

# Alternative for remote teaching of health promotion: an experience report

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Abstract The authors evaluated the restructuring of teaching approaches for educators, students, the community, and health services in a dentistry program during the COVID-19 pandemic. Given the suspension of in-person activities, students from the dentistry program of the Evangelical University of Goiás used the Maguerez Arch method to observe some city regions, identify main health and social issues, and propose evidence-based solutions. These interventions aimed to address community needs using modified teaching approaches via remote educational tools to disseminate health principles. Short videos, tutorials, books, booklets, and manuals were developed using clear, accessible, and explanatory language and broadcasted via social networks and online lives. The community accessed these materials using cell phones and computers, although some individuals faced limitations due to a lack of access to these devices. Topics addressed in the materials included guidance on oral hygiene, healthy eating, the importance of physical activity, oral and systemic conditions and prevention, and individual guidance to cope with social isolation. During the pandemic, social isolation demanded the restructuring of teaching approaches, leading educators, students, the community, and health services to embrace digital technology, which posed the challenge of developing a problem-based education using dynamic and reflective approaches.

Descriptors: Health Promotion. Health Education. COVID-19.

# Alternativa para la enseñanza remota de acciones de promoción de la salud: un relato de experiencia

Resumen Los autores relatan la experiencia de reestructuración de estrategias de enseñanza-aprendizaje durante la pandemia de COVID-19, en una carrera de Odontología, involucrando docentes, estudiantes, comunidad y servicios de salud. Ante la suspensión de actividades presenciales en instituciones educativas y pasantías en la comunidad, estudiantes de la Carrera de Odontología de la Universidad Evangélica de Goiás utilizaron el arco de Maguerez, para observar la realidad de algunas regiones del municipio, identificar las principales problemas de salud y sociales soluciones existentes y proponer soluciones, basadas en la literatura científica, para intervenir en la comunidad con diferentes estrategias de enseñanza-aprendizaje reestructuradas, mediadas por recursos educativos que permitan difundir preceptos de salud de forma remota. Se desarrollaron videos cortos, tutoriales, libros, cuadernillos y manuales que, con un lenguaje claro, accesible y explicativo, guiaron a la comunidad a través de las redes sociales y transmisiones en vivo a través de internet. La comunidad tuvo acceso a materiales producidos por celulares y computadoras, a pesar de las limitaciones de quienes no contaban con estos equipos. Se trataron temas como orientación sobre higiene bucal, alimentación saludable, la importancia de la actividad física, descripción de afecciones bucales y sistémicas y cómo prevenirlas, orientación sobre cómo afrontar las diferencias individuales y la soledad durante la cuarentena. En el contexto de pandemia, las limitaciones impuestas por el aislamiento social implicaron la necesidad de reestructurar las estrategias de enseñanza-aprendizaje, provocando que docentes, estudiantes, comunidad y servicio de salud se acerquen a la tecnología digital, trayendo el desafío de desarrollar una educación problematizadora, con el uso de estrategias dinámicas y reflexivas.

Descriptores: Promoción de la Salud. Educación en Salud. COVID-19.

Alternativa para o ensino remoto das ações de promoção da saúde: um relato de experiência

Resumo Os autores relatam a experiência de reestruturação das estratégias de ensino-aprendizagem durante a pandemia COVID-19, em um curso de Odontologia, envolvendo docentes, discentes, comunidade e serviços de saúde. Diante da suspensão das atividades presenciais nas instituições de ensino e estágios na comunidade, os acadêmicos do Curso de Odontologia da Universidade Evangélica de Goiás utilizaram o arco de Maguerez, para observar a realidade de algumas regiões do município, identificar os principais problemas de saúde e sociais existentes e propor soluções, pautadas na literatura científica, para intervir na comunidade com diferentes estratégias de ensino-aprendizagem reestruturadas, mediadas por recursos educativos que permitissem difundir preceitos de saúde de forma remota. Foram desenvolvidos vídeos curtos, tutoriais, livros, cartilhas e manuais, que, com linguagem clara, acessível e explicativa, orientaram a comunidade por meio das redes sociais e de transmissões ao vivo pela internet. A comunidade teve acesso aos materiais produzidos pelos telefones celulares e computadores, em que pese a limitação de quem não possuía estes equipamentos. Foram abordados temas como orientações sobre higiene bucal, alimentação saudável, importância da atividade física, descrição das condições bucais e sistêmicas e como preveni-las, orientações sobre como lidar com as diferenças dos indivíduos e a solidão na quarentena. No contexto pandêmico, as limitações impostas pelo isolamento social implicaram na necessidade de reestruturação das estratégias de ensino-aprendizagem, provocando nos docentes, discentes, comunidade e serviço de saúde uma aproximação da tecnologia digital, trazendo o desafio de se desenvolver uma educação problematizadora, com o uso de estratégias dinâmicas e reflexivas.

