Shared production of an educational game about alcohol with adolescents from the Quilombola community*

Produção compartilhada de jogo educativo sobre álcool com adolescentes de comunidade Quilombola

Producción compartida de un juego educativo acerca del alcohol con adolescentes de una comunidad Quilombola

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This study aims to describe the experience lived in the shared production of an educational game about alcohol, with participation of adolescents from the Quilombola community. This is an experience report developed in the first semester of 2019, divided into stages: field activity with adolescent groups, using the sensitive creative method, through dynamics of creativity and sensitivity; construction of provisional storyboard by researchers; and game evaluation and storyboard changes. After applying the dynamics, a provisional storyboard of the image game was produced. This game was evaluated by teenagers and changes were made to educational material produced by them and for them that can be a transforming tool of health care. With activities carried out, it was possible to approach the teenagers more effectively, making it possible to know their customs, their culture and learn how alcohol is present in the daily lives of the community’s residents.

Descriptors: Educational and promotional materials; Adolescent; Health education; African Continental ancestry group.

Este estudio tiene como objetivo describir la experiencia vivenciada en la producción compartida de un juego educativo acerca del alcohol con adolescentes de una comunidad Quilombola. Se trata de un informe de la experiencia desarrollada en el primer semestre de 2019, dividido en etapas: actividad de campo con grupos adolescentes, utilizando el método creativo sensible, a través de dinámicas de creatividad e sensibilidad; construcción de storyboard provisorios por los investigadores; y, evaluación de los juegos y alteraciones del storyboard. Después de aplicar las dinámicas produjo-se storyboard provisorio del juego de imágenes. Se evaluó el juego realizado por los adolescentes y se hicieron cambios, obteniendo un material educativo producido por ellos y para ellos que puede ser una herramienta transformadora del cuidado à salud. Con las actividades realizadas fue posible una aproximación más efectiva con los adolescentes, siendo posible conocer sus costumbres, su cultura y aprender sobre el alcohol está presente no cotidiano dos moradores da comunidade.

Descritores: Materiais educativos e de divulgação; Adolescente; Educação em saúde; Grupo com ancestrais do Continente Africano.

Este estudio tiene como objetivo describir la experiencia vivida en la producción compartida de un juego educativo acerca del alcohol, con la participación de adolescentes de una comunidad Quilombola. Se trata de un informe de una experiencia desarrollada en el primer semestre de 2019, dividido en etapas: actividad de campo con grupos de adolescentes, utilizando el método creativo sensible, mediante dinámicas de creatividad y sensibilidad; construcción de un storyboard provisional por parte de los investigadores; y evaluación de juegos y cambios del storyboard. Después de aplicar las dinámicas, se produjo el storyboard provisional del juego de imágenes. Este juego fue evaluado por los adolescentes y se hicieron cambios, obteniendo un material educativo producido por ellos y para ellos que puede ser una herramienta transformadora para el cuidado de la salud. Las actividades realizadas permitieron acercarse a los adolescentes y conocer sus costumbres, cultura, y aprender como el alcohol está presente en la vida cotidiana de los habitantes de la comunidad.

Descripciones: Materiales educativos y de divulgación; Adolescente; Educación en salud; Grupo con ascendencia Continental Africana.

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INTRODUCTION

The abuse or harmful use of alcohol is a worrying factor in young people and adolescents. The consumption of this substance leaves their health exposed and may involve physical or psychological complications.

National research data shows that 55.5% of students in the 9th grade of elementary school, aged 13 to 15 years, already reported having tried some alcoholic drink, 21.4% had already suffered some episode of inebriation in life, 3% had problems with family or friends, missed classes or were already involved in fights because of alcohol consumption. In addition, there is a relationship between the black/pardo race and alcohol abuse.

Understanding that adolescence, according to cultural and social aspects established in society, is a period in which the individual goes through a development phase for the formation of an adult citizen, a dialogical, emancipatory, participatory and creative health education stimulates the adolescent’s autonomy, with regard to their condition as a person of law and author of their health and illness trajectory.

