



ISSN: 2230-9926

Available online at <http://www.journalijdr.com>

# IJDR

*International Journal of Development Research*  
Vol. 10, Issue, 02, pp. 33814-33817, February, 2020



RESEARCH ARTICLE

OPEN ACCESS

## WOMEN'S HEALTH IN THE AMAZON CONTEXT: DEVELOPMENT OF EDUCATIONAL TECHNOLOGY "WOMEN, HEALTH CARE"

**Ruhan da Conceição Sacramento\*<sup>1</sup>; Ana Maria Baena de Brito<sup>2</sup>; Stephany Siqueira Braga<sup>3</sup>; Jaqueline Dantas Neres Martins<sup>3</sup>; Larissa Renata Bittencourt Pantoja<sup>3</sup>; Beatriz Duarte de Oliveira<sup>3</sup>; Alícia Laura Lobo Modesto<sup>3</sup>; Gabriel Fazzi Costa<sup>4</sup>; Sâmela Stefane Corrêa Galvão<sup>5</sup>; Manuela Furtado Veloso de Oliveira<sup>6</sup>; Elizabeth Teixeira<sup>7</sup>; and Marcia Helena Machado Nascimento<sup>8</sup>**

<sup>1</sup>Nursing Student at the State University of Pará, General Manager of the Extension Project Adopt one Smile.

Member of the PESCA Research Group – UEPA. Belém-Pará, Brazil; <sup>2</sup>Pedagogue, Specialist in Educational Process Management from the State University of Pará; Member of the PESCA Research Group – UEPA. Belém-Pará, Brazil; <sup>3</sup>Nursing Student's at the State University of Pará; Member's of the PESCA Research Group – UEPA. Belém-Pará, Brazil; <sup>4</sup>Nursing Student at the Metropolitan University Center of Amazonia; Member of the PESCA Research Group – UEPA. Belém-Pará, Brazil; <sup>5</sup>Nurse, Master Student in Health, Environment and Society in the Amazon University Federal of Pará; Member of the PESCA Research Group – UEPA. Belém-Pará, Brazil

<sup>6</sup>Nurse. Mastering degree in Nursing UEPA/UFAM. Member of PESCA Research Group – UEPA

<sup>7</sup>Nurse, Senior Post-Doctorate in Nursing, State University of Rio de Janeiro. Teacher, State University of Amazonas (UEA), Manaus-Amazonas, Brazil. <sup>8</sup> Nurse. PhD in Rehabilitation Sciences. Universidade Nove de Julho. UNINOVE-SP. Teacher at State University of Pará (UEPA). Leader of PESCA Research Group – UEPA/CNPq. Belém-Pará, Brazil

### ARTICLE INFO

#### Article History:

Received 29<sup>th</sup> November, 2019  
Received in revised form  
21<sup>st</sup> December, 2019  
Accepted 06<sup>th</sup> January, 2020  
Published online 27<sup>th</sup> February, 2020

#### Key Words:

Educational Technology;  
Women's Health; Health Promotion.

#### \*Corresponding author:

**Ruhan da Conceição Sacramento**

### ABSTRACT

**Objective:** This study aims to build an educational technology for health education on women's health care in the Amazonian context. **Materials and Methods:** The construction of the Technology took place in two moments: Contextualization and Production. The contextualization with the realization of an exploratory study of qualitative approach, sensitive listening, with the participation of 80 women, age range between 18 and 83 years old, born in Para, accompanied in primary health care, in the city of Belem, Pará, selected by convenience. The purpose of the production was to elaborate the ET. Regarding the type, was chosen or select. **Results:** The booklet is divided into 3 parts: Cervical Cancer; Breast Cancer and Sexually Transmitted Infections. These technologies have proven to be very effective in clarifying doubts about the disease and the exams, as well as in awakening interest in the care of one's own health. Health education is the task of health professionals with regard to the individual and the community, developing positive outcomes in prevention and health promotion. **Conclusion:** Therefore, the possible application of an Educational Technology aimed at women will bring advances for health promotion and disease prevention in general, providing higher quality of life, empowerment of women.

Copyright © 2019, Ruhan da Conceição Sacramento et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Ruhan da Conceição Sacramento; Ana Maria Baena de Brito; Stephany Siqueira Braga et al. 2019. "Women's health in the amazon context: development of educational technology "women, health care"", *International Journal of Development Research*, 10, (02), 33814-33817.

### INTRODUCTION

The formulations of policies and programs directed at women in Brazil were influenced by the socio-political-economic context. Prior to the 1980s, women's health actions were limited to the pregnancy-puerperal cycle.

