Construction of comics based on narratives of adolescents from a quilombola community about pregnancy

Construção de histórias em quadrinhos baseado em narrativas de adolescentes quilombola sobre gravidez

Construcción de historietas a partir de narrativas de adolescentes de una comunidad quilombola sobre el embarazo

Adriana Nunes Moraes-Partelli1, José Marcos Amables Pazini1, Aline Pestana Santos1, Isabela Lorencini Santos1, Marta Pereira Coelho1

Received: 06/08/2021 Accepted: 15/05/2022 Published: 30/09/2022

Objective: to describe the methodology for producing comics about unplanned pregnancy, based on the experiences of adolescents living in a quilombola community. Methods: qualitative, participatory study, carried out in 2018, developed in two stages: review to gather and systematize scientific knowledge, contributing to the deepening of the knowledge of the topic investigated in the educational material and, the production of comics and other structures of the almanac based on images and narratives from a database. Results: two comics were produced that make up the almanac: “Legends and stories about teenage pregnancy in a quilombola community”, which also addressed scientific demands with fun facts, activities and the item - Did you know. The empirical materials provided by the study participants were a source of inspiration for the construction of a dialogical, interactive and culturally life-centered educational material. Conclusion: the use of multiple strategies focused on scientific production and on the target audience allowed for greater rigor and scope expansion. Strategies to approach the population's knowledge, the search for updated production in the organization of adequate educational and informative materials, as tactics of equal magnitude and importance in the elaboration of educational material, proved to be important.

Descriptors: Pregnancy in adolescence; Educational and promotional materials; African continental ancestry group; Pediatric nursing.

Objetivo: descrever a metodologia da produção de histórias em quadrinhos sobre gravidez não planejada, tendo como base as vivências e experiências de adolescentes residentes em comunidade quilombola. Método: estudo qualitativo, participativo, realizado em 2018 e desenvolvido em duas etapas: revisão para reunir e sistematizar o conhecimento científico, contribuindo para o aprofundamento do conhecimento do tema investigado no material educativo e, a produção das histórias em quadrinhos e das demais estruturas do almanaque tendo como base imagens e narrativas de um banco de dados. Resultados: foram produzidas duas histórias em quadrinhos em que compõe o almanaque: “Lendas e histórias de gravidez na adolescência em uma comunidade quilombola”, que também abordou demandas científicas com curiosidades, passatempo e o item - Você Sabia. Os materiais empíricos, fornecidos pelos participantes do estudo, foram fonte de inspiração para a construção de um material educativo dialógico, interativo e culturalmente centrado na vida. Conclusão: a utilização das múltiplas estratégias focadas na produção científica e no público alvo permitiram maior rigor e ampliação do escopo. As estratégias de aproximação com o saber da população, a busca da produção atualizada na organização de materiais educativos e informativos adequados, como táticas de igual magnitude e importância na elaboração do material educativo, se mostrou importante.

Descritores: Gravidez na adolescência; Materiais educativos e de divulgação; Grupo com ancestrais do continente africano; Enfermagem pediátrica.

Objetivo: describir la metodología de producción de historietas sobre el embarazo no planejado, teniendo como base las vivencias y experiencias de adolescentes residentes en comunidad quilombola. Método: estudio cualitativo y participativo realizado en 2018 y desarrollado en dos etapas: revisión para recoger y sistematizar el conocimiento científico, contribuyendo a la profundización del conocimiento sobre el tema investigado en el material educativo, y la producción de las historietas y de las demás estructuras del almanaque a partir de imágenes y narrativas de una base de datos. Resultados: se produjeron dos historietas que conforman el almanaque: “Leyendas e historias del embarazo adolescente en una comunidad quilombola”, que también abordó demandas científicas con curiosidades, pasatiempos y el ítem – Sabías Que. Los materiales empíricos, proporcionados por los participantes en el estudio, fueron una fuente de inspiración para la construcción de un material educativo dialógico, interactivo y culturalmente centrado en la vida. Conclusión: el uso de múltiples estrategias centradas en la producción científica y el público objetivo permitió un mayor rigor y la ampliación del alcance. Las estrategias de acercamiento con el conocimiento de la población, la búsqueda de la producción actualizada en la organización de materiales educativos e informativos adecuados, como táticas de igual magnitude e importância en la preparación del material educativo, resultaron importantes.

