

THE KNOWLEDGE AND APPLICATION OF PROTECTIVE
EQUIPMENT AMONG HOCKEY PLAYERS IN
UNIVERSITY PENDIDIKAN
SULTAN IDRIS

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DECLARATION

I hereby declared that all the writings, works and the ideas in this
Final Year Project report is my own idea except for
quotation and reference which have been
fully acknowledged.

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Course QRR3996 Final Year Project (Sports Rehabilitation) to obtain
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ABSTRACT

Introduction: Injury are noticeably high among field hockey players in Malaysia in which more than half of the players had lower limb injuries and up to 75% of field hockey players survived at least one acute injury during a game or practice and the trend is keep going up till now even though sport protective equipment as injury prevention in Hockey has been practiced. **Objective:** This study aims to identify the injury history and determine the level of knowledge and application of protective equipment among hockey players in Universiti Pendidikan Sultan Idris. **Methodology:** 46 respondents currently play Hockey sport in UPSI and have participated in this study. The respondents were given a set of questionnaires that have been blasted through an online platform, the questionnaire consist of four sections; A) demography, B) injury history, C) knowledge in protective equipment, and D) application of protective equipment. **Result:** Six questions of each section (Sections C and D) and 5 Likert scale as an answer option applied to measure respondent's knowledge level and application level in which the average mean for knowledge level is 17.91 (2.985) while for application of protective level average mean is 12.26 (2.04). Mean interpretation scale from Neuman (2015) was referred to determine the knowledge and application-level scale. **Conclusion:** This study concludes that hockey players' knowledge level in UPSI is moderate while the applications were still low among Hockey players in Universiti Pendidikan Sultan Idris.

ABSTRAK

Pengenalan: Kecelakaan amat ketara dalam kalangan pemain hoki padang di Malaysia di mana lebih separuh daripada pemain mengalami kecederaan anggota bawah badan dan sehingga 75% pemain hoki padang mengalami sekurang-kurangnya satu kecederaan akut semasa permainan atau latihan. Kecenderungan kecederaan ini terus meningkat, sehingga kini walaupun peralatan pelindung sukan sebagai pencegahan kecederaan dalam Hoki telah diamalkan. **Objektif:** Tujuan kajian ini dijalankan adalah untuk mengenalpasti sejarah kecederaan dan tahap pengetahuan serta pengaplikasian alat perlindungan sukan dalam kalangan pemain hoki di Universiti Pendidikan Sultan Idris. **Metodologi:** Seramai 46 responden yang kini bermain sukan Hoki di UPSI telah menyertai kajian ini. Responden telah diberikan satu set soal selidik yang dikongsikan melalui platform dalam talian (googleform) yang terdiri daripada empat bahagian; A) demografi, B) sejarah kecederaan, C) pengetahuan dalam peralatan perlindungan, dan D) penggunaan peralatan perlindungan. **Keputusan:** Enam soalan bagi setiap bahagian (Bahagian C dan D) dan 5 skala Likert sebagai pilihan jawapan digunakan untuk mengukur tahap pengetahuan responden dan tahap aplikasi. Purata min bagi tahap pengetahuan ialah 17.91 (2.985) manakala bagi aplikasi tahap perlindungan min adalah purata. 12.26 (2.04). Skala tafsiran min daripada Neuman (2015) dirujuk untuk menentukan skala tahap pengetahuan dan aplikasi. **Kesimpulan:** Kajian ini merumuskan tahap pengetahuan pemain hoki di UPSI adalah sederhana manakala pengaplikasiannya masih rendah dalam kalangan pemain Hoki di UPSI.

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CHAPTER 1

INTRODUCTION

Field hockey is one of the world's most competitive and fast-paced team sports games. Field hockey is a contact sport played on artificial and natural turf which includes techniques such as hitting the ball, jabbing, flicking, and suddenly turning around frequently. Moreover, this sport is a team game between two teams of 11 players each, using hook sticks to try to throw a small hard ball at the goals at both ends of the field. (Munazza Orooj et al, 2016). Also, hockey is played at all skill levels and ages, from amateur recreational to elite professional as it first appeared as an Olympic sport in 1908, before it became an integral part of the Olympic Games in 1920. Even though field hockey can contribute to



the health of the player through the well-known advantage of exercise, it also carries the risk of the consequences of harmful injuries.

As revealed by Rosdi, & Hamid (2019) a total of 323 injuries were recorded throughout the event. This can correspond to 5.3 injuries per a hundred collaborating athletes and 5.9 injuries per a thousand athletes per day and hockey is also recorded injuries throughout the event. Therefore, to reduce the number of injuries occurring, field hockey organizations had taken a step further in enhancing preventive strategies such rule changes, advance in warm up and technique and equipment modification. (Tevfik Cicek et, 2020) In conclusion, injury prevention initiatives can help reduce injury rates among athletes. In their sports studies, numerous authors have successfully identified problems relating to the frequency and severity of sports injuries and have worked on direct measures for their prevention.



