



THE IMPACT OF THE FREQUENT USE OF PAINKILLERS ON HUMAN HEALTH

Elham. A. Aldahwani^{1*}, Mohammed. H. Alhazmi², Shikhah. G. Aldajani³, Hamad. H. Alnomani⁴, Mohammed. S. Alyuhyuwa⁵, Ahmed. M. Alghamdi⁶, Metab. S. Alomiri⁷, Hamoud. A. Alzahrani⁸, Norah. A. Hzazi⁹, Mazyad. Z. Alghufayri¹⁰, Marwan. H. Mashat¹¹, Ahmad. M. Aljohani¹², Abdullah. M. Aloufi¹³, Abdullah. M. Alghamdi¹⁴, Abdullatif. F. Algethami¹⁵, Mohammed. H. Alharbi¹⁶, Faisal. M. Alharthi¹⁷, Rami. A. Almalki¹⁸, Naif. T. Alzaid¹⁹, Abdulaziz. S. Aloqayfi²⁰.

Abstract:

The aim of the study is the meaning of analgesics and their role in human health, the importance of analgesics and their impact on human life, knowledge of the dangers of analgesics, and their impact on human life. A questionnaire was conducted via Google Drive, and was distributed via the social media network (800 questionnaires), and a response to 750 questionnaires was obtained via email.

Keywords: Impact, painkillers, Human health

¹*Pharmacy specialist at Hera General Hospital

²Pharmacy technician at the primary health care center in Al-Nawaiah

³Pharmacy technician at Hira General Hospital

⁴Pharmacy technician at King Abdulaziz Hospital

⁵Pharmacy technician at King Abdulaziz Hospital

⁶Pharmacy technician at King Abdulaziz Hospital

⁷Pharmacy technician at Maternity and Children's Hospital

⁸Pharmacy technician at Primary Health Care Center in Sharaya

⁹Pharmacy technician at Primary Health Care Center in Al-Maabada

¹⁰Pharmacy technician at Health Affairs Compliance department in Mecca

¹¹Pharmacy technician at Mecca poison control center

¹²Pharmacy technician at King Abdulaziz Hospital

¹³Pharmacy technician at Health Affairs Compliance department in Mecca

¹⁴Pharmacy technician at Primary Health Care Center in Jaarana

¹⁵Pharmacy technician at Maternity and children's hospital in Mecca

¹⁶Pharmacy technician at king Faisal Hospital

¹⁷Pharmacist at king Faisal Hospital

¹⁸Clinical Pharmacist at king Faisal Hospital

¹⁹Pharmacy technician at king Faisal Hospital

²⁰Pharmacy technician at king Faisal Hospital

***Corresponding Author:** - Elham. A. Aldahwani

*Pharmacy specialist at Hera General Hospital

DOI: 10.53555/ecb/2022.11.7.45

Introduction:

Pain is among the most common complaints for which individuals seek medical attention; the evaluation and treatment of pain are therefore integral to the practice of medicine. The commitment of the healthcare community to effective management of pain has increased substantially in recent years. This is reflected in a number of nationwide initiatives including the new standards for pain assessment and management required for accreditation by the Joint Committee on Accreditation of Healthcare Organizations ⁽¹⁾ and the "Pain as the Fifth Vital Sign" initiative of the Veterans Administration Medical System ⁽²⁾. Painkillers ⁽³⁾ work in different ways on the peripheral and central nervous systems. Pain relievers are different from narcotic medications, which temporarily take away feeling completely. Painkillers include paracetamol, which is known in North America as acetaminophen or simply APAP. Analgesics also include nonsteroidal anti-inflammatory drugs (NSAIDs) such as salicylic acids, and opioids such as morphine and oxycodone. When choosing pain relievers, the severity of the pain and the patient's response to other medications are taken into account. The World Health Organization (WHO) directed the use of light painkillers as a first step and climbing what they called (the ladder of painkillers) in the event of non-response ⁽⁴⁾. The choice of pain relievers also depends on the type of pain. For example, traditional painkillers show less effectiveness for neuropathic pain, and in these cases, there is a potential benefit from using medications that are not often considered, such as tricyclic antidepressants and anticonvulsants ⁽⁵⁾. Painkillers are divided into: Analgesics that you can buy from a pharmacy without a prescription are called (over-the-counter analgesics). Analgesics are only dispensed with a prescription from a doctor after reviewing your medical condition, and they are (prescription analgesics). The Food and Drug Authority always advises that you consult your specialist doctor or pharmacist before purchasing any painkiller, and read and follow the internal leaflet to obtain additional information about the medicine. Types of analgesics: 1. Paracetamol: Paracetamol or (acetaminophen) is a safe analgesic for adults and children. It is used to reduce fever and relieve pain such as headaches. It is one of the most widely used analgesics. It is also available in several forms (tablets, chewable tablets, capsules, solutions, drops, and suppositories). Paracetamol is considered a safe medicine if used correctly. The safe dose for adults is 1000 milligrams four times a day (which is equivalent to 8 500 milligram tablets per day). It is