Existing publications do not include the production of an educational game on the theme of alcohol use by adolescents, much less by black Quilombola adolescents. This is a debate based on meanings, knowledge and valuing experiences among nurses and adolescents, using a participatory and dialogical pedagogical approach based on the ideas of Paulo Freire, with a view to building proposals, based on health promotion, appropriate to the group’s reality.

At the end of 2016, with the production and evaluation, among peers, of the almanac "Alcohol and rites of adolescents in a Quilombola community", these obstacles began to be removed, considering it a health technology with shared production, uniting the general knowledge of adolescents living in the Quilombola Community and scientific knowledge about alcohol. The almanac contains: comic books (HQ), curiosities, “did you knows” and pastime games. However, it is essential to advance in studies that address the theme of alcohol in adolescence.

Therefore, giving a voice to adolescents living in the Quilombola community, building a dialogical and interactive educational material with them and for them can be a strategy for the promotion of protective life care. Existing educational materials do not reach this specific population group, which are on the margins of access to health information.

The analysis of educational materials, available on the internet for teenagers, allowed us to observe that the materials have as a central theme the themes that affect Brazilian public health, and the problem of alcohol, particularly with Quilombola teenagers, has not yet been brought to attention; therefore, this almanac is the first educational material produced that addresses this issue. There is a need to move forward in the production of educational materials such as games.

This report aims to describe the experience lived in the shared production of an educational game about alcohol, with the participation of adolescents from the Quilombola community.

METHOD

It is an experience report with adolescents living in the Quilombola community that transformed the comic book (HQ) of the almanac “Alcohol and adolescent rites in a Quilombola community” into an educational game.

The activities took place in the first half of 2019 in a Quilombola community, semi-isolated, located in a rural area, 44 kilometers from the municipality of São Mateus, in the state of Espírito Santo. The community performs family farming with the cultivation and commercialization of conilon coffee, black pepper and fruits (coconut, jackfruit, banana, mango, avocado, among others). They lack a guarantee of basic rights such as quality education and health.
Adolescents who met the inclusion criteria participated in the production of the educational game: attending elementary and/or high school in a public school located in the countryside; reside in the Quilombola community; are between 10 and 19 years old, which according to the World Health Organization, is an age group understood as adolescence; and have preserved cognitive and motor skills. Adolescents with acute illnesses and chronic conditions, did not attend school in the rural area and residing outside the community were excluded.

Participation was voluntary and occurred after acceptance by parents or guardians by signing the Free and Informed Consent Term (ICF) and signing by the adolescents of the Term of Assent (TA).

To transform HQ into an educational game, the Creative Sensitive Method (CSM) of group research based on art was applied, with the Dynamics of Creativity and Sensitivity (DCS), in the following meetings:

1st meeting - 1st dynamic: "Shortening distances". In order to establish a process of knowledge and approximation among research participants, with the application of the question that generates debate (QGD) "I am... I want...". For the realization of this dynamic, radio, video camera, tape recorder, stationery material were used, so that the adolescents were familiarized with all the material that would be used in the meetings. Background music was played and a bag circulated among the adolescents, containing pairs of candies, and the teenagers were asked each to remove a candy. After distribution to the participants, each one found their partner (same candy) and was asked to sit next to the partner; each should then present their partner based on the question of debate. Six girls and three boys attended this meeting.

2nd meeting - Production of the educational game and, applied to the dynamic: "Transforming again...", with QGD 'How does the comic strip “Is drinking worth it?” can it be transformed into an educational game? ' Domino, bingo cards and board games were distributed so that they could play with the purpose of stimulating creativity and interest in gameplay. Afterwards, the games were collected and applied to QGD. In this meeting, they defined the format and type of game, target audience, in addition to the rules of the game. Afterwards, the team of researchers moved away from the field to analyze, discuss and produce the provisional storyboard with the game chosen by the adolescents and based on their narratives.

