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ORIGINAL ARTICLE

PERCEPTIONS OF UHS USERS ABOUT THE ZIKA VIRUS BOOKLET PERCEPÇÕES DOS USUÁRIOS DO SUS ACERCA DA CARTILHA SOBRE O ZIKA VÍRUS PERCEPCIONES DE LOS USUARIOS DEL SUS ACERCA DE LA CARTILLA SOBRE EL ZIKA VIRUS

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ABSTRACT

Objective: to identify the perceptions of users of the Unified Health System about the primer on the Zika virus. **Method:** it is a qualitative, descriptive and exploratory study, in a Basic Family Health Unit. Thirty-one users are considered as participants by completing a questionnaire after reading the booklet. Data was analyzed using the Content Analysis technique. **Results:** five thematic categories << Purpose of the booklet >>, << Organization of the booklet >>, << Language of the booklet >>, << Appearance of the booklet >> and << Motivation of the booklet >> have emerged. **Conclusion:** the primer was an educational technology with a satisfactory objective, organization, language, appearance and motivation that can contribute to make educational actions effective and efficient around this arbovirose. **Descriptors:** Zika Virus; Health Education; Technology Assessment, Biomedical; Arbovirus Infections; Health Promotion; Educational Technology.

RESUMO

Objetivo: identificar as percepções dos usuários do Sistema Único de Saúde acerca da cartilha sobre o Zika vírus. **Método:** trata-se de um estudo qualitativo, descritivo e exploratório, em uma Unidade Básica de Saúde da Família. Consideram-se como participantes 31 usuários, mediante o preenchimento de um questionário, após realizar a leitura da cartilha. Analisaram-se os dados a partir da técnica de Análise de Conteúdo. **Resultados:** emergiram-se cinco categorias temáticas << Objetivo da cartilha >>, << Organização da cartilha >>, << Linguagem da cartilha >>, << Aparência da cartilha >> e << Motivação da cartilha >>. **Conclusão:** constituiu-se a cartilha numa tecnologia educacional com objetivo, organização, linguagem, aparência e motivação satisfatórios que pode contribuir para tornar as ações educativas efetivas e eficazes em torno dessa arbovirose. **Descritores:** Zika Vírus; Educação em Saúde; Avaliação da Tecnologia Biomédica; Infecções por Arbovírus; Promoção da Saúde; Tecnologia Educacional.

RESUMEN

Objetivo: identificar las percepciones de los usuarios del Sistema Único de Salud acerca de la cartilla sobre el Zika virus. **Método:** se trata de un estudio cualitativo, descriptivo y exploratorio, en una Unidad Básica de Salud de la Familia. Se consideran como participantes 31 usuarios, mediante el llenado de un cuestionario, después de realizar la lectura de la cartilla. Se analizaron los datos a partir de la técnica de Análisis de Contenido. **Resultados:** surgieron cinco categorías temáticas << Objetivo de la cartilla >>, << Organización de la cartilla >>, << Lengua de la cartilla >>, << Apariencia de la cartilla >> y << Motivación de la cartilla >>. **Conclusión:** se constituyó la cartilla en una tecnología educativa con objetivo, organización, lenguaje, apariencia y motivación satisfactorios que puede contribuir para tornar las acciones educativas efectivas y eficaces en torno a esa arbovirose. **Descriptores:** Virus Zika; Educación en Salud; Evaluación de la Tecnología Biomédica; Infecciones por Arbovirus; Promoción de la Salud; Tecnología Educacional.

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INTRODUCTION

The Zika virus (ZIKV) infection was declared in 2016 by the World Health Organization (WHO) as a public health emergency of global importance. It is reported that this declaration represents an extraordinary event, requiring a coordinated response, and such international recognition represents an alert and the need to gather efforts of governments and specialists to address this problem.¹

This virus was originally isolated from a mosquito offspring of *Aedes africanus* in 1947 in the Zika forest near Kampala, Uganda. The virus is kept in the wild in a wild cycle involving non-human primates and *Aedes* mosquitoes with cyclic epizootics in monkeys reported in Uganda.²

