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## Practices and Behaviors Regarding the Use of Analgesics

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### ABSTRACT

Analgesic medicines are the most regularly prescribed pharmaceuticals globally. The goal of this project is to learn about and improve analgesic use practices through an education campaign. Materials and Procedures: This cross-sectional, online survey was conducted for 340 respondents in Derna City Libya region between 15 April 2022 and two November 2022. Result: Males were 49 (14.4%) and females were 291 (85.6%), the Mean & S.D (1.86, 0.352), ages 10 - 65 years old, the Mean & S.D (1.86, 0.352), (3.92, 2.082). The greatest percentage of excellent at the economic level is 153 (45.0%). The lowest score for superb is 6 (1.8%), followed by 45% for a decent scenario, 35% for a not-so-poor situation, and 7.1% for a horrible one. The percentage of university graduates is 203 (59.7%), whereas the percentage of illiterate people is 3 (0.9%). The P-Value of understanding the adverse effects of using analgesics regularly (0.000 0.05), the correlation is significant for there is a link between knowledge and educational level, the relationship between knowledge and educational level demonstrates that a p-value greater than 0.05 indicates that there is no relationship between knowledge and educational level. Conclusion: No matter how high a person's education level is, it does not substitute for understanding the usage of analgesic drugs and there's no correlation between a scientific degree and citizens' understanding of the hazards of utilizing analgesic drugs without a prescription.

### INTRODUCTION

Analgesic drugs are the most commonly administered drugs worldwide, participants have a good perception of the safest and most effective analgesic drug during pregnancy, but they have poor knowledge about analgesic side effects (AlSaeed & Elmaghraby, 2021). There has been an unprecedented increase in morbidity and mortality associated with the use of these medications (Peters et al., 2018). Most clinicians and lay people are in favor of using even high doses of opioids for terminally ill cancer patients in pain especially if the pain is severe and patients ask for pain relief (Mullet & Sorum, 2022). Despite the pharmaceutical industry's promise and enthusiasm, abuse-deterrent formulation (ADF) opioid use is relatively low. While some barriers to use have been addressed through state laws and policy

pharmacists' experiences with and opinions of ADF opioids are unclear (Oyler et al., 2022). over-the-counter (OTC) self-medication is a convenient way to manage some health issues, older persons may be at higher risk of experiencing medication-related problems, the pharmacy is the most commonly reported purchase location to buy OTC medication, and Physicians are the most commonly reported information source for OTC medications (Paliwal et al., 2021). Healthcare providers should be aware of the possible factors related to increased analgesic to identify persons at risk for the misuse of pain medication and to prevent potential adverse effects (Schwab et al., 2022). There is a lack of consensus on how to manage pain using opioid analgesics (Singh et al., 2019).

According to pharmacology, a drug is any substance that produces a biological effect in the

living organism after administration. It is used in the treatment and prevention of diseases and the promotion of overall health. Usage of antipyretics, analgesics & anti-inflammatory drugs was noted in 60% of the adult population who didn't prefer visit a medical practitioner regarding this (Singhal, 2021).

Rational use of Analgesics (RUA) project investigated the current clinical practices to manage pain in patients with cancer in Italy by gathering the opinion of almost 200 Italian specialists working in the palliative care field (Varrassi et al., 2021). Disproportionate pain tool application and non-association between pain scores and analgesic management suggest a potential knowledge gap among nurses about the practical (Tsai et al., 2022). Self-medication was seen as a widespread phenomenon. The World Health Organization reported alarming levels of resistance to antibiotics in member countries. The practices of self-medication pose a serious risk to communicable and non-communicable disease control and public health in general (Pareek, 2022). Despite the development of analgesics and advancement in pain management pain remains undermanaged the untreated pain has a detrimental effect on the patient's quality of life, affects their outcomes, delays recovery, and increases hospitalization (Khetarpal et al., 2021).

Knowledge of directions for the safe use of acetaminophen-containing medications is poor, and its deficiency is associated with corresponding deviations from label instructions. This study demonstrates a need for education about the safe use of acetaminophen-containing medications, particularly for combination products (Kelly et al., 2018). There is no consensus regarding the optimal multimodal anesthetic and analgesic regimen for total joint arthroplasty among surveyed board-certified arthroplasty surgeon members of the American Association of Hip and Knee Surgeons (AAHKS). The current practice patterns in anesthesia, analgesia, and opioid prescribing may serve as a platform for future work aimed at establishing best clinical practices for maximizing effective postoperative pain control and minimizing the risks associated with prescribing opioids (Hannon et al., 2019). The most popular OTC analgesics and antipyretics but also makes it frequently associated with the risk of misuse or

overuse which may put forth serious safety concerns. Assessing the practices and knowledge on paracetamol administration will enable the healthcare professional to identify shortcomings and intervene in view of preventing the misuse of paracetamol (Daifallah et al., 2021). The high rate of intramuscular analgesic use and long emergency room stay durations are issues that should constitute the focus of our quality improvement efforts in pain management. The fundamental cause of emergency department (ED) referrals that comprise 75%–80% of all admission complaints, oligo analgesia which can be defined as the lack of using appropriate doses of analgesics or in other words undertreating the pain, is still a significant problem despite the considerable experience (Cetin et al., 2021).