Descritores: Embarazo en adolescência; Materiales educativos y de divulgación; Grupo de ascendencia continental africana; Enfermería pediátrica.

Autor Correspondente: Adriana Nunes Moraes-Partelli - adrianamoraes@hotmail.com

1. Undergraduate Nursing Course at the Universidade Federal do Espírito Santo (UFES). Sao Mateus, ES, Brazil.
INTRODUCTION

The use of technologies as a mediator of the educational process in health has gained prominence in recent years. Technology is composed by tools, processes or products that allow expanding the involvement of health professionals in carrying out care-promoting practices, enabling health promotion and improving the quality of care provided. Educational materials also help in the subjects’ autonomy process, since they can be consulted whenever necessary.\(^1\)-\(^2\).

In order for educational materials to be appropriate for the audience they are intended for, and for the construct to be conveyed and worked on, they must be constructed using robust methodological bases, with valid and reliable construction strategies, and adequate theoretical frameworks. In addition, they must count on the effective participation of members of the target group.\(^3\)-\(^7\).

Educational materials that convey health topics are produced by communication technicians from advertising agencies hired by government agencies, and the final reader participates in part of the construction of an educational material, such as the validation phase.\(^8\).

The language adopted in the production of educational materials and their illustrations relates more to scientific content than with the experiences of possible readers, that is, adolescents whose life is expressed in urban space and have a lifestyle typical of large metropolises, leaving from outside people who live in rural areas who have a daily life and life histories different from those in urban areas. Likewise, educational materials do not take into account race/ethnicity, evidencing the invisibility of black people in public health issues.\(^6\).

In a research carried out in the north of the state of Espírito Santo, Brazil, aiming to understand the perception of adolescents living in a Quilombola community regarding unplanned teenage pregnancy and its repercussions on community life, it was evidenced that families living in rural areas in the Quilombola community had their own aspects of life, and unplanned pregnancy in adolescence had personal and social repercussions, but it is not seen by the adolescents who participated in the research as a problem, but as a transition phase in life, marked by abandoning school, getting a job, entering a stable union, acquiring responsibilities that need the support of families.\(^7\).

Adolescence is established as a biopsychosocial period between the ages of 10 and 20 years, according to the World Health Organization.\(^9\). According to the Brazilian Ministry of Health, the Brazilian Institute of Geography and Statistics (IBGE) and the Statute of Children and Adolescents (ECA), the period ranges from 12 to 18 years.\(^10\). Adolescence is marked by
important bodily changes, as these occur quickly, profoundly and markedly, positively or negatively interfering with the rest of the individual’s life.\textsuperscript{11}

Brazil has a projection for the year 2021 of more than 30 million people aged between 10 and 19.\textsuperscript{12} This expressive portion of the population is one of the research priorities of the National Agenda of Priorities in Health Research, as it is exposed to risks and vulnerability relationships to be urgently overcome, such as unplanned pregnancy.\textsuperscript{13}

The occurrence of pregnancy in adolescence can cause psycho-emotional instability and there is a high occurrence of maternal and infant morbidity and mortality, thus constituting a public health problem.\textsuperscript{14}

Understanding that adolescence, according to cultural and social aspects established in our society, is a period in which the individual is going through a phase of development for the formation of an adult citizen with autonomy to make choices (healthy or not), education in health in a dialogical, emancipatory, participatory and creative way stimulates reflection and action on the lived reality.\textsuperscript{6}

The analysis of educational materials, available on the internet for adolescents, made it possible to observe that the materials have as their central theme issues that affect Brazilian public health, and the problem of teenage pregnancy with a focus on quilombola adolescents has not yet drawn attention, with this almanac being the first educational material produced that addresses this problem. There is a need to advance in the production of educational materials that take into account ethnicity, race and biopsychosocial conditions of the target audience. Therefore, this article aims to describe the methodology of the shared production of comics about unplanned pregnancy, based on the experiences of adolescents living in a quilombola community.

