



Self-Medication post Covid-pandemic Treating Common Viral Ailments

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ABSTRACT

As a result of the COVID-19 epidemic and subsequent travel bans and quarantine policies, many individuals resorted to SM in an attempt to manage their symptoms. Several investigations with different demographics and methodologies yielded conflicting findings. As a result, a worldwide systematic review and conceptual was performed to calculate a combined prevalence of self-medication.

There was a significant rate of self-medication during the COVID-19 epidemic, with over half of the population treating themselves. Thus, it seems that public education is required to manage the effects of self-medication. This research looks at the increased tendency for self-medication while treating symptoms of viral ailments.

KEYWORDS: Pandemic, Quarantine, Symptoms, Diseases, Global.

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INTRODUCTION

The WHO issued a public health emergency on January 30, 2020, owing to the spread of the COVID-19 virus. After waiting for another six months, the global total of recorded illnesses increased to 20 million, with 700,000 fatalities. Due to ignorance, disinformation, and a lack of health care options, many turned to SM out of fear of developing COVID-19. Many were stuck in their houses and relied solely on the Internet for news and information. Because of the overcrowding, many individuals began treating their own medical conditions at home rather of going to a hospital [1].

When a person chooses and uses medicine for their own symptoms and illnesses without first seeing a medical professional, this practise is known as self-medication. When a person takes medicine without a doctor's supervision, they may be using nonprescribed pharmaceuticals, prescription drugs, or both [2]. Wasted resources, more resistant diseases, and less effective antibiotics are the results of people trying to treat themselves. Self-medication has become a global public health crisis because of the risks of mismanaged dosing, delivery, duration of use, preservation, drug - drug, pharmacological treatments, and dependency and abuse. Self-treatment is more common when people believe their condition is light and they don't require medical attention, when they've had positive experiences with self-care in the past, when they have confidence in their abilities to care for themselves, and when doctors aren't readily available. Self-treatment is on the rise all over the globe, and this trend is influenced by a variety of social and economic variables as well as ways of life, the availability of knowledge and resources, the prevalence of certain illnesses, and the possibility of their management. Self-treatment, on the other hand, lessens the strain on health care systems while relieving individuals of financial responsibility for their care and the exorbitant expense of hospital procedures. A self-diagnose is the first step in self-treatment, but it has a significant risk of being erroneous, and even a proper diagnosis is often linked to the wrong therapy. Consumers often aren't aware of medication contraindications or whether they fall into a risk category for serious prescription side effects [3]. There is a danger of duplicate treatment or dangerous interactions when individuals take the same active ingredient under various names. While writing a prescription, there is always a chance of making a mistake (e.g., "intravenous instead of intramuscular").

OBJECTIVE

- (i) To find out the propensity of self medication post Covid-19 pandemic.
- (ii) To understand the attitude towards treatment of common viral ailment

Studies looking at the incidence of self-medication during the global COVID-19 epidemic have produced conflicting findings. Health officials and academics may benefit from learning how often self-medication is during this epidemic. In order to quantify the extent to which people are treating themselves during the current COVID-19 epidemic, the current research was carried out.

Self-medication (SM) is the “practise of choosing and using medication to treat one's own symptoms or illnesses without first contacting a medical professional, as defined by the World Health Organization (WHO) [4]. Add to that the purchase of prescription medications without a doctor's recommendation, the illogical use of OTC medications, and the use of pharmaceuticals that were prescribed but never utilised.” Both wealthy and underdeveloped nations face a serious threat from SM. Several studies have shown that SM has a global prevalence of between 32.5% and 81.5%. A wide variety of drugs, including painkillers, “antipyretics, antitussives, antidiarrheals, calcium and vitamin supplements, anabolic steroids, sedatives”, “some antibiotics, and many herbal and homoeopathic treatments, are routinely self-prescribed [5, 6]. There were 30,905,162 confirmed instances of COVID-19 as of September 21, 2020; nevertheless, there are no cures or vaccinations available to prevent or treat this virus.” As a result, people are more likely to rely on SM, especially home remedies, without first establishing their safety and effectiveness, and this has increased the impact of SM addressing disinformation about drugs, leading to public uncertainty and fear.

