

**Knowledge, Attitude and Practice Survey on Antibiotic Resistance Among
Physicians in Tbilisi, Georgia**

Keti Meskhi

*Master's Thesis is submitted for the Ilia State University, Faculty of Natural Sciences and
Medicine, Public Health and Health Policy Program*

Supervisor: Veriko Mirtskhulava, M.D., M.P.H., Ph.D., Invited Professor

Ilia State University

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Abstract

Antibiotic resistance is recognized as one of the major threats to public health

Worldwide, causing 700,000 deaths annually, with projections suggesting 10 million lives and \$100 trillion in economic output are at risk by 2050 due to drug-resistant infections. Resistant infections lead to longer illnesses, increased mortality, extended hospital stays, and higher healthcare costs. A key driver of antimicrobial resistance (AMR) is the misuse and overuse of antimicrobials in healthcare settings, often due to a lack of knowledge, guidelines, and regulatory oversight, as well as inadequate laboratory capacity and surveillance. Education on AMR for healthcare professionals is critical, as understanding the factors influencing antibiotic prescribing can lead to targeted interventions and better antibiotic stewardship.

This study aims to evaluate knowledge, attitudes, and practices regarding AMR stewardship in Tbilisi, Georgia. A review of Georgia's AMR policies was conducted, comparing policy and regulatory documents issued between January 2013 and February 2024 with WHO recommendations for low- and middle-income countries. Online searches on the Ministry of Health and the National Center for Disease Control and Public Health websites supplemented this review. A cross-sectional KAP survey was administered between April and May 2024 to physicians in Tbilisi's inpatient and ambulatory healthcare facilities. Data analysis was performed using SPSS version 21, employing descriptive statistics, binomial logistic regression, Mann-Whitney U-test, and Somers'd to analyze associations and compare groups.

Out of 82 participants, 48(58.5%) were female and 34(41.5%) were male. Most (n = 26, 31.7%) were from the 25–34 year group and had been in medical practice for over 5 years (n = 52, 63.4%). In general, study participants demonstrated good knowledge and positive attitudes. A significant proportion (78.1%) of respondents cited patient self-medication as a contributing factor to inappropriate antibiotic use. Significant differences were found in attitude and practice statements based on years in healthcare practice more than 5 years compared to 5 years or less.

The results reveal significant gaps in understanding antibiotic use and highlight the need for better supervision and infection control measures. Tailored educational programs are crucial for addressing these knowledge gaps, correcting misconceptions, and increasing physician awareness.

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