

# Perceptions of Athletes about Usage of Painkiller Medications for Fatigue Slackening during Sport Trainings

## Original Research Article

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### ABSTRACT

**Objective:** The purpose of the present research was to find out the perceptions of athletes about the usage of painkiller medications for fatigue relief while their sport trainings.

**Methodology:** The data was collected from the athletes (n=80) having vast sport experiences who belonged to two public sector universities through online questionnaires. Afterwards, the collected data was edited into SPSS (v.26) and further analyzed the responses through descriptive statistics.

**Results:** The majority of the athletes affirmed their intake of painkiller medications for the purpose of getting relief to their working group of muscles without claiming any harm or threat physically.

**Conclusion:** These painkillers may be a source of less fatigue and provision of better blood flow to the working muscles of the athletes. Therefore, the athletes should use the painkillers with consultation of the doctor so that they may save themselves from their side effects if any.

**Keywords:** Painkiller usage; medication; fatigue slackening; sport trainings; athletes.

### 1. INTRODUCTION

Fatigue has set in the skeletal muscles of athletes naturally while engaging in various competitive sports trainings in the current days. Fatigue may be minimize with active rest, balanced diet, and good sleeping. Fatigue has diverse conditions in altered periods of training and work jobs depending upon the load utilized by muscles in various attempts of work repetitions. If the athletes sustain it in their muscles, they are unable to continue for the next day workouts. Their sport trainings may be suffered by this existing fatigue and sometime they get injured if they continue the trainings. The use of pharmaceutical medications is much considered for the young players.

It is a common perception that fatigue is caused by the exercise which in fact is a situation that everyone has faced [1]. Many

people experienced that fatigue which is a common symptom and is connected with numerous health situations [2]. Furthermore, muscular fatigue is a frequently practiced sensation that bounds athletic performance and other energetic activities. When exercise is executed over definite amounts or above extended period of time, it causes sensation of pain and discomfort [3].

For the duration of the exercise, the amount of work may generate an extreme perception that an individual has to decrease the amount of work or discontinue the exercise [1]. Medicines that are used to relief from pain without loss of sensory perception are known as analgesic drugs [4]. In addition, many medicines have contents comprising of narcotics and Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), and paracetamol as well.

In sports, medicine is a common usage or misuse of analgesic medications and NSAIDs [5]. Furthermore, Non-steroidal Anti-Inflammatory Drugs misuse is very common throughout International level football competitions in the African region. No any painkiller like opioids is often perceived as not necessary relative to and with group competitions and training sets through a variation of diverse sports [3]. Although, opioids necessitate prescriptions and are banned within sports [4].

The influence of NSAIDs usage on aerobic performance in endurance athletes is unidentified [6]. The neuromuscular signs assumed pain, with a greater patience, might be permitted to produce more strength with a lesser patience [7].

NSAIDs and paracetamol are traded over the counter and are presently not categorized as doping agents [4]. The painkiller effects accomplished by consuming pharmacologic ingredients such as opioids and other anesthetics should not be generalized to NSAIDs usage throughout the exercise having in mind the diverse pharmacodynamics and pharmacokinetic features of the painkiller ingredients [6].

The usage of further anesthetics such as paracetamol was distant and not as much of a common activity [4]. Athletes used NSAIDs to decrease pain and swelling related with training, competition or soft tissue injuries, or to increase a competitive improvement [8, 9].

In addition, the influence of ibuprofen to claim down pain throughout exercise is debatable and the impacts on endurance performance are unidentified [6]. Anesthetics are frequently used primarily to manage acute sport injuries to decrease pain [5]. Further, usage of the painkillers depends on the amount and time of discomfort. Vigorously treatments and the reduction of the pain of athletes enable them to reappear to pre-injury effectively as fast as without compromising the muscular healing [5].

Certainly, numerous athletically persuaded players place substantial stress on their doctor to enable them “out of bed and running” as soon as possible [5]. Moreover achieve the aforementioned, doctors use pharmacological products to treat the players' pain with painkillers so that the athletes will not be detrained and will reach fast rehabilitation. Furthermore, these mediators might comprise of analgesics, up-to-date analgesics, non-steroidal anti-inflammatory, up-to-date anti-inflammatory mediators and corticosteroids.

## 2. MATERIALS AND METHODS

The study was designed as quantitative using descriptive statistics. The subjects of the research were 80 male and female athletes belonging to three public sector universities (Government College University Faisalabad, The Islamia University of Bahawalpur and Government College Women University Faisalabad). Participants were selected have had vast experience of using painkiller medications for their muscle relief and relaxation.

