



MEANINGS ASSIGNED BY ADOLESCENTS TO AN EDUCATIONAL INTERVENTION ON LEPROSY

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ABSTRACT

Objective: To describe the meaning given by the adolescents to an educational intervention on leprosy mediated by games. **Method:** this is exploratory research with a qualitative approach, carried out with 30 adolescents from a public school in Cuiabá, Mato Grosso, Brazil. A nursing intervention was applied with games adapted to the theme. Data were collected by recordings of the participants' statements during the last stage of the educational intervention. The recordings were transcribed and analyzed according to the thematic content analysis technique. **Results:** the adolescents expressed joy and satisfaction for participating in the intervention. The elements brought up in their speeches emphasize learning about the general aspects of leprosy acquired from games and the possibility of acting as agents that transform reality when facing leprosy. **Conclusion:** This intervention showed the potential for the collective construction of knowledge about leprosy, demystifying the false concepts and myths attributed to the disease. We expect that from this study the intervention can be applied in different contexts, promoting health, and preventing leprosy.

Keywords: Adolescent health. Leprosy. Health education. Qualitative research.

INTRODUCTION

Health education is a process aimed at building knowledge on a specific health theme to increase people's autonomy regarding individual and collective care for disease prevention and health promotion. Thus, the professional needs to work with the real needs of the population, and it is essential to propose actions that transform this reality⁽¹⁾.

In this sense, the nurses should approach the individuals of interest in the community and recognize their specificities for the increase of surveillance actions and the critical analysis of reality⁽²⁾. Nevertheless, one of the needs in Brazil is the control of leprosy, especially in children under the age of fifteen, whose classification is highly endemic in the country and hyperendemic in the state of Mato Grosso⁽³⁾.

Leprosy is considered one of the most

sociological important dermatological disorders due to its history of stigmatization and social segregation, and it is one of the oldest and most feared diseases in the world⁽³⁾. It is a neglected chronic infectious disease, mainly affecting the peripheral nervous system and the integumentary system, with physical disability and deformity as the main consequences. In addition to genetic susceptibility, many social determinants are associated with the disease, mainly the living conditions and structural inequalities that affect the general health and immunity of the population, overcoming the lack of knowledge about the disease⁽⁴⁾.

Therefore, educational practices on leprosy are capable of promoting changes in the population's knowledge about general aspects of the disease. The nurse is recognized as the main agent in the development of these practices⁽¹⁾. They play an important role when using educational health actions as a work tool,

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both individually and collectively, in the different spheres of activity.

Knowledge about leprosy is the driver of spontaneous demand when the disease is suspected, favoring the timely treatment and deconstruction of false concepts, stigmas, and prejudices linked to it⁽¹⁾.

The health education for adolescent people must be based on innovative pedagogical references and carried out playfully. Also, it should encourage guidance and freedom of expression capable of facilitating the mediation of learning, stimulating the understanding of the individual in a pleasurable way, and enabling reflection on the knowledge acquired and the formation of relationships between the acquired knowledge and reality⁽⁵⁾.

Researchers⁽⁶⁾ developed an educational workshop script for adolescents about leprosy with five adapted games: adjective, face, traffic light, true or false, and mosaic. It covers knowledge related to the concept, fear, stigma, classifications, signs and symptoms, transmission, diagnosis, and treatment with the durability of two hours. When the activity is applied to small groups of adolescents in schools, it has the potential for building knowledge on leprosy in the conception of the creators. However, it is essential to identify the value that adolescents attach to this educational workshop.

Considering the health education activity through games as a promising care-educational technology, this study aims to understand the meaning given by adolescents to an educational

intervention on leprosy mediated by games. Such findings may enable new advances and improvements in professional practice for the theme.

METHOD

This is exploratory research with a qualitative approach, carried out with adolescents aged 10 to 14 years old from a public school in Cuiabá, Mato Grosso, Brazil, selected by simple random drawing. This age group was established because it is the most affected by leprosy among children under fifteen in Brazil⁽³⁾.

After school authorization, we invited all adolescents aged 10 to 14 years old to participate in the research. Then, we presented the Informed Consent Form to the parents/guardians and they were asked to bring it the next day. Then, 30 adolescents were authorized to participate in the research, with their consent.

Freitas and collaborators⁽⁶⁾ created the workshop script used in the educational intervention by contemplating the dynamics techniques described in Table 1. Nursing students applied for the workshop between July and August 2017, previously trained. They developed the workshops in spaces provided by the school, in groups of five to six participants, with a total duration of two hours each. The objective of the educational workshop was to promote, reflect, and raise the awareness of the target audience about leprosy.

