

ORIGINAL ARTICLE

Acquired Syphilis: construction and validation of educational technology for adolescents

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Abstract

Introduction: According to the World Health Organization (WHO), syphilis has once again become a highly prevalent disease, presenting itself as a serious public health problem. This Sexually Transmitted Infection (STI) is present in all social strata, both developed and developing, in HIV-positive and immunocompetent HIV-infected individuals in both men and women.

Objective: Validate a serial album aimed at adolescents in the school environment with a focus on acquired syphilis.

Methods: This is a methodological study, in which it refers to investigations of methods of obtaining and organizing data to construct, validate and evaluate research instruments and techniques that may later be used by others. The methodological steps are: Bibliographical survey, construction of the serial album, validation with the expert judges and validation with target audience. After obtaining the data, the analysis will be done by the software Statistical Package for the Social Sciences (SPSS), version 20.0, and arranged them later in tables. This research was approved by the Research Ethics Committee of the Hospital Agamenon Magalhães - HAM, with the number 2.670.213. Confidentiality will be guaranteed on all information collected, ensuring the anonymity of the participants, obeying the determinations contained in Resolution 466/12 of the National Health Council.

Innovation: This is the first work to validate a serial album directed to adolescents in the school environment, developed by professionals specialized in the subject and with the capacity to make important information available, resulting in preventive measures that directly influence health services.

Keywords: validation studies, educational technology, syphilis, adolescent.

Why was this study done?

This study was part of a study of residency completion, by the author Shayane Bezerra, of the Program of Multiprofessional Residency in Collective Health of the Health Secretariat of Recife. The choice of the acquired syphilis theme was based on the author's observation about the increase in the number of cases of this Sexually Transmitted Infection (STI) in adolescents. As this is a public exposed to vulnerabilities, the use of educational technology may contribute to educate young people about this STI, which is still considered a public health problem.

What did the researchers do and find?

Through a methodological study, we seek to construct and validate a serial album about acquired syphilis directed to adolescents. The objective is to have an educational technology duly validated by judges specialized in the subject, guaranteeing the quality in the material produced.

What do these findings mean?

It is hoped that the construction and validation of the serial album will contribute to the adolescents' knowledge about acquired syphilis, as well as to instruct them in the preventive methods. Thus, one can positively impact on reducing the number of infected young people.

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■ INTRODUCTION

In the ancient world, syphilis was already a predominant disease and its name originates from the poem titled "*Syphilis sive morbus gallicus*" or "*Syphilis the French Disease*", by Giralomo Fracastoro, an Italian mathematician and poet. This presumed that the disease was caused by the chemical microspores, but his theory did not succeed. Thus, in mid-1905 after the discovery of the bacterium *Treponema pallidum* by Schaudinn & Hoffmann, it was known that it was the cause of Syphilis, although its origin remains uncertain until the present day¹.

The disease is characterized by phases of clinical activity and latencies. Syphilis, less than one year old, is called a recent syphilis, and presents the primary, secondary and latent phases. Syphilis with more than one year of evolution is called late and presents the late latent phase, presenting asymptomatic for a long period of duration, and the tertiary phase².

As a compulsory notification, the Ministry of Health (MS) classified: acquired syphilis (SA), congenital syphilis (SC) and gestational syphilis (SG), being SC the most prominent for public health due to high frequency with which it produces severe outcomes for gestation and for the child³. With regard to the prevention of this disease, it is necessary the early detection of HS, which is responsible for triggering the other situations of the disease, when not treated correctly.

According to the World Health Organization (WHO), syphilis has once again become a highly prevalent disease, presenting itself as a serious public health problem. It is present in all social strata, both developed and developing countries, in HIV-positive as well as immunocompetent carriers in men and women. However, the numbers are higher in countries and low-income populations and among young men. WHO assesses the existence of 36 million cases and 11 million new cases per year in developing countries⁴.

In Brazil, during the last five years, there has been a constant increase in the number of cases of SG, SC and SA, which can be attributed to several factors, among them are the expansion of the use of rapid tests, reduction of condom use, resistance of the health professionals the administration of penicillin in Primary Care, worldwide shortage of penicillin, among others. Also noteworthy is the improvement in the surveillance system that may have reflected in the increase in reported cases⁵.

The SA presented its detection rate increased from 2.0 cases per 100 thousand inhabitants in 2010 to 42.5 cases per 100 thousand inhabitants in 2016. In that same year, the majority of SA notifications occurred in individuals between 20 and 29 years (34.1%), followed by those aged between 30 and 39 years (22.1%). However, it is worth noting that the notification of individuals aged 13 to 19 years has been increasing since 2010, in which the percentage increase was 39.9%⁵.

These data reflect the importance of addressing this issue with the adolescent puberty, defined by the WHO as the 10-19 age groups, in view of the statistics on the increase in the number of people infected with syphilis, as well as being a vulnerable public. Sexually Transmitted

Infections (STIs) in general.

When thinking about the adolescence phase in relation to STIs, it is necessary to list factors that make this group more vulnerable, such as: little dialogue on the subject, despite many campaigns and information in the various media; cultural and material constraints that reduce access to means of prevention; alternatives restricted mainly to financially disadvantaged young people. These factors expose the teenager to choose between meeting their needs, be they psychological and/or sentimental, or sexually abstaining⁶.