The data was collected online through questionnaires. Questionnaires were administered after collecting the participants' personal information from the concerned university sports directorates. Afterwards, the athletes were approached by telephone and guided them about the aim of the present research. Therefore with their positive agreement, willingness and supportive consent, researchers were able to send them the questionnaires at their WhatsApp contacts. Participants were requested and encouraged to provide early responses. It took one month to collect the desired information from the respondents.

Furthermore, Hejase et al. [10] contend that informed objective decisions are based on facts and numbers, real, realistic and timely informed. In addition, according to Hejase and Hejase [11], “descriptive statistics deals with describing a collection of data by condensing the amounts of data into simple representative numerical quantities or plots that can provide a better understanding of

the collected data" (p.272). Therefore, this research uses descriptive statistics including frequencies and percentages in the form of a table. Statistics were applied on the collected data to analyze responses of the athletes. For this purpose, the data were edited using the Statistical Product and Service Solutions SPSS (v.26) as IBM product since 2009 (Hejase & Hejase, [11] and analytical techniques were utilized to draw the results and their interpretation.

### 3. RESULTS AND DISCUSSION

The ages of the athletes were found between 22 to 26 years. Therefore, the mean age was measured at 24.1 years and std. deviation 1.021. Furthermore, 26 athletes belonged to Government College University Faisalabad, 41 were from The Islamia University of Bahawalpur and 13 athletes were studying in Government College Women University Faisalabad.

The findings revealed that 88.75% of the athletes [sometimes (28.75%) and frequently (60%)] use painkillers to relax their body muscles while performing sport training. The reason behind the usage of painkillers by the athletes was to nourish their physical muscles to stay relaxed. Therefore, 86.25% of the athletes responded that they sometimes (33.75%) and frequently (52.50%) used Brufen tabs for the provision of pain relief to their

muscles. 96.25% of the athletes [sometimes (20%) and frequently (76.25%)] expressed that they utilized jell for their muscular massage for the removal of muscular fatigue and pain.

The results indicated that 83.75% athletes took Aspirin tabs for pain relaxation of their muscles so that they may be well prepared for the next day sport trainings. 53.75% of them used Paracetamol tabs for the better flow of blood to their muscles and this may be more beneficial for the healthy circulation of blood to their working muscles. 91.25% of the athletes claimed that painkillers give relief to their working muscles experienced during acute sport trainings.

The findings of the present research revealed that 75% of the athletes assured that painkillers created no harm or allergy to their working group of muscles during trainings. Also 82.50% of the athletes demonstrated that painkillers were the source of reduction of fatigue in their working muscles. The experience about usage of painkillers may be fruitful during their sport trainings. On the alternate hand, 75% of the athletes [sometimes (48.75%) and frequently (21.25%)] indicated that they took painkillers with the consultation of the trainer and doctor, whereas, 30% of the athletes occasionally used these painkillers without the prescription of doctor or consultation of their trainers.

**Table 1. Showing the painkillers medications used by athletes during sport trainings**

Construct	Category	Frequency	%
I use painkillers to relax my body muscles while training my sport.	Occasionally	09	11.25
	Sometimes	23	28.75
	Frequently	48	60.0
I take Brufen tabs for the purpose of pain relief.	Occasionally	11	13.75
	Sometimes	27	33.75
	Frequently	42	52.50
I massage my muscles with Jell for the removal of muscular fatigue and pain.	Occasionally	03	03.75
	Sometimes	16	20.0
	Frequently	61	76.25
I take Aspirin tabs for pain relaxation of my muscles.	Occasionally	13	16.25
	Sometimes	26	32.50
	Frequently	41	51.25
I use Paracetamol tabs to better flow of blood to my muscles.	Occasionally	18	22.50
	Sometimes	25	31.25

	Frequently	37	46.25
Painkillers give relief to my working muscles experienced during acute trainings.	Occasionally	07	08.75
	Sometimes	27	33.75
	Frequently	46	57.50
Painkillers create no harm or allergy to my working group of muscles during trainings.	Occasionally	12	15.00
	Sometimes	23	28.75
	Frequently	45	56.25
Painkillers cause to reduce fatigue in my working muscles.	Occasionally	14	17.50
	Sometimes	29	36.25
	Frequently	37	46.25
I use painkillers with the consultation of the trainer and doctor.	Occasionally	48	30.0
	Sometimes	19	48.75
	Frequently	13	21.25

There is growing trend to overcome sporting injuries with the use of painkillers with professional instruction in which an athlete is capable to continue training and competing [12, 13]. Alternatively, illegal drug use is supposed to have undesirable influence on health and badly affect society. Usually, drugs are recognized to boost bodily performance and endurance to exercise training [14, 15]. Nevertheless, certain medical agents are able to improve precise facets of performance in athletes during competitions [16]. Therefore, person in charge of athletics and decision makers must exert special attention and should be focused on the legal and healthy indicators for performance improvement [17].