## **METHODS**

**Study layout and participants:** The cross-sectional, online survey was conducted with 340 respondents in Derna City Libya on 15 April 2022 and a couple of November 2022. **Survey questionnaire:** Using google forms a multi-part self-administered online questionnaire in English, Arabic, and English was created. **Statistical analysis:** All variables on this examination are of a specific kind because they are population characteristics and categorical variables are presented as percentages and frequencies (%; relative frequency 100). The p-value and correlation were used to explore the difference between groups for single observations in categorical variables.

## **RESULTS AND DISCUSSION**

The questionnaire was completed by 340 individuals, the majority of whom completed it in Arabic and were observed in English. Language demographics as perceived via English. Table 1 shows the demographic characteristics of the population under consideration. The frequency and proportion of adult men were 49 (14.4%), and the females were 291 (85.6%), according to the Mean and S.D. (1.86, 0.352). The mean and standard deviation for ages 10 to 65 years old (3.92, 2.082).

Table 1. Frequency and Percent % of Demographic Characteristics.

Demographic Characteristics		Number of participants (%)		
		N (%)	Mean	S.D
Gender	Male	49 (14.4)		
	Female	291 (85.6)	-	-
Age (Year)	10 - 15	6 (1.8)		
	16 - 20	77 (22,6)		
	21 - 25	120 (35.3)		
	26 - 30	45 (13.2)		
	31 - 35	22 (6.5)		
	36 - 40	23 (6.8)	3.92	2.082
	41 - 45	15 (4.4)		
	46 - 50	17 (5.0)		
	51 - 55	10 (2.9)		
	56 - 60	2 (0.6)		
	61 - 65	3 (0.9)		
Education Levels	Primary School; Middle Institute	11 (3.2)		
	High Institute	16 (4.7)		
	Secondary School	36 (10.6)		
	University	203 (59.7)	4.58	1.244
	Master	29 (8.5)		
	PhD	8 (2.4)		
	Uneducated	3 (0.9)		
	Economic levels	Bad	24 (7.1)	
Not Bad		120 (35.3)		
Good		153 (45.0)	2.65	0.833
Very Good		37 (10.9)		
Excellent		6 (1.8)		
Total	340 (100)			

In figure 1 Economic levels highest percent for good 153 (45.0%), and lowest for excellent 6 (1.8 %).

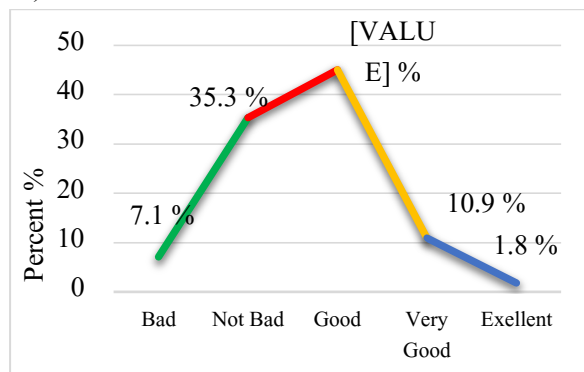


Figure 1. frequency & percent of Economic levels

Education Levels highest percentage for university 203 (59.7%), lowest for uneducated 3(0.9 %), shown in figure 2.

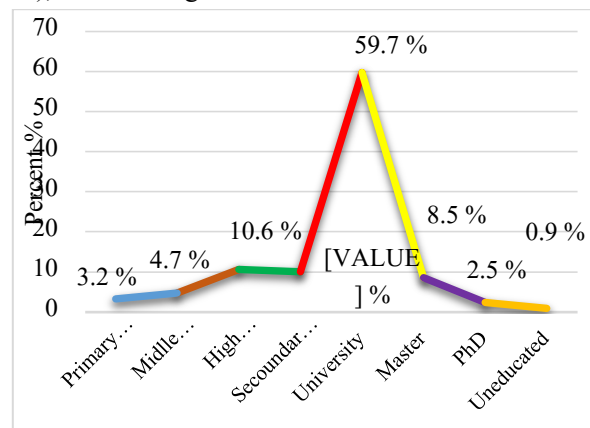


Figure 2. frequency & percent of Education Levels

The frequency and the percentage of questionnaire answers to questions about Practices concerning Using analgesics are illustrated in table 2.

