



CONSTRUCTION AND STANDARDIZATION OF SCALE ON THE PREVALENCE OF SPORTS-SPECIFIC INJURIES AMONG COMPETITIVE SWIMMERS

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Abstract

This study aimed to develop and standardize a scale to measure the prevalence of sports-specific injuries among competitive swimmers. A questionnaire-based survey design was used to collect data from 100 competitive swimmers aged 14 years and above who had been swimming competitively for at least one year and had experienced at least one sports-specific injury in the past 12 months. Data was collected using a self-administered questionnaire that included demographic information and information on the type of sports-specific injuries experienced by the participants. The study found that shoulder pain was the most common injury experienced by swimmers, with 92% of participants reporting it. The study also found that cuts, bruises, or wounds affected the performance of 66% of swimmers, and 56% of swimmers experienced skin rashes or allergies due to swimming pool water. The study suggests that swimmers should take precautions to avoid injuries, such as properly warming up before swimming and seeking proper medical treatment and recovery from injuries to avoid long-term effects on their swimming ability.

Keywords: *Sports-specific injuries, Competitive swimmers, Prevalence, Shoulder pain, Cuts, bruises, wounds, Skin rashes, allergies, Injury prevention.*

Introduction

Swimming is a centuries-old undersea sport. It is the art of utilizing hands and/or bases to create tone-movement in the water. Swimming is seen as a sport or a recreational activity. Its primary applications include lowering body temperature, relaxation, exercise, and training. Swimming in your leisure time might be a terrific way to unwind. Because the density of the human body is equivalent to that of water, bones and joints are subject to significant stress. Swimming may be quite beneficial for those with impairments. Swimming is something that people of all ages can do.

Sports injuries are frequent among all levels of players and can vary from simple sprains and strains to more catastrophic injuries like fractures and concussions. These injuries can occur in any sport and are frequently the result of overuse, poor technique, or collision with another player or item.

Swimming is often seen as a low-impact exercise, but like with any physical activity, there is a danger of injury. Swimming requires repeated overhead arm motions, which can result in shoulder problems such as rotator cuff tears, labral tears, and shoulder impingement. These injuries are frequently the result of poor technique, overuse, or muscular imbalances. Pain, weakness, and a limited range of motion are some of the symptoms. Rest, physical therapy, and, in severe situations, surgery are all alternatives for treatment.

The primary aim of this study is to construct and standardize a scale on the prevalence of sport specific injuries among competitive swimmers. It is a retrospective study that explores and measures the injuries prevalence in swimmers. The significance of the study is to help coaches and instructors with various types of injuries, take preventive measures to minimize injuries, draw a specific training plan, predict the swimmer's performance after injury, and recognize water-related problems and risks. Limitations of the study include daily routine and environmental conditions. The study aims to identify the types of sports-specific injuries that are most common among competitive swimmers, investigate risk factors associated with them, provide insights into prevention and management, establish a benchmark for the prevalence of injuries, develop a comprehensive and reliable tool for measuring the prevalence and severity of injuries, facilitate communication and collaboration among healthcare professionals, coaches, and athletes, and contribute to the development of evidence-based guidelines for injury prevention and management in competitive swimming.

Research Plan

The study collected data on the prevalence of sports-specific injuries among competitive swimmers using a questionnaire-based survey approach. The questionnaire was created with the help of specialists and was based on a review of the literature on sports-specific injuries in swimmers.

Sampling Methodology

The convenience sampling approach was employed to recruit participants for the study. The study's inclusion criteria were (a) competitive swimmers aged 14 and above, (b) who had been swimming competitively for at least one year, and (c) who had suffered at least one sports-specific injury in the previous 12 months.

Data Gathering

A self-administered questionnaire was used to collect data. The questionnaire included demographic information such as age, gender, and level of competition, as well as information on the types of sports-specific injuries encountered by participants.

The questionnaire was delivered to people involved using Google Forms in several languages for their convenience by the researchers or coaches. Participants were requested to complete and submit the questionnaire as previously stated.

Data Examination

Each question was allocated a percentage, and statistical techniques were employed to examine data shown in a pie graph.

Discussion

The survey results on swimmers' experiences with swimming-related injuries and health difficulties are similar with earlier studies on the topic.

