerabilities to which they may be exposed. It is noted that young people often relate HPV to the situation of virginity, to which girls are more prone, and is a positive aspect in building the knowledge of this public.

It is verified that class six has a relation with the prevention of HPV, characterized by the following words: to take; preventive; vaccine; exam; who; do and how. It is noticed that, imbued in the discussion, the youths point out in both classes the vaccine, which denotes the importance of bringing the HPV vaccine to the school space and of divulging and relating the benefits in the life of these youngsters, the dialogue on some myths regarding the vaccine, confirming that this category is anchored in the aspect of prevention.17

**What is the Pap test and what kind of disease can it diagnose? (J3)**

Is it easy to catch? (J6)

**How can people prevent HPV? (J8)**

What are the initial symptoms of HPV, and from what age can the person get the disease? (J9)

Girls over 13 and who are no longer virgins can take the vaccine? (J12)

Who should do and when to take the preventive exam? (J13)

**What are and how are HPV vaccines? (J14)**

From the three categories of text segments that came from the aggregation of the classes coming from the hierarchical classification (Figure 1), the following aspects in the social representations of adolescents about HPV: 1) the understanding of HPV as a disease and the difficulty of identifying its signs and symptoms, as well as its transmission; 2) the idea of HPV related as a disease that can trigger complications and health problems, and 3) an understanding of the need for disease prevention.

### DISCUSSION

Through the use of the Iramuteq software, the connections between the speeches of the school adolescents during participation in the radio webcast and their understanding of HPV, their definitions and the manifestation of the symptoms and impacts for their life were traced, being, therefore, the understanding of HPV as a social phenomenon for such a public, as proposed by Theory of Social Representations.

It is pointed out that the adolescent, in its construction as a social being, as well as in its sexual construction, is surrounded by values initially directed by the family and, later, by interaction with society. It is understood that, for the young, the school environment plays an important role in training, because it is a safe place to obtain information, because it is the space in which their skills are discovered and improved, by the acquisition of knowledge and sharing experiences with peers. It should be noted, however, that there are still gaps/barriers in these pillar institutions for adolescents (family / school), regarding the act of talking about sex education, this subject is still considered a taboo.18

It is added that the exercise of sexuality has implications in the health-disease process of adolescents, because they assume behaviors for...
which they are not prepared, such as early sexual intercourse and the anxiety to live new experiences that can have repercussions on their health. The educational actions that are relevant to the achievement of safe and responsible sexual practices. 19

The feelings that afflict this group are related, such as fear, guilt and fear, to their behavior changes and to the adoption of new practices, especially when there is a need for peer acceptance, with the adoption of postures portrayed by their context, so that these feelings may direct young people to seek information from unsafe sources or from people without adequate knowledge to guide and support them.

It is also emphasized the importance of understanding about the reality and taboos related to the sexuality of these young people, through an approach that favors the participation and the construction of their identity, contributing, in an effective way, to their healthy sexual development. 18

The implementation of channels that favor openness to dialogue as a possibility for the dialogical relationship between the health professional and the young person in the condition of care subject is set up, allowing them to ask questions that reflect their doubts / curiosities, and this interaction provides the rupture of traditional and vertical models in the transfer of information, consolidating a space of knowledge of the subject, perceiving its context and making it protagonist in the actions that fit his care.

It is argued that educational practices with the adolescent public should seek the integration of knowledge, placing the subject as an active figure in the elaboration of their care and building interdisciplinary and intersectoral strategies for health promotion, above all in the prevention of STIs, in a way to provide critical and reflexive thinking in the face of the lived reality and bringing autonomy and empowerment to these subjects. 11

In this perspective, the use of the DICTs is indicated as a strategy to reach young people, especially those who frequently use the World Wide Web, 10 consolidating itself as a form of diffusion of knowledge, while attracting this public. It is evaluated that the operation of the web Ajir radio as a space for dialogue with students allows an active and differentiated participation of discussions on the subject, considering the difficulties that still permeate the school environment in addressing these issues.

It is added that it is only through the deconstruction of imposed models and the construction of new possibilities of knowledge that new forms of knowledge are constructed, 81 so that the use of the DICTs, quoting the web Ajir radio, can be considered as a network knowledge and practices of dialogue in health education for adolescents, with the dissemination of information and opportunities for debate. 20

CONCLUSION

It was possible, by the investigation, to apprehend the social representations of adolescents against HPV. From this perspective, Iramuteq software was shown as an important tool for the organization of data, as it shows the most frequent vocabulary used by young people through basic lexico-graphy in the material collected. It is understood that the use of the software brought the possibility of a careful look at the material collected, qualifying the process of categorization and, consequently, the results of the study, and enhancing qualitative research.

In view of the still deficient perception of adolescents about HPV, the need for actions in the health care of the young population, considering their uniqueness and complexity to articulate subjects still considered taboo in the daily life of this public, that understand different knowledge, practices and contexts of their subjects, elaborating activities that involve the diverse subjects. It reflects on the experience of the web radio Ajir as an efficient means of dialogue with adolescents, constituting a qualified listening tool, with freedom for young people to manifest themselves.

It is demonstrated the need for the school to seek different alternatives to approach these themes, considering their particularities.

The use of DICTs is highlighted as a promoter of this dialogical channel, as demonstrated by the Ajir web radio experience, considering the universe of words and their signifiers pointed out by the young people, so that these spaces make it possible to know and help young people in their health situations.

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