

# Health education and first aid: challenges and experiences in an Indigenous community

Educação em saúde e primeiros socorros: desafios e experiências em comunidade indígena

*Educación en salud y primeros auxilios: desafíos y experiencias en comunidad indígena*

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## Abstract

**Problem:** Populations living in isolated regions with limited infrastructure face barriers in accessing health services and emergency care. In this context, first aid training becomes a critical strategy to strengthen autonomy, improve emergency response capacity, and preserve lives. **Methods:** The action consisted of a practical and interactive approach, with learning stations for first aid maneuvers. Mannequins were used for demonstrations, and interpreters helped overcome language barriers. The evaluation included direct observation, active listening, and qualitative reports from residents and medical students. Data were qualitatively analyzed. **Results:** We observed good community adherence, with younger residents demonstrating easier learning. The local nurse, as a community leader, facilitated engagement. Challenges included difficulties in correctly performing maneuvers among some adults and persistent language barriers, mitigated by interpreters and pedagogical adaptations. Medical students reported significant improvements in cultural sensitivity and practical skills. **Conclusions:** The experience highlights the importance of continuous and culturally adapted educational interventions, empowering local leaders and strengthening community autonomy. Integrating traditional and technical knowledge is essential to ensure sustainability and effectiveness, while contributing to the training of health professionals better prepared for intercultural contexts.

**Keywords:** Health of Indigenous peoples; First aid; Health education; Vulnerable populations; Social vulnerability.

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## Resumo

**Introdução:** A educação em saúde é crucial na promoção da autonomia e superação das barreiras de acesso aos serviços de saúde, especialmente em regiões isoladas e carentes de infraestrutura. Dessa forma, a capacitação em técnicas de primeiros socorros é essencial para melhorar a resposta a emergências e a preservação de vidas, dado o contexto de vulnerabilidade dessas populações. **Objetivo:** Relatar as experiências e os desafios de uma ação de educação em saúde realizada em uma comunidade indígena, com ênfase no ensino de primeiros socorros e no manejo de emergências. **Métodos:** Ação composta de uma abordagem prática e interativa, com estações de aprendizagem para manobras de primeiros socorros. Foram utilizados bonecos para demonstrações práticas e intérpretes para superar barreiras linguísticas. A avaliação incluiu observação direta, escuta ativa e coleta de relatos qualitativos de moradores e estudantes de medicina participantes. Os dados obtidos foram analisados qualitativamente. **Resultados:** Boa adesão da comunidade, com maior facilidade de aprendizado entre os moradores mais jovens. A presença da enfermeira local como liderança comunitária facilitou o engajamento. Dificuldades na execução correta das manobras por alguns adultos e barreiras linguísticas foram observadas, mas mitigadas com o uso de intérpretes e adaptações pedagógicas. Os estudantes de medicina relataram ganhos significativos em termos de sensibilidade cultural e habilidades práticas. **Conclusões:** A experiência reforça a importância de intervenções educativas contínuas e culturalmente adaptadas, com foco na capacitação de líderes locais e no fortalecimento da autonomia comunitária. A integração de saberes tradicionais e técnicos é essencial para garantir a sustentabilidade e eficácia das ações, além de contribuir para a formação de profissionais de saúde mais preparados para atuar em contextos interculturais.

**Palavras-chave:** Saúde de populações indígenas; Primeiros socorros; Educação em saúde; Populações vulneráveis; Vulnerabilidade social.

## Resumen

**Introducción:** La educación en salud es crucial en la promoción de la autonomía y en la superación de las barreras de acceso a los servicios de salud, especialmente en regiones aisladas y con carencia de infraestructura. De esta manera, la capacitación en técnicas de primeros auxilios resulta esencial para mejorar la respuesta frente a emergencias y la preservación de vidas, dado el contexto de vulnerabilidad de estas poblaciones. **Objetivo:** Relatar las experiencias y los desafíos de una acción de educación en salud realizada en una comunidad indígena, con énfasis en la enseñanza de primeros auxilios y en el manejo de emergencias. **Métodos:** Acción compuesta por un enfoque práctico e interactivo, con estaciones de aprendizaje para maniobras de primeros auxilios. Se utilizaron muñecos para demostraciones prácticas e intérpretes para superar barreras lingüísticas. La evaluación incluyó observación directa, escucha activa y recopilación de relatos cualitativos de los habitantes y de los estudiantes de medicina participantes. Los datos obtenidos fueron analizados cualitativamente. **Resultados:** Buena adhesión de la comunidad, con mayor facilidad de aprendizaje entre los habitantes más jóvenes. La presencia de la enfermera local como liderazgo comunitario facilitó el compromiso. Se observaron dificultades en la ejecución correcta de las maniobras por algunos adultos y barreras lingüísticas, pero fueron mitigadas mediante el uso de intérpretes y adaptaciones pedagógicas. Los estudiantes de medicina relataron ganancias significativas en términos de sensibilidad cultural y habilidades prácticas. **Conclusiones:** La experiencia refuerza la importancia de intervenciones educativas continuas y culturalmente adaptadas, con foco en la capacitación de líderes locales y en el fortalecimiento de la autonomía comunitaria. La integración de saberes tradicionales y técnicos es esencial para garantizar la sostenibilidad y eficacia de las acciones, además de contribuir a la formación de profesionales de salud más preparados para actuar en contextos interculturales.