The first human epidemic was recorded in 2007 in Yap, Federated States of Micronesia, Pacific region. It is reported that the second epidemic dates from October 2013, five years after that in French Polynesia, the same region where the first occurred. Subsequently, the virus has spread to a number of countries.³ In 2015, the Brazilian government decreed an epidemic of the disease, with records in all units of the federation, mainly in the Northeast, the country's poorest region and historically neglected by public policy.⁴

Among the specific social issues contributing to the outbreak of the ZIKV are rapid urbanization, in conditions of extreme poverty, leading to intense deforestation that favors the contact of populations with unknown vectors and pathogens, as well as the intensification of trips and population mobility. It is known that all this has propitiated mechanisms of adaptation and survival of the mosquito vectors and, consequently, changes in the transmission dynamics of this arbovirose, inserting the human being in the transmission cycle.⁵⁻⁶

The implications of ZIKV for society, the economy and for health are quantified as they are difficult because of the scarcity of available studies, but they are substantial. It should be noted that in the economic sector, the ZIKV has been impacting tourism and hampering commercial turnover. It is emphasized that the disabilities resulting from the disease, such as Zika virus congenital syndrome, are associated with a lower level of schooling, higher unemployment and additional financial costs for families, and the growing demand for health care for users with sequelae.^{1,7}

Another factor is the existence of many limitations to address this infection, highlighting the vector resistance to insecticides and larvicides, the absence of a vaccine available to the population, and the fragility of public health services, infrastructure, security and education. In this context, most of ZIKV's prevention and control strategies are limited to individual and collective environmental care in order to eliminate mosquito breeding sites and to avoid other forms of disease transmission (vertical, sexual and blood).⁸

At this juncture, the need for researchers and practitioners from different areas to develop, improve, validate, evaluate and implement educational technologies to subsidize health education practices around the Zika virus prevention, in order to make these practices effective and effective. It is described that, based on this demand, in 2017, an educational primer was developed on the Zika virus as educational technology to subsidize disease prevention actions in different contexts.⁹

It was questioned, given the importance of knowing the opinions, views and impressions of the users of the Unified Health System (UHS) referring to this educational booklet, with a view to obtaining an evaluation of the target public: Which perceptions of the users of the Unified Health System about the educational primer on the Zika virus?

It contributes to the improvement of the material developed by identifying aspects that demand revision, as well as to show its qualities, collaborating for the wide dissemination of this educational technology in different contexts, instrumentalizing professionals and the community with an educational material of quality for the prevention of this public health problem.

OBJECTIVE

- To identify the perceptions of users of the Unified Health System about the primer on the Zika virus.

METHOD

This is an exploratory study, with a qualitative approach, carried out in 2017 in a Basic Family Health Unit (BFHU) of a municipality in the State of Ceará, Brazil. It is pointed out that the unit was selected due to the extent of the assigned area. It is shown that the choice of the city for the development of the research was due to the access of the researchers to the place. It is observed that the study city is located in the

Northeast, where the first epidemics of the disease were registered.

Users of UHS were randomly invited to participate in this survey when they were present at the BFHU during the data collection stage. It is noted that, in order to establish the number of participants in the research, the recommendations of the scientific literature were used, which suggests the quantitative of thirty to forty people to carry out the validation of instruments by the target audience.¹⁰ The criterion of saturation, in which the constant repetition of responses obtained by the participants.

Included in this study were 31 UHS users: those aged over 20 years, excluding those who presented some kind of visual and cognitive deficiency or clinical picture of pain and / or discomfort on the day of data collection at the BFHU.

Each participant was given a copy of the educational booklet on the Zika virus so that they could read along with a questionnaire. It is reported that the data collection instrument allowed identifying the socioeconomic profile of the participants and the perceptions of the booklet referring to five aspects (objectives, organization, language, appearance and motivation).

Data was also collected by means of a field notebook so that the researcher recorded the speeches, opinions and suggestions of the participants who had not been registered in the questionnaire.

