Perception of Students on Antibiotic Resistance and Prevention: An Online, Community-Based Case Study from Dhaka, Bangladesh

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INTRODUTION

Antibiotic resistance is a major problem in an over-populated country like Bangladesh.

Antibiotic Resistance is the result of misuse and overuse of antibiotics which kills 7,00,000 individuals worldwide per year and is expected to rise to 10 million by 2050 (Shahpawee et al., 2020), with the highest risk in Southeast Asia (Hoque et al., 2020).

The first phase in developing a template for successful antibiotic stewardship is raising public awareness, atttudes, and practices about antibiotic resistance. This research may serve as the basis for potential strategies in reducing AMR.

AIMS

- The study aimed to assess perception of the students about antibiotic consumption
- The rise of antibiotic resistance with the view to developing an effective community engagement strategy for antimicrobial stewardship.

METHODS

Study Design and Participants Enrolment

A cross-sectional study was carried out from July 2020 to November 2020 among the students of Dhaka City in Bangladesh through a web-based survey.

Data Collection Procedure

A structured questionnaire was developed in both English and Bangla with Google Forms to collect information from eligible participants.

Data Management and Analysis

After closing the survey, completed questionnaires are exported from Google Forms as excel files. Pandas (a Python-based data management package) was used to clean up errors in the dataset, such as missing values, duplicated rows, outliers. The data analysis was performed using both Excel and Python.

RESULTS

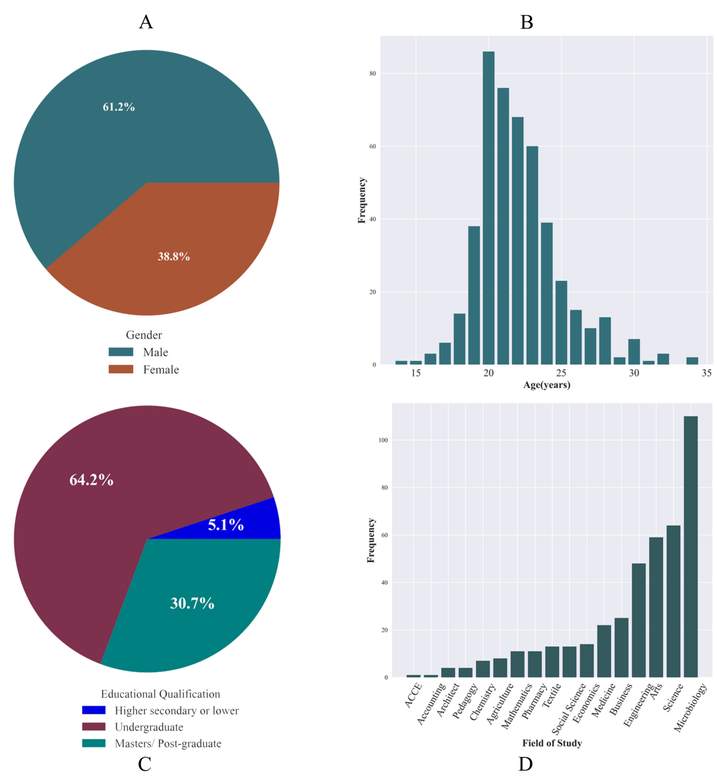


Fig1. Summary of self-identification data; (A) distribution of male and female among participants, (B) distribution of age of participants, (C)-frequencies of education qualification, and (D) the field of the study of participants.