**Descritores:** Promoção da Saúde. Educação em Saúde. COVID-19.

## **INTRODUCTION**

Health education is a cornerstone of health promotion, providing the community with evidence-based information about health and disease. This approach improves understanding of health conditions and issues and encourages the adoption of good life habits<sup>1-3</sup>. In this context, dentists should also commit to health promotion, recognizing the relevance of health education and comprehensive healthcare. Furthermore, undergraduate dentistry programs must align with public health and oral health policies in Brazil to ensure comprehensive training<sup>4</sup>.

Moreover, health education must be included in education, health services, and communities using comprehensive and context-specific strategies. This integration enables a broader understanding of reality, identifying demands and propositions of transformative teaching approaches. Additionally, health education encourages the autonomy and emancipation of individuals, families, and communities to care for their oral health actively. Individual participation in health decisions promotes an engaged and conscious society, improving public policies, oral health, and the well-being of the population<sup>5-6</sup>.

Also, integrating dentistry education with public health policies can better prepare future health professionals to meet the health needs of the community, resulting in improved population health outcomes and a more equitable society<sup>7-12</sup>.

The COVID-19 pandemic imposed a barrier to part of the population, hindering access to health services<sup>13</sup>. Therefore, health education approaches require digital information and communication technologies (ICTs), leading to benefits for those unassisted. In this process, education became even more relevant and challenging, highlighting the importance of proper training of health professionals<sup>14-15</sup>.

Although Brazil has experienced ICTs in health services, important progress has occurred since 2015 with implementating the National Policy of Health Information Technology. The "Digital Health Strategy for Brazil" document<sup>16</sup> outlines this advancement, including creating the National Health Data Network and Connect SUS program (Minister's Office /Ministry of Health. Ordinance no. 1,434, May 28, 2020). These initiatives aimed to establish guidelines for public and private health services using digital educational tools.

The National Oral Health Policy (2004) highlights the importance of health education to encompass social and cultural issues (e.g., healthy eating, hygiene, body self-care, nutrition, relationships, and protection) using different strategies, such as "[...] debates, health workshops, videos, theater, group conversations, posters, pamphlet"<sup>4</sup>. However, the pandemic has accelerated the adoption of digital tools, leading educators and students in health education, health services, and communities to embrace ICTs and incorporate them into daily routines.

The literature needs studies about teaching approaches in health education, hindering their applicability, especially during social isolation and remote access conditions. Thus, this study reports the adaptation of teaching approaches during the COVID-19 pandemic within a dentistry program involving educators, students, the community, and health services.

#### **EXPERIENCE REPORT**

Educators and students from the Evangelical University of Goiás reported their experience during remote health education activities. Students were enrolled in Public Health classes during the second to fifth periods of the dentistry program from 2020 to 2021 (four semesters [2020/1, 2020/2, 2021/1, 2021/2]). The activities were performed in four basic health units (BHUs) in Anápolis and included about 25 health professionals. The students worked with health services, developing remote activities for the community (different populations and social and life settings).

The authors hypothesized that observing these activities would allow evaluating their impact on health education for health professionals, considering the need and importance of using remote tools in Brazil.

The COVID-19 pandemic highlighted the importance of remotely promoting health to avoid physical contact and disease spread. Thus, an opportunity for new perspectives on health education appeared, requiring social distancing strategies, education with meaning, direction, and purpose, and the use of ICTs.

Public health in dentistry programs uses active methodologies and the Maguerez Arch<sup>19</sup> method to develop community health intervention activities in partnership with BHUs and social facilities. Its theoretical framework during the second to fifth periods comprehends health promotion in different life cycles, using demographic and epidemiological data to plan actions for populations with low socioeconomic status. These populations are one of the most affected by COVID-19, presenting the highest morbidity and mortality rate, which encouraged the adoption of global guidelines for social isolation to minimize contagion and prevent premature deaths.