**Palabras clave:** Salud de poblaciones indígenas; Primeros auxilios; Educación en salud; poblaciones vulnerables; Vulnerabilidad social.

## INTRODUCTION

Data from the latest census of the Brazilian Institute of Geography and Statistics (IBGE), conducted in 2022, indicate that the Indigenous population in Brazil corresponds to approximately 0.83% of the total national population, totaling about 1,693,535 individuals. This figure represents an increase of 21% compared to the 2010 census. However, this demographic growth was not accompanied by structural improvements, highlighting the persistence and worsening of socioeconomic challenges faced by these peoples.<sup>1</sup>

About 1.1 million Indigenous individuals live in precarious conditions, characterized by the lack or deficiency of basic sanitation, which is an alarming datum.<sup>1</sup> In addition, infant mortality rates among Indigenous children up to four years of age are more than double the average recorded for the rest of the Brazilian infant population.<sup>2</sup> These figures reflect the inefficiency of public policies aimed at the protection and promotion of the rights of Indigenous peoples, which, despite the technical and scientific advances of modern society, remain in a situation of vulnerability.

In this context, basic training in first aid is a tool of great relevance to mitigate part of this vulnerability. Considering the remote location of many Indigenous communities, where logistical obstacles hinder access to medical services, mastering basic emergency practices can be decisive for the preservation of life while waiting for specialized care.

First aid training allows community members to act as first responders in emergency situations, significantly increasing the chances of survival and reducing complications in critical cases. Thus, empowerment through health education not only reinforces the autonomy of these populations, but also highlights the importance of practical strategies to preserve life in adverse scenarios.<sup>3-5</sup>

Taking this into consideration, in this experience report, we address the experiences and challenges faced during a health education initiative carried out in an Indigenous community. The initiative sought to train participants in first aid techniques, promoting a practical and culturally-sensitive approach to meet the specific demands of this population.

## METHODS

The SQUIRE 2.02 guidelines were followed in the present experience report, adapted to document health interventions carried out in specific communities, focusing on improving care quality and safety. The action was carried out in a newly-established Indigenous community near the municipality of Marabá (state of Pará, Brazil), composed of 20 inhabitants, namely: 10 adults, nine children (three babies), and one older adult.

The community has a local nurse, the chief's wife, who is considered a reference in health-related issues. The objective of the initiative was to train residents in first aid techniques, with emphasis on choking maneuvers and basic care for pregnant women and neonates.

The intervention was planned based on practical and interactive stations, addressing topics such as medical consultations, blood pressure and blood glucose measurements, and first aid. Mannequins provided by a teaching institution were used to demonstrate techniques such as Heimlich maneuver in adults, chest percussion in neonates, and choking maneuver in children aged up to 8 years. Specific characteristics of pregnant women and obese people were also addressed.

During the performance of the maneuvers, there were challenges related to language barriers between older residents and the team of evaluators, which were overcome with the help of interpreters. In turn, younger participants presented greater ease in understanding Brazilian Portuguese, allowing a more fluid communication. The interpreters were members of the Indigenous community who had knowledge of both their mother tongue and Brazilian Portuguese. Although they did not have formal training for interpreting, they had empirical and cultural knowledge of both languages, in addition to the formal teaching of Brazilian Portuguese provided by the local educational institution.

The consent process was conducted orally and collectively, respecting the local traditions of community decision-making. Initially, the research team gathered all participants and presented the objectives, procedures, and potential benefits of the intervention. It was clarified that participation was voluntary and that anyone could choose not to participate without suffering any harm. After this initial explanation, the community leaders were consulted and, subsequently, each participant had the opportunity to express their agreement or refusal.

To ensure the participants' confidentiality, several measures were adopted. The collected reports were anonymized, identified only by alphanumeric codes without direct association with the participants.

All sensitive records have been securely stored, accessible only to the research team directly involved in the project. In addition, personal information and any details that could lead to individual identification were omitted in the documented records and reports.

The impact of the intervention was assessed through direct observation and active listening. Residents' reports were collected, highlighting their perceptions of the initiative, the clarity of the contents presented, and the applicability of the techniques taught. Medical students involved in the intervention also recorded their impressions, reflecting on the teaching process, the challenges of adaptation to the cultural context, and the experiences obtained in the field.

Although quantitative data were not collected, the effectiveness in the transmission of knowledge and the ability of participants to apply the learned techniques were emphasized by qualitative analysis. Factors, such as the active involvement of the local nurse and the need to reinforce training in future actions, were pointed out as key to the success and continuity of the initiative.

