Educommunication as a strategy to face Syphilis: an analysis of the open educational resources available at AVASUS

Educomunicação como estratégia de enfrentamento à Sífilis: uma análise dos recursos educacionais abertos disponíveis no AVASUS

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ABSTRACT

Introduction: Syphilis is a problem for the Brazilian Public Health. Therefore, the Brazilian Ministry of Health has been promoting actions to fight this disease; among them, the "No Syphilis Project" stands out, and develops open educational resources (OER), among several activities. **Objective:** To analyze the open educational resources available in the SUS (the Brazilian Unified Health System) Virtual Learning Environment, focused on syphilis. **Methods:** This qualitative study, based on epistemology in the field of phenomenology, is a content analysis operated with the meanings constructed to parts of a set of texts and the objects of its analysis were the teaching plans of 19 educational resources available at AVASUS, which dealt with the theme "Syphilis". The analysis was organized into two unitss: The main purpose of the educational resource and Thematic focus of the educational resource. **Results:** The overlapping of clinical aspects of the disease to the detriment of socio-environmental aspects and the prevalence of informational objectives can be observed, with the exception of one resource that presented an objective that sought a more active action by the course participant. In the analysis unit 1 it was possible to identify the prevalence of objectives such as 'presenting' or 'conveying' content/information related to the disease. In the analysis unit 2 it was possible to identify the "classic" biomedical cycle of approaching a disease, focusing on diagnosis. **Conclusion:** The study contributed to the identification of gaps from the thematic and methodological point of view that can guide the planning for the construction of new educational resources.
Keywords: communication; health education; syphilis.

RESUMO

Introdução: A sífilis é um problema de saúde pública do Brasil, que via seu Ministério da Saúde vem promovendo ações de enfrentamento da doença, entre as quais se destaca o "Projeto Sífilis Não", que desenvolve, entre diversas atividades, recursos educacionais abertos. **Objetivo:** Analisar os recursos educacionais abertos, disponíveis no ambiente virtual de aprendizagem do Sistema Único de Saúde (AVASUS), circunscritos na temática da sífilis. **Métodos:** Este estudo qualitativo, com base espistemológica no campo da fenomenologia, constitui-se em uma análise de conteúdo que operou com os significados contruídos com base em um conjunto de textos e teve como objetos de análise os planos de ensino de 19 recursos educacionais disponíveis no AVASUS e que versavam sobre o tema "sífilis". A análise foi organizada em duas unidades: objetivo principal do recurso educacional; e foco femático do recurso educacional. **Resultados:** Pode-se observar a sobreposição de aspectos clínicos da doença aos aspectos socioambientais e a prevalência de objetivos informacionais — com exceção de um recurso, cujo objetivo buscava uma ação mais ativa por parte do cursista. Na unidade de análise 1, foi possível identificar a prevalência de objetivos como "apresentar" ou "dar a conhecer" conteúdos/informação relacionados à doença. Na unidade de análise 2, foi possível verificar o ciclo biomédico "clássico" de abordagem de uma doença, com foco no diagnóstico. **Conclusão:** O estudo contribuiu para a identificação de lacunas dos pontos de vista temático e metodológico, que pode orientar o planejamento para a construção de novos recursos educacionais.
Palavras-chave: comunicação; educação em saúde; sífilis.

INTRODUCTION

Syphilis is a preventable and curable sexually transmitted infection (STI), considered by the Brazilian Ministry of Health as a public health problem, which has consequences for sexual and reproductive health, as well as for child health[(1)].

The Pan American Health Organization points to the need to control this infection that, in recent years, has shown an increase in its detection rate, especially in low-income countries such as Brazil[(2)].

Among the various strategies adopted by the Ministry of Health, the Quick Response to Syphilis Project in Care Networks stands out in this study - "No Syphilis" - in partnership with the Pan American Health Organization and the Universidade Federal do Rio Grande do Norte (UFRN, its acronym in Portuguese). The project was conceived to induce actions aimed at controlling syphilis in health care networks, with the participation of local supporters; to produce knowledge through operational studies and to enhance the technical capacity for surveillance and local assistance in 100 priority municipalities, which represent around 65% of syphilis cases in the country[(3)].

Operating from an intersectorial perspective, the "No Syphilis Project" was structured in four strategic axes: comprehensive care; educommunication; health surveillance; and management and governance.

The axis called "Educommunication" operates in two fields of knowledge that, until the 2000s, were considered independent: Education and Communication. However, Soares presents, argues and theoretically supports Educommunication as a new field of action: "due to its relational nature, it is structured in a procedural, mediatic,

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transdisciplinary and interdiscursive way, experienced in the practice of social actors, through concrete areas of social intervention"[4,5].

