Assessment of Public Awareness and Understanding of Antibiotics and Antimicrobial Resistance in the Sri Lankan Population: A Descriptive Cross-Sectional Study

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Antibiotics play a pivotal role in modern medicine, saving countless lives. However, the emergence and rapid spread of antimicrobial resistance have become a significant global health concern, posing threats to the effectiveness of these life-saving drugs. The study investigated knowledge regarding antibiotics and antimicrobial resistance among the public attending four hospitals in Sri Lanka: Teaching Hospital Jaffna, Kalmunai Base-Hospital, Teaching Hospital Peradeniya, and Colombo-South Teaching Hospital. A descriptive multi-center cross-sectional study was conducted between October 2021 and November 2022, covering a range of geographic regions. A pre-tested and validated questionnaire of the World Health Organization: Antibiotic Resistance, Multi-country public awareness survey, was distributed among 1520 participants. Data analysis was performed using SPSS software (version 22.0). Knowledge scores were assigned based on correct responses: 0-40% as poor, 41-70% as moderate, and 81-100% as good. Of 1520 who completed the study, the majority were female (57.5%), 36.3% were aged 26-34 years, and half of them (48.6%) completed secondary education. Fifty percent of the participants consulted healthcare professionals while buying antibiotics. Notably, 38.9% believed they should discontinue antibiotics upon feeling better, while only 41.1% understood the concept of not utilizing antibiotics prescribed for others. We found that 10.6% of the participants exhibited poor knowledge, 70.1% demonstrated moderate knowledge, and 19.3% of the participants had good knowledge regarding antibiotic and antimicrobial resistance. Individuals with higher levels of education demonstrated better knowledge regarding antibiotics and antimicrobial resistance. Significant associations between the knowledge regarding antibiotics and antimicrobial resistance and age, gender, marital status, and higher education, ($p<0.05$) were found. Most of the participants had a moderate level of knowledge regarding antibiotics and