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Medical genetics in developing countries in the Asia-Pacific region: challenges and opportunities

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Abstract

Advances in genetic and genomic technology changed health-care services rapidly in low and middle income countries (LMICs) in the Asia-Pacific region. While genetic services were initially focused on population-based disease prevention strategies, they have evolved into clinic-based and therapeutics-oriented service. Many LMICs struggled with these noncommunicable diseases and were unprepared for the needs of a clinical genetic service. The emergence of a middle class population, the lack of regulatory oversight, and weak capacity-building in medical genetics expertise and genetic counseling services led to a range of genetic services of variable quality with minimal ethical oversight. Some of the current shortcomings faced include the lack of awareness of cultural values in genetic health care, the variable stages of socioeconomic development and educational background that led to increased demand and abuse of genetics, the role of women in society and the crisis of gender selection, the lack of preventive and care services for genetic and birth defects, the issues of gene ethics in medicine, and the lack of understanding of some religious controversies. These challenges provide opportunities for both developing and developed nations to work together to reduce the inequalities and to ensure a caring, inclusive, ethical, and cost-effective genetic service in the region.

Keywords

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