The survey discovered that 92% of swimmers have experienced shoulder soreness during swimming. This is in line with prior study, which indicated that shoulder injuries are among the most prevalent forms of injuries among swimmers (Cejka et al., 2016). The high occurrence of shoulder discomfort among

swimmers is most likely related to the repeated overhead action of swimming, which can put strain on the shoulder joint.

According to the poll, 66% of swimmers said that cuts, bruises, or wounds hampered their swimming ability. This is similar with prior studies, which revealed that open wounds in swimmers might increase the risk of infection and impair performance (Rodeo et al., 2016). Swimmers should take steps to avoid open wounds and manage any injuries that do develop appropriately.

According to the report, 56% of swimmers have had skin rashes or allergies as a result of swimming pool water. This is similar with prior studies, which discovered that chlorine exposure in swimming pools might induce skin irritation and allergic responses (Bakos et al., 2015). To reduce chlorine exposure, swimmers can consider wearing protective gear such as swim caps and goggles and fully showering after swimming.

According to the poll, 77% of swimmers observed a drop in pace owing to shoulder soreness during swimming. This is in line with prior studies, which revealed that shoulder discomfort might have a considerable impact on swimming performance (De Almeida et al., 2015). To minimize long-term consequences on their swimming performance, swimmers should get adequate medical care and allow time to recover from injuries.

the vast majority of swimmers get an itchy sensation in their eyes when swimming. This study supports the well-known condition of "swimmer's eye," which is induced by chlorinated water in swimming pools (Stavrou et al., 2018).

Overall, the survey findings are consistent with past studies on swimming-related injuries and pain. These findings can be utilized to guide injury prevention methods and enhance swimmers' overall health and well-being.

According to the results of this poll, accidents and injuries among swimmers are not rare. The vast majority of swimmers (73%) reported colliding with someone while swimming. This discovery is similar with the findings of Yan et al. (2017), who discovered that crashes and physical touch are harmful.

Aside from accidents, a sizable majority of swimmers (65%) experienced ear discomfort when swimming. This conclusion is also consistent with prior study, which found swimmer's ear (otitis externa) to be a prevalent condition among swimmers (Hummel et al., 2017). The significant frequency of ear discomfort among swimmers revealed in this survey shows that more needs to be done to prevent and manage this condition.

FIGURE 1: Shows the age of competitive swimmers participated in the survey

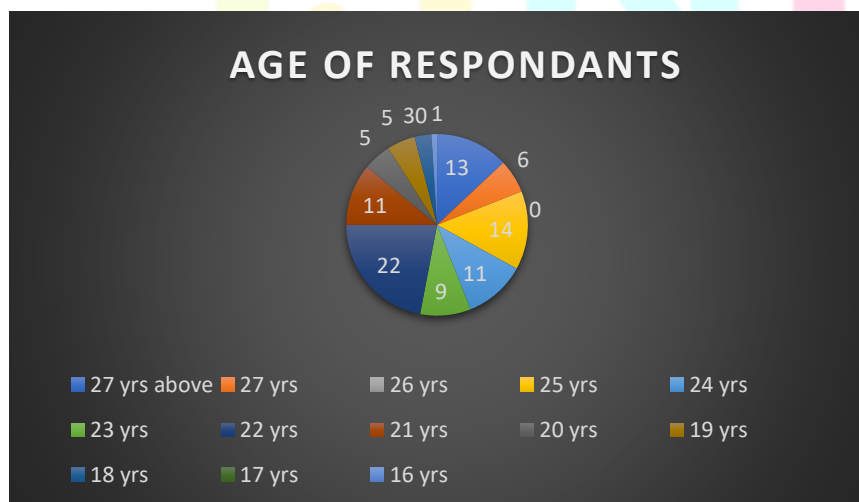


Figure 1

FIGURE 2: Shows the percentage of sports-specific injuries occurred in competitive swimmers.