METHODS

As this is an investigation of production and technological innovation in the field of nursing, the qualitative and participatory approach\textsuperscript{15} best responds to the purposes of this research, as it implies approaching the human experience in the generation of material with educational purposes, it is understood that the production of knowledge is not done in isolation from the subject outside of social reality.

Community-based participatory research is a trend in the development of studies on complex health issues, as it involves the collaboration of community members in the knowledge production process, having local knowledge as a starting point. This work (approved by the
Research Ethics Committee, under number 2,934,899) was carried out previously and generated a database with images and narratives that were used for the production of comics.

In the research database, it was evident that the Quilombola community has remarkable cultural and social characteristics, such as: conservative and traditional principles based on Catholic philosophy, reproduction of values and behaviors acquired in the family context, a strong patriarchal culture and that the repercussions of unplanned pregnancies in the community have a greater impact on girls' lives than on boys' lives. Thus, the themes to be addressed in the educational material are related to the repercussions of pregnancy for adolescents in the Quilombola community; rights of pregnant women in the community; and behavior of families and adolescents in the face of pregnancy.

The population to be served by the educational material are teenagers, mainly from the Quilombola community.

For the production of educational material, this research was carried out in two stages: a bibliographic review to gather and systematize scientific knowledge, contributing to the deepening of the knowledge of the topic investigated in the educational material and the second stage, which was the production of storyboards of the stories in comics and other structures of the almanac by the researchers based on images and narratives from a database, carried out in 2018.

A review consists of the construction of a broad analysis of the literature, contributing to research methods and results, as well as reflections on future studies, at first, for the scientific deepening of the themes narrated by adolescents. Also, to complement the scientific information that would be incorporated into the educational material, four manuals from the Ministry of Health and the Statute of Children and Adolescents were consulted.

The organization and formatting of a storyboard type script was fundamental and necessary to facilitate the development of the creation stage of the entire comic book structure, scaling the production size to hire the technical team responsible for the design, layout and illustration of the material. The storyboard consists of the cover, credits, presentation of the material, in addition to structuring the description of the scenes, characters, insertion of character dialogues, narratives, connection with explanatory texts, educational entertainment and general comments.

The use of storyboard is a pre-production stage that presents images of the environment where the story takes place, of the characters, narratives, presented in frames in such a way as to organize the material. Storyboards are used for writing scenes from movies, theater plays, radio comics, comics, among others.
Thus, the storyboard presents a simple, contemporary form with few rules. It was prepared in Word for Windows, with the font “Courier New” and the narrator’s lines with the font “Times New Roman”. Centered on the page and capitalized “THE TITLE” of the comics. The numbering was inserted frame by frame in the upper left corner, for example: TABLE 1. Each frame was composed of a caricature presentation of characters, people and places, descriptions of characters or places that should have few lines. The dialogue was written inside the frame, so that the character’s speech was inside a balloon surrounded by the descriptions.

Provisional storyboards were prepared and later delivered to a company hired to illustrate and diagram the final material.

RESULTS

Based on the images and narratives (database) of adolescents living in a quilombola community located in the north of the state of Espírito Santo, the almanac “Legends and Stories about Teenage Pregnancy in a Quilombola Community” was produced. This material took into account the socioeconomic conditions, experiences, ethnicity and culture of its target audience, bringing the comics and illustrations closer to the social reality of the readers.

The first principle adopted in the construction of the almanac was the selection of geographic and cultural information, which, in addition to the information from the database, also used information from the almanac “Alcohol and Rites of Adolescents from a Quilombola Community”, the result of an investigation carried out in the same community. The fictitious name of Chiumbo was used for the community, which is located in the countryside, on the banks of the Cricaré River, in the municipality of São Mateus, in the north of Espírito Santo, Brazil. The access is by dirt road, there are crops of conilon coffee, black pepper and fruit trees used to support families and family agriculture.