The educational booklet for the prevention of Zika virus, the product of a methodological research, was organized based on the recommendations of the scientific literature regarding the construction of educational materials in the health area. It is also reported that, in order to subsidize the construction of the book, we used the assumptions of the Theory of Self-efficacy, the results of an integrative review and three focus groups.⁹

The booklet was prepared with 28 pages, in the form of a half sheet A4 page (150x210mm), configured in the landscape format, colored, merging the narrative with the didactic texts, which were elaborated with short sentences, using words common, consistently, in the active voice. It was observed that the font size of the material was at least fourteen, and included topics, titles, bold and markers.⁹

The booklet was read and answered the questionnaire on the same day by a large part of the invited users. A quiet, quiet and well-lit environment was searched at the BFHU so that

people could participate in the research satisfactorily. It was found that, while the users were reading the booklet and responding to the questionnaire, the researcher stayed away with the intention of giving greater freedom to the participants. It is noteworthy that during the whole period, the researcher made available to clarify doubts that could occur regarding the content of the booklet or the completion of the questionnaire.

The material (booklet and questionnaire) was returned, at the suggestion of some participants, the next day, so that it would be possible to read in the residence itself with more time and tranquility. It is hereby informed that the telephone contact and the address of these participants have been registered to enable the collection of the material. Strategies were used to avoid loss of the material and to ensure that people read in a favorable environment, which could provide a better understanding of the book and a judgment in a relevant way. It is observed that some people requested the help of the researcher to answer the questionnaire, due to the low level of schooling and the diminution of the visual acuity, in some cases.

Data on the socioeconomic profile of the participants in the Microsoft Excel program were organized to better visualize the frequency of variables (age, marital status, schooling, religion, occupation and income). The data concerning the opinions, comments and suggestions transcribed from the questionnaires and the field workbook for the Microfortf Word program were used for further analysis.

The data of this study was analyzed according to the Content Analysis in the following steps: pre-analysis, phase in which the material was organized to be analyzed by means of a brief reading for greater contact with the subject; exploitation of material for the definition of categories covering elements or aspects with common or interrelated characteristics; treatment of results and interpretation, in which we sought to unveil the content underlying what is being manifested.¹²

Participants were identified with the letter P and a serial number from one. The thematic categories are presented in texts in the results and discussed according to the scientific literature.

They obeyed the ethical aspects respecting the guidelines for the research with human beings. Thus, after approval by the Research Ethics Committee (REC) of the Regional University of Cariri (URCA), the approval opinion was numbered 1,914,412. It should be

emphasized that all participants signed the Free and Informed Consent Term (FICT) and were informed about the objectives and risks of the study.

RESULTS

It was attended by 31 people in this study. It is reported that the age of the participants varied from 20 to 72 years and the female gender was predominant, with 26. It is indicated that, in relation to the marital status, 14 were single and 11, married, while three lived in a stable union. They were said to be Catholic 14 and evangelical, 11. It is reported that 16 had completed high school, four did not complete it, while only five attended only elementary school. It is noteworthy that, a large part, 17, had family income of less than one minimum wage and 12 had income around one to two minimum wages.

From the data analysis, five thematic categories are described as follows.

♦ Purpose of the booklet

It was expressed in this category, as observed in the participants' statements, that the information contained in the booklet is clear and includes the objectives of the material:

For me, the primer was very clear about its goals. (P1)

The booklet is a way to fight the mosquito to avoid diseases. (P4)

I think the information is very clear. (P10)

In the booklet, we can see important points about Zika. The texts are clear and with this, it is much better to understand the disease. (P21)

The content is very clear, synthetic, objective. The booklet promotes understanding of the problem. (P31)

It is inferred from the speeches that the booklet can contribute to the reader being able to acquire knowledge, skills and attitudes about the Zika virus:

The booklet helps us learn about care. (P4)

I heard things I did not even know, that Zika came from Africa. (P12)

It is noted that, although people over the age of twenty participated in the research by doing the reading and qualitative evaluation of the booklet, according to respondents' responses, educational technology presents a diversity of possibilities of use:

I think even for children this primer works. (P28)

It is important that the booklet is presented in colleges and other places. (P22)

In my opinion, about being used by other professionals, it would be great because we would learn to deal with situations in practice. (P2)

♦ Organization of the booklet

In this category, the participants raised aspects related to the appearance of the material. It was possible to show that the texts and images used in the booklet are visible, understandable and important, as you say:

In general, I would like to congratulate the choice of font size as it makes reading easier. (P1)

It has very visible characteristics. (P10)

They are information we all need to know. (P4)

Great initiative to help prevent disease in an attractive way. (P25)

The booklet is really nice, explains exactly the doubts it was difficult to report. (P2)

It is demonstrated by the results of this category that the elements used for the construction of the book, in relation to the organization, were used satisfactorily, in view of the positive feedback that UHS users made about reading the material.

