

**ROLE OF SELF-MEDICATION AND AWARENESS AMONG GENERAL  
POPULATION DURING COVID-19 LOCKDOWN**

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**ABSTRACT:**

Self-Medication is defined by the World Self-Medication Industry (WSMI) as the treatment of common illness to treat minor symptoms without a medical supervisor. Generally, people feel unwell at one time with minor ailments and irrespective of how knowledgeable there are their act might take an toll on their health when consuming medicines without consulting a qualified physician or a pharmacist. On December 2019 the first virus case of the spread of the severe acute respiratory syndrome coronavirus (SARS-CoV-2) known as the coronavirus (COVID-19) was detected in Wuhan china Hubei province. The rapid spread of the virus affecting the people brought a norm by the government to led the country into a lockdown phase where the people should remain in their homes, maintain social/ physical and emotional distancing, practising hand washing techniques, wearing face mask. This also led to people visiting healthcare- facilities, In India an ongoing trend in google search was use of traditional medicines which included herbal concoction and herbal immune boosting supplemental products had brought an influence among the people. Most of the people practiced this type of therapy in treating symptoms like fever cough cold, sore throat etc. Without knowing the side effects and without consulting a general physician there was a lot of misinformation that was spread

all around the world. Most of the people do not know the knowledge about the drugs and their side-effects until a highly medical professional explains or talks about the drugs or medication for each illness. As self-medication is practiced to prevent themselves from the minor ailments it is necessary to be aware for how long these medications to be taken. And to bring awareness among the people about this practice.

**Key words:** Self-medication, COVID-19, Immune boosting supplements, Side -effects Awareness

## I-INTRODUCTION

Self-Medication is defined by the World Self-Medication Industry (WSMI) as the treatment of common illness to treat minor symptoms without a medical supervisor. There are numerous meanings for self-medication, one definition by the World Health Organisations (WHO) is that, self-medication is the selection and utilization of medicines to treat self-recognized symptoms or ailments without consulting a physician<sup>[1]</sup>. It is also defined as taking the medication on their own or asking a friend or family member or checking through the internet, newspaper, social media etc or who is not qualified as a medical representative and who doesn't have the knowledge about the drugs. Self-medication also known as self-care which is long time habit which is implemented on their daily life<sup>[2]</sup>. Generally, people feel unwell at one time with minor ailments and irrespective of how knowledgeable there are their act might take an toll on their health when consuming medicines without consulting a qualified physician or a pharmacist.

Self-medication is commonly described as Over the counter (OTC) medications which does not require prescription which is called as non-prescription drugs which are available without a doctor prescription and in some countries like in supermarket, chemist and other outlets these drugs will be available. It is often referred to as 'responsible' self-medication<sup>[3]</sup>. Irresponsible self-medication is called self-prescription and has no place in self-medication. All over the world common self-care products or medication which are given to treat minor health issues like fever, cough, cold, body pain, indigestion, diarrhoea, vomiting and respiratory and urinary tract infections. The most commonly self-prescribed medications are analgesics, antipyretics, antitussives, antidiarrheals, calcium and vitamin supplements, sedatives, certain antibiotics, anti-infective agents and many herbal and homeopathic remedies<sup>[6]</sup>.

People practice to self-medicate without knowing the adverse effects or future problems which will later on arise. Several studies show that there is a high risk when taking these drugs such wrong drug for the required medical condition, incorrect dosage, improper route of administration, longer use than intended, improper storage, risk depending to abuse, increased pathogenic resistance to

drugsmisdiagnose, use of drugs in excessive amount, expired drugs and toxicological and pharmacological risk to medicines<sup>[6]</sup>.

## II-ROLE OF HEALTH CARE PROFESSIONALS TOWARDS SELF-MEDICATION

The health care professionals have a potential role in reducing the risk to self-medication. Since physicians know the information about the medication it is easy for them to properly instruct the patient about the medications and to help them understand. Giving therapeutic advice to patient is very necessary as lack of therapeutic guidelines are not been mention to the people and moreover this can cause serious problem in chronic and acute conditions. If not instructed them properly it can lead to misinformation<sup>[3]</sup>. The role of pharmacist is also important as the pharmacist can advise the patients who is visiting the pharmacy and should speak about the adverse effects and what precautions should be taken in order to safe guard when consuming any kind of OTC medications.

