

Improving MDR TB Outcomes in Afghanistan: A Quantitative Study of Treatment Practices

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Abstract:

Multidrug-resistant tuberculosis (MDR-TB) presents substantial healthcare challenges in Afghanistan, especially within resource-constrained settings. This study investigates treatment practices and systemic barriers while identifying actionable strategies to strengthen MDR-TB management and outcomes.

A quantitative research design was utilized, employing a structured survey distributed via Google Forms to 175 healthcare professionals actively involved in MDR-TB management. Participants included provincial TB coordinators, laboratory supervisors, DOTS nurses, NGOs' TB focal points, members of the National TB Control Program management team, and other healthcare providers from various regions, including underserved and conflict-affected areas. Data analysis leveraged statistical tools such as STATA and Microsoft Excel, applying descriptive and inferential techniques to uncover trends, disparities, and correlations.

The findings highlight stark disparities in resource allocation, including irregular access to diagnostic tools, medications, and funding across healthcare facilities. Logistical delays and inefficiencies in supply chains further exacerbated these issues. Training programs for healthcare workers lacked consistency and adequacy, hindering their confidence and effectiveness in implementing WHO treatment guidelines. Patient dropout rates remained high, driven by financial challenges, transportation barriers, stigma, and adverse drug reactions. Public awareness campaigns showed moderate effectiveness but were unequally implemented, limiting their impact on stigma reduction and treatment adherence. Systemic barriers, such as workforce shortages, funding gaps, and inadequate policy implementation, were persistent challenges.

This study underscores the importance of equitable resource distribution, sustainable capacity-building initiatives, culturally customized stigma reduction campaigns, and expanded community-based patient support programs. Strengthening collaborations between government entities and NGOs and integrating MDR-TB management into primary healthcare systems emerge as key recommendations for addressing systemic inefficiencies and improving healthcare outcomes. Future research should prioritize qualitative approaches to explore patient experiences and develop innovative strategies for enhancing treatment adherence and community engagement.

Keywords:

Tuberculosis management, Drug-resistant tuberculosis, Patient adherence, Healthcare resources, Training and capacity building, Stigma in healthcare.