♦ Booklet language

In this category, from the statements of the study participants, we can see how the language of the book is comprehensible to users:

The texts are very explanatory for us. (P4)

The language of the book is very clear and obviously gives us the message written in it "(P22)

Friendly text and great understanding. (P24)

According to the people, an accessible language was used for the community in general, adults, children and for those with different degrees of education:

Simple, clear and objective language that contemplates all degrees of schooling.

The primer is ready for any age, since it is easy to understand both language and figures. (P23)

In this category, two words were pointed out as difficult to be written and understood - "Chikungunya" and "Microcephaly" - as observed in the speeches:

This word (Chikungunya) I could not write, I even know how to read, but writing I would know. (P18)

Just had a word that I did not understand right, I do not know what it is, this one here (microcephaly). (P16)

♦ Appearance of the booklet

Aspects related to the quantity, size and organization of the illustrations were mentioned. It is reported that the speeches demonstrate that the booklet is aesthetically attractive by arousing the attention and interest of the reader.

With the figures and the questions of the characters, it is better for the reader to understand the subject. (P21)

Familiar and well-crafted figures that made reading more attractive. (P27)

Cause interest in the material and know the story to the end. (P24)

The figures help in understanding the message. (P32)

It was suggested, according to one participant, that there were more illustrations, as the speech:

The figures were well located, but should have more figures. (P2)

◆ Motivation of the booklet

It was measured aspects in the category of "Motivation of the booklet" that motivated the reading of the material until the end, how much it is relevant and able to contribute to the practices of prevention of the Zika virus:

This booklet helps in motivation to eliminate the mosquito and the disease in question. (P31)

Very attractive and interesting, causing curiosity and interest in the book. (P25)

Motivational message, all together in this mission. (P31)

Together we can fight this. (P4)

Motivational message, all together in this mission. (P31)

The reader's interest in reading the material to the end is confirmed by the participants' speeches. It is inferred from the results of this category that the primer has the potential to contribute to the prevention of the Zika virus in that it motivates readers to have attitudes around the prevention of the Zika virus by motivating them to perform the care practices.

DISCUSSION

The persistence of social, political and economic structures that reproduce the disadvantage and vulnerability of particular populations and groups is revealed by the Zika virus epidemic. The systematic failure of arbovirus control and prevention in the Americas and in the world demonstrates how coping actions are beyond a "mosquito problem".¹³

It was found that a large part of the people affected by arboviruses belong to vulnerable social contexts, in less favored living conditions, with low schooling, prone to reading difficulties, especially in texts without images or other didactic resources. It is reported that, in an epidemiological study, it was possible to show that the incidence coefficient of arboviruses varied inversely with income and educational level.¹⁴

The booklet on the Zika virus, used in this study, was designed so that it could be attractive, coherent, clear and objective, using a language that is easy to understand, with a view to attending to the socio-cultural

context of UHS users to subsidize educational practices that encompassing complex social and political problems necessary for the prevention of the Zika virus.⁹

In this sense, it was sought to include people, preferably of low schooling, to read the booklet, since they would have more capacity to identify messages from the booklet on the Zika virus that might not be sufficiently clear for the population with low level of instruction. It should be emphasized that the inclusion of people with different levels of education and, consequently, different levels of learning abilities is indispensable to judge if the primer is really understandable and accessible for people of different profiles.

It is pointed out by the findings of the category "Purposes of the booklet", for the importance of using the recommendations of theoretical methodological references regarding the elaboration of educational materials in the health area so that they can achieve the proposed objectives, especially those that were used by the author of the Zika virus prevention booklet, in view of the positive evaluation of UHS users. Other educational technologies have also been elaborated from these recommendations, obtaining satisfactory results during the consultation of the target public.¹⁵⁻⁷

It is believed, from the results of the category "organization of the booklet", that they can be related to the merge of quadratic narratives and didactic texts, to the use of fictional characters, to the way the texts are presented (short sentences using words common and consistently in the active voice), font size (at least fourteen), among other recommendations pointed out in the literature.^{9,18-9}

The importance of the elaboration of educational materials with a language that can cover different publics, especially for those with lower schooling, is justified by the need to intensify educational activities for this population, since there are high health risk factors as a result of the social context in which it lives. It is shown that a great part of the participants of this study, who carried out the reading of the booklet, presented low level of education and was unanimous in affirming that they were able to understand all the content of the same.