## III- ADVANTAGES AND DISADVANTAGES ON THE USE OF SELF-MEDICATION

### ADVANTAGES:

- 1) Treatment is by own choice without doctor's consultation
- 2) Initial ailments can be easily treated by self-medication such fever, cough, cold, body pain, headache, diarrhoea etc
- 3) Decreased healthcare cost including doctors' fees
- 4) Bringing huge decline on the burden of medical services and other basic amenities where human capital is inadequate
- 5) Self-medication empowers individual to resist with existing chronic abnormalities by their own perception and understanding
- 6) Increase availability in rural area or remote areas
- 7) Good for patient wellness and productivity
- 8) Economic improvement

### DISADVANTAGES

People practice to self-medicate without knowing the adverse effects or future problems which will later on arise. Several studies shown have that a high risk when taking these OTC medications for longer and shorter periods can lead to, wrong drug for the required medical condition, incorrect dosage, improper route of administration, longer use than intended, improper storage, risk depending

to abuse and increased pathogenic resistance to drugs misdiagnose, use of drugs in excessive amount, expired drugs, toxicological and pharmacological risk to medicines. Certain medication commonly used in general are Paracetamol which is an antipyretic and analgesic in large doses can cause liver failure and lead to toxicity<sup>[1]</sup>. Mostly people also use this as pain killer in order to treat symptoms like fever, body pain and headache. Due to inappropriate usage of medication the chances of drug reactions increase at a higher rate. People don't realise that when practising self-medication for longer a period of time their upcoming ailments would have reached to an incurable state. Generally, in using antibiotics can develop resistance to the drug so it necessary to be careful when using antibiotics<sup>[1]</sup>.

#### IV-SELF-MEDICATION DURING COVID-19 LOCKDOWN

On December 2019 the first virus case of the spread of the Severe Acute Respiratory Syndrome coronavirus (SARS-CoV-2) known as the coronavirus (COVID-19) was detected in Wuhan, China, Hubei province<sup>[2]</sup>. On 30<sup>th</sup> January 2020 the outbreak of the virus has crossed all over the world around 20 million case of the infections were diagnosed and 700,000 deaths were reported in different region all over the world<sup>[2,4]</sup>. Due to this, The World Health Organisation (WHO) declared on 11 March 2020 the outbreak as an international public health emergency. The rapid spread of the virus affecting the people brought a norm by the government to lead the country into a lockdown phase where the people should remain in their homes, maintain social/ physical and emotional distancing, practising hand washing techniques, wearing face mask<sup>[6]</sup>. This also led to people not visiting healthcare facilities. The SARS-CoV-2 pandemic has changed the way people live in most countries in the world. Since there weren't no definite treatment or vaccine wasn't developed and the vaccine was in trial process many people remained in scare at their homes which made them feel anxious, depressed about the current situation and whether they will develop any symptoms related to COVID-19. To prevent the symptoms and safe guard themselves from others people have started to practice self-medication without consulting a doctor or pharmacist<sup>[12]</sup>. People started to buy medicines from online websites by checking in the internet, getting information from social media platforms, friends and family, television and newspapers about the drugs prescribed for COVID-19 which has led to public confusion and misinformation about the medications. Many people diagnose themselves by using old prescription and using fake prescriptions and buy the medicines from the pharmacy in order to treat their symptoms.

Studies have also proven drugs like hydroxychloroquine and chloroquine which are antimalarial drugs was shown that it had been proven effective in order in treating COVID-19 but it was later on investigated by the Food and Drug Administration (FDA) that it had caused serious adverse effects for mild-to moderate COVID-19 symptoms and was not recommended to consume them<sup>[5]</sup>. Ivermectin which as an anthelmintic drug is sold as an OTC and people are self-medicating believing that it can treat COVID-19. World Health Organisation had given several warnings when using self-medications