Table 1. Distribution of dynamics techniques, knowledge worked, and application time in educational workshops on leprosy with adolescents. Cuiabá, MT, Brazil, 2020

Techniques	Knowledge worked	Application time
Adjective	Memorization of names and group integration	10 minutes
Face	Concept of illness, fear, and stigma	30 minutes
Traffic light	Classification, signs and symptoms and disease transmission	30 minutes
True or false	Diagnosis and treatment of the disease	30 minutes
Mosaic	Representation/meaning of the participation in the educational workshop by the adolescents	20 minutes

Source: Freitas et al. ⁽⁶⁾

After approaching all the contents of the intervention activity⁽⁶⁾, we applied the mosaic dynamics technique. It consisted of magazine clippings, collage on A4 paper, and a presentation of the meaning of participation in the educational workshop by the adolescents.

The participants were asked the following triggering question: "What is the meaning of this educational workshop for you?" Then, they were asked to represent it through clippings and collages of figures taken from magazines. No participant had doubts and difficulties when

developing this stage.

We recorded, transcribed, and organized the statements of the adolescents' participation in the mosaic's dynamics resulted in statements. Subsequently, we analyzed them according to the content analysis technique. The content analysis consists of a set of systematic techniques and procedures that allow the inference of knowledge to the data obtained and divided into three stages: floating reading; exploration of the material with identification of the registration units; and conversion of results, inference, and interpretation⁽⁷⁾.

From the analysis, two categories emerged: "Adolescents as agents that transform reality"; and "Educational activity as an element capable of providing greater engagement of adolescents with health". After transcribing the data, the participants' identities were preserved and designated by the names of cartoon characters.

This study is part of the matrix research entitled "Health education and active search for leprosy in children under fifteen in Cuiabá, MT" approved by the Research Ethics Committee of Hospital Universitário Júlio Muller, under opinion 1.579.925, following all the prerogatives of Resolution No. 466/2012.

RESULTS AND DISCUSSION

When designing and implementing an educational intervention with adolescents, we know that the establishment of dialogue and the exchange of knowledge must be ensured with an emphasis on valuing popular knowledge and previous experiences⁽¹⁾.

Considering these aspects, researchers⁽⁶⁾ designed and implemented a workshop on leprosy, reporting a positive experience about it. However, the participants needed to evaluate the intervention to understand how creative, inviting, and pleasurable it is from their perspective. The interpretative synthesis occurred through the speeches of the participants in the group activities, resulting in the categories: "Adolescents as agents that transform reality"; and "Educational activity as an element capable of providing greater engagement of adolescents with health".

Educational activity as an element capable of

providing greater engagement of adolescents with health

In the application of the mosaic dynamics technique, the adolescents carried out magazine clippings, collage, and presentation of the meaning of the participation in the educational workshop. The objective of this technique was to know the meaning attributed by the adolescents regarding educational intervention. As the game flowed, the adolescents reported their perceptions regarding educational intervention:

I glued the faces of these people smiling because that's how I was (...) very happy with the workshop. I learned about some good teachings on how to avoid leprosy, the symptoms of the disease, and how to take care of yourself (**Batman**).

I put on a happy person's face because I felt good when participating in the workshop. Now I have greater knowledge than before (**Harley Queen**).

I glued the photo of a smiling woman because I felt that way when participating in this activity and for now, I have a greater knowledge of something that I didn't know much, like leprosy (**Storm**).

I thought it was cool [...] we had fun. I learned many things about leprosy that I didn't even imagine, for example, that I caught it by air. I pasted a smiling person's mouth (**Wonder Woman**).

I thought it was cool to glue that mouth and this pencil because I liked having participated in these games. I learned new things and learned mainly about how you can get leprosy. It was cool (**Vampire**).

The elements brought by the adolescents showed their joy and satisfaction in participating in the intervention. The health education activity on leprosy contributed to the adolescents' conception because through the mosaic technique, they glued images of smiling people and a jewel sign that they liked the workshop, and using clippings from books, pencils, and games symbolizing learning through this method. Thus, when the educational intervention is developed through dynamics and playful games, positively interfered in the adolescents' ability to socialize and learn.