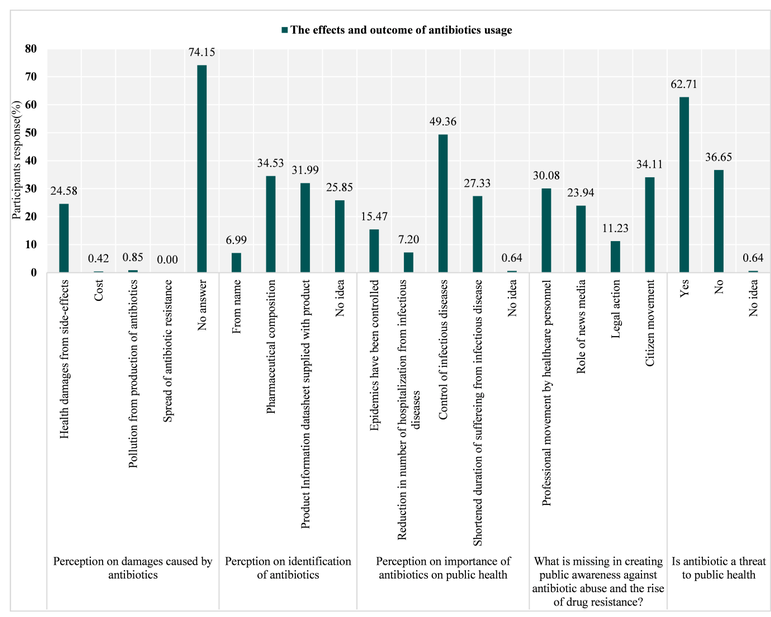


Fig 2. The effects and outcome of antibiotic usage of participants

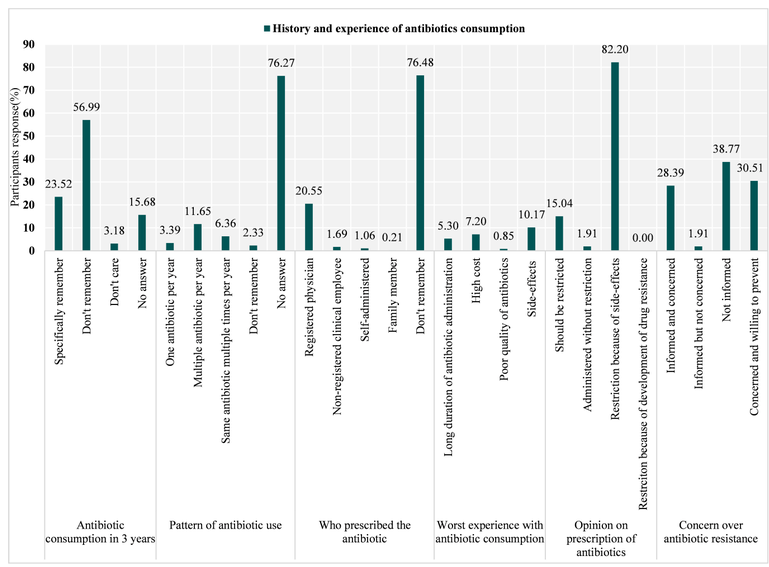
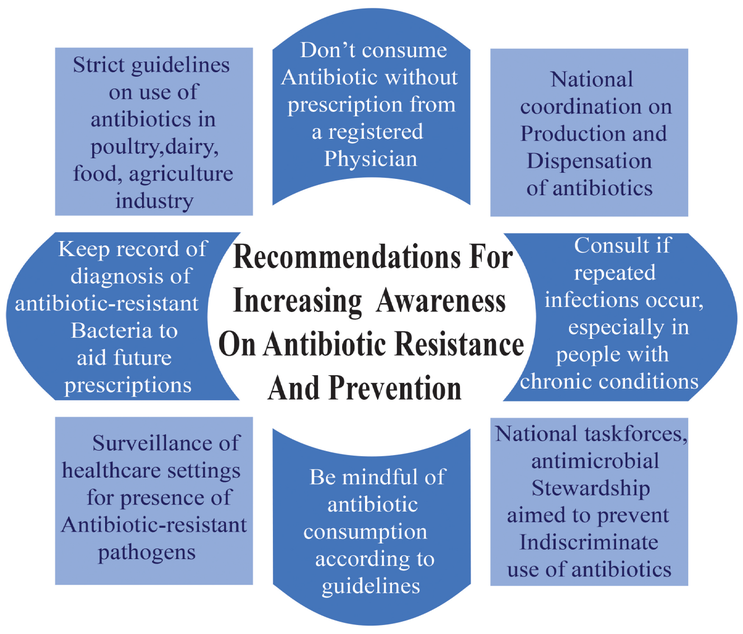


Fig 3. History and Experience of antibiotic consumption of participants

CONCLUSIONS

- The current study justified a more in-depth investigation of Bangladeshi students' perspectives toward antimicrobial resistance.
- Unfortunately, our findings indicate that many Bangladeshi students are not knowledgeable about antibiotic usage, resistance, and preventative measures.
- The prevention of the spread of antibiotic resistance can only succeed with meaningful public engagement.

RECOMMENDATIONS



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