## RESULTS

The importance of the techniques taught was highlighted by the geographical isolation of the village, considering the difficulties in accessing nearby health services. On the one hand, the reception of the community was widely positive, with greater interest shown by the younger participants, who presented greater ease of learning and ability in the application of the techniques. On the other hand, some adults faced difficulties in the correct performance of the maneuvers, evidencing the need for reinforcement in future actions.

The intervention also had an unexpected impact by raising community awareness of the importance of preventive health. This effect was observed mainly among the youngest, whose adherence to training exceeded the initial expectations. The active participation of the local nurse was a crucial factor for the success of the initiative, because, in addition to being a health reference, her cultural mediation favored the acceptance of the activities and promoted a better integration between the team and the community.<sup>6</sup>

The overcoming of language barriers is noteworthy, especially among older residents, through the help of interpreters. This strategy ensured the active participation of the entire community, allowing everyone to understand the techniques taught and to effectively engage in training.<sup>7</sup>

Although limited time posed a challenge to perform all demonstrations properly, the available resources were well utilized. No additional relevant costs were recorded in addition to those required for practical stations and material transportation. The effectiveness of the intervention was demonstrated by the evaluation, based on direct observation and active listening, even with the absence of quantitative data and limited collection of reports due to the available time.

## DISCUSSION

The intervention proved effective in training the Indigenous community, especially young people, in first aid techniques. The involvement of the local nurse and the help of interpreters were key for the success of the initiative, overcoming linguistic and cultural barriers. Despite difficulties faced by some adults in performing the maneuvers, the positive perception of the usefulness of the techniques indicates the potential for continuous actions to improve community safety and health.<sup>8</sup>

Adapting the activities to the cultural context was essential for the success of the intervention. The use of dummies for realistic simulation facilitated practical learning, bringing the presented situations closer to the real emergencies that may occur. The appreciation of the role of local leaders was also reinforced by the approach, in addition to promoting the importance of intercultural health education as a tool of positive impact.<sup>9</sup>

The results are aligned with studies whose authors highlight the relevance of interventions adapted to Indigenous populations, emphasizing the training of local agents and the use of innovative pedagogical strategies.<sup>10</sup> Despite the limitations, such as the reduced sample and the lack of quantitative data, as per the experience, the methodology is replicable, as long as it is adjusted to the particularities of other communities.

Faced with the main obstacles described — short action time, difficulty of some participants in performing the maneuvers, associated with linguistic and cultural barriers —, we perceived a challenge both in communication and in sharing information. In addition, there is a lack of important intercultural knowledge, which demonstrates a scenario of great shortage and vulnerability. Starting from the principle of equity, other educational, illustrative, and practical actions, more frequent and continuous, can be developed, planned, and performed, in association with local interpreters and leaders, seeking to ensure the understanding and promotion of Indigenous health.

The impacts of the intervention action were evident. Through observations and active listening, during the period in question, the safety and autonomy developed among participants concerning the procedures taught were noteworthy. Differences in the learning speed among the members of the initiative ended up working as a mechanism of cohesion among the villagers, as it allowed the acquired knowledge to be passed on from those with greater ease of learning to those who encountered some difficulty. This, in turn, enabled a more effective retention of what has been learned during the initiative and, as there was a horizontality of the pedagogical process, it removed any existing cultural barrier.

Furthermore, there were moments of participants' reflection during the action, related to how the learned practice could be used in past experiences, thus showing not only the adherence of the group to the project, but also the retention of the content and the confidence acquired by the members in the applicability of maneuvers for handling possible future emergency cases. Likewise, we also observe the positive result of the project in the medical students involved.

The reports of the group point to an expressive gain in terms of strengthening ties with their listeners, considering that each present student assumed a position of greater exposure and leadership in the conduct of the training, enabling the development of own mechanisms to deal with sociocultural differences, within a context very similar to that found in the doctor-patient relationship. Moreover, we pinpoint the evident benefits in relation to the mastery of oratory. This was noticed by the analyses and confirmed by the reports in which the students acknowledged the acquisition of skills in managing anxiety and mechanisms of discourse synthesis, thus avoiding prolixities.

In this study, we highlight the need for continuous and culturally-adapted educational actions for Indigenous populations. The periodic reinforcement of training and the strengthening of local leaders are recommended as strategies to consolidate the acquired knowledge. Authors of future studies can deepen quantitative analysis and assess long-term impact on similar communities.<sup>11</sup>

## CONFLICT OF INTERESTS

Nothing to declare.

## AUTHOR'S CONTRIBUTIONS

HDB: Conceptualization, Data curation, Formal analysis, Methodology, Project administration, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. SFG: Conceptualization, Data curation, Formal analysis, Methodology, Project administration, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. JPC: Conceptualization, Data curation, Formal analysis, Methodology, Project administration, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. RSSO: Conceptualization, Data curation, Formal analysis, Methodology, Project administration, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

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