

Continuing health education as a tuberculosis control strategy in the prison system

Karine Zenatti Ely^{1,2}, Victor Göttems Vendrusculo³, Isabela Frighetto³, Andréia Rosane de Moura Valim², Lia Gonçalves Possuelo²

TO THE EDITOR:

Tuberculosis remains a challenge to global public health, particularly in prisons, where the risk of contracting the disease is 30 times higher.⁽¹⁾ The state of Rio Grande do Sul, Brazil, has more than 40,000 prison inmates and coverage by equipes de Atenção Primária Prisional (eAPP, prison primary care teams) of approximately 54.4% of closed prison inmates. Currently, there are 45 eAPP distributed in penal institutions throughout the state of Rio Grande do Sul, most of which are overcrowded.⁽²⁾

The need to expand and improve actions related to tuberculosis care, tuberculosis surveillance, and management of tuberculosis control, as recommended by national and international health agencies,^(3,4) encouraged the development of continuing health education activities focused on prison inmates.⁽⁵⁾ The Programa de Educação Permanente em Saúde – Sistema Prisional (PEPSSP, Continuing Health Education Program - Prison System) took place from July 6 to December 14, 2021, targeting prison system staff, managers, social control representatives, and the academic community. The COVID-19 pandemic prompted a virtual format, with 11 virtual lectures and 6 virtual roundtable discussions being offered. The virtual lectures were streamed live on YouTube and remain available to the public.⁽⁶⁾

The live-streamed virtual lectures covered topics related to tuberculosis in the prison system, tuberculosis/HIV coinfection, rapid testing at prison entry, and analysis of indicators for monitoring and evaluation of tuberculosis, among other topics. The virtual roundtable discussions were motivated by triggering questions, identifying the daily work challenges to control tuberculosis in prisons.

To complement the theoretical activities of the PEPSSP, the first Competição em Saúde contra a Tuberculose no Sistema Prisional (COMPETI-TB, Health Competition against Tuberculosis in the Prison System) was developed. ⁽⁷⁾ This competition took place from March 23 to May 4, 2022, and involved the participation of 19 teams linked to prisons in Rio Grande do Sul and 1,400 prison inmates, who were directly or indirectly involved. The launch of the first COMPETI-TB, which addressed the theme "Challenges of controlling tuberculosis in the prison system," was streamed live on YouTube on March 23, 2022. The registered teams were mixed, including professionals from both the health and security sectors. Multidisciplinary teams from prisons with enabled eAPP and other teams providing healthcare services for incarcerated individuals participated. The first COMPETI-TB consisted of 10 challenges and 2 bonus activities involving tuberculosis control that fostered competition between prisons. The completion of these challenges and bonus activities was proven electronically, with photos, reports, and videos; deadlines and scores were stipulated; and at the end, the teams with the highest scores and the outstanding teams from each penitentiary region of the state were awarded.

The proposed challenges had a diverse range of scores, with tasks considered to present with a low level of difficulty being worth 10 points, those with an intermediate level of difficulty being worth 25 points, and those with a high level of difficulty being worth 50 points. Bonus activities were worth additional points and served as tie-breakers.

Through posters, brochures, banners, and the Pedágio da TB (TB toll), teams discussed the concept of the disease, its transmission, and ways to prevent it, as well as how to identify individuals with respiratory symptoms. A discrepancy was observed between protocols and their implementation, which led to a movement towards standardization of actions and practices, such as use of an appropriate place for sputum collection and use of tuberculosis screening strategies, including active search for individuals with respiratory symptoms and rapid testing for infectious diseases at entry into the prison system.

The teams replicated continuing health education activities in their daily contexts through lectures, roundtable discussions, preparation of informational materials and educational games, such as the Bingo da TB (TB bingo), questionnaires, and lessons on the topic, all of which targeted prison staff and prison inmates. Several prisons established partnerships with educational institutions as part of the proposed challenges. There was an assessment of tuberculosis and HIV control indicators, application of the annual active case-finding score by the World Health Organization, and updating of or getting acquainted with registries of individuals with respiratory symptoms, as recommended by the Brazilian National Ministry of Health.(3)

The final challenge was the completion of an evaluation form by the participating teams. This made it possible to confirm the importance of the PEPSSP for correctional institutions, as it not only disseminates technical knowledge through practical activities, but also enables the integration between professionals with diverse knowledge.

This intervention proposal is part of an umbrella project called "Contributions to state prison health management:

^{1.} Secretaria de Saúde do Estado do Rio Grande do Sul, Porto Alegre (RS) Brasil.

^{2.} Programa de Pós-Graduação em Promoção da Saúde, Universidade de Santa Cruz do Sul, Santa Cruz do Sul (RS) Brasil

^{2.} Curso de Medicina, Departamento de Ciências da Saúde, Universidade de Santa Cruz do Sul, Santa Cruz do Sul (RS) Brasil.

monitoring and evaluation, continuing education, and health technologies," which has been approved by the Health Ethics Committee of the *Universidade de Santa Cruz do Sul* (Protocol no. 4.251.658). The first COMPETI-TB closing and award ceremony also took place through a live stream,⁽⁸⁾ in which a compilation of activities developed during COMPETI-TB was presented and a Joint Informational Note on tuberculosis surveillance and control in the prison system was issued.⁽⁹⁾

This letter to the editor presents innovative strategies, reporting on what has been accomplished so far, and strongly recommends active case finding and systematic screening for tuberculosis in prisons.⁽¹⁰⁾ This recommendation aligns with the United Nations 2030 Agenda for Sustainable Development, which includes tuberculosis control. The results presented here demonstrate the effectiveness of the implementation of the continuing health education policy. The PEPSSP reflects the dynamism and comprehensiveness of the Brazilian Unified Health Care System and promotes the value of experiences, the exchange of experiences, and meaningful learning, proving to be essential for solving problems in the daily life of prisons and for

addressing tuberculosis and other complexities affecting prison inmates.

