Prevalence of Self-Medication with Antibiotics in Children under Twelve Years with Common Cold Symptoms

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ABSTRACT

Introduction: Antibiotics are among the most prescribed drugs today, and unfortunately, they are often used in a self-medicated manner. This problem can lead to antibiotic resistance, which is predicted to cause 10 million deaths by 2050, according to the World Health Organization (WHO). Self-medication with antibiotics (SMA) can also cause autoimmune and hypersensitivity reactions due to the imbalance of normal flora. This study aimed to determine the prevalence of SMA in children under 12 years old with common cold symptoms who visited the Isfahan Shariati Hospital clinic during the second half of 2022.

Methods and Materials: This analytical cross-sectional study was conducted from September 2022 to February 2023 at the Isfahan Shariati Hospital. The study population included mothers with children under 12 years old whose common Cold was confirmed by a pediatrician. A total of 433 children were surveyed, of whom 71 self-medicated with antibiotics. Data were collected using a checklist and analyzed using SPSS software version 24. Any use of antibiotics without a prescription was counted as SMA.

Results: The results showed that 71 children (16.4%) had used antibiotics in a self-medicated manner during their colds, with 6 of them (8.5%) using the antibiotics correctly despite self-medication. Additionally, 59 mothers (83%) had not read the drug leaflet. Amoxicillin was the most commonly used antibiotic (20%). The primary reason for SMA was that a previous doctor had prescribed the same antibiotic, and the second reason was the mothers' belief in the antiviral effects of antibiotics. The average age of mothers who self-medicated with antibiotics was significantly higher than those who did not (p = 0.05). The prevalence of SMA was higher in stay-at-home mothers than in working mothers (p = 0.05).

Conclusion and Discussion: The prevalence of 16.4% is moderate compared to the community setting of Iran, but it is still high. Educational interventions through media and social networks are suggested to raise public awareness regarding the proper use of antibiotics and the dangers of self-medication in both children and adults. Educating students can also help prevent the spread of viral diseases and reduce antibiotic consumption.

Keywords: Antibiotics, Child, Common cold, Self-medication

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