Taking into account the reality experienced in public schools in the city of Recife, the concern arose to develop a health education intervention. Being this, feasible for the students inserted there, the intention is to empower and instruct adolescents in an effective and beneficial way in the process of contributing to decrease the numbers of syphilis acquired, using for such a serial album to be developed as a tool, duly validated.

The aim of this study is to transform the reality of lack of information, cultural barriers and access to the means of prevention experienced by most adolescents, as well as to use this tool as information to be multiplied by adolescents.

From the real understanding of the importance of promoting adequate instruction to adolescents, together with the valuation of educational strategies and technologies, the relevance of the present study is perceived. The construction and validation of the serial album will contribute not only to educate the adolescents about the theme, but also to a possible tool to be used in other realities. Therefore, the overall objective of the study is to validate a serial album directed to adolescents in the school environment focusing on acquired syphilis.

■ METHODS

Study design

This is a methodological study, which refers to investigations of methods of obtaining and organizing data to construct, validate and evaluate research instruments and techniques that may later be used by others⁷.

Thus, the present study aims at the development of a serial album, to be used as an educational strategy in the school environment, which aims to educate adolescents about acquired syphilis, both knowledge about this IST and prevention and treatment measures. The serial album is an effective instrument in approaching the general population, since it relies on strategic information about the subject arranged in a way that makes it easy to understand⁸.

Study steps

The following describes the steps that will be followed for the elaboration of the serial album, as proposed by Echer⁹.

Bibliographic survey

The initial stage will be the search for the most current publications of the Ministry of Health, as well as works published in national and international

databases, these banks and books on the proposed theme. Considering that in the elaboration of educational material it is indispensable to seek the knowledge of the reality of the environment to be studied and the expectations of the subjects, so that the needs of the target population are prioritized¹⁰, a situational diagnosis, with the adolescents who participated in the study in question.

In this way, an informal interview will be used, regarding the knowledge of syphilis, as the current situation of this pathology in Brazil, prevention measures, as well as treatment.

Non-participant observation will also be carried out with notes in a field notebook during biology classes or another subject that addresses the subject in question. This type of observation will bring important information for the construction of the album. Such data will not be published.

Once this has been done, the selection and organization of the main information to be addressed in the educational material will be systematically and chronologically organized.

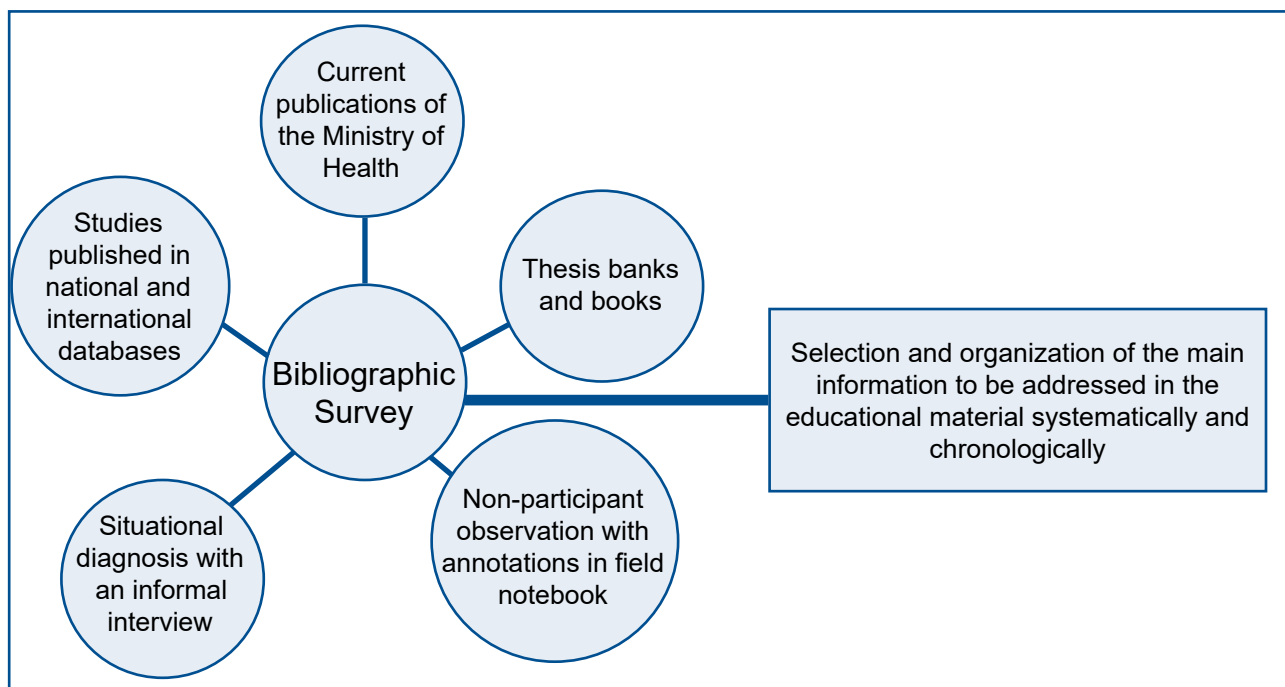


Figure 1: Literature survey flowchart

Elaboration of educational technology: the serial album

The serial album represents a collection of organized pages that can contain photographs, maps, charts, org charts, drawings, texts or any useful material in the exhibition of a theme. However, the illustrations should be simple, attractive and reproduce reality and texts should employ large letters in headings, simple words and sentences as well as key points of the subject being treated for better understanding of the target audience¹¹.