“The Google trend for searches on SM between 7 Jan 2020 and 1 June 2020 reflects the increased interest in online SM information among individuals during the COVID-19 epidemic. Friends, relatives, neighbors, pharmacies, past prescriptions, and the media are all possible sources of Information for COVID-19.” COVID-19 prevention by SM in combination with “hydroxychloroquine and chloroquine” is widely used in low-resource settings, such as India. Therapeutic safety data from patients with COVID-19 led United States Food and Drug Administration (FDA) to later warn against using hydroxychloroquine and chloroquine for mild to moderate cases. While researchers in the United Kingdom have called dexamethasone a “life-saving drug” for treating severe COVID-19, “the United Kingdom's Minister of the National Health Service has emphasised that the drug should only be used in critically ill patients and not as an SM for moderate to severe cases because of its inherent safety problems.” [7]

Self-care, of which SM is a part, encourages people to take care of themselves by, among other things, preventing sickness, treating it when it does occur, and recovering health after an accident or illness. Patients, healthcare providers, government organizations, and insurers may all benefit financially from SM's ability to lessen their financial loads. “The risks associated with SM and its potential side effects, including those related to polypharmacy, inaccurate diagnosis, unpleasant effects, medication interactions, antibiotic - resistant, and higher drug costs, are too great to ignore.” The issues related with SM in the general community cannot be overlooked, yet healthcare officials prefer to support laws and regulations favouring prescription medication usage. As a result, addressing the problems associated with SM will need more public engagement in, and understanding of, medication safety and reasonable usage [9-11].

Users should be familiar with the medication's indications, dosage, potential side effects, and treatment options in order to comply with World Health Organization (WHO) SM recommendations. During COVID-19, it is especially important to keep an eye on SM practises in low- and medium-income countries that are struggling economically and typically have poor educational standards and limited healthcare infrastructure. Due to the global nature of the COVID-19 pandemic, “SM has the potential to exacerbate an international health disaster for which no nation is adequately prepared. Public education, thorough training of healthcare professionals (including community pharmacists), and stringent pharmaceutical laws on public advertising and medication usage are all important parts of a comprehensive strategy to increase the use of SM.” The potential for SM is mitigated by the positive backing of national health authorities, which will also limit medication hoarding during this pandemic. Appropriate drug treatment solutions should be made available by the government. The public's irrational use of medication may be mitigated and rational the use medicine promoted by making healthcare professionals more accessible, affordable, and consultative. Awareness and education programmes developed for the general public on the correct use of drugs and the hazards associated with their incorrect use should make use of the mass media; the efficacy of each campaign should be assessed.

While self-medication is on the rise across the globe, there is a dearth of research on the epidemic outside of Peru and Saudi Arabia. The future of Pakistan's healthcare system is its medical students, yet there has been no research on how common it is for them to resort to self-medication. Self-medication behaviours among medical students should be evaluated since these individuals have access to both prescription and over-the-counter medications, and because of the knowledge and experience they bring to the table when doing so [7]. Medical students may be more likely to engage in self-medication due to a combination of

variables, including a low propensity to seek health experts, dependence on the web for data on baseline medical expertise, and addressing self-diagnosed ailments. [12]

Inclusion/Exclusion Criteria

Students enrolled in an MBBS or Pharm D programme at a medical school in Pakistan, either male or female, with a working knowledge of English, a comfortable level with technology, and access to the Internet were all required to participate. responders from non-medical fields were excluded according to inclusion requirements.

Selection of studies and data extraction

Studies that met the inclusion criteria were those that were observational in nature, published in English, and included information regarding the incidence or regularity of self-medication during in the COVID-19 pandemic. Interventional studies, case reports, and publications that had already been published were also disqualified. The writers individually examined the titles and abstracts of all publications and sorted out the ones that met the criteria for inclusion and exclusion.