Table 2. Frequency and the percent of answers to questions about Practices concerning Using analgesics.

Questions	Answer			
	Probably N (%)	Some times N (%)	No N (%)	Yes N (%)
If you feel severe pain, do you go to the doctor?	51 (15)	87 (25.0)	34 (10)	168 (49)
Have you taken analgesics without a doctor's prescription?	9 (2.6)	46 (13.50)	46 (13.5)	239 (70.3)
Do you take analgesics when you feel any pain?	14 (4.1)	76 (22.40)	82 (24.1)	168 (49.4)
Do you feel better when you take the analgesics immediately after taking it?	31 (9.1)	90 (26.50)	38 (11.2)	181 (53.2)
Do you know the side effects of frequent taking analgesics?	24 (7.1)	15 (4.40)	113 (33.2)	188 (55.3)
Have you had side effects as a result of taking analgesics too much?	15 (4.4)	18 (5.30)	257 (75.6)	50 (14.7)
Do you have a chronic disease such as diabetes or pressure?	1 (0.3)	1 (0.30)	310 (91.2)	28 (8.2)
Would you advise those in pain in front of you to use the analgesic without consulting a doctor?	24 (7.1)	68(20.0)	175 (51.5)	73 (21.5)

Relationship between Knowledge and Educational level, the table shows the P-Value of knowing the side effects of frequently taking analgesics ( $0.000 < 0.05$ ), the correlation is

significant for there is the relationship between knowledge and educational level in table 3.

Table 3. Relationship between Knowledge and Educational level

Questions	Educational Level
	P - Value
If you feel severe pain, do you go to the doctor?	0.278
Have you taken analgesics without a doctor's prescription?	0.639
Do you take analgesics when you feel any pain?	0.203
Do you feel better when you take the analgesics immediately after taking it?	0.252
Do you already know the facet outcomes of common taking analgesics?	<b>0.000</b>
Have you had side effects as a result of taking analgesics too much?	0.133
Do you have a chronic disease such as diabetes or pressure?	- 0.437
Would you advise those in pain in front of you to use the analgesic without consulting a doctor?	0.704

Relationship between Knowledge and Educational level shows that p-value  $> 0.05$ ,

indicates to there is no relation between knowledge and Educational Level.

Table 4. Relationship between Knowledge and Educational level

Correlations		Education al Level
Education (Person)	R	0.015
	P - Value	0.778
Education (Spearman's rho)	R	0.039
	P - Value	0.479
	N	340

The questionnaire was completed by 340 participants, the online survey was conducted in Derna City, Libya for the period between 15 April 2022 and 2 November 2022. The survey was completed in both Arabic and English languages. The demographic characteristics of the study population are presented, the frequency and percent of males were 49 (14.4%), and the female was 291 (85.6 %), the Mean & S.D (1.86, 0.352). Ages between 10 - 65 years old, the Mean & S.D (3.92, 2.082) in table 1. The Economic level's highest percentage for good 153 (45.0%), lowest for excellent 6 (1.8 %), 45% for a good situations, 35% for a not bad situations, and 7.1 % for a bad situations. Education Levels highest percentage for university 203 (59.7%), lowest for uneducated 3(0.9 %) In figure 1, the frequency and the percent of questionnaire answers of Practices regarding the use of analgesics shown in figure 2, the Relationship between Knowledge and Educational level, the table show the P-Value of know the side effects of frequent taking analgesics ( $0.000 < 0.05$ ), the correlation is significant for there is the relationship between knowledge and educational level in table 2, table 3. The relationship between knowledge and educational level shows that p-value  $> 0.05$  in Table 4, which indicates to there is no relation between knowledge and educational level, the data measured the relationship by (Person, Spearman's rho) correlation. The study agrees with the previous study? This is a description of the results not a discussion that should move to the results section.

A large percentage of runners in our study displayed unsafe practices regarding analgesic use during training and competition, predominantly for perceived injury management. Importantly, the lack of education and recommendations regarding analgesics from health professionals is very concerning, as there's a risk of potentially life-

threatening analgesic-induced adverse effects, especially as a high percentage were using two Non-steroidal anti-inflammatory drugs (NSAIDs) concomitantly. Knowledge of these practices gained through this study could allow for the development and implementation of corrective strategies to promote education and safe practice of analgesic use in runners (Tsai et al., 2022), (Grézy-Chabardès et al., 2015), (Daifallah et al., 2021), (AlSaeed & Elmaghraby, 2021), (Jankovic et al., 2019), (Pareek, 2022), (Mostafa et al., 2022), (Khetarpal et al., 2021).

### CONCLUSION

No matter how high a person's education level, it does not substitute for understanding the usage of analgesic drugs. And there is no correlation between scientific degree and citizens' understanding of the hazards of utilizing analgesic drugs without a prescription.

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