In other words, these two fields of knowledge, which were previously related epistemologically in a specific way and based on the object of study, begin to deeply relate to each other, making it difficult even to distinguish the contributions of each field when investigating the same object.

This transdisciplinary perspective guides the Educommunication actions in the aforementioned project, which invests in direct informational actions and campaigns to fight syphilis, reaching the population through a language suitable for the lay public. It also invests in the training of professionals from the Unified Health System (SUS, its acronym in Portuguese), in a deep dialogue with the National Policy for Permanent Health Education[6] (PNEPS, its acronym in Portuguese), which advocates the training and development of health professionals, through the articulation between teaching and service based on the development of qualified initiatives to confront the challenges of the SUS, as it is the case with syphilis today.

The expansion of information and communication technologies (ICTs) used in the field of health, and consequently the training mediated by technology for professionals who work in it, have been gradually and positively incorporated, especially taking into consideration the care demanded in the health field, and recognizing the limitations and potential of ICTs[7-10].

OBJECTIVE

The objective of this study was to qualitatively analyze the open educational resources (OER), focused on the theme syphilis, available in the SUS Virtual Learning Environment (AVASUS), developed by UFRN, whose mission is to promote integrated and accessible knowledge in education to health.

This analysis consisted of identifying and categorizing the approaches and objectives of OERs and, consequently, identifying any thematic or educational gaps, in order to contribute to the planning for the production of new resources.

METHODS

This is a qualitative study with an epistemological basis in the field of phenomenology, founded on the encounter between consciousness and materiality. This investigative configuration addresses the phenomena directly, with a focus on language, and proposes an "interpretive movement of a hermeneutic character" that operates meanings constructed from a set of texts[11].

The qualitative approach requires reflection on how to apply and improve skillful techniques to capture discourses arising from contexts of multiple meanings and valuation scales[12,13]. Recognizing the limits of the explicit and latent contents of the messages, we consider that these should be placed as starting points for understanding and not as intermediaries for legitimizing assumptions[14].

Guided by this perspective, we performed a content analysis, based on Bardin[15], given the applicability to the study and recognition of the method by the academic community for this type of analysis. We analyzed nineteen Open Educational Resources plans available at AVASUS in October 2020 that met the following inclusion criteria: addressing the theme of 'Syphilis' from the search in the fields: 'title', 'general objective' or 'specific objectives'.

Content analysis is a research methodology used to describe and interpret the content of every class of documents and texts and used for rereading messages, bringing meanings beyond a simple reading of the document. This analysis leads to systematic descriptions, qualitative or quantitative, and contributes to the reinterpretation of messages, to reach an understanding of their meanings at a level that goes beyond a trivial reading.

This analysis was organized into the three stages presented in the method, namely:

- First Stage: Pre-analysis: with the purpose of organizing the analysis, skim reading texts to prepare it;
- Second Stage: Exploration of resources: focused on the deconstruction and unitarization of texts, this process led us to raise the first meanings and senses, the first step in interpreting the analyzed documents. The final product was the definition of two analysis units: 1: OER's main objective and 2: OER's thematic focus;
- Third Stage: Treatment of results and interpretation: this stage involved the construction of connections between the units from their combination and classification to form sets that provide similar elements.

In order to complement the analysis, we created two word clouds from the aforementioned analysis units. These graphic features represent frequencies of terms and are images composed of words used in a text in which the size of each word indicates its frequency or importance. More recently, and transcending their illustrative appeal, word clouds have become an option for text analysis and also for the dissemination of qualitative research results, as they present clarity and transparency in the communication of ideas and elucidate patterns for primary and secondary analyses[16].

RESULTS

The results were organized in two ways. The first summarizes, on Table 1, the main data analyzed: title, objective and thematic focus of each OER, the latter being the result of the first stage of content analysis, which allowed us to identify the keywords of each object of analysis.

The second way of organizing the data for analysis was the creation of two word clouds, elaborated from the two established analysis units:

Analysis Unit 1: OER Main Objectives

Regarding the objectives, we observed that most OER aim to 'present' or 'convey' content/information related to the disease. The word cloud allows us to visualize it, as shown in **Figure 1**, below:

We can observe the highest occurrence of the verb "to know" (conhecer), followed by the verbs "to present" (apresentar), "to recognize" (reconhecer) and "to identify" (identificar). We also observe that only one OER has an objective that provides the course-taker with a different perspective in addition to receiving information, which is represented by the term "Tracing approach" (traçar abordagem).