The data obtained through the bibliographical survey, as well as the informal interviews, will be grouped and will serve as the basis for the elaboration of a script in the construction of the serial album. The script and the planned figures will be forwarded to a professional with experience in drawing figures and diagramming of educational materials for the production of the serial album.

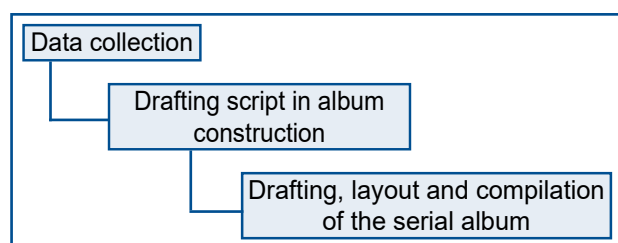


Figure 2: Serial album development flowchart

Validation of the built material

Validation is a process that accurately examines a given instrument or inference based on established scores⁶.

This stage is considered indispensable for the process of elaboration of instruments, since it allows to verify if the measures represented in the same are valid and reliable¹².

The serial album should be submitted to the appearance validations, which consists of a judgment on clarity and comprehension, and content that refers to the verification of the adequacy of the concepts used as well as a way of analysing if the items and texts used are representative within the universe of the entire product⁷.

Validation by expert judges

The constructed album will be submitted to the evaluation of judges considered experts in the area of study approach. For the definition of the sample size, a total of 22 judges are recommended, a number considered adequate for an assessment where there is an ideal proportion of 85% acceptance among the evaluators, with a minimum proportion of 70%, considering 95% of confidence¹³.

Regarding the selection of judges, the criteria of Jasper¹⁴ will be used, in which he recommends to follow the following criteria: to have skill / specialized knowledge that makes the professional an authority on the subject; have special ability in a particular type of study;

have specific test approval to identify judges; or have a high rating assigned by an authority.

In this way, following the recommendations of other authors such as Mota¹⁵ and Sabino¹⁶, the judges will be selected based on their teaching or assistance experience in the area of interest (adolescent health, syphilis, health technology, validation of instruments). Thus, professionals must therefore fit into at least two of the criteria described by Jasper¹⁴.

For the selection of specialists, snowball sampling will be used, or for convenience in which, when a subject meets the eligibility criteria necessary to participate in the study, he is asked to suggest other participants⁷.

The initial stage for this choice is to perform a

search with the Curriculum Lattes system for participant selection and from the indication of this, a new consultation will be made to the Curriculum Lattes to verify the expert's suitability for the selection criteria for the study.

From the selection of the judges who meet the eligibility criteria, they will be invited by means of an invitation letter that should be sent by e-mail, containing the research objectives. With this, those who accept to participate, will receive the Term of Free and Informed Consent - TCLE in two ways; a digitized version of the serial album developed; a questionnaire characterizing the judges and the protocol of analysis of the serial album.

The analysis period for the participants will be 10 days for the return of the evaluation instruments.

