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# A Study on Knowledge, Attitudes, and Practices (KAP) of Antibiotic Stewardship Among Medical Students: A Cross-Sectional Study at Tertiary Care Hospital in South India

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*Background:* The prevalence of communicable diseases remains a significant burden for developing countries like India, with antimicrobial agents playing a crucial role in treatment. However, irrational and excessive use of these agents has led to a rise in antimicrobial resistance (AMR), prompting the need for effective interventions.

*Aim:* The study aimed to assess the Knowledge, Attitudes, and Practices (KAP) of undergraduate medical students concerning Antimicrobial Stewardship (AMS) principles and implementation.

*Objectives:*

1. The study evaluates medical students' knowledge and attitudes towards antibiotic stewardship, resistance, and overuse risk.
2. The study explores antibiotic prescribing practices in CRRI/CRMI, identifying guidelines and resistance patterns, and identifying gaps in antibiotic stewardship education among medical students.

*Methodology:* After obtaining informed consent, a cross-sectional survey using a structured questionnaire was conducted among 518 undergraduate medical students of different academic years over a period of 3 months from April to July 2024 in a single tertiary care hospital. The sample size was determined using previous research. Data analysis was performed using SPSS; and the Pearson Chi-square test was employed for categorical data.

*Results:* The study found that while most students had theoretical knowledge about antibiotic resistance and as, 75% had received education on antibiotic stewardship principles. However, knowledge gaps existed between academic years, with CRMI/CRRI having better understanding. Only 47% reviewed patient antibiotic prescriptions and one-fourth were unaware of institutional antibiotic stewardship policies. The study emphasizes the need for enhanced as education in medical curricula.

*Conclusion:* The study found that while students had theoretical knowledge about antibiotic resistance and its importance, there was a gap in translating this knowledge into practice. Differences in knowledge and incorporating it into practice exist between students from different years of under graduation. Many students seemed to show over-reliance on senior clinicians and lacked confidence in their antibiotic-prescribing skills. The study emphasizes the need for enhanced as education in medical curricula.

**Keywords:** Antimicrobial resistance, Data Analysis, SPSS, Pearson Chi-square test

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