

Multidisciplinarity in health: Challenges and opportunities

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INTRODUCTION

Multidisciplinarity in health has become an increasingly necessary approach in the face of the current challenges of the sector. The health issues we face today are characterized by their complexity and interconnectedness with diverse aspects of human and environmental life. Problems such as global pandemics, antibiotic resistance, chronic non-communicable diseases, and health inequalities require an approach that goes beyond the traditional boundaries of specific health disciplines. The integration of knowledge from diverse areas, such as medicine, nursing, public health, social sciences, health economics, and biomedical engineering, is key to developing effective prevention, treatment, and health promotion strategies. However, despite the recognition of the importance of multidisciplinarity, the practical implementation of this approach faces several challenges. Institutional barriers, lack of effective communication between experts from different fields, and the difficulty in integrating different knowledge and methods are some of the obstacles that prevent truly efficient collaboration. In addition, health training and education often follow a traditional disciplinary approach, which can limit the ability of health professionals to work collaboratively and in an integrated manner. In this context, it is essential to seek not only collaboration between different specialties within the health sector, but also integration with professionals from external sectors, such as technology, the environment, and public policies. This holistic approach can enhance the creation of innovative and sustainable solutions to complex health challenges. Promoting a culture of multidisciplinary collaboration, along with developing policies and structures that facilitate this integration, is crucial to move towards a more effective health system that is responsive to the needs of the population. In view of this scenario, the objective of this study is to analyze the challenges and opportunities of multidisciplinarity in health, highlighting the barriers to effective integration between disciplines and the benefits of this approach for innovation in health care and research.

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MATERIALS AND METHODS

This is a bibliographic review carried out through the Latin American and Caribbean Health Sciences (LILACS), Virtual Health Library (VHL) and *Scientific Electronic Library Online* (SciELO) databases. The search strategy used in the databases is based on the terms "interdisciplinary* OR transdisciplinary* OR multidisciplinary* AND challenges OR barriers AND health". There was no limitation regarding the period of publication of the studies.

RESULTS

The main findings of this study demonstrated the importance of multidisciplinary collaboration in improving health care, but also highlight challenges, including issues of communication, credit allocation, and resistance to new forms of work organization. The implementation of multidisciplinary teams has shown improvements in the quality of care, but requires specific training and institutional support to overcome barriers. Through the findings, it was also possible to identify that multidisciplinary teams, when well integrated, have the potential to significantly improve patient health outcomes, increasing treatment efficacy and patient satisfaction. For example, the multidisciplinary approach in cancer management has been shown to reduce mortality levels, optimize treatment pathways, and promote more personalized and comprehensive care. These results reinforce the need to overcome existing barriers to multidisciplinary collaboration, highlighting the importance of investing in specific training, effective communication, and support structures that facilitate interdisciplinary integration.

FINAL CONSIDERATIONS

It is hoped that this document can facilitate the elaboration of the expanded abstract by the authors, as well as the review of the reviewers.

A multidisciplinary approach to healthcare is essential to address the complex challenges of the sector. While there are obstacles to the effective integration of disciplines, the potential benefits for innovation and quality of care warrant continued efforts to foster multidisciplinary collaboration. Transdisciplinary education and training, along with institutional support, are critical to the success of this approach. Given this scenario, it is understandable that health and education institutions, as well as policymakers, recognize and address the challenges associated with the implementation of multidisciplinary teams. The creation of environments that promote interdisciplinary collaboration, the development of educational curricula that emphasize the importance of the multidisciplinary approach, and the investment in communication platforms that facilitate the exchange of knowledge between different specialties are essential steps towards building a more resilient health system adapted to the complexities of today's challenges. The ability to effectively integrate diverse disciplines within the field



of healthcare will not only enhance innovation and care effectiveness, but will also contribute significantly to the sustainability of healthcare systems in the future.

Keywords: Multidisciplinarity, Challenges, Health.



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