

Destigmatization of tuberculosis in the educational environment: socio-pedagogical aspects and the role of student-oriented approaches

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If a patient fears not the disease itself, but society's reaction to it, we lose the battle against tuberculosis even before treatment begins.

Abstract. This abstract presents the experience of implementing educational work aimed at the destigmatization of tuberculosis (TB) in the educational environment of Ivano-Frankivsk and the Ivano-Frankivsk territorial community. The socio-pedagogical rationale for the need to form an appropriate attitude toward TB at an early stage among schoolchildren, students, and teachers is outlined. A student-oriented communication model is described, in which medical students act as intermediaries between academic medicine and the educational audience. Particular attention is paid to an age-adapted approach to the development of lecture materials and interactive games for pupils of grades 1-4, 5-8, and 9-11. The importance of discussions, interactive methods, media activity, and intersectoral cooperation in overcoming myths, fears, and discriminatory attitudes toward people affected by TB is demonstrated.

Key words: tuberculosis, stigmatization, destigmatization, educational environment, medical students, interactive learning, public health.

Background. TB remains one of the most pressing public health problems both globally and in Ukraine. Despite the availability of modern diagnostic methods and effective treatment, combating the disease is complicated not only by medical but also by social factors [1]. One of the most significant among them is the stigmatization of people affected by TB. The problem of stigmatization is of particular relevance in Ukraine, where the burden of drug-resistant TB remains a major challenge for the healthcare system. Recent studies conducted under programmatic conditions in Ukraine demonstrate both the potential to improve treatment effectiveness through the implementation of new therapeutic regimens, particularly those based on bedaquiline, pretomanid, and linezolid, and the persistence of risks of unfavorable outcomes among patients with highly drug-resistant TB [2, 3].

TB-related stigma manifests itself through fear, prejudiced attitudes, social distancing, and discrimination against patients. It may lead to concealment of symptoms, delayed seeking of medical care, interruption of treatment, poor adherence to therapy, and social isolation. Thus, stigmatization is not a secondary social phenomenon, but a real barrier to effective TB control. In 2023, the World Health Organization

identified the elimination of stigma and discrimination against patients as one of the priority areas in the fight against TB [4, 5]. This emphasizes the need to move from a purely biomedical approach to a broader public health model, in which communication, education, and social support play an important role [6, 7].

Destigmatization does not begin in the hospital. It begins where attitudes toward disease are formed. The educational environment is a space where it is possible to change not only the level of knowledge about TB, but also the social response to a person with the diagnosis. Schools, lyceums, universities, and the teaching community are precisely the spaces where basic ideas about health, disease, safety, responsibility, and social norms are formed. If TB is discussed only in the medical office, we are already working with the consequences. However, if a proper attitude is formed in the educational environment, we influence the causes of fear, silence, and prejudice.

Objective. The aim of the study was to substantiate and present the experience of implementing an age-adapted, student-oriented model of educational work aimed at increasing awareness of TB and overcoming stigmatization in the educational environment.

Materials and methods. Educational work was carried out by the Department of phthysiology and pulmonology with a course of occupational diseases of Ivano-Frankivsk National Medical University (IFNMU) within the framework of the Regional plan of information activities dedicated to the month of TB elimination and World TB Day, in cooperation with the Center for Disease Control and Prevention.

Fifth-year students of IFNMU were actively involved in the implementation of the initiative. Under the guidance of candidate of medical sciences, associate professor of the department Iryna Makoida, and candidate of medical sciences, associate professor Olha Molodovets, short informational messages in the form of presentations and interactive game formats were developed for pupils of lyceums in Ivano-Frankivsk and the Ivano-Frankivsk territorial community. A separate area of work with the student audience was provided by associate professor Olha Melnyk-Sheremeta, who prepared and delivered lectures for students of higher education institutions in Ivano-Frankivsk, in particular at IFNMU and KNU.

The target audiences included pupils of grades 1-4, 5-8, and 9-11, students of higher education institutions, teachers,

and the general public. As part of the initiative, activities also extended beyond the urban educational space: the first educational events were conducted in lyceums of the Ivano-Frankivsk territorial community. In addition, the topic of TB destigmatization was covered on television, which made it possible to expand the audience of informational influence.

The methodological basis was a differentiated age-adapted approach. For younger schoolchildren in grades 1-4, the informational component was brief, while the main emphasis was placed on game-based learning, visualization, and active interactive exercises. This format corresponded to the characteristics of visual-figurative thinking in primary school children, for whom play is a natural way of learning.

Among pupils of grades 5-8, a balanced ratio of lecture and interactive components was used – approximately 50/50. The central element was the game “Myth Busters”, aimed at identifying and correcting common misconceptions about TB. Unlike the active games used for younger pupils, this format was based on the analysis of statements, discussion, critical thinking, and the development of an evidence-based approach.

For pupils of grades 9-11, students, and teachers, the emphasis shifted toward discussion, social analysis, and consideration of TB as a public health problem. The discussions addressed not only clinical aspects of the disease, but also issues of stigma, social isolation, trust in medicine, responsibility for one's own health, and support for people undergoing treatment.

Results and discussion. The implemented practice demonstrated that TB destigmatization in the educational environment requires not a standard lecture, but a multi-level communication strategy. Its effectiveness is determined not only by the quality of medical information, but also by who delivers it, in what language, in what format, and how safe the learning environment is for asking questions.

The special role of medical students became one of the key advantages of the project. For schoolchildren, a student is not perceived as a distant official lecturer. Rather, they are seen as an older, understandable, and closer interlocutor. This reduces the communication barrier, increases trust, encourages children's activity, and creates a more informal and open learning atmosphere. This was especially noticeable among younger pupils, who were more willing to interact with students, ask questions, take part in games, and demonstrate greater compliance with the information received.

The sessions with pupils were not limited to the transmission of basic knowledge about TB. They gradually

turned into lively discussions, during which schoolchildren, students, and teachers asked questions about the routes of infection transmission, the possibility of complete cure, the safety of communicating with a person during and after treatment, the reasons for fear of the diagnosis, social attitudes toward patients, and ways to support people affected by the disease. These discussions made it possible to identify hidden fears and myths that often remain invisible during a traditional lecture.

Importantly, the discussions often went beyond the topic of TB and touched upon broader issues of health culture, prevention, responsibility, trust in the medical system, and the role of the family, school, and community in shaping health-preserving behavior. This indicates that educational work on TB destigmatization has the potential not only to correct individual myths, but also to form a broader culture of public health.

A separate result was the emergence of a public dimension of the initiative. A television appearance made it possible to bring the topic of TB and stigma beyond the educational audience and the professional community. This format is important because public opinion is formed not only in educational institutions, but also in the media space.

Conclusions. TB stigmatization is not a secondary social issue, but a real barrier to disease control. We often treat the patient who has already come to us. However, stigma affects the person who is still afraid to come. That is why the fight against TB must begin before the doctor's office – in schools, universities, communities, and the public space. If we work only with the mycobacterium, but do not work with fear, we treat the consequence rather than the system.

An age-adapted approach makes it possible to increase the effectiveness of educational work: for younger schoolchildren, play and visualization are optimal; for middle school pupils, a balance between information and interaction is appropriate; for senior pupils, students, and teachers, discussion and social analysis are most effective.

Medical students are a powerful resource for public health, as they act as understandable and closer communicators for schoolchildren, increasing the level of trust, engagement, and compliance of the audience.

The expansion of the initiative into communities, the media space, and scientific conferences demonstrates that TB destigmatization is an intersectoral process requiring cooperation between medicine, education, public health, and social communication.

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