



Drug Abuse from the Perspective of One Health - New Medical Concept

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Starting from the simple question: What do we do when we have a headache? We better hydrate ourselves, try to eliminate the potential factors that generated it, or skip immediately and swallow a drug, we will see that the One Health approach may respond best, as this new concept is based on the primary prophylaxis of the human and animal disease by studying, monitoring and disseminating information on global pathology, within the environment-plant-animal-human chain.

"It is easier for patients to take a pill than to make lifestyle changes"

For example, heart disease is responsible for more than 600,000 deaths in the U.S. every year, becoming the leading cause of death in the country. Given this, it is not surprising that among the most common drugs prescribed in the U.S. there are also those used to treat conditions associated with heart disease, such as statins - used to lower cholesterol. According to the CDC, the use of cholesterol lowering drugs is now six times higher than in 1988 - 1994.

However, it is known that a number of lifestyle changes - including adopting a healthy diet, avoiding tobacco smoke, and increasing physical activity - can help lower cholesterol, as well as regulate blood pressure and eliminate other risk factors for heart.

For example, according to the study published in 2013 in The BMJ Comparative effectiveness of exercise and drug interventions on mortality outcomes: a metaepidemiological study, by Huseyin Naci, a researcher at LSE Health, London School of Economics and Political Science, London, UK and John PA Ioannidis, director of the Stanford Prevention Research Center, Stanford University School

of Medicine, Stanford, CA, USA, found that for the treatment of stroke, exercise was more effective than the use of drugs, being just as effective for secondary prevention of heart and diabetes disease. So why do so many of us go for medicines?

"I think it's probably easier for patients to take a pill instead of changing their lifestyle, exercising, or losing weight," said Dr. Ravi Hira, a cardiologist at the Baylor College of Medicine in Houston, Texas. "There are difficult changes." Although taking a pill may be easier than making lifestyle changes, this usually comes with risks, and most of the time they are major because they do not eliminate the cause.

According to the study published by Jan van Amsterdam, Wim van den Brink in Current Drug Abuse Reviews volume 8, Issue 1, 2015 (The Misuse of Prescription Opioids: A Threat for Europe?) Over the past two decades, the use of prescription opioids for medical purposes medical (OP), especially oxycodone, has increased up to 14 times in the US and in Canada. The high consumption of these substances used to relieve pain has also led to the use without prescription and the abuse of these substances, which has, in turn, resulted in a dramatic increase in the number of deaths related to OP and the subjects dependent on opiates. In the US, POs became the second type of drug abuse (4.5 million people, representing 1.7% of the population), currently 1.9 million (0.7% of the population) being addicted of opiate use. Pain reduction was the main reason for non-medical use in about 40% of cases, but about half of users reported using non-prescription opioids to achieve well-being or relaxation. Since 2011, there has been a decrease in OP use and abuse and a reduction in the number of overdose deaths in the

United States, probably due to the introduction of a variety of restrictive regulations.

In Europe, the medical use of POs is increasing, but at a much slower rate than in the U.S. In addition, in Europe, non-medical use of OPs and the incidence of side effects such as overdose are still rare compared to the U.S. and / or Canada.

Another side effect of drug abuse and over-the-counter use is antibiotic resistance.

The unnecessary prescriptions of antibiotics - some of the most common prescription drugs in the world - have been cited as a major factor in increasing the resistance of bacteria to drugs.

A 2013 study, published by Catharine Paddock PhD, High rates of unnecessary antibiotics prescriptions in the US, in the MNT, showed that the U.S. has high rates of unnecessary antibiotic prescriptions for sore throat and bronchitis. While national rates of antibiotic prescriptions should be close to 0% for bronchitis and 10% for inflamed throat, the rates were 60% and 73%, respectively.

In the USA, over 2 million people are infected with drug-resistant bacteria every year, and over 23,000 people die from such infections.

Over the past 70 years, bacteria have demonstrated the ability to develop resistance to every antibiotic exposed. And the more antibiotics are used, the faster the bacteria develop resistance.

Dr. Steve Solomon, director of the CDC's Office of Antimicrobial Resistance believes that: the use of antibiotics at any time, in any situation leads to biological pressure on bacteria that promote the development of resistance.

When antibiotics are needed to prevent or treat the disease, they should always be used. But research has shown that in up to 50% of cases, antibiotics are unnecessarily prescribed or misused (for example, a patient is given the wrong dose). This improper use of antibiotics unnecessarily promotes antibiotic resistance.

How many drugs can we take at a time? Is it okay to mix the drugs?

All medicines have side effects, but when used correctly for a particular patient, the accumulated benefit outweighs the risks.

However, if a drug is used inappropriately in a patient, the likelihood of having side effects that cause more harm can be far greater than the expected benefit.

A patient may have adverse effects and may think that their medical condition is getting worse, when in fact it is a side effect of several different drugs, all interacting in a negative way, which is why it is very important, especially when we have medical prescriptions from several doctors, who probably do not communicate with each other, or when we self-administer medication over the one already prescribed, let us consider this accumulation of side effects that may accumulate.

Do doctors prescribe too many drugs?

We are already living in an age where technology has advanced, there are many medicines, the concept of last generation medicine, is changing very quickly because medical research centers have diversified and intensified their research, and doctors are subjected by pharmaceutical companies to a true hurricane of new drugs.

Statistics show that over the past 20 years, spending on prescription drugs has increased exponentially. This is due in part to the fact that the population is aging, the life expectancy is higher, which means that during the life course the disease rate is higher, which means that we need more drugs.

However, aging cannot be considered the sole cause of the increase in the number of prescribed drugs, another reason being that more and more physicians prefer, in the absence of time, to prescribe a medication that resolves the symptom for which the patient presented, than to spend some time with that person and understand the life story and try to make some changes there.

Another cause of the massive prescription of medicines in recent years is the intensification on the media channels (TV, internet, radio) of the advertisements of more and more drugs. This causes both the patient and the doctor to be influenced in a negative way (the balance is tilted towards the prescription of the respective drug, or simply to its purchase from the pharmacy without a prescription, if possible).

What can we do to prevent drug abuse?

While we can avoid taking drugs for some minor illnesses, many of us suffer from more serious illnesses, for which medication is needed. But how can we ensure that we receive the right treatment?

Thus, as a first measure, we should try to evaluate our health status as often as possible, so that, in the situation where a borderline situation occurs, we can use as few medicines as possible, and try to balance the situation by modification of external factors that led to its production.

At the same time, as patients we need to be better informed about the necessary medications, so that we adapt our lifestyle, in the situation where we have to administer drugs, so as to increase their effect, not to stimulate the side effects. their negatives.

As far as doctors and pharmacists are concerned, they should provide the patient with all the information about their disease and their health conditions. In addition, all alternative medicines and therapies should be disclosed by healthcare providers to avoid adverse drug interactions and to provide the patient with the optimal solution to resolve the cause of the symptomatology [1-4].

In other words, correct information, and an inclination of both the patient and the health care provider towards solving the primary cause (including the life style, the environment in which the patient carries out his activity, the physical and intellectual capacity of the patient to make some changes), regardless of the approach and time required for this, from the One Health perspective, are possible responses to avoiding drug abuse and reducing the side effects they may develop.

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