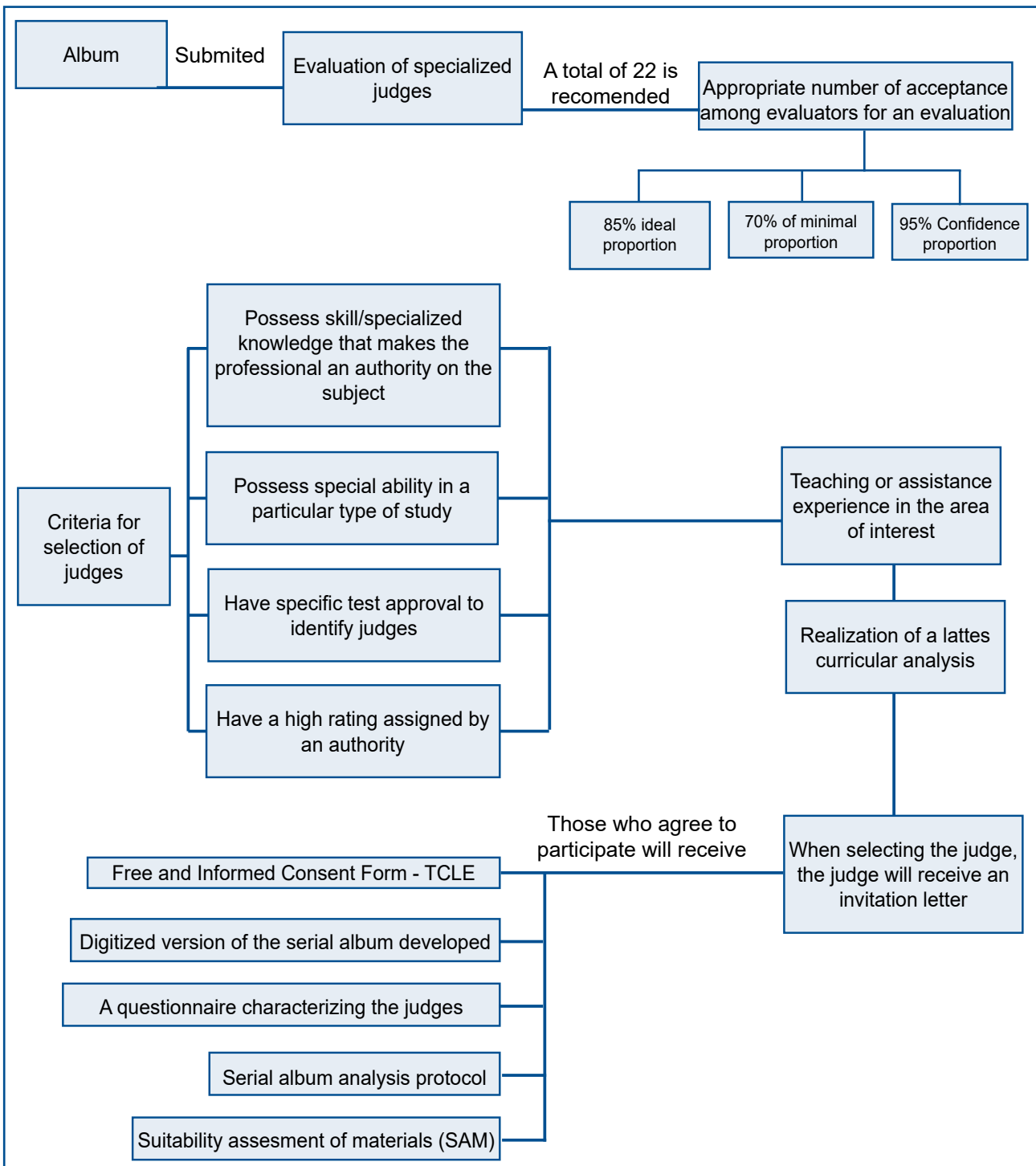


Figure 3: Validation flowchart by the expert judges

Data collection tools for serial album validation by specialists

The first instrument will be designed to characterize the participating judges, which will include issues related to identification; professional training, professional experience and scientific publications in the following areas: adolescent health; educational technology; syphilis; and validation of instruments.

The second instrument, Protocol Analysis of the Serial Album, will be organized into two sections: the first one will take into account the internal content of each script-card and the second section will be used to evaluate the album as a whole.

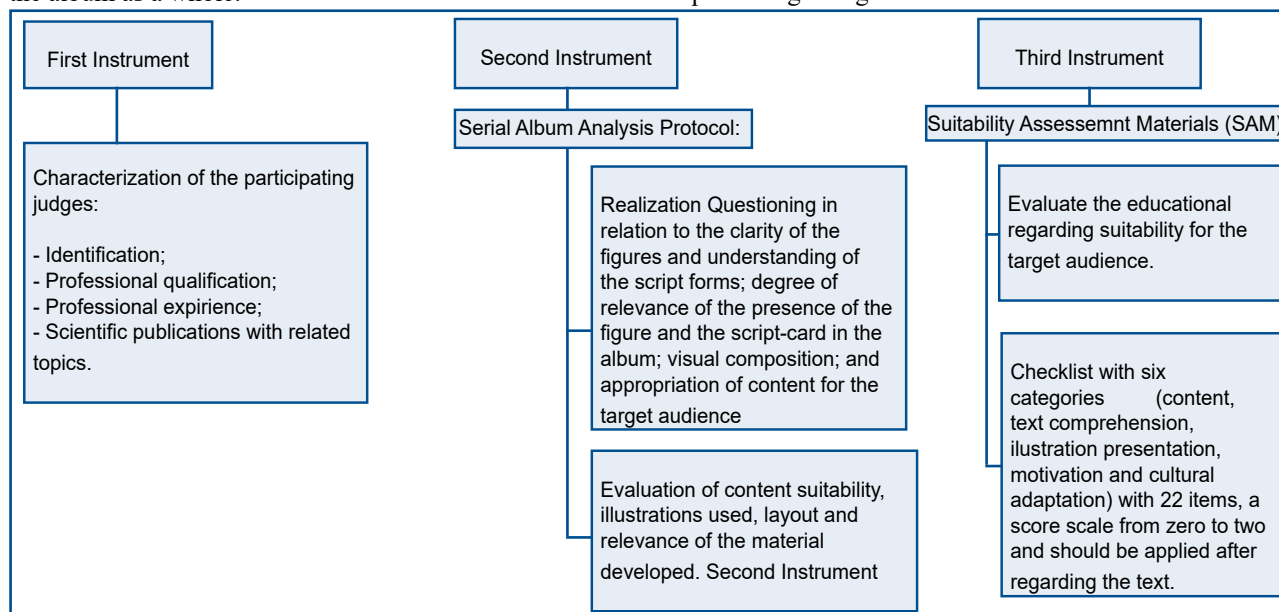


Figure 4: Flowchart of data collection instruments for serial album validation by specialists.

Data analysis

After obtaining the data judged by the specialists, these will be organized and the analysis will be done by the software Statistical Package for the Social Sciences (SPSS), version 20.0, having them later in tables.

In order to analyze the validity of the contents of the scripts, the CVI (Content Validity Index), which measures the proportion of judges in agreement on the aspects of the instrument, will be used¹⁸. The calculations will consist of three mathematical equations: the S-CVI / Ave, the mean of the content validation indexes for all the scale indices; S-CVI / UA, the proportion of items on a scale that reaches scores 3 - really relevant and 4 - very relevant, by all judges; and I CVI, the content validity of the individual items⁷. The IVC shall be considered valid when it reaches a value equal to or greater than 0.80.

Regarding the validity of appearance, the criterion of permanence of the evaluated item will be of at least 75% of agreement between the judges of each group. It should be noted that the SAM consists of the evaluation for each criterion evaluated as "superior", with 2 points, "adequate", with 1 point and "inadequate", with 0 point. Thus, the serial album will be considered a "superior" educational material if it reaches between 70% and 100% of the scores; "Suitable", if between 40% and 69%; and "inadequate", if between 0 and 39%.