In the beginning of 2020, Anápolis declared public calamity and suspended in-person activities in all educational institutions and internships. In response, the University used its expertise in implementing technologies to train educators, expand the technology scope, and adapt syllabi to continue teaching. Thus, integrating creativity, technology, and pedagogical knowledge ensured the continuity of higher education. Sixty students from all semesters were divided into groups to plan activities, develop tools, and implement health intervention strategies for specific populations, such as pregnant women, children, adolescents, women, men, private company employees, rural workers, individuals with disabilities, and older individuals. These populations were from different city regions, referred by the city education management and BHUs, who contacted the community using telecommunication devices.

Educators taught students about the National Policy for Health Promotion, Statute of the Child and Adolescent, National Policy for Comprehensive Attention to Women's Health, National Policy for Comprehensive Attention to Men's Health, National Elderly Health Policy, and National Oral Health Policy tools applied in the Community Intervention Project according to the Maguerez Arch method. The BHU teams planned the actions with the students, providing guidance, sharing experiences, offering logistical support, and mobilizing the community.

The Rapid Assessment Technique is a fast and low-cost tool to asses problems perceived by a population<sup>20</sup>. In January and February 2020, before social isolation, students used this tool to conduct a reality observation, support participatory planning, and identify specific health issues. During this stage, students had the opportunity to experience the reality of BHUs, collect information, and engage in different challenges.

The second stage of the Maguerez Arch method occurred during social isolation. BHU teams and key community individuals were interviewed using a survey. Then, students shared the main results, issues, and documentary analyses with their educators in synchronous remote meetings. This information helped identify the most vulnerable populations, contributing to a deeper understanding of the health situation in the territory.

During the third stage, called theorization, student pairs aimed to support their surveys with a theoretical framework to understand identified issues. Then, in the fourth stage, the pairs developed and proposed activities in a synchronous meeting, focusing on creating remote health education tools to transform the regional reality. The educational activities aimed at empowering individuals for health promotion and self-care. These activities sought to provide accessible and relevant information, practical guidance, and prevention strategies<sup>21</sup>. Ultimately, health education informs, engages, and empowers individuals to make informed decisions about their health, fostering autonomy and leadership in health promotion.

In the final stage, students performed the planned health education activities, presenting remote materials to the participants, such as short videos, tutorials, books, brochures, and manuals, offering clear guidance on social media platforms via mobile phones or computers. Additionally, interactive live broadcasts engaged smaller groups, covering topics such as oral hygiene, healthy eating, physical activity, disease descriptions, prevention measures, and individual coping strategies for social isolation. Moreover, all synchronous meetings were conducted using the Zoom platform, encouraging active participation, questions, and discussion. This tool provided an interactive and collaborative environment, promoting engagement among participants.

During activity planning and preparation, students faced some difficulties. These included quickly adapting to new technologies and digital platforms, mastering the production and editing of digital content, finding creative strategies to involve and engage the population remotely, and ensuring equitable access to digital tools across different socioeconomic groups. To address these difficulties, students explored different online platforms and tools to create interactive educational resources. They also diversified their approach by including offline options to mitigate unequal internet access. Overall, students overcame difficulties with dedication, continuous learning, and search for innovative solutions to promote inclusive health education effectively.

Feedbacks from educators were very positive, emphasizing the benefits of student and educator engagement for the population. Furthermore, after the activities, students acquired proficiency in digital communication skills, including creating educational content and using platforms and social media for clear and accessible information dissemination. The intervention also promoted teamwork, engagement with community demands, and the ability to adapt and innovate health promotion, considering the needs and characteristics of the population.

#### **FINAL CONSIDERATIONS**

This experience report aligns with current literature, emphasizing the need to disseminate health information and prevent prevalent oral diseases, even during social distancing. Strategies like the Family Health Strategy help address community health needs comprehensively. Professionals must develop skills beyond conventional practices, aiming at bonding with the community, autonomy, and shared responsibility in health management12,22. Ensuring uninterrupted health education and preserving training for future dentists are important, especially in adverse scenarios such as the COVID-19 pandemic.

Additionally, using ICTs in health promotion faces limitations due to unequal access to various tools, leading to digital exclusion that may hinder the reach and impact of health strategies23. However, in this scenario, diversifying the resources allowed for accessibility via mobile devices, social media, or printed formats, expanding the reach of the strategies and ensuring inclusive dissemination of relevant information for the population.

The successful adaptation of health education during the pandemic underscores the importance of integrating students into health services for unique professional development. Pandemic-related limitations led to restructuring teaching approaches, prompting educators, students, the community, and health services to embrace digital technology, facing the challenge of developing dynamic and reflective educational strategies.

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