The community has: a Catholic church, an Evangelical church, a soccer field and a multi-teacher municipal public school. Regarding health care, the people who live there have primary care provided by the Basic Health Unit (BHU), maintained by the Municipality of São Mateus. This BHU is located 12 kilometers from the community. There is coverage by the Community Health Agent Program and the local health agent, which has been active for 18 years. In the community, it is possible to hear several stories, tales and legends from former residents that, according to them, were real events that happened a long time ago and that today are part of the social and cultural life of the people who live there.

The next step was the definition of the characters of the almanac comics, which was inspired by the database. The names, biographies and caricatures in the stories are fictitious.
but present a sociocultural identity compatible with the way of life of the people who live in the quilombola community.

After these definitions, the first comic book entitled “The mysterious pregnancy through kissing” was created. This story was inspired by the countless legends and tales of elderly residents during the ethnographic immersion carried out in previous studies. In this way, the comic has a narrator in the figure of nurse Sandra who works at the BHU that serves the residents of the community, who talks with the reader and narrates, frame by frame, the folk story she heard from former residents of the community about a dreamer girl who did not attend school due to the long distance from the community to the nearest school associated with the family’s scarce financial resources to cover the costs of this education, who became pregnant after receiving a kiss on her hand (Figure 1).

**Figure 1.** Fragments of the preliminary storyboard of the comic book “The mysterious pregnancy through kissing” containing a sequence of frames with narratives and images. São Mateus, ES, Brazil, 2020.

In the second comic “School: space for dialogues and health promotion”, teacher Malaika starts her class and invites nurse Sandra to continue the dialogue with girls and boys on the topic that involves the phase of adolescence: puberty, bodily changes that occur during adolescence, reproduction, methods to avoid unplanned pregnancy, rights and nutritional
demands of pregnant women. After class, on the way home, the teenage characters Eshe and Kenyetta talk about what they have learned and reflect on the repercussions of a pregnancy in the phase they are experiencing (Figure 2).

**Figure 2.** Fragments of the preliminary storyboard of the comic book “School: space for dialogues and health promotion”, containing a sequence of frames with narratives and images. São Mateus, ES, Brazil, 2020.

The scientific information contained in the almanac by the search was presented in the formats “Fun Facts” and “Did you know?”. Fun facts were part of the story, with direct language and short text that related to the characters as the situation/problem presented itself. The fun facts brought social information (1st comic), as well as information about contraceptive methods and puberty (2nd comic).

The “Did you know?” format it was inserted in the almanac as complementary scientific content, not part of the comics and broader in relation to curiosities, which addressed several topics, such as: description of different types of contraceptive methods; Tanner staging, which is an instrument used to determine the adolescent’s pubertal stage; the main milestones of the
arrival of puberty for both genders and the Adolescent Health Booklet, which provides numerous information for a full and healthy development of this public.

The activities were incorporated into the almanac for its interactivity and dialogicity in the composition of humorous or recreational texts with word searches, crossword puzzles, true and false. The activities helps in fixing the information covered in the almanac (Figure 3).

**Figure 3.** Fragments “Did You Know” and “Activites” contained in the preliminary storyboard of the almanac. São Mateus, ES, Brazil, 2020.

After the creation of the storyboards, a graphic design professional was hired who illustrated, diagrammed, and finally produced the final version of the almanac "Legends and Stories about Teenage Pregnancy in a Quilombola Community", which consists of 26 pages including cover, cover page, presentation, two stories with fun facts, “Did you know”, activities, references and the back cover as shown in Figure 4.
Figure 4. Final version with cover, presentation, activities and “did you know?” from the almanac “Legends and Stories about Teenage Pregnancy in a Quilombola Community” produced in this study. São Mateus, ES, Brazil, 2021.

The almanac is available and accessible for free in ebook format at the link http://repositorio.ufes.br/handle/10/11667
DISCUSSION

As it is an educational material based on the narratives and participation of the final readers, aspects of the identity of a people were taken into account, which permeate and guide the daily lives of families, in addition to the socioeconomic, ethnic and cultural conditions of their target audience, thus bringing the comics and illustrations closer to the social reality of the readers.