From the 1980s, in which movements for democracy, human rights and improved living conditions intensified, the first milestone of assistance actions aimed at women's health in Brazil through the Comprehensive Health Care Program emerged. Women (PAISM), which included actions such as

family planning and gynecological assistance directed at controlling the most prevalent diseases in women (Brasil, 2004; Freitas, Vasconcelos, Moura, & Pinheiro, 2009). However, the program was limited to the reproductive condition of women, and for this reason, in 2004, the National Policy for Integral Attention to Women's Health was created. health promotion, protection and recovery from disease and injuries to all women, regardless of their reproductive condition with the inclusion of black, indigenous, lesbian and rural workers (Brasil, 2004; Freitas *et al.*, 2009). According to this policy (Brasil, 2004) and Freitas (Freitas *et al.*, 2009), socioeconomic conditions contribute to the disease process of many women. Currently, the main causes of morbidity and mortality in women in Brazil are chronic diseases such as cardiovascular conditions and malignant neoplasms. According to Lorenzo (Lorenzo, 2018) and Soeiro (Soeiro *et al.*, 2018), coronary syndromes were among the main chronic pathologies in women, presenting late symptoms, unfavorable outcomes and greater chances of new cardiovascular event. According to National Cancer Institute, the leading cause of cancer death in women is breast cancer, with 15,403 deaths in 2015. In Pará, the leading cause of female mortality is cervical cancer and stomach cancer (Brasil, 2018). The mortality profile of women in Brazil and regional disparities such as socioeconomic inequalities significantly interfere with women's health (Brito-Silva, Bezerra, Chaves, & Tanaka, 2014). One of the main risk factors identified in a study for cardiovascular events and cancer in women is physical inactivity, lifestyle habits, smoking and alcoholism (Brazil, 2018; Traldi, Galvão, Morals, & Fonseca, 2016). In Pará, the high rates of cervical cancer occur due to low HPV vaccination coverage, low adherence of women to the Pap smear and difficulties of access of women in care networks, especially in Primary Care (Brasil, 2018; Brito-Silva *et al.*, 2014).

This structure of low conditions for health services is peculiar in the Amazon Region, as there are physical barriers, sometimes areas of care gaps, associated with cultural contexts of care in different ways, in which immunobiological and other preventive actions require human resources, specific materials and strategies for dealing with the diverse audience (Brito-Silva *et al.*, 2014; Garnelo, 2011; Traldi *et al.*, 2016). Health education comprises a differentiated and complex approach in the field of health actions, because it is configured according to the scientific, philosophical, political, religious, cultural and ethnic aspects of a given public, which can be worked on, both individually and collectively. In addition, one of its foundations is tangent to the health-disease process, with the intention of preventing or delaying the presence or development of disease, thus enabling a better quality of life for humans (Machado *et al.*, 2007; Salci *et al.*, 2013). Thereby, health education cannot be limited to the practical field of transmitting knowledge or information on health, since there is a need to combine educational and environmental support that ends actions and living conditions conducive to health. For this, it is important to reiterate health promotion as a fundamental part of the health education process, as well as to include such practice in communication, information, education and qualified listening (Salci *et al.*, 2013; Souza & Andrade, 2014). Given this, Educational Technologies (ET) are means and / or resources that can primarily assist health professionals to carry out health education, with the aim of improving their activities in the educational process, through instruments, methods, techniques and among others, satisfactorily impacting health reality (Teixeira, 2010). It is

believed that the use of the instruments in the health education process reverberates in the teaching-learning process, adapting the technologies to the real need of the user either to improve daily practices or changes in their behavior, aiming at quality of life, health promotion and disease prevention. Thus, the present study aims to build an educational technology for health education on women's health care inserted in the Amazonian context (Domingues, *et al.*, 2017; Teixeira, 2010).

## MATERIALS AND METHODS

Methodological research type study, as it refers to the development and elaboration of educational technology. Methodological research deals with the development, validation and evaluation of research tools and methods through the investigation of data collection and organization methods (Polit & Beck, 2018). This study is part of the research project entitled "Social representations about health-disease and care among users of the SESMA / Belem network: exploratory study II", funded by the Pará State Research Support Foundation (FAPESPA), subprojects, under the responsibility of Working Groups (WG), which performed the data production stage, called "sensitive listening" with users of the public health network of the municipality of Belém; One of these subprojects was with women over 18, developed by the Women's Health WG.

The construction of Technology on Women's Health care took place in two moments: Contextualization and Production (Teixeira & Mota, 2018).