#### 4. CONCLUSION

The purpose of the present research was to access the athletes' perceptions about the usage of painkiller medications for fatigue relief while carrying out their sport trainings. It was concluded that the majority of the athletes confirmed their intake of painkiller medications for the purpose of getting relief to their working group of muscles without claiming any harm or danger. These painkillers may be a source of less fatigue and provision of better blood flow to the working muscles of the athletes. Therefore, the athletes should use the painkillers with consultation of the doctors or medical sport specialists so that they may save themselves from their side effects if any.

#### CONSENT

As per international or university standards, respondents' written consent has been collected prior to data collection and preserved by the author(s).

#### ETHICAL APPROVAL

It is not applicable.

#### REFERENCES

1. Ament W, Verkerke GJ. Exercise and fatigue. Sports Medicine. 2009;39(5):389-422.
2. Wan JJ, Qin Z, Wang PY, Sun Y, Liu X. Muscle fatigue: General understanding and treatment. Experimental & Molecular Medicine. 2017;49(10):e384-e384.
3. Holgado D, Hopker J, Sanabria D, Zabala M. Analgesics and sport performance: Beyond the pain-modulating effects. Physical Medicine & Rehabilitation. 2018;10(1):72-82.
4. Lundberg TR, Howatson G. Analgesic and anti-inflammatory drugs in sports: Implications for exercise performance and training adaptations. Scandinavian journal of medicine & science in sports. 2018;28(11):2252-2262.

5. Derman EW, Schweltnus MP. Pain management in sports medicine: Use and abuse of anti-inflammatory and other agents. *South African Family Practice*. 2010;52(1):27-32.
6. DaSilva E, Pinto RS, Cadore EL, Krueger LF. Nonsteroidal anti-inflammatory drug use and endurance during running in male long-distance runners. *Journal of athletic training*. 2015;50(3):295-302.
7. Mauger AR, Jones AM, Williams CA. Influence of acetaminophen on performance during time trial cycling. *Journal of Applied Physiology*. 2010;108(1):98-104.
8. Alaranta A, Alaranta H, Helenius I. Use of prescription drugs in athletes. *Sports Medicine*. 2008;38(6):449-463.
9. Warner DC, Schnepf G, Barrett MS, Dian D, Swigonski NL. Prevalence, attitudes, and behaviors related to the use of nonsteroidal anti-inflammatory drugs (NSAIDs) in student athletes. *Journal of Adolescent Health*. 2002;30(3):150-153.
10. Hejase HJ, Hejase AJ, Hejase HANJ. *Quantitative Methods for Decision Makers: Management Approach*. Beirut, Dar Sader Publishers. 2012.
11. Hejase AJ, Hejase HJ. *Research Methods: A Practical Approach for Business Students (2nd edition)*. Philadelphia, PA, USA: Masadir Incorporated, 2013.
12. Enoka RM, Duchateau J. Muscle fatigue: What, why and how it influences muscle function. *The Journal of physiology*. 2008;586(1):11-23.
13. Madrigal L, Robbins JE. Student-athlete stress: An examination in United States collegiate athletics. *Journal for the Study of Sports and Athletes in Education*. 2020;14(2):123-139.
14. Bird SR, Goebel C, Burke LM, Greaves RF. Doping in sport and exercise: Anabolic, ergogenic, health and clinical issues. *Annals of Clinical Biochemistry*. 2016;53(2):196-221.
15. Loland S. Performance-enhancing drugs, sports and the ideal of natural athletic performance. *American Journal of Bioethics*. 2018;18:8-15.
16. Santamaria S, Mazzeo F. Ethical issues and doping in Olympic and Paralympic Games. *Journal of Romanian Sports Medicine Society*. 2014;10(4):2411-2417.
17. Heuberger JAAC, Cohen AF. Review of WADA prohibited substances: Limited evidence for performance enhancing effects. *Sports Medicine*. 2019;49:525-539