Despite the challenge of producing, in a participatory and creative way, an educational material centered on the person and on popular education in health, the material presents itself as a possibility of including experiences aimed at the constitution of health as a right and also sought a commitment to the development of the people’s protagonism in the search for a better life and for the critical confrontation with social determinations of health, such as unplanned pregnancy\textsuperscript{21-22}.

The methodological strategy used, along with local knowledge and scientific knowledge in the construction of educational material, is in line with public policies\textsuperscript{3-4} and theoretical references\textsuperscript{23}.

The format of the story related to the reader is consistent with the reference of popular education in health. The educational material as a learning mediating tool brings with it this conception of problematizing the theme unplanned pregnancy in adolescence that is being worked from the adolescent character who has a similar experience, seeking an identification with the reader. Popular health education is not a process of transmitting knowledge, but of expanding spaces for cultural interaction and negotiation between the various actors involved in a given social problem for the shared construction of knowledge and political organization, necessary to overcome it\textsuperscript{3-4}.

In addition to addressing the issue of teenage pregnancy, the comic produced presents ways to avoid unplanned pregnancy with the use of contraceptive methods. Studies show that adolescents have knowledge about contraceptive methods, but a large part is restricted to the male condom and oral contraceptives, with superficial information acquired through friends and family, and that they seem to have no adherence in their attitudes. These are limits in the way of learning, which may justify the adoption of risky behavior regarding contraception and exposure to Sexually Transmitted Infections (STIs) and the occurrence of pregnancy\textsuperscript{24-25}.

Educational materials are important in the teaching-learning and health promotion process, discussed by studies that qualify them as facilitators of learning and not just as an object that offers information\textsuperscript{26-27}. 

445
The constructed almanac proved to be a strategy to be used in popular health education, since it is necessary to innovate in adolescent health care policies, which adopt methodologies capable of stimulating new truths, modifying concepts, practices and behaviors, aiming at a healthier life\textsuperscript{11}.

The almanac “Legends and Stories about Teenage Pregnancy in a Quilombola Community” can contribute to the enhancement of learning, as well as the adoption of healthy attitudes towards the use of contraceptive and barrier methods by adolescents, especially those in the community quilombola, for the educational material to dialogue directly with the target audience, taking into account their race/ethnicity, culture and uniqueness. Also, the educational material produced is an instrument that can help health and education professionals in the health education work of this population, promoting greater security and empowerment of the target audience, in the experience of this period of life, marked by transformative changes.

CONCLUSION

This study describes the steps for the elaboration of a critical, creative and dialogic educational material with the theme of unplanned pregnancy in adolescence, starting from a participatory research with the target population, review and references to support the construction of educational materials.

The use of multiple complementary strategies, focused on scientific production and on the target audience, allowed greater rigor and expansion of the scope of the material. Strategies to approach the population’s knowledge were constituted, the search for updated scientific literature in the organization of adequate educational and informative materials, as tactics of equal magnitude and importance in the elaboration of educational material, being recommended this triple strategy for studies with proposals similar.

As a limitation of this study, we mention the non-validation with the target audience, a fact justified by the coronavirus pandemic that made face-to-face contact with the quilombola community impossible. However, it is intended to continue this study and the application of validation instruments, the next step.

REFERENCES


**CONTRIBUTIONS**
Adriana Nunes Moraes-Partelli and José Marcos Amabiles Pazini contributed to the design, collection and analysis of data, writing and revision. Aline Pestana Santos participated in data collection and analysis and writing. Isabela Lorencini Santos worked on the design, writing and revision. Marta Pereira Coelho collaborated in the writing and revision.

**How to cite this article (Vancouver)**
Moraes-Partelli AN, Pazini JMA, Santos AP, Santos IL, Coelho MP. Construction of comics based on narratives of adolescents from a quilombola community about pregnancy. Rev Fam, Ciclos Vida Saúde Contexto Soc. [Internet]. 2022 [cited in insert day, month and year of access]; 10(3):436-49. Available from: insert access link. DOI: insert DOI link.

**How to cite this article (ABNT)**

**How to cite this article (APA)**