The first moment of contextualization with the accomplishment of an exploratory study of qualitative approach, of sensitive listening, with the participation of 80 women, between 18 and 83 years old, from Pará, accompanied in Primary Health Care, in the city of Belem, Pará, selected for convenience. We used the following question: What information would you like to know about women's care? In the answers recorded emerged the themes: Tests (Pap smears and Mammography), prevention, cancer, food, physical activities and hygiene. The results of the contextualization research indicated the necessary contents for the production of ET. Based on these themes, it was proposed to use literature from primary and secondary sources, books, scientific articles and ordinances, as well as the Primary Care notebooks and Women's Primary Health Care Protocols (Brasil, 2016). After reading the selected material, it was found that it was convergent with the themes that emerged in the first phase. The second moment of production aimed to elaborate the ET. First, the WG analyzed the representations and information on women's care, illness and health, produced in the sensitive listening stage (research results). Emphasis was placed on users' responses to what information they would like to have about women's health care. Next, a "content map" was constructed, which indicated the subject-themes pointed out by the users. After the steps of contextualization and production, when deciding on the type of ET the WG opted for the primer modality because the content analysis of the responses revealed that the information that interests women about cervical and breast cancer and sexually transmitted infections. involved aspects such as health care and disease prevention. Based on this information there was the production of educational technology to be validated later. Technology is a way of bringing information and is related to how to take care

of health and prevent disease. The project was approved by the CEP of the "Magalhaes Barata" School of Nursing of the State University of Pará (UEPA), under CAEE 00643312.5.0000.5170 and opinion 98.029.

## RESULTS

The intention of the booklet "Women: health care" is to provide the user of health services with the possibility of building knowledge through reflective reading. The information described in the booklet was organized in a logical sequence of reasoning, so as to clearly and concisely portray to the female public what care is needed to be healthy, taking into account the epidemiological characteristics of the Amazonian context. The booklet is of the printed type and has twenty four pages distributed in fourteen sheets. The booklet began with the cover, which contains two images related to the theme, the logos of the institutions involved in the production of the booklet and the aforementioned title. Following is the presentation sheet and the summary by which you can have an overview of what the primer contains in its contents. The primer is divided into 3 parts: 1) Cervical Cancer; 2) Breast Cancer; and 3) Sexually Transmitted Infections (STIs). The first and second part, entitled "Cervical Cancer" and "Breast Cancer" respectively, discuss the epidemiology and incidence of cervical cancer and breast cancer in the state of Pará and Brazil, as well as the forms of prevention for the pathologies addressed. In addition, it also discusses curiosities through the insertion of illustrative characters such as Lelê and Marta, who inquire about the themes discussed, such as: "I want to know everything about Cervical Cancer", speech by the character Lelê, which aims to enable the bonding of users while reading the material. Thus, in text and images, relevant points about the diseases under discussion, such as the Cervix and Breast Cancer, their forms, appearances, which parts of the body are affected, the risk factors for development of diseases, symptoms, diagnoses, treatments and referral sites in the state, as well as ways of prevention, such as breast self-examination for breast cancer. The third and last part of the booklet discusses issues related to STIs, where the definition, epidemiological data and symptoms in general are addressed. Then, some specific STIs were discussed, such as candidiasis, trichomoniasis, gonorrhea, HPV and HIV / AIDS, covering the general characteristics, modes of infection and clinical manifestations. Finally, it discusses the prophylactic prevention methods for the respective infections, highlighting the importance of regular medical examinations for early detection and diagnosis. It is worth mentioning that for this final part, the resource of the illustrative characters was also used in order to enable the link between the readers and the producers of ET.

## DISCUSSION

There are currently affordable and effective ways that enable early diagnosis of breast and cervical cancer, such as mammography, breast self-examination and Cervical Cancer Preventive Screening (PCCU) are highly reliable tests for detection of cancer in its early stage. However, statistical data indicate that, despite all the technological and scientific advances for early diagnosis, breast cancer is still the most prevalent type of cancer among Brazilian women, with high mortality rates (Moreira, Bernardo, & Catunda, 2013). Followed by uterine cancer that also affects a large number of women in our country, especially in the northern region of