The statements also emphasized learning

from games and the feelings attributed to that experience. Learning is related to general aspects of leprosy, such as its concept, main signs, and symptoms, prevention, and treatment measures. The adolescents showed satisfaction with the knowledge built through the intervention developed by nursing and mediated by games:

I glued this “jewel” sign because I thought it was very good and now, I know what leprosy is, how I can prevent the disease (...) and then take the right medicine (**Supergirl**).

I found it very interesting because I didn't know what leprosy was and you explained what the disease is, how to prevent spots, how it transmits, and now I'm well connected (**Wonder Woman**).

I put these books on because I think this drawing is representing that it was very educational (...), so it was very cool (**Hera**).

This result of the intervention is important since a previous study⁽⁸⁾ identified little knowledge about leprosy by adolescents in the same region of study, without discerning about the general aspects of the disease and associating it with other diseases. For the authors, the lack of knowledge about leprosy generates an atmosphere of fear, doubt, anguish, and concern, mainly because they think that the disease has no cure, causes social isolation, and can be transmitted to their families.

The participants identified the games as facilitators of the construction of knowledge about leprosy. The intervention was applied through an active, critical, and transformative process, to collectively build knowledge, based on the interaction between researchers and participants. This resource seeks to contribute to the acquisition of knowledge produced actively and appropriate to the individuals' life context⁽⁹⁾:

My image represents a game and that's how we learned (...) (**Batgirl**).

These games made it easier for me to learn how to avoid leprosy, what the symptoms are, how to take care of the disease. They are good teachings (**Spider-Man**).

In this context, health education using a

multifaceted and appropriate approach based on constructivist methods becomes essential for health promotion and disease prevention for these people⁽¹⁾. Other studies have also found that workshops using educational games provide knowledge in a relaxed way, considering the peculiar characteristics of this age group, facilitating communication and the expression of ideas, promoting the discussion and reflection of those involved, and enhancing the teaching-learning process^(9,10).

Therefore, educational actions with this theme assume fundamental importance for public health for the high rates of leprosy detection in this age group, which suggests active foci of transmission. We also know that misinformation about the general aspects of the disease is an obstacle to its elimination⁽¹¹⁾.

In this sense, this intervention with adolescents proved to be a prosperous means to provide the acquisition of new knowledge since the students mentioned new learnings in the general aspects of leprosy after the intervention. This type of action is precisely to empower individuals about the health and disease process, preventive and therapeutic measures, promoting well-being, and improving the quality of life.

Adolescents as agents that transform reality

Through the speech of the participants, we observed the possibility of acting as agents transforming reality, demystifying false concepts and myths, and breaking the stigma and prejudice surrounding the problem, which had already been reported in previous experience with the application of the same workshop script⁽⁶⁾. Based on the activity, they reported they can share the acquired knowledge with people and guide them to seek health services in case of suspicion of the disease, as seen below:

(...) and I can teach those who have leprosy who have to go to the health center, right, just examine it (...) (**Supergirl**).

Now that I have learned everything about leprosy, I can teach other people, and the more people who know about the disease, the fewer cases of contamination will occur because they will already know and go to the doctor to treat

and so leprosy can even end, so to speak (**Batgirl**).

Also, if someone, I know gets leprosy, I can help and I will tell her to look for the clinic and do the treatments (**Wonder Woman**).

It taught us a lot about (...) how to influence other people to recognize and treat leprosy (**Hera**).

This aspect shows the importance of health education actions aimed at improving adolescents' understanding of the relevance of the disease as a serious public health problem. When acquiring knowledge about the disease, individuals become more likely to adopt and share preventive measures, promote diagnostic self-suspicion, and, consequently, search for health services for early diagnosis and timely treatment⁽¹¹⁾.

Scholars⁽¹⁰⁾ affirm that the sooner they are provided with explanatory and active health promotion attitudes in the search for knowledge about a certain health condition, the greater the possibility of change in the same scenario, projecting healthier adults. However, they emphasize the continuous implementation of such actions. The continuity of educational actions at different times and contexts ensures the sustainability of knowledge and practices, contributing to the integrality of health care⁽¹²⁾.

In a recent study carried out with 23 health professionals who care for children and adolescents with leprosy in primary and secondary care in a municipality in Pernambuco⁽¹³⁾, they showed that health education activities are developed in specific events to leprosy. Some participants mentioned that leprosy health education activities did not take place for specific groups of children and adolescents, but the activities were offered in a generic way to those who were in the waiting room waiting for care, regardless of age group. For this reason, specific interventions are necessary for these people, such as the one applied in this study.