1.2 Background of the study

Protective equipment is a set of sportswear that included helmets, protective eyewear, mouth guards, face protection, jock straps, life jackets, safety mats, pads and guards, protective footwear, and many more. Depending on the sport, protective equipment was designed to protect the athletes from injury risk that may result in serious accidents while in sport participation. As a result, lots of sport organization have introduced regulations mandating personal protective equipment applications.

Meanwhile, hockey is one of the contact sports requiring sport protective equipment application as a preventive measure to minimize the risk of injury. Therefore, research



was conducted not only on injury history but also to determine the level of knowledge and application of protective equipment among hockey players at Universiti Pendidikan Sultan Idris. In this research, hockey players from Universiti Pendidikan Sultan Idris randomly participated and each of the players are have a different background of categories such as UPSI hockey team player, Cocurricular hockey player, and recreational player. The finding from each objective will be used to make recommendations that will see them enhance their knowledge and discipline in practice and care more on their safety while doing sport participation.

1.3 Problem statement

A study reported that an overall injury incidence rate was at 3.7 injuries per 1000 player hours which explained injury incidence while in practice (2.7 per 1000 player practice hours) is lower than in the matches (9.7 per 1000 player match hours). (Hollander et al, 2018). Moreover, a study conducted by Manaf et al, (2021), reported that injury is noticeably high among field hockey players in Malaysia in which more than half of the players had lower limb injuries (51.6%) male athletes suffered more injuries (50.8%) than female athletes (49.2%). Even though sports protection equipment has been practiced as injury prevention in hockey, there is still an increase in the number of injuries occurring among the players. Based on the statements above, the researcher interested to find out the level of knowledge and application of protective equipment among hockey players in Universiti Pendidikan Sultan Idris?

1.4 Objective

The research objective which is used as a guideline throughout the process of the study stated as below:

- 1.4.1 To identify the injury history among hockey players in Universiti Pendidikan Sultan Idris.
- 1.4.2 To identify the level of knowledge and application of protective equipment among hockey players in Universiti Pendidikan Sultan Idris.

The research question is a particular part of an inquiry into a form of problem or issue. It is the beginning of the research process to determine the research question of what the researcher wants to investigate. This research questions are as follows:

- 1.5.1 **RQ1:** What is the injury history among hockey players in Universiti Pendidikan Sultan Idris?
- 1.5.2 **RQ2:** What is the level of knowledge on using sports protective equipment among hockey players in Universiti Pendidikan Sultan Idris?

1.5.3 RQ3: What is the level of application of protective equipment practiced by hockey players in Universiti Pendidikan Sultan Idris?

1.6 Limitation

Limitations are issues and events in a study that is beyond the researcher's control. They limit the extent to which a study may go, as well as the results and conclusions that can be derived. Every study has limits, no matter how carefully it is performed or structured. As a result, the researcher has recognized the following shortcomings in this study:

1.6.1 Under/over-report the questionnaire: The respondent has the possibility to under or over-report the questionnaire.

1.6.2 Random sampling (Hockey players): the respondents randomly selected among Hockey players in UPSI only.

1.7 Operational Definition

I. Knowledge

- Knowledge is considered a collection of experience, relevant information, and qualified insights. It provides a structure for evaluating and integrating new experiences and information. (Mohajan, (2016))

- Knowledge acquisition involves complex cognitive processes such as perception, communication, and reasoning. On the other hand, knowledge is also related to people's ability to recognize.

II. Field Hockey

- Field hockey is one of the most competitive and fast-paced sports in the world, in which this type of sport is a contact sport that played both artificial and natural grass. This sport involves several strategies including the striking, pushing, flicking the ball, and making abrupt, rapid changes in direction, and being categorized into 3 positional groups which is strikers, midfielders, and defender. (Manaf et al, (2021). Moreover, this sport also can be played at all skill levels and ages, from the recreational of an elite professional. (Rees Huw et, 2021)

III. Protective instrument

- Protective equipment is used to protect against injury. To be beneficial to the player, personal protective equipment must provide the intended protection, fit snugly, be comfortable, and not interfere with activities in the sport. Personal protective equipment should also be worn at all times for maximum benefit. For example, in rugby, you need to use a mouthguard in both practice and competition games.

IV. Injury prevention

- Injury prevention is defined as an activity aimed at preventing, mitigating, treating, and/or mitigating injury-related disability and death. (Hamenway et al. 2006) Injury prevention is the prevention or mitigation of physical

injuries caused by external factors such as accidents. Injury prevention is an integral part of safety and public health and aims to improve people's health by preventing injuries and thereby improving their quality of life.