Section I was adapted from the instrument used by Dodt et al.¹², in which questions will be asked regarding the clarity of the figures and the understanding of the script forms; degree of relevance of the presence of the figure and the script-card in the album; visual composition; and appropriation of content for the target audience.

Section II was adapted from the questionnaire used by Oliveira et al.¹⁷, which will assess the adequacy of the content, illustrations used, layout and relevance of the material developed. For this the Likert scale will be used, where DT = totally disagree, D = disagree, C = agree; and CT = totally agree; plus a question about the general opinion regarding the album.

We will also perform the reading and analysis of the essay responses and the suggested observations will be adhered to and included in the material.

Validation with target audience

Once the serial album has been validated by the expert judges, then a consultation will be held with the target audience, the aim is to broaden and reaffirm the reliability of the material produced. In this way, the objective of this stage will be to evaluate if the proposed material is comprehensible for the intended audience.

To carry out this validation, adolescents from a school in the city of Recife, Pernambuco, will participate in this phase. It will follow the inclusion criteria, as follows: be between 10 and 19 years old; did not previously participate in any educational intervention related to the subject in question; be regularly enrolled in the school selected for validation.

Regarding the number of participants for this validation, the recommendations of Fehring¹⁹ suggesting 25 to 50 subjects for the validation of instruments and technologies will be followed. Those responsible for adolescents who agree to participate in this phase must sign the Free and Informed Consent Form (TCLE) and receive instructions on how to carry out such an evaluation. The data will be obtained through a questionnaire adapted from the instrument used by Oliveira²⁰.

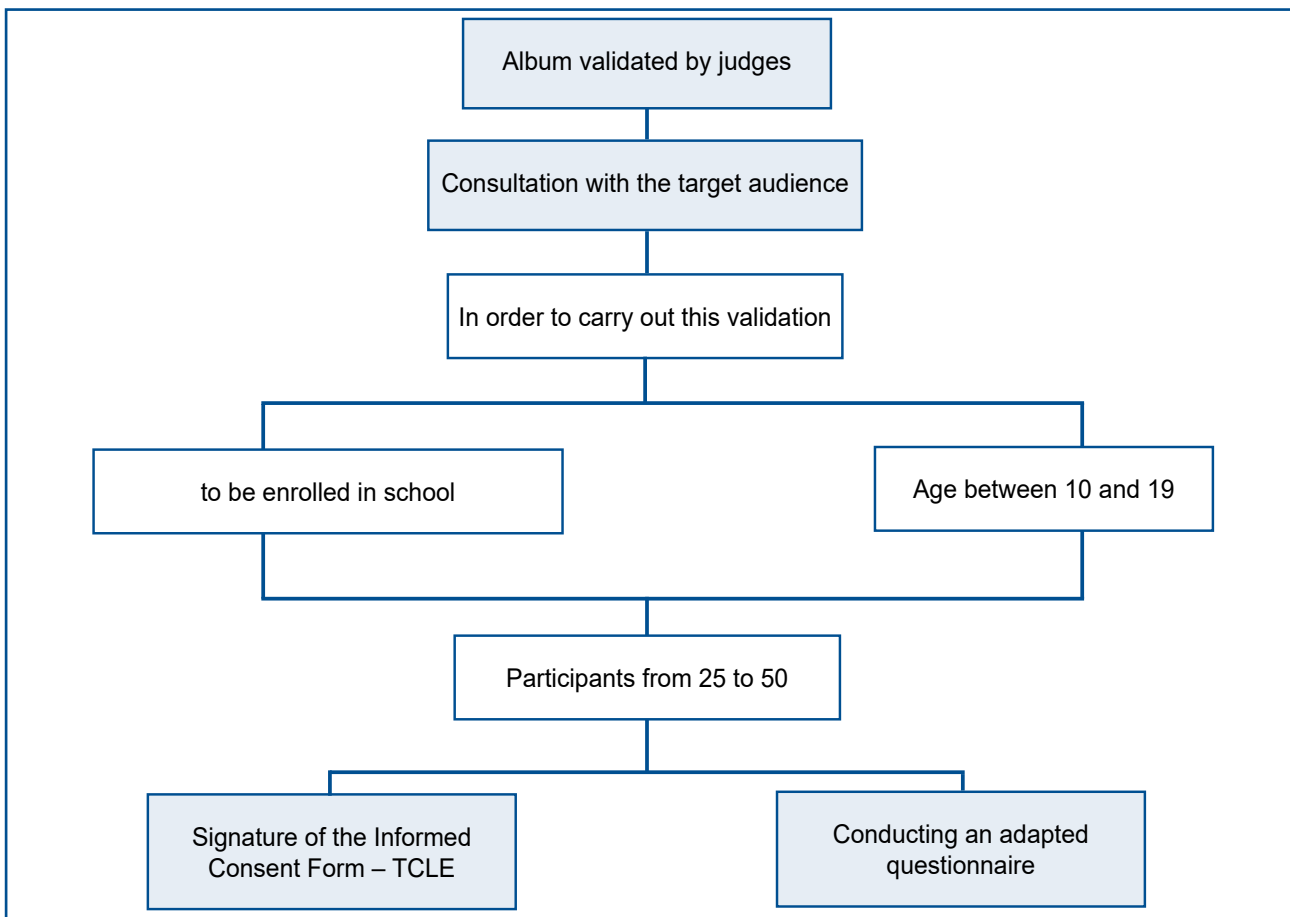


Figure 5: Validation flowchart with target audience

Ethical and legal aspects

The study will comply with the determinations contained in Resolution 466/12 of the National Health Council²¹. This research can generate risks of secrecy, like all searches, and, fatigue or annoyance when answering the questionnaire. However, we will guarantee the anonymity of the collected data as well as seek to be objective in the questionnaire so that it does not cause discomfort to the participants.