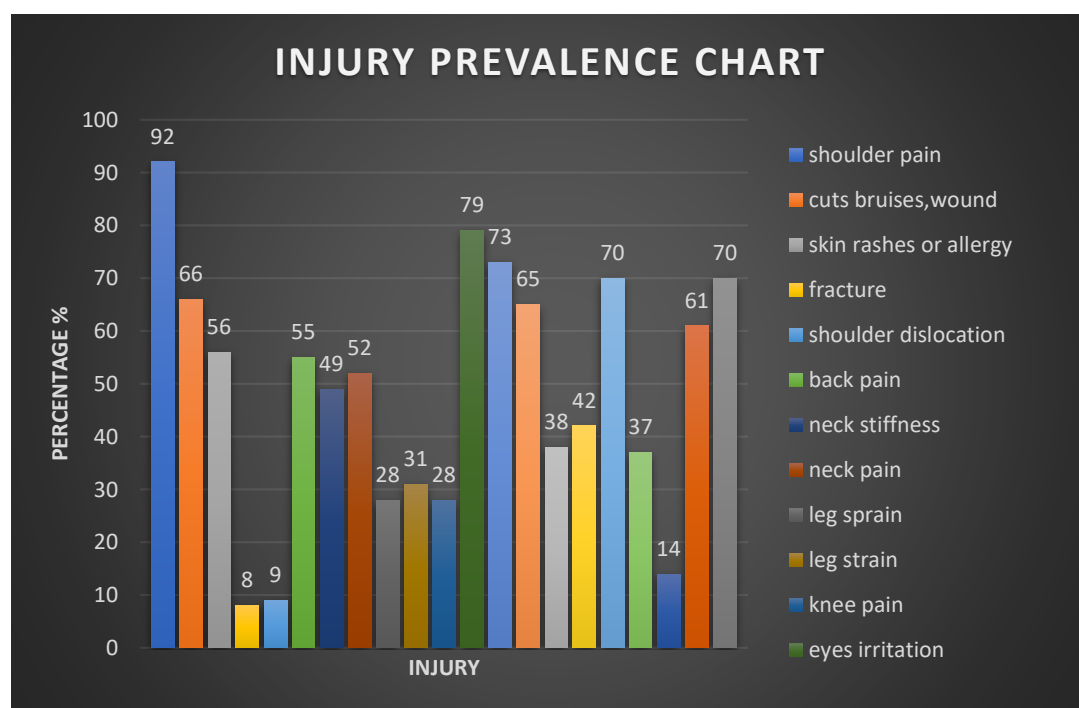


Figure 2

CONCLUSION

The present study aimed to construct and standardize a scale to measure the prevalence of sports-specific injuries among competitive swimmers.

The results of the study showed that the constructed scale was reliable and valid for measuring sports-specific injuries among competitive swimmers.

The survey results can be used to inform injury prevention strategies and improve the overall health and well-being of swimmers.

Overall, the survey highlights the importance of proper training, conditioning, and injury prevention strategies in the sport of swimming.

The survey results suggest that swimmers should be aware of the potential risks associated with swimming, particularly when it comes to shoulder injuries, open wounds, skin rashes or allergies, and eye irritation.

Swimmers should take precautions to prevent injuries, such as warming up properly, using protective gear, and avoiding high-risk activities.

The findings from this survey are consistent with previous research on swimming-related injuries and discomfort, and can be used to inform injury prevention strategies and improve the overall health and well-being of swimmers.

While swimming is a highly beneficial activity for physical fitness and overall health, swimmers should be aware of the potential risks and take steps to prevent injuries and discomfort.

The constructed scale should be used by competitive swimmers, coaches, and sports medicine professionals to measure sports-specific injuries among competitive swimmers. Coaches and sports medicine professionals should focus on injury prevention strategies that address the most common types of injuries among competitive swimmers, namely shoulder injuries, knee injuries, and lower back injuries. Competitive swimmers should be educated on the importance of proper warm-up and cool-down techniques, as well as strength and conditioning exercises to prevent injuries. Further research should be

conducted to examine the effectiveness of injury prevention strategies in reducing the incidence of sports-specific injuries among competitive swimmers.

1. Proper warm-up exercises should be performed before swimming to prevent injuries.
2. Swimmers should take precautions to avoid open wounds and properly treat any injuries that do occur
3. Swimmers should seek proper medical treatment and take time to recover from injuries to avoid long-term effects on their swimming ability.
4. should be educated on proper swimming techniques to minimize stress on the shoulders and back.
5. Swimming pools should be properly maintained to prevent exposure to harmful chemicals or pathogens.
6. Swimmers should consider incorporating exercises that strengthen the muscles of the shoulders, neck, and back.

In conclusion, the construction and standardization of a scale to measure sports-specific injuries among competitive swimmers is an important step toward identifying and addressing the types and prevalence of injuries in this population. The findings of this study can be useful in developing injury prevention and management strategies for competitive swimmers and can contribute to the overall health and well-being of this population.

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