Analysis Unit 2: OER's Thematic Focus

We were able to clearly identify the classic biomedical cycle, in which the issues involving a disease are, in general: form of transmission/prevention, diagnosis/symptoms and treatment, information that is already explained in the Clinical Protocol and Therapeutic Guidelines of the disease.

Table 1 – List of OER: objectives and audience.

Title	Main Objective	1st Stage Content Analysis Keywords
Syphilis: there comes information!	Present, through a webseries, information about syphilis.	Diagnosis Treatment
Let's talk about syphilis: clarifying questions about syphilis	Identify syphilis as a sexually transmitted infection, understanding the importance of its prevention and control, and reversal of the epidemic.	Health Promotion
Acquired Syphilis	Get to know the main aspects involved in the debate on acquired syphilis.	Natural history Frame Classification Diagnosis Therapeutic conducts
Surveillance/assistance dynamics in times of syphilis epidemic: current issues and perspectives	Get to know the need for surveillance/ care integration in the context of comprehensive care for patients with syphilis and its contemporary challenges.	Integration between Primary Health Care and Health Surveillance Comprehensive Care
Syphilis in Brazil - new protocol: diagnosis and treatment	Get to know the new Transmissible Diseases Control Protocol (PCDT).	Transmissible Diseases Control Protocol
Syphilis diagnostic tests	Outline approach to syphilis, sexually transmissible infection, caused by Treponema Pallidum bacteria.	Diagnostic Tests
Let's talk about syphilis: syphilis epidemic in the 21st century	Understand syphilis as an epidemic sexually transmitted infection still in the 21st century	Epidemiology Diagnosis, Treatment and Reinfection Care Network Management
Let's talk about syphilis: syphilis scenario in Brazil	Present the national panorama of Syphilis incidence.	Syphilis Incidence Types Detection Rates
Syphilis: Pathogenesis, development of the immune response and diagnostic methods	Present the main characteristics of the Treponema Pallidum infection, the basic mechanism of the pathogenesis of Acquired and Congenital Syphilis and the main methods used to carry out the laboratory diagnosis.	Syphilis Pathogenesis Immune Response Development Laboratory Diagnosis
HIV and Syphilis eradication strategies	Discuss HIV and Syphilis eradication strategies.	Eradication
STI Epidemiological Surveillance – Syphilis	Get to know the main concepts that involve the Epidemiological Surveillance of Sexually Transmitted Infections, particularly Syphilis.	Clinical Protocol and Therapeutic Guidelines Epidemiological Surveillance Acquired, Pregnancy and Congenital Syphilis Diagnosis, Control and Treatment
Prenatal and Postpartum in Times of Covid-19 Pandemic	Recognize the importance of Health Permanent Education teams in Primary and Specialized Care to strengthen the Maternal-Infant Network	Women's Health Prenatal, Pregnancy and Postpartum Permanent Education
Vertical Transmission of Syphilis	Characterize the epidemiological clinical situation of vertical transmission of congenital syphilis, and present the therapeutic handling recommended by the PCDT	Vertical Transmission Diagnosis Treatment
Scientific Research Methodology for Supporters	Equip the Healthcare Network supporters of the Syphilis Quick Response Project on their scientific research methodology.	Research
Syphilis and Gonorrhea in Brazil – Gonococcus in Brazil	Recognize Gonorrhea as an important public health problem in Brazil.	Gonorrhea and Syphilis Combined Prevention
Let's talk about Syphilis: Syphilis and HIV: friend or foe?	Inform the public about Sexually Transmissible Infections (STI) by addressing the main similarities and differences between the Human Immunodeficiency Virus (HIV) and Syphilis.	Sexually Transmissible Infections
Congenital Syphilis: from prenatal care to outpatient follow-up	Update conducts in the management of Congenital Syphilis.	Treatment Prenatal Diagnosis
Let's talk about syphilis: risk of infection	Discuss the Syphilis epidemic, understanding the importance of its prevention and guidelines to avoid the spread of the disease.	Risk
Let's talk about Syphilis: getting to know the symptoms of Syphilis	Identify the main aspects involved in the debate about Syphilis.	Clinical condition Diagnosis, Transmissibility Additional Tests Etiopathogenesis

In this analysis, we highlight a course that had the purpose of reaching integration between Primary Health Care and Health Surveillance, and points to the challenge of defragmenting the care process in SUS, through necessary and desirable intersectoral actions to improve this care.

The word cloud below (**Figure 2**) allows us to verify the highest occurrence of the term "Diagnosis" (Diagnóstico).

We can observe that the graphic form of the analysis reveals and reinforces the results of the previous analysis, the focus on the biomedical model. The second most frequent term is "Treatment" (Tratamento), followed by "Pregnant Woman" (Gestante), which is explained by the fact that pregnant women are the target audience in the fight against Acquired Syphilis.