3rd meeting - 3rd dynamic: in order to evaluate the storyboard produced in relation to the informative content, operationalization and the rules of the game, the dynamic "Shortening distances between what was produced and the educational game" was applied with the application of the QGD "As information is... the rules are... the game is..." the stationery materials were distributed and the adolescents were asked to answer the QGD. Five girls attended this meeting.

The group defined, planned, organized and assembled the game based on the almanac produced and evaluated in the Quilombola community where they live. There were 3 meetings, with a minimum duration of 30 and a maximum of 1 hour and 25 minutes.

The research that originated this experience report was approved with filling number 2,414,916 by the CEP of the Centro Universitário Norte do Espírito Santo/Universidade Federal do Espírito Santo. The adolescents were entitled to anonymity, that is, the adolescent’s name was not exposed, being identified by the acronym AD followed by gender and order (ADM1, ADF4 ...).

To compose the results of this experience report, the information was extracted from the field report where the daily activities of the meetings were described, from the analysis of the content of the report and the process of making the game.
RESULTS

Nine adolescents aged 11 to 15 years participated. Eight were Catholic, one Evangelical and all were single. Three studied at the community’s multi-teaching school (pre-5th grade of elementary school) and six at Escola Família Agrícola (6th grade from elementary to high school). The nine lived in homes owned by their families and had a monthly family income below minimum wage.

Initially, the teenagers were in doubt about the type of game that would best apply to the transformation of the comic “Is drinking worth it?”. They suggested bingo, dominoes and memory as potential games for this transformation:

The story can become a bingo. Instead of numbers, the cards can have images and information about the story. (...) it would be cool as bingo. (ADF1)

(...) It can be turned into a domino game, because it has an image and information that can be combined. (ADM1)

(...) better as a memory game. (ADM2)

I could put the images of the story in the pieces. (ADF4)

They also discussed the type of game that would not suit the transformation of Story into Game:

(...) you can’t turn it into a card game. (ADF2)

As there was no consensus on the definition of the type of game in the group dynamics, it was suggested that there be a voting. So, for the most part the group decided to play Bingo. There was consensus regarding the age classification for people over 10 years old, with a maximum of six players, consisting of six cards with guiding images/equivalents for the 27 cards, a dice with numbers and markers (buttons, stones, grains, etc. or any object that can serve as a marker).

After these definitions, the information was unified, analyzed by the team of researchers and a provisional storyboard was elaborated (Figure 1). The bingo cards and the cards with textual and imagery information were extracted from the ‘Did you know’ section of the ‘Alcohol and teen rites in a Quilombola community’. The card information was associated with an image in the card (Figure 1). The researchers synthesized the rules of the game that was shared by the group of teenagers in the group discussion space.

Figure 1. Temporary storyboard of Bingo “Beber Compensa”. Espírito Santo, 2019.

The group of researchers returned to the community to evaluate the game of bingo (provisional storyboard) with the teenagers by applying the dynamic “Shortening distances between what was produced and the educational game” with the application of QGD “The information is … the the rules are … the game is …”.

The group’s narratives revealed that the images on the bingo card needed to be modified to better express the logic of the game:

The game is cool, but you have to change some images! This AA image (information about Alcoholics Anonymous) has to be bigger … (ADF1)
(...) there must be an image that shows dependence, for example, a man with wide eyes and several bottles of alcoholic drinks. This image of alcoholism must have more information ... (ADF1, ADM1 and ADM2)

The image of the drunk man hugging a sugar cane tree must be changed. (ADF4)

The content written in the cards should also be changed to better understand the meaning of the information being mediated:

Yes! It’s hard... I don’t know that word (‘motor coordination’), here in the community we say staggering, is that it?! (ADF1)
Yes, there are difficult words! (ADF2)
It has to be easier in the card information. Put words that we know. (ADM2)
It was the drink-driving law! I think it’s better to put it: a law that does not allow any amount of alcohol in a driver’s blood. (ADF3)

