

Antibiotics misuse: External constraints on physicians



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Acknowledgement of the country

I would like to acknowledge the Traditional Custodians of the land on which we meet today and their connections to land, water, culture and community. I pay my respects to the Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

Introduction

- **Antibiotic Resistance**
 - A global healthcare issue.
 - Focus on developing country, Bangladesh
- **Key stakeholder**
 - Physician

| Global Fact | |
|---|------------------------|
| Annual death due to antibiotic resistance | 700,000 |
| Projected death if not corrected | 10 million by 2050 |
| Bangladesh | |
| The second lowest patient-physician ratio in South Asia | 5.26 per 10,000 people |
| Patients visit pharmacies to buy medicine without physician's advice | 68% |
| Hospitalized patients receive antibiotics | 67% |
| Daily dosage of antibiotics without prescription | 1.5 million |
| Increase of antibiotic consumption in the last two years | 30.81% |
| In the capital city, deaths at ICU caused by antibiotic resistance | 70% |
| Ceftazidime, a watch group drug has become ineffective in killing different bacteria in | 70% of the cases |
| Pharmacy retailers have poor knowledge of antibiotics | 67.3% |

Source: (Singh, 2019; O'Neill, 2014; Tangcharoensathien, Chanvatik, & Sommanustweechai, 2018; UNDP Bangladesh, 2020; Sujjan, 2020)

Objective of the Study

- Understanding **human behaviours** around antibiotic use in Bangladesh
- Informing **behaviour change interventions** to reduce misuse and mortality.

Methods

- Qualitative in-depth interviews
- 20 physician from two hospitals (*Ten physicians from each low, and low-to-mid income group hospitals*)
- Snowball sampling method
- Thematic content analysis (TCA)

Key Findings: External constraints

- **Financial Constraints** of patients.
- **Low Physician-Patient Ratios** leading to time pressure.
- **Knowledge Gap** on antibiotic resistance.
- **Confusion Over Brand Authenticity** of antibiotics.
- **Easy Over The Counter (OTC) Access** to antibiotics.

Recommendations & Conclusion

- Need for Guidelines
- Education and Training
- Multidisciplinary Initiatives

References

- O’neill, J. (2014). Antimicrobial resistance: tackling a crisis for the health and wealth of nations. *Rev. Antimicrob. Resist*, 20, 1-16.
- Singh, P. K. (2019). Adopt and implement high-impact interventions to secure the future of antibiotics. In. Mumbai: World Health Organization.
- Sujan, M. A. (2020, 13 January). Antibiotics use, sale: Who needs prescription? *The Daily Star*. Retrieved from <https://www.thedailystar.net/frontpage/antibiotics-use-and-sale-in-bangladesh-without-prescription-continues-1853359>
- Tangcharoensathien, V., Chanvatik, S., & Sommanustweechai, A. (2018). Complex determinants of inappropriate use of antibiotics. *Bulletin of the World Health Organization*, 96(2), 141.
- UNDP Bangladesh, R. F. T. (2020). Covid-19: A reality check for Bangladesh's healthcare system [Press release]. Retrieved from <https://www.bd.undp.org/content/bangladesh/en/home/stories/a-reality-check-for-bangladesh-s-healthcare-system.html>

Thank you