The choice of the school environment for this intervention was opportune and favorable since the school is an important ally in the implementation of health promotion actions. At

school, nurses can provide adolescents with a broader view of health by creating healthy environments and building a new health culture, improving knowledge, attitudes, and practices for leprosy^(12,14, 15).

Educational activities are configured as an element capable of providing greater engagement of the individual with health, be it individual or collective. When aimed at adolescent people, it is essential to stimulate the creativity of these individuals. To support this health educational process, we should use playful techniques such as games, which stimulate fantasy and provide articulation with the reality of the actors of the action⁽¹³⁾.

As this is a local intervention, there is a limitation regarding the generalization of the results to the population. Also, we questioned whether other groups of adolescents share the same views. For this reason, we recommend that other interventions may invest in broader approaches, with a larger sample, for a better understanding of the meanings regarding this educational intervention.

CONCLUSION

Through the speeches of the participants, we can conclude that the educational intervention was recognized as a propelling action in the improvement of knowledge about leprosy, resulting in positive feelings about learning through games. Also, the adolescents pointed out the potential for sharing knowledge about the general aspects of the disease, demystifying false concepts and myths. In this way, the performance of these adolescents is seen as transforming agents of reality for the prevention and control of leprosy and the minimization of the stigma and prejudice linked to it.

Therefore, the leprosy workshop can be a care-educational technology in nursing and can be implemented in practice with adolescents, especially in the school setting. This intervention can be improved and adapted to other contexts to promote greater knowledge about leprosy.

SIGNIFICADOS ATRIBUÍDOS POR ADOLESCENTES A UMA INTERVENÇÃO EDUCATIVA SOBRE HANSENÍASE

RESUMO

Objetivo: descrever o significado atribuído por adolescentes a uma intervenção educativa sobre hanseníase mediada por jogos. **Método:** trata-se de uma pesquisa exploratória, de abordagem qualitativa, realizada com 30 adolescentes de uma escola pública de Cuiabá, Mato Grosso, Brasil. Aplicou-se uma intervenção de enfermagem com jogos adaptados à temática. Os dados foram coletados por meio de gravações cujas falas dos participantes durante a última etapa da intervenção educativa foram transcritas e analisadas segundo a técnica de análise de conteúdo temática. **Resultados:** os adolescentes expressaram alegria e satisfação por participarem da intervenção. Os elementos trazidos em suas falas enfatizam o aprendizado sobre os aspectos gerais da hanseníase adquirido dos jogos e a possibilidade de atuarem como agentes transformadores da realidade perante a hanseníase. **Conclusão:** tal intervenção demonstrou potencial para a construção coletiva de saberes sobre a hanseníase com vistas à desmistificação dos falsos conceitos e mitos atribuídos ao agravo. Espera-se que a partir deste estudo a intervenção possa ser aplicada em diferentes contextos com vistas à promoção da saúde e prevenção da hanseníase.

Palavras-chave: Saúde do Adolescente. Hanseníase. Educação em Saúde. Pesquisa Qualitativa.

SIGNIFICADOS ATRIBUIDOS POR ADOLESCENTES A UNA INTERVENCIÓN EDUCATIVA SOBRE LEPROA

RESUMEN

Objetivo: describir el significado atribuido por adolescentes a una intervención educativa sobre lepra mediada por juegos. **Método:** se trata de una investigación exploratoria, de abordaje cualitativo, realizada con 30 adolescentes de una escuela pública de Cuiabá, Mato Grosso, Brasil. Se aplicó una intervención de enfermería con juegos adaptados a la temática. Los datos fueron recolectados por medio de grabaciones cuyas hablas de los participantes durante la última fase de la intervención educativa fueron transcritas y analizadas según la técnica de análisis de contenido temático. **Resultados:** los adolescentes expresaron alegría y satisfacción por participar de la intervención. Los elementos aportados por sus hablas enfatizan el aprendizaje sobre los aspectos generales de la lepra adquirido de los juegos y la posibilidad de actuar como agentes transformadores de la realidad ante la lepra. **Conclusión:** tal intervención demostró potencial para la construcción conjunta de saberes sobre la lepra con el fin de desmitificarlos falsos conceptos y mitos atribuidos al agravio. Se espera que a partir de este estudio la intervención pueda ser aplicada en diferentes contextos con vistas a la promoción de la salud y prevención de la lepra.

Palabras clave: Salud del adolescente. Lepra. Educación en salud. Investigación cualitativa.