It is known that in the different phases of life, there are specific characteristics that require teaching strategies that meet the specifics of the respective age groups. It should be emphasized that, in addition, each public has psychological and physiological

characteristics that can be considered as learning barriers. It is pointed out that the elderly have diminished abstract thinking abilities, diminished short-term memory, hearing and visual losses, among others.²⁰ In this study, participants were aged up to 72 years old, who read the booklet in a timely manner, it is believed that the language of this educational technology is accessible to different audiences.

During the preparation of the booklet a large number of illustrations were used so that the texts could be portrayed to facilitate understanding of the content.^{9,18} It is believed, then, that this strategy used by the author of the book contributed to the satisfactory assessment of the population in the "Appearance of the booklet" category. It is emphasized that the statements emphasize the importance and relevance to the reader of the illustrations used, which could make the material comprehensible, didactic and attractive.

It should be noted that, although there was a participant who stated that the booklet should have more illustrations, it is important that, during the preparation of educational materials, not too many illustrations should be included, nor should they be used for decoration purposes only. It is advised that it is important that there are white spaces so that the reader can pause to absorb the displayed messages.¹⁸

It is emphasized that in order to improve the appearance of educational materials, the use of colors becomes important. It is observed that it has already been possible to show in research that colored materials are more effective in the transmission of messages referring to arboviruses than in black and white prints.²¹ It is noticed that the prevention primer on the Zika virus is colored, therefore, it is believed that this may also have contributed to the results obtained.

The way in which the material is presented, including illustrations and informative texts, is related to the motivation for reading, being related to the population's interest in knowing about a certain subject and how much information presented in the material can imply life the player. It is understood that another factor related to reading motivation is the size of the material, people with low levels of schooling, like most of the participants of this research, present low socioeconomic situations that are directly related to the learning abilities, as a result of cognitive functioning below the ideal, little academic achievement, among others.^{18,22}

It is reported that the booklet used in this research contains a total of 28 pages, with blank pages and references, and it can be said that it is not an extensive booklet, other view that had 94 printed sheets and the other with 40 pages.²³⁻²⁴ It can be seen that the educational booklet²⁵ also shows the same number of pages of the Zika virus prevention booklet after the validation process has been completed. It is inferred that the motivation of the reading can be related to the extension of the material, as well as to the didactic resources used. It is emphasized that it is therefore important for researchers to develop materials that are not extensive in order to prevent them from making the reading tiring.

It is corroborated by the results of this research, the literature that points out that the booklets are capable of adapting to different contexts by the ease of communication between the actors involved in the processes of health promotions.²⁶ It is pointed out that, through ease of communication, this type of educational technology has the potential to stimulate public awareness for healthy behavioral decision-making and for the acquisition of skills for individual and collective care of the environment and for transformative practices that require permanent changes including the necessary to combat ZIKV infection.^{9,26}

CONCLUSION

The results of this research show the quality of the educational book about the Zika virus in terms of objectives, organization, language, appearance and motivation. It is possible to affirm that there exists, at the disposal of health professionals, an educational technology with the potential to make educational activities effective and effective around the prevention of this arbovirose.

It is recommended the wide dissemination and use of the educational booklet to subsidize health promotion actions, in the different contexts, because it represents a link to facilitate dialogue and reflection on the topic addressed, taking into account the need for stimulate behaviors aimed at health care around the environment so that the population becomes conscious, healthy and free of attitudes that can bring negative individual and collective repercussions.

The qualitative method used in this study provided researchers with a broader view of the instrument used for the evaluation, since it was possible to better understand the aspects evaluated according to UHS users,

considering that the participants had the opportunity to openly express their perceptions, opinions and feelings, so that one could understand how the book was being glimpsed by the population.

It can be verified that qualitative studies can be an effective strategy in relation to the validation of educational technologies because it enables the researcher to understand how his instrument is being accepted by the population and allowing to review aspects that require to be changed when necessary.

This study was limited by its achievement in only one context. Thus, it is suggested that the booklet be applied to UHS users in different regions of the country.

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