DISCUSSION

The discussion of the results was organized in the same way they were presented, that is, by analysis unit. In light of the theoretical framework adopted, in the specific context of the SUS, we propose reflection about health education in Brazil, more specifically Permanent Health Education[17] and the prevalence of the biomedical model to the detriment of social health determinants[18] regarding the analyzed OER.

Information for action was assumed, especially by health surveillance, which considers health information with a focus on data and information systems as a fundamental field of knowledge for health promotion and disease prevention action planning[19]. Extrapolating this perspective beyond surveillance, we can consider, when observing the first analysis unit of this study — the OER objectives — that knowing about syphilis is the first step to face it.

Figure 1 – Word Cloud: OER Objectives.

Figure 2 – Word Cloud: OER keywords.

This perspective opens up several fronts for further inquiry. However, we will solely reflect/inquire about health education in Brazil and the Health Permanent Education strategy. The first reflection/question on this topic is: what happens (or does not happen) in the initial training of our professionals that causes health educators to decide, during the construction of educational resources, on objectives such as "inform", "present" or "convey" a preventable, curable disease with protocol and guidelines already established by the Ministry of Health?

We do not intend to answer this specific question here, yet we are willing to provoke some reflections: is the number of educational resources with the purpose of "conveying" a real need for health professionals arising from gaps in the initial training? Or is it the traditional educational reproduction model strategy of transmitting something to someone by the educators? We believe that the analysis of the OER methodology can contribute to clarifying these questions. Nevertheless, the data were not available and we intend to analyze and discuss them in future studies.

Or, instead, both questions together, since it seems to us that these questions do not antagonize, but rather complement each other.

Our framework on Health Permanent Education[20] carries with it the perspective of putting the daily work or training in health under analysis, and pierces through specific relationships, allowing for reflection on everyday action. In a nutshell, there is no permanent education without intersections of knowledge, practices, health management and public policies.

In this regard, this reflection leads us — with the purpose of contributing to the training of the SUS professionals — to provoke the production of educational resources that have their intentionality centered on the transformation of reality from a constructivist approach, inspired by learning based on problems[21].

The second analysis unit — the OER's thematic focus — led us to reflect upon the biomedical model prevalence in the analyzed OER and to wonder once again why the model of health social determination, debated since the late 1970s at the Conference of Alma-Ata, recognized and adopted by the World Health Organization, has been systematically made invisible. This study analysis demonstrates that clinical aspects overlap social aspects in the approach to OER.

It is not irrelevant to repeat that the model of social determination addresses, from biological and clinical issues, social and environmental issues, and it has been proven adequate particularly in the case of Brazil, one of the most unequal countries in the world, with a low level of education and conservative, perhaps extremely conservative, in relation to issues involving sexual and reproductive health.

Considering the social role of education, it does not seem to be possible to disregard this bitter reality during the construction of any training, especially for health professionals. Bringing the discussion to Syphilis, it must be considered, for example, that the dialogue and care of an illiterate pregnant woman, living on the edge of the poverty line and in precarious sanitary conditions, need to be differentiated. This is one of the many examples that could be given and that we need to face while coping with the disease.

We end the discussion by proposing educational resources based on case studies of users' life conditions, so that we can inform and "affect" the participants of the course through the qualification of their listening skills, the deconstruction of preconceived concepts and the denaturalization of social context, encouraging decision-making, care co-responsibility and positive outcomes in cases of syphilis.

Strenghts

The qualitative analysis allowed open educational resources to be revisited in light of a relevant theoretical framework, so that new strategies in the Educommunication axis could be developed based on the learning produced by this study.

Limitations

The main limitation of this study was the impossibility of analyzing the methodology of the open educational resources provided.

CONCLUSION

Having achieved the main purpose of this study, we analyzed the open educational resources, focused on the theme syphilis, available at AVASUS. The results indicate the prevalence of the traditional information transmission model to the detriment of a dialogic and student-centered perspective.

They also indicate that the biomedical model and the focus on classical approaches prevail as syllabus in the analyzed OERs. Considered together, the study demonstrates the gaps and challenges for the development of educational resources that articulate the socio-constructivist perspective, seeking to achieve the main purpose of the National Policy of Permanent Education in Health.

Human Research Ethics Committee

The study was not submitted to the Permanent Research Ethics Committee, as it did not involve human beings, in accordance with Resolution nº 466/2012 of the National Health Council.

Participation of each author

Each author participated actively and sufficiently in this work, and all of them gave their final approval for the manuscript version.

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Conflict of interests

There is no conflict of interest to declare.

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