

## LETTER TO EDITOR

# Self-Medication in Pakistan: Urgent Need for Medical Education and Policy Implementation

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Dear Editor,

Self-Medication (SM) is defined as “the use of drugs to treat self-diagnosed diseases or symptoms, or the intermittent or continuing use of a prescribed drug for chronic or recurring disease or symptoms”<sup>1</sup>. It could include the use of over the counter (OTC), prescription only medicines (POM) or complementary and alternative medicine (CAM) without consulting a medical expert<sup>1,2</sup>. Reusing prior prescription, consuming leftover medicines, home-based, supplements and remedies medications usage on the advice of relatives/friends or neighbors are all examples of SM methods<sup>2</sup>. SM is a risky practice and leads to an incorrect diagnosis, inappropriate drug selection, dependency, abuse problems, and wastage of medical resources<sup>1</sup>. SM is a major global concern that affects both developed and developing countries<sup>1,2</sup>. According to various studies, are ported prevalence of SM is 32.5% to 81.5% worldwide<sup>1</sup>.

In Pakistan, SM is a common practice and still a major public health issue. According to recent reports, the prevalence of SM ranges from 53% to 61.3% in Pakistan<sup>2,3</sup>. It was observed that SM practices for analgesics, antipyretics and antibiotics were reported by 93%, 69%, and 52% of participants, respectively<sup>4</sup>. Furthermore, the use of CAM and home remedies was also observed in the Pakistani population<sup>2,4</sup>. According to a recent study conducted in Pakistan, every day nearly 7.9 drugs without a prescription were sold to an average of 5.5 clients in each community pharmacy<sup>5</sup>. In Pakistan, a higher prevalence rate of SM could be attributed to factors such as ease of access to drugs, a lack of knowledge related to healthcare and excessive promotion of pharmaceuticals<sup>3,4</sup>. SM practices based on personal experience treating the same ill condition may result in misdiagnosis, which may lead to incorrect treatment and subsequent health problems<sup>1</sup>. Polypharmacy, adverse drug effects, drug interaction, resistance development and increased financial burden are all attributed to SM practices<sup>2-5</sup>.

Therefore, there is an urgent need in Pakistan for a medical education program and a healthcare awareness campaign about the consequences of SM practices. Pharmacovigilance based education is also crucial, particularly in terms of the appropriate medication usage to treat the disease and management of possible or actual consequences of inappropriate SM practices. The formulation of effective national policies on medication access and long-term measures by healthcare policymakers and the Ministry of Health is critical in discouraging the sale of medications without a prescription. Additionally, multicenter studies in different populations and healthcare settings are also needed to assess the associated factors with SM practices.

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### CONFLICT OF INTEREST

The authors declare no conflict of interest.

### AUTHORS' CONTRIBUTION

JK and ZK involved in study concept, design, literature search, analysis and interpretation of data and drafting of the manuscript, YK performed critical revision of the manuscript for important intellectual content. All authors revised and approved the final version of manuscript to be submitted.

**REFERENCES**

1. Torres NF, Chibi B, Middleton LE, Solomon VP, Mashamba-Thompson TP. Evidence of factors influencing self-medication with antibiotics in low and middle-income countries: a systematic scoping review. *Public Health*. 2019;168:92-101.
2. Azhar H, Tauseef A, Usman T, Azhar Y, Ahmed M. Prevalence, attitude and knowledge of self medication during Covid-19 disease pandemic. *Pak J Med Health Sci*. 2021;15(5):902-905.
3. Dhedhi NA, Ashraf H, Ansari NB, Iffikhar S. Self-medication among people visiting outpatient clinics of a tertiary care hospital, Karachi. *J Family Med Prim Care*. 2021;10(2):773-9.
4. Haseeb A, Bilal M. Prevalence of using non prescribed medications in economically deprived rural population of Pakistan. *Arch Public Health*. 2016;74(1):1-7.
5. Aziz MM, Masood I, Yousaf M, Saleem H, Ye D, Fang Y. Pattern of medication selling and self-medication practices: A study from Punjab, Pakistan. *PLoS One*. 2018; 13(3): 1-12.

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