Brazil, usually associated with infection by the Human Papilloma Virus (HPV) (Miranda & Gonçalves, 2016). In this assumption, the research also reveals that there are a range of conditioning factors for breast and cervical cancer to reach a high number of Brazilian women. Among these factors are the lack of knowledge about the concept of cancer, as well as its signs and symptoms and ways to diagnose and treat it, and most of the female population has never performed any type of gynecological examination for reasons such as not knowing the cancer. exam or are afraid or ashamed to perform it. Another important factor is the socioeconomic and cultural status of these women, which directly reflects on their inadequate eating habits, sedentary lifestyle, alcoholism and / or smoking, multiple partner sexual practices and no condom use (Antunes, 2014). Sexually Transmitted Infections (STIs) correspond to contemporary themes and discussion essential in the current Brazilian scenario, since they can be transmitted by different etiological agents, not only through direct contact, through sexual, more vertically (in mother to child during childbirth and / or breastfeeding) and by blood. In addition, when STIs not discovered in a timely manner and treated incorrectly can lead to increased chances of being infected with the Human Immunodeficiency Virus (HIV), STIs in women can cause infertility, fetal malformation and also, the premature death of the newborn (D'Amaral *et al.*, 2015; Ferreira *et al.*, 2018).

In Brazil, STIs can be understood as a public health problem. A recent research conceived and performed by a Porto Alegre Hospital in line with the Ministry of Health had the participation of 7,586 people, aged between sixteen and twenty-five years, the results of this research showed a prevalence of 54.6 % of HPV among these young people, and 38.4% of the volunteers had high risk HPV, strongly tending to the development of a carcinoma (Brasil, 2017). Understanding STIs including their mode of transmission, clinical manifestations, and especially their prophylactic methods is paramount, at this juncture, devices that facilitate the work of health professionals as in the case of educational technologies may function as a combination of teaching methods and counseling capable of influencing the lifestyle change of the individual, as well as transmit knowledge about their health (Brasil, 2019). All the data collected and the results obtained reinforce the importance of the mobilization of nursing professionals and health team through the creation of educational technologies that gather information of great importance that instigates and influences women to be alert to any risk signal and to seek perform tests for early diagnosis of the disease. These technologies have been very effective in answering questions about the disease and the exams, as well as arousing interest in the care of one's own health. Being health education an essential function among health teams towards the individual and the community, having positive results in prevention and health promotion, as well as in the treatment and recovery of diseases (Andrade, Santos, Staudt, & Mallmann, 2017).

## Conclusion

Therefore, the possible application of an Educational Technology aimed at women will bring advances for health promotion and disease prevention in general, providing higher quality of life, empowerment of women in relation to their own health care, as well as greater knowledge. Since the creation of this technology was based on the main doubts and

anxieties presented by most women users of the health service.