Current Scenario on Self-medication

Students were found to have the greatest rates of self-medication. Before to the COVID-19 outbreak, a recent meta-analysis found that 49.5% of pupils self-medicated. Throughout this epidemic, there seems to have been a surge in the number of college students who choose to treat themselves with medicine. Their greater education levels than the overall population explain this conclusion.

Current World Scenario on Self-medication

Health professionals had the lowest rate of self-medication (Noone and Blanchette, 2018)⁹. Another explanation for this result is that they have personal experience with the negative outcomes of self-medication.

- “Clear guidelines on the distribution and availability of medicine and the general awareness of the people in Europe may account for the low occurrence of self-medication in that continent.
- There was a significant increase in the frequency of self-medication in studies that gathered data in 2021.” The widespread dissemination of information about the COVID-19 virus may account for this discovery.
- People in several nations stocked up on toilet paper, face masks, basic foods, and weapons in response to false information spread during the outbreak and official health measures that were intended to alleviate the disease's symptoms.
- Self-medication is quite common and may be an indicator of people's willingness to take responsibility for their own health, but it also poses considerable hazards, particularly for the old, children, pregnant women, and those with preexisting conditions.
- The dangers of self-medication need to be reduced, thus it is important to establish and deliver instructions and recommendations to distinguish between safe and high-risk self-medication in the event that more waves of the COVID-19 viral or other pandemics arise in the future.
- Many may have self-medicated during the pandemic due to rising social media impact, easy availability to OTC drugs, and fear of getting the virus.
- Students in the medical field are especially vulnerable to this because of their familiarity with the subject matter and the ease with which they may get medications.

The purpose of this research was to assess the extent to which med students across the medical institutions engaged in self-medication.

Our findings indicate that self-medication occurred in around 83% of cases, which is consistent with international reports of self-medication rates during COVID-19.

- In a study conducted on Saudi Arabian nursing students, it was observed that 87% often self-medicate with pain relievers and antibiotics.
- The percentage of health care personnel using their own medicine to treat illness has increased from pre-pandemic levels, from 60.4% to 69.2% in Kenya.
- Self-medicating was also shown to be quite common among the Nigerian populace during the epidemic, with one research estimating a frequency of 41%.
- In Togo, self-medication was reported by 34.1% of individuals working in the healthcare, civil aviation, police, road transport, and informal sectors, with the highest rate among healthcare workers at 51.9%.
- In Peru, the number of respondents who did not self-medicate was more than the number who did for all medications studied (“acetaminophen, ibuprofen, azithromycin, hydroxychloroquine, penicillin, and antiretrovirals”).

Factors related with respondents predicted to self-medicate the most were female gender, med school year 3, prior infection with COVID-19, and prior infection with COVID-19.

CONCLUSION

Based on the results of this investigation, over half of all persons living during the COVID-19 epidemic resorted to self-medicating. Self-medication was more common among students than among other demographics. Self-medication rates also seemed to decline precipitously with age. Self-medication may have serious implications, therefore it's important that people have access to accurate and up-to-date information about drugs and health via the media. Drug risk education has the potential to curb self-medication in the present and even in the event of future pandemics.

While SM has rapidly become an integral part of healthcare, its availability has become a serious worldwide problem, particularly in light of the current COVID-19 epidemic. Better healthcare delivery at lower medication prices might be made possible via SM. Misdiagnosis, severe side effects, medication interactions, drug dependency, and microbial resistance may all result from SM that is not properly used. Thus, strict laws and the participation of healthcare experts and policymakers are required to regulate and manage suitable SM practises.

Our research showed that many pre-med and pharmacology students often self-medicate. High consumption has been documented as a preventative or treatment for symptoms of COVID-19, making it an important health problem particularly during pandemic periods.

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