When the results are published, their names will be kept in absolute secrecy, so all researchers will sign the Confidentiality Term for Secondary Data Use. In this way, they are committed to preserve the confidentiality and privacy of the references contained in the documents studied and ensure the dissemination of the results of the research only anonymously, ensuring that the information is not used to the detriment of individuals and/or communities.

Considering that this study intends to modify the reality of lack of information, cultural obstacles and access to the means of prevention the STIs, experienced by a great part of the adolescents, as well as to use the serial album elaborated like means of information to be multiplied by adolescents, the participants will thus contribute to the validation of an educational technology that can be used in other realities. Being its participation a fundamental factor for the execution of this research project.

DISCUSSION

Chronic infectious disease, syphilis has become a worldwide problem, reaching several organs, although its treatment is effective and inexpensive, it remains a major public health challenge. In 2016 the number of cases of acquired syphilis reached 87,593 reported cases, mostly in the Southeast region^{5,22}.

Amidst the increase in epidemiological indices regarding syphilis and other Sexually Transmitted Infections (STIs) affecting large parts of adolescents, it is extremely important to discuss this issue²³.

Sexuality, despite being a common process of life, needs special attention and the period of adolescence is fundamental in the discoveries related to the process, so this moment of life must receive quality information about the subject²⁴.

A study by Chicraia²³ showed that although some adolescents knew some information about sexually transmitted diseases, it was noticed that most of the time they were short, misleading information that they had heard about, but not knowing their exact specifications.

Given this, developing educational health education activities aimed at the adolescent public in schools, is of extreme importance, since this practice brings concrete information, helps in better health habits and preventive practices^{25,26}.

Generating the necessary knowledge for this public, transforms the reality of health, because education goes beyond individual knowledge, this action generates change together, helping the individual to understand about diseases and prevention of them²⁷. Thus, it is perceived the need to develop innovative methods as a strategy capable of promoting health actions.

In view of this, it is intended with this study to obtain an educational technology to be used also in other realities and serve as an information medium for adolescents, which will possibly multiply the knowledge learned with the use of the album. It also hopes to positively impact the information process on syphilis, its means of prevention and treatment to reduce the number of infected adolescents and consequently help eliminate this public health problem.

STUDY INOVATIONS

1 – This is the first work to validate a serial album aimed at adolescents in the school environment;

2 - The album, after developed, will provide important information among adolescents, resulting in preventive measures that directly influence health services;

3 - The album will be built with a team multiprofessional references in the topics covered, in addition to the participation of students, which will help in something as high as possible.

Figure 6 demonstrates the research protocol, which presents a flowchart of all the steps that will be part of the process of construction of the serial album for the adolescent public in the school environment, among the steps we have bibliographical survey, then the album will be elaborated, soon after the validation of the content by the judges will be carried out and after going through the analysis of the acquired data, the validation of the album will be done by the judges and the target public and figure 7, refers to the main cover of the serial album, with subjects related to syphilis.