## REFERENCES

- Andrade, V. R. M., Santos, A. V. dos, Staudt, K. J., & Mallmann, C. W. 2017. Interdisciplinarity as educational tool in health: a study of cervical cancer. *Revista Brasileira de Análises Clínicas*, 49(2), 189–194. <https://doi.org/10.21877/2448-3877.201700541>
- Antunes, M. A. 2014. *Criação de Material Didático Educativo nas ações de prevenções na Atenção à saúde da mulher referente ao câncer de mama e colo uterino. Monografia (Especialização em Linhas de Cuidado em Enfermagem – Doenças Crônicas não transmissíveis)*. Universidade Federal de Santa Catarina, Florianópolis.
- Brasil, M. da S. 2016. *Protocolos da Atenção Básica: Saúde das Mulheres / Ministério da Saúde, Instituto Sírion-Libanês de Ensino e Pesquisa*. Brasília: Ministério da Saúde.
- Brasil, M. da S. A. H. M. de V. 2017. *Estudo epidemiológico sobre a prevalência nacional de infecção pelo HPV (POP-Brasil): resultados preliminares*. Porto Alegre: Associação Hospitalar Moinhos de Vento.
- Brasil, M. da S. I. N. de câncer J. A. G. da S. (INCA). 2018. *ABC do Câncer: abordagens básicas para o controle do câncer*. (M. J. S. da Silva, Ed.) (4th ed.). Rio de Janeiro: Inca.
- Brasil, M. da S. S. de A. a saúde. D. de ações programáticas estratégicas. 2004. *Política Nacional de Atenção Integral a Saúde da Mulher: princípios e diretrizes*. Brasília: Ministério da Saúde.
- Brasil, M. da S. S. de V. em S. D. de D. de C. C. e I. S. 2019. *Protocolo Clínico e Diretrizes Terapêuticas para Atenção Integral às Pessoas com Infecções Sexualmente Transmissíveis (IST)*. Brasília: Ministério da Saúde.
- Brito-Silva, K., Bezerra, A. F. B., Chaves, L. D. P., & Tanaka, O. Y. 2014. Integrality in cervical cancer care: Evaluation of access. *Revista de Saude Publica*, 48(2). <https://doi.org/10.1590/S0034-8910.2014048004852>
- D'Amaral, H. B., Rosa, L. de A., Wilken, R. de O., Spindola, T., Pimentel, M. R. A. R., & Ferreira, L. E. da M. 2015. As práticas sexuais dos graduandos de enfermagem e a prevenção das doenças sexualmente transmissíveis. *Rev Enferm UERJ*, 23(4), 494–500. <https://doi.org/10.12957/ruerj.2015.16823>
- Domingues, A. N., Jesus, I. T. M. de, & Zem-Mascarenhas, S. H. 2017. Informática na Educação em Saúde e Enfermagem: análise dos grupos de pesquisa. *J. Health Inform*, 9(1), [19-24].
- Ferreira, I. T., Neves, K. T. de Q., Oliveira, A. W. N., Galvão, T. R. A. F., Mangane, E. M., & Sousa, L. B. de. 2018. Avaliação da qualidade da consulta de enfermagem em infecções sexualmente transmissíveis. *Enfermagem Em Foco*, 9(3), 42–47.
- Freitas, G. L. de, Vasconcelos, C. T. M., Moura, E. R. F., & Pinheiro, A. K. B. 2009. Discussing the policy of attention to women's health in the context of health promoting. *Revista Eletrônica de Enfermagem*, 11(2), 424–428.
- Garnelo, L. 2011. Aspectos socioculturais de vacinação em área indígena. *Historia, Ciencias, Saude - Mangueiras*, 18(1), 175–190. <https://doi.org/10.1590/S0104-59702011000100011>
- Lorenzo, A. de. (2018, November). Gender disparities and outcomes of acute coronary syndromes in Brazil. *Arquivos Brasileiros de Cardiologia*. Arquivos Brasileiros de Cardiologia. <https://doi.org/10.5935/abc.20180210>
- Machado, M. D. F. A. S., Monteiro, E. M. L. M., Queiroz, D. T., Vieira, N. F. C., & Barroso, M. G. T. 2007. Integralidade, formação de saúde, educação em saúde e as propostas do SUS - Uma revisão conceitual. *Ciencia e Saude Coletiva*, 12(2), 335–342. <https://doi.org/10.1590/S1413-81232007000200009>
- Miranda, S. A. de, & Gonçalves, L. H. T. 2016. Autocuidado de mulheres amazônidas na prevenção e controle do Papiloma Virus Humano (HPV) – participação da(o) enfermeira(o). *Enfermagem Em Foco*, 7(1), 8–12. <https://doi.org/10.21675/2357-707x.2016.v7.n1.657>
- Moreira, C. B., Bernardo, E. B. R., & Catunda, H. L. O. 2013. Construção de um vídeo educativo sobre detecção precoce do câncer de mama. *Rev. Bras. Cancerol*, 59(3), 401–407.
- Polit, D. F., & Beck, C. T. 2018. *Fundamentos de Pesquisa em Enfermagem: avaliação de evidências para a prática da enfermagem* (9th ed.). Porto Alegre: Artmed.
- Salci, M. A., Maceno, P., Rozza, S. G., Maria, D., Vieira Da Silva, G., Boehs, A. E., ... Heidemann, B. 2013. Health education and its theoretical perspectives: a few reflections. *Texto Contexto Enferm*, 22(1): 224-30.
- Soeiro, A. de M., E Silva, P. G. M. de B., Roque, E. A. de C., Bossa, A. S., Biselli, B., Leal, T. de C. A. T., Oliveira, M. T. 2018. Prognostic differences between men and women with acute coronary syndrome. Data from a Brazilian registry. *Arquivos Brasileiros de Cardiologia*, 111(5), 648–653. <https://doi.org/10.5935/abc.20180166>
- Souza, C. L. de, & Andrade, C. S. 2014. Saúde, meio ambiente e território: uma discussão necessária na formação em saúde. *Ciência & Saude Coletiva*, 19(10), 4113–4122. <https://doi.org/10.1590/1413-812320141910.08992014>
- Teixeira, E. 2010. Tecnologias em Enfermagem: produções e tendências para a educação em saúde com a comunidade. *Rev. Eletr. Enf.* 12(4):598. <https://doi.org/10.5216/ree.v12i4.12470>
- Teixeira, E., & Mota, V. M. S. de S. 2018. *Educação em saúde: tecnologias educacionais em foco* (1st ed.). São Caetano do Sul/SP: Difusão Editora.
- Traldi, M. C., Galvão, P., Morais, S. S. de, & Fonseca, M. R. C. da C. 2016. Demora no diagnóstico de câncer de mama de mulheres atendidas no Sistema Público de Saúde. *Cadernos Saude Coletiva*, 24(2), 185–191. <https://doi.org/10.1590/1414-462x201600020026>

\*\*\*\*\*