REFERENCES

- Freitas BIBM, Silva FB, Jesus JMF, Alencastro MAB. Leprosy educational practices with adolescents: an integrative literature review. *Rev Bras Enferm.* 2019; 72(5): 1397-1404. DOI: <https://doi.org/10.1590/0034-7167-2017-0458>.
- Oliveira JDCP, Marinus MWLC, Monteiro EMLM. Practices in the healthcare of children and adolescents with leprosy: the discourse of professionals. *Rev Gaúcha Enferm.* 2020;41:e20190412. DOI: <https://doi.org/10.1590/19831447.2020.20190412>.
- Schneider PB, Freitas BIBM. Tendência da hanseníase em menores de 15 anos no Brasil, 2001-2016. *Cad. Saúde Pública.* 2018; 34(3):e00101817. DOI: <http://dx.doi.org/10.1590/0102-311x00101817>.
- Grzybowski A, Sak J, Pawlikowski J, Nita M. Leprosy: Social implications from antiquity to the presente. *Clin Dermatol.* 2016; 34(1):8-10. DOI: <https://doi.org/10.1016/j.clindermatol.2015.10.009>.
- Correia JC, Golay A, Lachat S, Singh SB, Manandhar V, Jha N, et al. "If you will counsel properly with love, they will listen": A qualitative analysis of leprosy affected patients' educational needs and caregiver perceptions in Nepal. *PLoS ONE.* 2019; 14(2): e0210955. DOI: <https://doi.org/10.1371/journal.pone.0210955>.
- Freitas BIBM, Silva FB, Silva HCDS, Costa AMRF, Silva KF, Silva SEG. Educational workshop with adolescents on leprosy: case report. *Rev Bras Enferm.* 2019; 72(5): 1421-1425. DOI: <https://doi.org/10.1590/0034-7167-2017-0663>.
- Bardin L. Análise de conteúdo. São Paulo: Edições 70; 2016.
- Freitas BIBM, Silva FB, Silva KF, Santos HCD, Silva SEG. Perception of adolescents about leprosy. *J Nurs UFPE on line.* 2019; 13(2):292-7. DOI: <https://doi.org/10.5205/1981-8963-v13i2a237260p292-297-2019>.
- Mariano MR, Pinheiro AKB, Aquino OS, Ximenes LB, Pagliuca LMF. Jogo educativo na promoção da saúde de adolescentes: revisão integrativa. *Rev. Eletr. Enf.* 2013;15(1):265-73. DOI: <http://dx.doi.org/10.5216/ree.v15i1.17814>.
- Viero VSF, Farias JM, Ferraz F, Simões PW, Martins JA, Ceretta LB. Health education with adolescents: analysis of knowledge acquisition on health topics. *Esc Anna Nery.* 2015; 19(3):484-90. Available from: <https://www.scielo.br/pdf/ean/v19n3/1414-8145-ean-19-03-0484.pdf>.
- Pinheiro MGC, Medeiros IBG, Monteiro AI, Simpson CA. The nurse and the theme of leprosy in the school context: case studies. *Rev Fund Care Online.* 2015;7(3):2774-80. DOI: <http://dx.doi.org/10.9789/2175-5361.2015.v7i3.2774-2780>.
- Silva FB, Gondim EC, Henrique NCP, Fonseca LMM, Mello DF. Educational intervention involving young mothers: gaining knowledge on childcare. *Acta Paul Enferm.* 2018; 31(1):32-38. DOI: <http://dx.doi.org/10.1590/1982-0194201800006>.
- Oliveira, JDCP, Marinus MWLC, Monteiro EMLM. Practices in the healthcare of children and adolescents with leprosy: the discourse of professionals. *Rev Gaúcha Enferm.* 2020; 41:e20190412. DOI: <https://doi.org/10.1590/1983-1447.2020.20190412>.
- Coriolano-Marinus MWL, Pacheco HF, Lima FT, Vasconcelos EMR, Alencar EN. Saúde do escolar: uma abordagem educativa sobre hanseníase. *Sau. & Transf. Soc.*

2012; 3(1):72-8. Available from:

<http://pepsic.bvsalud.org/pdf/sts/v3n1/v3n1a12.pdf>

15. Lima LSM, Brito ECC, Bezerra MAR, Brito MA, Rocha

RC, Rocha SS. The nurse's activities in school spaces. *Ciência, Cuidado E Saúde*. 2019;18(2): e46343.DOI:

<https://doi.org/10.4025/cienccuidsaude.v18i2.46343>

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