as a practice to prevent further problem. In India an ongoing trend in google search was use of traditional medicines which included herbal concoction and herbal immune boosting supplemental products had brought an influence among the people [6]. Most of the people practiced this type of therapy in treating symptoms like fever cough cold, sore throat etc. Certain herbal concoctions which were found in the internet were ginger and lemon water, Kabasura kudineer, Nilavembukashayam, unrecognised herbal products were also been consumed. People have started to stock up vitamin supplements which also acts as an immunostimulant, antioxidant and have a cardinal role in repairing damaged cells and promoting healing. for example,forexample, a known vitamin is vitamin. C which helps to boost their immunity, but it is known that vitamin .c is not suitable for all individuals who consume them [4]. Zinc also has role played during COVID-19 and has been used to self-medicate for treating minor illness. If people had developed any of the symptoms related to COVID-19 people preferred to use these medicines.As it is known that to fight against COVID-19 we require immunity so this has influenced so much people and has brought a wastage and worsen health conditions [5].Because of the lack of monitoring of these drugs could cause a shortage of these drugs for patients that need them for approved conditions. Without knowing the side effects and without consulting a general physician there was a lot of misinformation that was spread all around the world. The infodemic news that has spread had no clinical efficacy in treating SARSCoV2. Moreover, people should be educated by consulting a physician during this pandemic which brings a challenge to the health care professionals in order to bring awareness and educate people about self-medication.

### V-LIST OF MEDICATION ADR USED TO SELF-MEDICATE DURING COVID -19 LOCKDOWN

DRUGS	MILD/COMMON	SEVERE/RARE
<b>AZITHROMYCIN</b>	Diarrohea, nausea, Abdominal pain, Vomiting Headache	Prolonged QT interval, Arrhythmia, Hepatic dysfunction, Myasthenia
<b>DOXYCYCLINE</b>	Loss of appetite, Nausea, Vomiting, Rash, Sensitivity to the sun, Hives and Discolouring of teeth	Headache, blurry vision, Double vision, vision loss, Irritation of oesophagus, Anaemia, Pancreatitis pain in upper abdomen and Fever
<b>HYDROXYCHLOROQUINE</b>	Nausea, Vomiting, Stomach pain, Loss of appetite and weight loss	Bone marrow depression, anaemia, aplastic anaemia, agranulocytosis, leukopenia, and thrombocytopenia.,

<b>IVERMECTIN</b>	Tiredness, Loss of energy, Stomach pain, Loss of appetite, Infections of throat or tongue and skin rash	Bronchospasm, hepatotoxicity, seizure
<b>DEXAMETHASONE</b>	Nausea, Vomiting, Stomach upset Anxiety and low potassium levels	Unusual Tiredness, Blood in stool&urine, changes in mood and thoughts, Stomach ulcers and Fever
<b>VITAMIN.C</b>	Diarrohea, Nausea, vomiting, headache	–

Table-1 Medications used to self-medicate during lockdown period <sup>[6]</sup>

## VI- REASONS TO PRACTICE SELF -MEDICATION DURING THE LOCKDOWN

Most of the people do not know the knowledge about the drugs and their side-effects until a highly medical professional explains or talks about the drugs or medication for each illness. There are multiple reasons why people practice to self-medicate during the lockdown period some of them are, Easy access to medicines, not visiting the hospital health care facilities. Due to this it has caused a lot of deaths in many people by misdiagnosing their symptoms <sup>[6]</sup>. Most of the people self-medicate to treat minor symptoms by remembering the medicines by having previous experience treating the similar symptoms. Some people want to safe guard themselves by not going to the pharmacy in crowded places and using online medicine apps <sup>[7]</sup>. Some people to treat minor symptoms they find that the medicines are showing quick relief to their symptoms which makes a belief that they are been cure from the symptoms. Certain OTC medications are less economical cost so most people prefer these drugs and moreover these medications do not need a doctor prescription when going to the pharmacy.