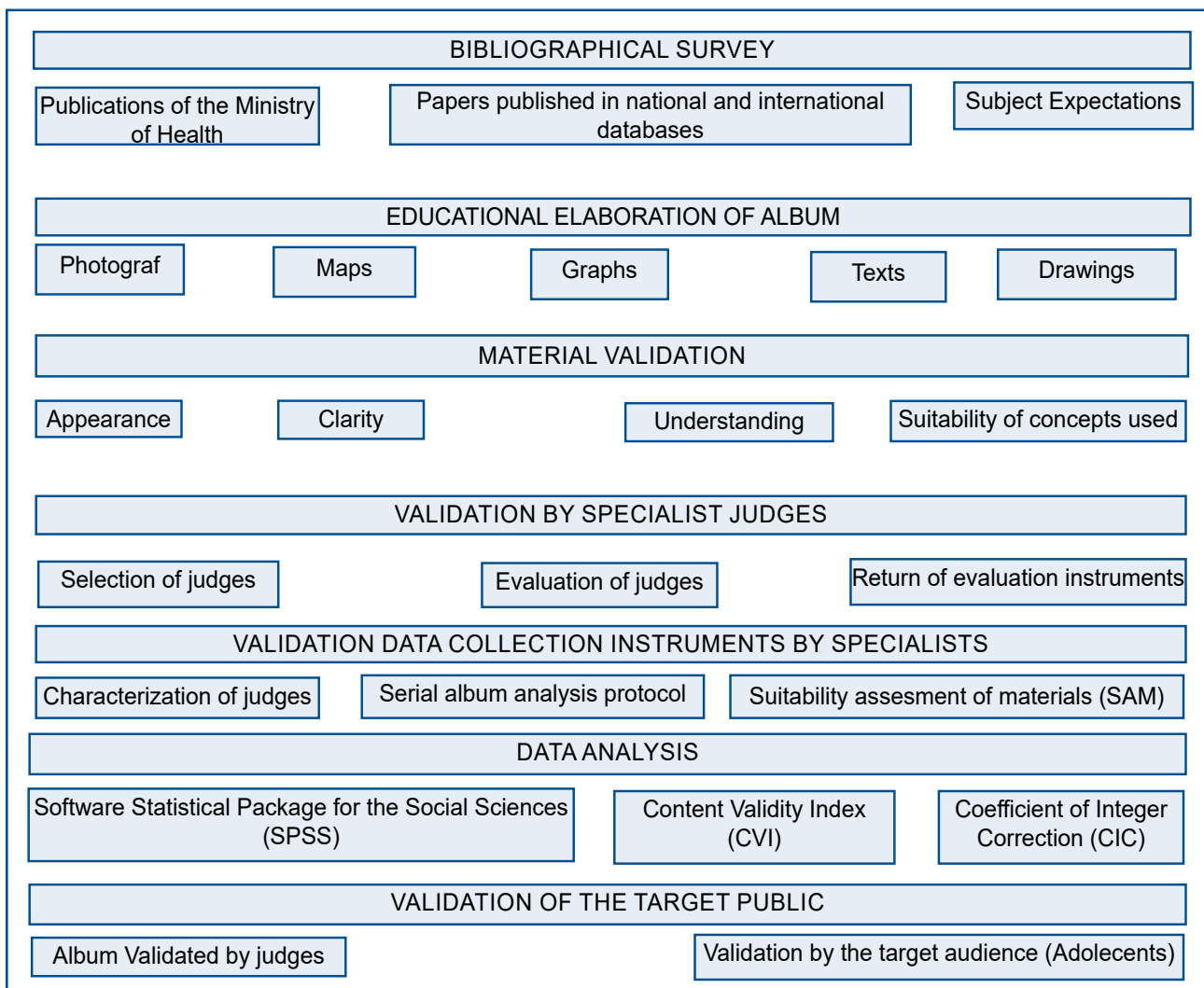


Figure 6: Flowchart of the stages of the construction process



Figure 7: Serial album main cover

■ REFERENCES

1. Santos A, Marques E, Pagnin D, Queiroz V. Um novo desafio para a saúde pública: Sífilis. *Diversitates Int J.* 2017;9(2):65-81.
2. Sortica AC, Albuquerque PP. Rede de Atenção à Saúde, Sífilis e Educação em Saúde, a intersecção necessária: um estudo de caso sobre Sífilis em gestante e congênita no município de esteio. Dissertação (Mestrado) – Universidade Federal do Rio Grande do Sul. Porto Alegre: 2017.
3. Dantas LA, Jerônimo SHNM, Teixeira GA, Lopes TRG, Cassiano NA, Carvalho JBL. Perfil epidemiológico da Sífilis Adquirida diagnosticada e notificada em hospital universitário materno infantil. *Enfermeria Global, revista eletrônica de enfermagem.* 2017;(46):227-36. DOI: <http://dx.doi.org/10.6018/eglobal.16.2.229371>
4. World Health Organization (WHO). Prevalence and incidence of selected sexually transmitted infections. [cited 2018 Feb 3] Available from: <http://www.who.int/reproductivehealth/publications/rtsis/9789241502450/en/>.
5. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Sífilis. *Bol Epidemiológico.* 2017;48(36):1-41.
6. Nascimento MHM, Teixeira E. Tecnologia para mediar o cuidar-educando no acolhimento de “familiares cangurus” em unidade neonatal: Estudo de Validação. Dissertação (Mestrado) - Universidade do Estado do Pará. Belém: 2012.
7. Polit DF, Beck CT. Delineamento de pesquisa em enfermagem. In: *Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem.* 7.ed. Porto Alegre: Artmed, 2011; p. 247-87.
8. Alves AM, Silva MJ. Construção e Validação de Cartilha Educativa para Prevenção de Quedas em Idosos. Dissertação (Mestrado) – Universidade Federal do Ceará, Faculdade de Farmácia, Odontologia e Enfermagem, Programa de Pós-Graduação em Enfermagem. Fortaleza: 2017.
9. Echer IC. Elaboração de manuais de orientação para o cuidado em saúde. *Rev Latino-Am Enfermagem.* 2005;13(5):754-7. DOI: <http://dx.doi.org/10.1590/S0104-11692005000500022>
10. Gozzo TO, Lopes RR, Prado MAS, Cruz LAP, Almeida AM. Informações para elaboração de um manual educativo destinado às mulheres com câncer de mama. *Esc Anna Nery.* 2012; 16(2):18-22. DOI: <http://dx.doi.org/10.1590/S1414-81452012000200014>
11. Moreira MF, Nóbrega MML, Silva MIT. Comunicação escrita: contribuição para a elaboração de material educativo em saúde. *Rev Bras Enferm.* 2003;56(2):184-8. DOI: <http://dx.doi.org/10.1590/S0034-71672003000200015>
12. Dodt RCM, Ximenes LB, Oriá MOB. Validação de álbum seriado para promoção do aleitamento materno. *Acta Paul Enferm.* 2012;25(2):225-30. DOI: <http://dx.doi.org/10.1590/S0103-21002012000200011>