important not to exceed 8 tablets within 24 hours (i.e., 4000 milligrams in 24 hours). The safe dose for children is calculated based on weight using the paracetamol calculator.

Increasing the dose more than the recommended dose may lead to serious side effects and health problems in the body, as continuously exceeding the daily dose of paracetamol leads to serious side effects on the liver, the symptoms of which may appear after several days and may lead to liver failure. Patients who suffer from liver disease or cirrhosis should be careful to follow the appropriate instructions when using the drug (paracetamol), because not using it according to the instructions, paracetamol can increase the risk of liver toxicity in patients who suffer from liver dysfunction. Medicines that can interact with a medicine containing paracetamol: there are multiple ingredients that contain paracetamol, so you must read the ingredients of the medication and not take more than the medication that contains paracetamol.

It may cause an increase in the effectiveness of warfarin (an anti-inflammatory drug), which increases and changes. 2. Non-steroidal medications: A composition used to treat temporary pain such as toothache and joint sprains, such as (Ebuin) and (Naproxen). These medications are considered safe when used at the stated dose for a short period. Some patients may use these prescription analgesics for a short period of time, and some patients may use them for a long time due to chronic diseases but should be under the supervision of a doctor. Like other medications, the use of NSAIDs may cause some side effects, especially if they are used in high doses and for long periods. The most important side effect that you must be careful about are Increased risk of stomach bleeding. Effect on kidney or liver function. Rarely, affecting heart health. Therefore, if you belong to one of the following groups, you should take advice from your doctor or pharmacist before using painkillers that belong to NSAIDs: If you are over 65 years old. If you have ever had intestinal bleeding or a stomach ulcer. If you suffer from bleeding. If you have heart, kidney, or liver problems. If you have high blood pressure. If you are younger than 16 years old. If you are pregnant or breastfeeding. If you use other medicines. One of the most famous non-steroidal anti-inflammatory drugs (Ibuprofen) is not recommended for long-term use, and pregnant women should not use it and replace it with paracetamol as a pain reliever after consulting a doctor. Health conditions that should be considered before taking a medication containing ibuprofen: Consult your doctor if you have cardiovascular

disease or have had a stroke before taking medication containing ibuprofen. Stop taking the medication and consult your doctor if you have symptoms such as chest pain, difficulty breathing, weakness in one part or side of the body, slurred speech, or leg swelling.

Patients over 60 years of age are at risk of gastrointestinal bleeding when using ibuprofen. Consult your doctor if you suffer from impaired kidney function before taking ibuprofen to avoid the risk of kidney-related side effects. Ibuprofen can increase the risk of liver toxicity in patients with liver dysfunction. Ibuprofen may cause an increase in blood pressure, so a doctor should be consulted before taking the medication for those who have vascular diseases. If you have asthma, ibuprofen and other NSAIDs can make the condition worse. Medications that may interact with a medication containing ibuprofen: You must make sure that you do not take more than one medicine that contains ibuprofen at the same time. Using ibuprofen or other nonsteroidal multivitamins with cortisone medications increases the risk of severe bleeding.