## VII- AWARENESS ON SELF-MEDICATION

As self-medication is practiced to prevent themselves from the minor ailments that further arise it is necessary to be aware for how long these medications to be taken. Certain measures should be followed when it comes to self-medication which they include

### 1) NOT TO FOLLOW MISINFORMATION ABOUT THE MEDICATIONS:

This is necessary because during the lockdown phase no one had the access to healthcare facilities and people remained at their homes to prevent themselves from COVID symptoms Due to this they tend to search in the internet, social media, newspapers, friend, family

members about the drugs and those drugs were consumed in order to treat their symptoms. so, it necessary to either consult a physician. If people don't have access to physicians, they can try onlinemedical consultingcentres which is easily available.

## **2) CONSULT YOUR PHYSICIANS BEFORE TAKING ANY KIND OF MEDICATION:**

Consulting your physicians can make it a lot easier for your physician to be updated with your health. During this lockdown health care professionals are the one who know more about the drugs and it will be easy to understand whether you require those drugs or not. So do consult your physicians or pharmacist.

## **3) DO NOT BUY MEDICATIONS IF NO SYMPTOMS ARISE:**

During this lockdown many people bought medication from understanding the drug names and buying from the pharmacy or having similar symptoms in the past. It is also known that people self-medicate without having symptoms to prevent themselves so it is necessary not buy medication even when symptoms do not arise if they do arise contact a pharmacist or physician Do not take unnecessary medications which is not required to your current medical condition.

## **4) TRUSTING HERBAL REMDIES IS NOT THE SOLUTION:**

Now a day's people have started to practice ancient old traditional remedies by using kitchen items to boost their immunity. But this is only for temporary relief and not a permanent solution to treat COVID -19 symptoms and moreover there is no clinical efficacy proven that these remedies can treat COVID. So, do not check in the internet about these remedies it is not necessary to trust them

## **5) EDUCATE YOUR FRIENDS AND FAMILY:**

During the pandemic it is necessary to stay closed with your friends and family by socializing yourself. In case your friends and family members practice to self-medicate educate them about the side effects or contact a health care supervisor in order to understand about the medications and advice your family and friends whether they require those medications.

## **6) TAKING NECESSARY PRECAUTIONS WHEN SYMPTOMS ARISE:**

As people rely on medications and herbal concoction there are alternative ways to treat minor ailments. If you develop symptoms like cold it is better to take steam. Taking steam has

actually been proven to be effective. It does reduce the body temperature and cough. This is also recommended by the ICMR guidelines. For fever like symptoms, it is advisable to take paracetamol but not for a longer period of time. If not sure contact your physician.

#### **7)DRINK PLENTY OF FLUIDSAND HAVING A BALNCED DIET:**

Keeping ourself hydrated every day is very important and should be practiced.Taking fresh juice prepared at homes is healthier as it has more nutrient properties. And diet is very important during the pandemic because having a balanced diet can lead a healthy life.

#### **8)BE AWARE OF SIDE-EFFECTS:**

When consuming any kind of medication whether it be modern or traditional it is necessary to be aware of the side-effects of what medications you consume.If developed any side-effects or allergic reactions do not take alternative medication or treatments to cure it can worsen the previous symptoms. Either contact your physician to get a better alternative.

#### **9)BE AWARE OF CHANGES IN YOUR HEALTH:**

If develop any changesin your health or if developed any symptoms it is necessary not to panic and not to take stress over the symptoms or else it can worsen your symptoms.

#### **10)READ THE INSTRUCTION CAREFULLY GIVEN IN THE DRUG PACKAGE/STRIP:**

Every drug strip or product will have information regarding about the drug its composition, dose, route administration side effects. So always read the information given in any drug product that has been prescribed or for better understanding ask the information to the pharmacist.

## **VII- CONCLUSION**

Self-Medication is common emerging problem which been raised in eachan every individual. Many people practice self-medication in their daily life in order to either treat their symptoms and mostly to boost their immunity. As for the global pandemic which had occurred in 2020 andhad made the whole world into a lockdown state many people started to practice to self-medicate as there was no health care facilities available during the lockdown phase. So, the infodemic news which was spread all around the world had influenced people to try medications which wasn't required for them. Inthis pandemic further laws about self-

medications should be brought and should consider this as a common problem, moreover, in our daily life self-medication to extent is not recommended and should avoided in order to prevent any upcoming symptoms. As health care professionals it is required to educate people about self-medication for their betterment in their health.

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