AUTHOR CONTRIBUTIONS

KZE, VGV, IF, ARMV, and LGP: manuscript design, data collection, data analysis, drafting of the manuscript, and approval of the final version of the manuscript.

CONFLICTS OF INTEREST

None declared.

FINANCIAL SUPPORT

The authors of this manuscript received financial support from the Brazilian *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* (CAPES, Office for the Advancement of Higher Education; Funding Code 001) and the *Programa de Pesquisa para o Sistema Único de Saúde* (PPSUS, Brazilian Unified Health Care System Research Program; Grant no. 21/2551-0000095-3) to prepare the manuscript.

REFERENCES

- Mabud TS, de Lourdes Delgado Alves M, Ko Al, Basu S, Walter KS, Cohen T, et al. Evaluating strategies for control of tuberculosis in prisons and prevention of spillover into communities: An observational and modeling study from Brazil [published correction appears in PLoS Med. 2019 Mar 1;16(3):e1002764]. PLoS Med. 2019;16(1):e1002737. https://doi.org/10.1371/journal.pmed.1002737
- Dotta RM, Ely KZ, Schultz ÁLV, Soares Filho MM, Nunes PS, Busatto C, et al. Primary Prison Care Teams and tuberculosis notification in Rio Grande do Sul/Brazil. Cien Saude Colet. 2022;27(12):4415-4422. https://doi.org/10.1590/1413-812320222712.11682022en
- 3. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Coordenação-Geral do Programa Nacional de Controle da Tuberculose [homepage on the Internet]. Brasília: o Ministério, c2019 [cited 2020 Jan 20]. Manual de Recomendações para o Controle da Tuberculose no Brasil, 2nd updated ed. [Adobe Acrobat document, 366p.]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/ manual_recomendacoes_controle_tuberculose_brasil_2_ed.pdf
- World Health Organization [homepage on the Internet]. Geneva: WHO; c2022 [cited 2023 Feb 20]. Global Tuberculosis Report 2021. Available from: https://apps.who.int/iris/rest/bitstreams/1379788/ retrieve.
- Ely KZ, Valim ARM, Koepp J, Dotta RM, Swartzbold P, Possuelo LG. Processo de construção de um programa de educação permanente para as equipes de atenção básica prisional. In: Darsie C, Rocha CMF, Carneiro M, Galvão MCB, org. Educação e saúde: reflexões e experiências educativas. 1st ed. Santa Cruz do Sul: EDUNISC; 2022. Available from: https://www.researchgate.net/profile/Camilo-

Darsie/publication/360375894_Educacao_e_saude_reflexces_e_ experiencias_educativas/links/6272fb7c3a23744a72649576/ Educacao-e-saude-reflexces-e-experiencias-educativas.pdf.

- FIOCRUZ Brasilia [homepage on the Internet]. Brasilia: FIOCRUZ Brasilia; [updated 2021 Nov 29; cited 2023 Feb 20]. Saúde prisional: conheça a exposição virtual de experiências. Available from: https:// www.fiocruzbrasilia.fiocruz.br/saude-prisional-conheca-a-exposicaovirtual-de-experiencias/#:~:text=A%20CESP%20%C3%A9%20 vinculada%20ao,e%20Outras%20Drogas%20(Nusmad).
- Possuelo LG, Ely KZ, Swartzbold P, Boeira E, Frighetto I, Vendrusculo VG, et al. Competição para prevenção da tuberculose na rede de saúde prisional: da criação à avaliação: memórias e aprendizados. 1st ed. Santa Cruz do Sul, RS: Ed dos Autores; 2023.
- Encerramento do 1° COMPETI-TB: SISTEMA PRISIONAL. Universidade de Santa Cruz do Sul/UNISC Ao Vivo. 2022 May 5 [cited 2023 Feb 20]. Vídeo:1^46:49. Available from: https://www.youtube. com/watch?v=PHQAW9q1HDY.
- Brasil. Rio Grande do Sul. Secretaria de Saúde. Centro Estadual de Vigilância em Saúde (CEVS) [homepage on the Internet]. Porto Alegre: CEVS; [cited 2023 Feb 20]. Nota Informativa Conjunta Nº 01/2022 – Vigilância Epidemiológica da Tuberculose (TB) na Saúde. Available from: https://www.cevs.rs.gov.br/upload/ arquivos/202205/04093246-nota-informativa-conjunta-n-01-2022vigilancia-epidemiologica-da-tuberculose-na-saude-prisional.pdf
- Charalambous S, Velen K, Rueda Z, Croda J, Herce ME, Shenoi SV et al. Scaling up evidence-based approaches to tuberculosis screening in prisons. Lancet Public Health. 2023;8(4):e305-e310. https://doi. org/10.1016/S2468-2667(23)00002-6