13. Lopes MVO, Silva VM, Araújo TL. Validação de diagnósticos de enfermagem: desafios e alternativas. *Rev Bras Enferm.* 2013;66(5):649-55. DOI: <http://dx.doi.org/10.1590/S0034-71672013000500002>
14. Jasper MA. Expert: a discussion of the implications of the concept as used in nursing. *J Adv Nurs.* 1994;20(4):769-76. DOI: <https://doi.org/10.1046/j.1365-2648.1994.20040769.x>
15. Mota FRN, Silva MJ. Adaptação transcultural e validação do Coregiver Reaction Assessment para uso no Brasil: aplicação em cuidadores informais de idosos dependentes. Dissertação (Mestrado em Enfermagem) – Universidade Federal do Ceará. Fortaleza: 2014.
16. Sabino LMM, Alves MDS. Cartilha educativa para promoção da autoeficácia materna na prevenção da diarreia infantil: elaboração e validação. Dissertação (Mestrado) – Universidade Federal do Ceará. Fortaleza: 2016.
17. Oliveira MS, Fernandes AFC. Autocuidado da mulher na reabilitação da mastectomia: estudo de validação de aparência e conteúdo de uma tecnologia educativa. Dissertação (Mestrado) – Universidade Federal do Ceará. Fortaleza: 2006.
18. Sousa CS, Turrini RNT, Poveda VB. Tradução e adaptação do instrumento “suitability assessment of materials” (SAM) para o português. *Rev Enferm UFPE.* 2015;9(5): 7854-61. DOI: <https://doi.org/10.5205/r euol.6121-57155-1-ED.0905201515>
19. Alexandre NMC, Coluci MZO. Validade de conteúdo nos processos de construção e adaptação de instrumentos de medidas. *Ciênc Saúde Coletiva.* 2011;16(7):3061-8. DOI: <http://dx.doi.org/10.1590/S1413-81232011000800006>
20. Fehring RJ. The Fehring Model. In: *Classification of nursing diagnoses: proceeding of the Tenth Conference of North American Nursing Diagnosis Association.* Philadelphia: Lippincott, 1994; p.55-62.
21. Oliveira SC, Carvalho AF. Efeito de uma intervenção educativa na gravidez para alimentação saudável com os alimentos regionais. Tese (Doutorado) – Universidade Federal do Ceará. Fortaleza: 2014.
22. Brasil. Ministério da Saúde. Resolução nº. 466, de 12 de dezembro de 2012. Aprova as diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. [cited 2018 Feb 3] Available from: http://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html
23. Avelleira JCR, Bottino G. Syphilis: diagnosis, treatment and control. *Ana Bras Dermatol.* 2006;81(2):111-26. DOI: <http://dx.doi.org/10.1590/S0365-05962006000200002>
24. Chicraia MA, Barros CRP, Cromack LMF, Meirelles ZV, Silva MRN, Baker G. Conhecimento, atitudes e práticas relacionadas à DST/AIDS: avaliação de adolescentes atendidos em uma unidade de atenção primária. *DST J Bras Doenças Sex Transm.* 1997;9 (3):10-15.
25. Silva GA, Martins MCT. Sexualidade na contramão: roteiro de orientação temática para pais, educadores e lideranças comunitárias. São Paulo: Paulus, 1995; p.51-69.
26. Teixeira E, Oliveira DC. Representações sociais de educação em saúde em tempos de AIDS. *Rev Bras Enferm.* 2014;67(5):810-17. DOI: <http://dx.doi.org/10.1590/0034-7167.2014670520>
27. Bezerra IMP, Sorpreso ICE. Concepts and movements in health promotion to guide educational practices. *J Hum Growth Dev.* 2016;26(1):11-20. DOI: <https://doi.org/10.7322/jhgd.113709>
28. Gomes LB, Merhy EE. Compreendendo a Educação Popular em Saúde: Um estudo na literatura brasileira. *Cad Saúde Pública.* 2011;27(1):7-18. DOI: <http://dx.doi.org/10.1590/S0102-311X2011000100002>

Resumo

Introdução: Segundo a Organização Mundial da Saúde (OMS), a sífilis voltou a ser uma doença de alta prevalência, apresentando-se como um grave problema de saúde pública. Esta Infecção Sexualmente Transmissível (IST) está presente em todos os estratos sociais, países desenvolvidos e em desenvolvimento, nos portadores do vírus do HIV tanto quanto imunocompetentes, em homens e mulheres.

Objetivo: Validar um álbum seriado direcionado para adolescentes no ambiente escolar.

Método: Trata-se de um estudo do tipo metodológico, no qual se refere a investigações dos métodos de obtenção e organização de dados para construir, validar e avaliar instrumentos e técnicas de pesquisa que possam posteriormente ser utilizados por outras pessoas.

As etapas metodológicas são: levantamento bibliográfico, construção do álbum seriado, validação junto aos juízes especialistas e validação com público alvo. Após a obtenção dos dados, a análise dar-se-á pelo software Statistical Package for the Social Sciences (SPSS), versão 20.0, dispondo-os, posteriormente, em tabelas. Este projeto de pesquisa será submetido a um Comitê de Ética em Pesquisa Envolvendo Seres Humanos delegado pela Comissão Nacional de Ética em Pesquisa (CONEP) através da Plataforma Brasil, conforme Resolução 466/12.

Inovação: Este é o primeiro trabalho com objetivo de validar um álbum seriado direcionado para adolescentes no ambiente escolar, desenvolvido por profissionais especialistas no assunto e com capacidade de disponibilizar informações importantes, resultando em medidas preventiva que influenciam diretamente nos serviços de saúde;

Palavras-chave: estudos de validação, tecnologia educacional, Sífilis, adolescente.

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