COVID-19 was an unexampled challenge for human. Center for Disease Control and Prevention (CDC) reported that SARS-CoV2 infected more than 33 million people until two years of first case. About 3.4% of reported COVID-19 cases have died\(^1\). The actual death toll from COVID-19 is likely to be higher than reported deaths because of problem in diagnosis, limited testing and confusion in determination of cause of death during initial phase and fear due to absence of clear laws regarding job protection, viral behavior with contacts and public reactions in second phase. Public health, social stability, and economic development were impacted gravely with significant loss in developing countries. A rise in inequality, poverty, and mental health conditions are noted among already vulnerable populations. Researchers were worried about the pandemic but also about strategies for treating and preventing the spread of the virus. Stay-at-home orders worsened economics and mental health of a common man. Income was declined and savings were exhausted due to deprivation of resources and expenses on treatment. Mental health was waning due to both, loss of income and isolation.

Around the world, researchers were working extremely hard to develop new treatments and interventions for COVID-19 with new clinical trials opening almost daily. The time consumed before developing effective treatment ramped up irrational use of drugs. It tracked to change in psychology of common man towards drugs, adverse reactions and loosening the rules and regulation to prevent misuse of medications. All were linked with the efforts to get rid of this demon.

The development of COVID-19 therapeutics effective against current and future variants remains a critical priority. Coronavirus Treatment Acceleration Program (CTAP)\(^2\) was created by FDA in March 2020, which was designed to facilitate the development of drugs for the pandemic. The statutory standard for a FDA-approval requires substantial evidence of positive therapeutics which further lengthens the time consumed for target development and increase the drug related mishaps.

World Drug Report\(^3\) says that 36 million people suffered from drug use disorders after pandemic. Drugs were used in absence of evidence of clinical efficacy outside of clinical trials (off label) for prophylaxis and treatment of this viral infection. This irrational use of drugs is caused serious toxic effects, and deaths. Several anonymously claimed drugs used with not much evidence of their efficacy such as Chloroquine congeners, Azithromycin or lopinavir-ritonavir. Its long term effects cannot be overlooked because some drug cause congenital anomalies. Pharmacovigilance Net Work of Italy, a second biggest network analyzed for incidence, seriousness and effects of adverse drug reactions during pandemic era. A total of 306 reports were gathered. Around 54% were nonserious and 46% were serious. Half of the serious reactions required hospitalization\(^4\).
Irrational use of drugs rooted especially the countries were the control of pharmacies was already poor. It draws a horrible picture. Based solely on demographic shifts, current forecasts indicate an 11 percent increase in global drug usage by 2030, with a notable 40 percent surge in less affluent nations attributed to their swiftly expanding populations, even post-pandemic containment measures. A similar trend is likely to manifest in Pakistan.

The COVID-19 pandemic has resulted in a surge in drug overdose fatalities. According to the CDC, overdose deaths in the United States surpassed 100,000 in the 12-month period ending in April 2021. Scholars are now delving into the complex interplay between the pandemic and measures to curb virus transmission, such as community distancing, which might have contributed to this rise in fatalities. This could be due to disruptions in harm reduction initiatives and increased isolation potentially leading to heightened addiction issues.

Safety of medications at different stages of pregnancy is very important and requires great efforts from the healthcare professionals. WHO gives in its fact sheet of 2022 that an estimated 240,000 newborns die worldwide within 28 days of birth every year due to congenital disorders. A serious congenital disorder is noted in nine of ten children born with in low- and middle-income countries. Although a number of factors are involved in these congenital defects but irrational use of drugs is an important one. A pregnant patient is at risk of many drug related issues such as adverse drug reactions, therapeutic errors and substandard medications. These risks are limited if drug use is on scientific bases and laws governing medication are strict enough, both of which are injured during pandemic era. Pakistan has an atmosphere of danger for expectant mothers not in particular era but before that since long which is created by prevalence of low birth control, alongside a disorganized medical system with a poor control of drug usage. It needs collaboration between healthcare professionals. Good and effective communication are the keys.

The COVID-19 pandemic has led to a rise in the non-medical consumption of pharmaceutical drugs. Across numerous nations, there has been an increase in cannabis usage during this period. Surveys conducted among healthcare practitioners in 77 countries revealed that 42% observed a surge in cannabis consumption. The report highlights that the percentage of Δ9-THC, the primary psychoactive compound in cannabis, has escalated from approximately six percent to over 11% in Europe and from about four percent to 16% in the United States during the pandemic era.

COVID-19 has lowered the perception of drug use risks which is another expected outcome and can be linked to higher rates of irrational drug use in future. It changes the mentality of people towards the medication. This phenomenon is high in a society with poor literacy rate and will be harming in future patients and professionals. Pakistan is among them.

References