Ibuprofen can increase the effectiveness of blood-clotting medications, which may put you at risk of bleeding into your system. Aspirin may cause an increase in blood pressure so doctors should and necessary if there is a combination of agents to lower the pressure. Do not use ibuprofen immediately before or after heart surgery. Do not use ibuprofen if you have any pain reliever or fever reducer. 3. Opioids: It is an effective group in relieving chronic and acute pain, such as (Tramadol) and (morphine). It is dispensed under medical supervision. You must use these painkillers as prescribed by the doctor, store them correctly, and return the unused quantities. 4. Anticonvulsants and antidepressants: some anticonvulsants and antidepressants are used as an analgesic for some chronic pain and are dispensed under medical supervision. Misuse of these medications may cause side effects, so you should use them as prescribed by your doctor. Choose the appropriate pain reliever Many of us rely on over-the-counter painkillers to relieve our pain, but we may not realize that the age, health condition of the patient, and contraindications for the use of the medication are important factors when choosing over-the-counter painkillers. When taking excessive painkillers: When you take large doses of a pain reliever, seek health care immediately so that you can be treated and monitor your health condition. The following symptoms may indicate an overdose. You may not experience symptoms of dose poisoning right away: nausea or vomiting, Pain or heartburn, high temperature, dizziness,

Rapid eye movement, fatigue, bleeding or bruising, Yellowing of the eyes or skin, confusion, or loss of consciousness. ⁽⁶⁾

2-Material and Methods:

This study started in (the holy city of Mecca in Saudi Arabia), began writing the research and then recording the questionnaire in March 2023, and the study ended with data collection in July 2023. The researcher used the descriptive analytical approach that uses a quantitative or qualitative description of the social phenomenon (The impact of the frequent use of painkillers on human health), this kind of study is characterized by analysis, reason, objectivity, and reality, as it is concerned with individuals and societies, as it studies the variables and their effects on the health of the individual, society, and consumer, the spread of diseases and their relationship to demographic variables such as age, gender, nationality, and marital status. Status, occupation ⁽⁷⁾, And use the Excel 2010 Office suite histogram to arrange the results using: Frequency tables Percentages ⁽⁸⁾. A questionnaire is a remarkable and helpful tool for collecting a huge amount of data, however, researchers were not able to personally interview participants on the online survey, due to social distancing regulations at the time to prevent infection between participants and researchers and vice versa (not coronavirus participation completely disappearing from society). He only answered the questionnaire electronically, because the questionnaire consisted of ten questions, all of which were closed He only answered the questionnaire electronically, because the questionnaire consisted of thirteen questions closed, all of which were closed. The online approach has also been used to generate valid samples in similar studies in Saudi Arabia and elsewhere ⁽⁹⁾

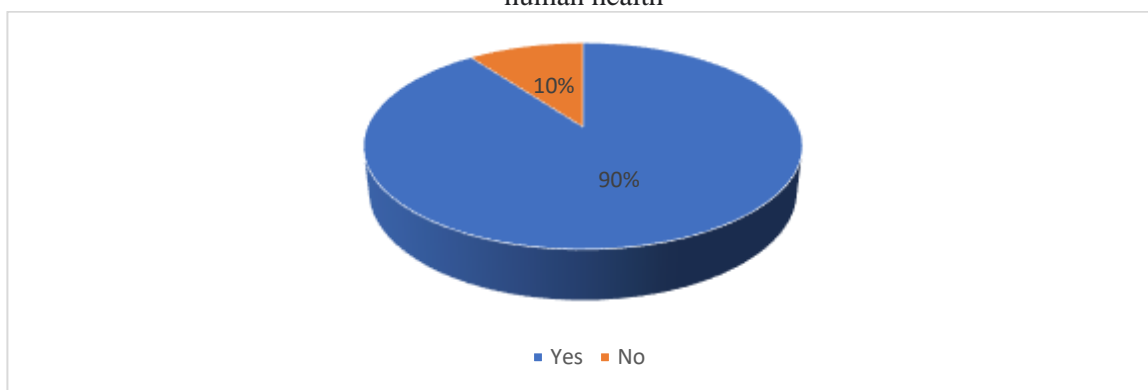
3- Results:

When calculating the percentage of approval to participate in the questionnaire, it was 100%. As for the gender of the participants, 83.7% and 16.3% were male. As for their nationalities, they were 100% Saudis, as for their professions, they were administrators 45.5%, technicians 54.5%, and as for their educational status: primary 0%, middle school 0%, secondary 12.2%, diploma 26.5%, university 42.5%, master's 14.3%, PhD 4.1%. When moving to the questionnaire questions, which consist of 10 questions (8 closed questions and two open questions), the first question is about: Are there any harms caused by the use of direct analgesics to human health? Yes, 89.8%, and no 10.2%. As for the second question, what are the harmful effects of important analgesics and the

doctor without specifying human health? Causes: kidney disease, chronic diseases and kidney failure, kidney problems, kidney and liver damage, affects the kidneys, and causes other problems, I don't know, on the kidneys, kidney failure, relieves pain. The third question: Does taking analgesic medications lead to kidney disease? The answer was yes 91.7%, and no 8.3%. The fourth question: Does taking excessive analgesic medications lead to headaches and nausea? Yes 67.3% and no 32.7%. The fifth question: Does taking analgesic medications lead to chronic diseases? Yes 70.8%, no 29.2%. The sixth question: Does taking analgesic medications lead to a deterioration in the psychological state? Yes 67.3% and no 32.7%. The seventh question: Does taking painkillers lead to

some form of addiction? Yes 83.7%, No 16.3%. The eighth question: What are the side effects of taking analgesic medications on human health? The answers were as follows: headache and nausea, poisoning, pain, tremors, nausea and vomiting and may cause addiction, kidney failure, mental fatigue, nausea and dizziness, kidney failure, heart disease, anxiety. As for the penultimate question: Are there any benefits to analgesic medications if they are not taken in excess according to the doctor's advice? Yes 83.7%, No 16.3%. The last question is: Are there other alternatives to painkilling medications, such as exercise, massage, etc.? Yes 87.8%, and no 12.2%. (figure N0.1).

Figure N0.1: Opinions of participants in the research questionnaire on the extent to which painkillers affect human health



4-Discussion:

The current study finds that through the opinions of the participants and participants in answering the research questionnaire, we find that all of them, at a rate of 89.8%, say that it has side effects and risks such as kidney disease, kidney failure, poisoning, and chronic diseases.

Acknowledgment:

To start with, I would like to Praise God and thank Dr. Anas S. Dabool, from Umm Al-Qura University (Public Health Department, Faculty of Health Sciences Al-leeth), Mecca, Saudi Arabia. And the researchers who make the project comes to light.

References:

- Berry PH, Dahl JL. Making pain assessment and management a healthcare system priority through the new JCAHO pain standards. *J Pharm Care Pain Symptom Control* 2000;8(2):5-20.
- Anonymous. VA launches pioneering pain management initiative. *Veterans' Health Administration Highlights*, 1999.
- Mustafa Al-Shehabi (2003). Ahmed Shafiq Al-Khatib (editor). *Al-Shehabi Dictionary of Agricultural Science Terms (in Arabic, English, and Latin)* (5th ed.). Beirut: Lebanon Library Publishers. s. 648. ISBN:978-9953-10-550-5. OCLC:1158683669. QID: Q115858366.
- Anonymous (1990).
- Dworkin RH, Backonja M, Rowbotham MC, Allen RR, Argoff CR, Bennett GJ, Bushnell MC, Farrar JT, Galer BS, Haythornthwaite JA, Hewitt DJ, Loeser JD, Max MB, Saltarelli M, Schmader KE, Stein C, Thompson D, Turk DC, Wallace MS, Watkins LR, Weinstein SM; Backonja; Rowbotham; Allen; Argoff; Bennett; Bushnell; Farrar; Galer; Haythornthwaite; Hewitt; Loeser; Max; Saltarelli; Schmader; Stein; Thompson; Turk; Wallace; Watkins; Weinstein (2003).
- The official website of the Food and Drug Authority <https://www.sfda.gov.sa/ar/awarenessarticle/80716>
- Alserahy, Hassan Awad, et al (2008), *The thinking and scientific research*, Scientific Publishing Center, King Abdul-Aziz University in Jeddah, the first edition

- 8- Al Zoghbi, Muhammad and AlTalvah, Abas (2000), Statistical system understanding and analysis of statistical data, first edition, Jordon-Amman.
- 9-Kadasah, N.A.; Chirwa, G.C.; et al. Knowledge, Attitude, and Practice Toward COVID-19 Among the Public in the Kingdom of Saudi Arabia: A Cross-Sectional Study. *Front. Public Health* 2020, 8, 217.