Regarding the game rules, the group made some considerations:
I think you have to change the beginning. Rolling the dice to know who is first and the sequence of players is bad... (ADF3) (ADF1)
Yes, we forget who will be next to play. (ADF3)
So, to know who will be the first to play take the luck in the dice. The player who gets the highest number starts following the sequence of the players who are (positioned) to the right (the one who started playing) ... (ADF3)

In the final evaluation, the adolescents approved and liked the proposed educational game:
I liked it, just change a little! (ADF1)
Just change what we say! (ADM1)

In this way, the group of researchers met and analyzed the suggestions of the adolescents, and remodeled the game for Image Game, where the six cards with guiding images/equivalents for the 27 cards were kept, data with numbering and markers (buttons, stones, grains, or any object that can serve as a marker). The refurbished material was delivered to the illustrator producing the final version of the game (Figure 2).

Figure 2. Cards from the “Beber Compensa” Image Game, modified from the Bingo game. Espírito Santo, 2019.
The cards contain information and when opening them, the corresponding image on the card is revealed (Figure 3).

**Figure 3.** Cut out cards and images from the Image Game. Espírito Santo, 2019.

The rules of the game were also changed, as suggested by the adolescents (Chart 1).


<table>
<thead>
<tr>
<th>Preparation</th>
<th>Start game</th>
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| 1. Up to six players;  
2. Choose grains, buttons, etc. to mark the cards;  
3. Shuffle cards and place them face down in a pile;  
4. Choose one of the six cards;  
5. Choose one or more modes to win/finish the game.  
Suggestion:  
Edge ( ), window ( ), corner ( ), L ( ) or full card ( ) | 1. In order to know who will be the first to play, participants must draw their luck on the dice. The player who takes the highest number on the dice starts to play, following the decreasing order for the other players;  
2. Each player, in turn, takes a card from the pile and reads it out loud to the other players, who must mark the image corresponding to the written information, if it is on their card;  
3. The player who reads the card will reveal the corresponding image contained in the 2nd part of the card to all the players. Those with the same image as the one revealed remain with the card marked  
4. The card taken from the pile must be discarded from the game. |

**DISCUSSION**

This report portrayed the production, with the participation of adolescents living in the *Quilombola* community and researchers, of the “Is drinking worth it” image game with the theme of alcohol, using a comic from the almanac “Alcohol and rites of adolescents in a *Quilombola* community”. This construction took place in the midst of social coexistence, in a creative relationship and respect for vocabulary used in the daily lives of adolescents.

Participatory methodological research, conducted according to Paulo Freire’s perspective of dialogue and reading the world, allowed the construction of an image game about the social use of alcohol. The experiences of teenagers who live in a *Quilombola* community, their customs and local knowledge were the raw material of HQ that was transformed into a game.

In the DCS space, teenagers and researchers understood the “reasons for being” and “reading” the world of each participant of the group, because human beings are historical beings; the more one reflect on their life, the more they become critical and produce knowledge. The National Policy for the Comprehensive Health of the Black Population (Política Nacional da...
Saúde Integral da População Negra) has among its assumptions the guarantee of comprehensive care to the black population, emphasizing healthy and active life and strengthening the role of black people in the process of transforming reality\textsuperscript{5,8}. It is another culture, which required intimate respect and dialogue in view of the specificities of the historical and socio-cultural context of its local reality that were incorporated into the game, with potential for use in health promotion approaches in the community and at school.

Early alcohol consumption in adolescence is associated with behavioral and social problems, in addition to the risk of becoming alcohol dependant adults\textsuperscript{9}. The first experiences with alcohol for many occur in the family context with parental supervision\textsuperscript{10}, and it can become excessive consumption when associated with black or brown skin color, not having a religion, less than eight years of schooling, mononuclear family composition and having a job\textsuperscript{2}. In this way, adolescents bring with them a variety of knowledge acquired through experience in the environment where they live, valuing alcoholic beverages as an essential element at leisure, in approaching the opposite gender, in addition to the feeling of pleasure and freedom and the need for affirmation in the adult universe\textsuperscript{11}.

In the UK, an alcohol-free childhood is recommended, and young people who choose to drink should not do so before the age of 15 and, if they do drink, it should not exceed the recommendations of adults and should not happen more than one occasion per week\textsuperscript{9}. In Brazil, the law is more restricted, prohibiting the use and commercialization of alcohol in adolescence and criminalizing those who sell, supply, serve, minister or deliver alcoholic beverages to children or adolescents\textsuperscript{12}. Thus, educational technologies, such as educational games, are important mediators for health promotion.

The game provides memorization of information by stimulating the learner's enthusiasm and greater involvement, which can be used at different times in the teaching and learning process. The Portuguese word for game - jogo - comes from the Latin term "jocus" which means "play", "fun". It is a physical or intellectual activity that integrates a system of rules and defines an individual (or a group) as the winner and another as the loser\textsuperscript{13}.

In a study on the use of games to promote health in adolescents, it was observed that the majority of games are online, which requires that the adolescents have access to computers and internet connection; thus benefiting a portion of society, generally middle and upper middle classes from urban areas, leaving out adolescents of low social economic classes and living in rural areas\textsuperscript{14} whose access to the internet is restricted or nonexistent. Thus, the production of manual games that involve subjective aspects of the participants regarding ideas, opinions, beliefs, prejudices, myths\textsuperscript{14}, should be encouraged, as well as its use by health professionals to promote health.

Since the end of the 20\textsuperscript{th} century, more and more studies have shown the use of educational technologies to care for the life and health of people, groups and communities, as technology has the potential to educate and raise awareness of the empowerment of care\textsuperscript{15-17}.

Such reflections converge with the experience reported here. Paulo Freire’s dialogical education\textsuperscript{5} in the context of health and nursing practice enunciate a paradigm of thinking and educating, placing the subjective dimension of students as part of the process of building and evaluating the educational game, centered on dialogue, on the decoding of themes, on understanding the meanings for the production of the educational game. Dialogical health education is an alternative way for nurses to work with students\textsuperscript{17}.

In this experience report, moments of interaction and reflection were presented with the public to whom the produced educational material is intended, in the expectation of developing interest and meaning in the care of their own health and the group they belong to.
CONCLUSION

The construction of the educational game, combining adolescents' local knowledge and scientific knowledge about alcohol, provided a significant and positive approach, leading to discussion and reflection on a theme that interferes with their health condition, through an approach that goes beyond the biomedical view.

Thus, to combine the knowledge of local culture with scientific knowledge to build educational games in the health area is a resource that facilitates the discussion of topics relevant to individual and collective health.

The objective of this study was achieved with the use of the CSM, which favored the expression of the reflexive criticism of the Quilombola community adolescents who differs from the young people inserted in other contexts, cultures and social classes, because the ways in which they experience the process of adolescence is influenced by conservative and traditional principles, due to the reproduction of values and behaviors experienced in the family context that are constantly reinforced by the community.

As limitations, it is noteworthy that the study was developed in a Quilombola community, making it impossible to generalize the data and the inclusion criteria of the adopted participants who were students. The profile of included participants did not reach the population of adolescents outside the school environment, which may be related to the increased vulnerability of greater exposure to alcohol consumption.

It was understood that the result of this study can impact the orientation not only of Quilombola teenagers, but also other teenagers who are in this phase so stigmatized by society, parents and educators.

REFERENCES


CONTRIBUTIONS
Adriana Nunes Moraes-Partelli participated in conception, collection and analysis of data, writing and revision. Aline Pestana Santos and Séfora Gasparini Santos collaborated in the collection, data analysis and writing. Marta Pereira Coelho contributed to data collection and analysis, writing and revision.

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