

First Aid guide for football referees

Besai Muñoz Sanchez

| DEGREE THESIS | | | | | |
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Abstract:

Football is, if not the most popular, one of the most popular sports in the world. As well as in other sports, injuries happen while practicing football. They are unavoidable, as football is a very physical and demanding sport. Referees are the ones in charge of the game until it ends and they are also the ones closest to the players when an injury happens. The purpose of this Thesis is to create a First Aid Guide for Football Referees, intended to give referees skills and knowledge in First Aid in case a serious injury happens during the football match and care would be immediately needed.

Suomen Palloliitto Helsingin Piiri has commissioned this Thesis work and the referees listed in Helsinki region who officiate in Helsinki's lower divisions are the target group of this project. This group of referees was chosen because in National League's matches there is always First Aid teams and ambulances present, so there is no need for Referees to give any kind of care if an injury happens.

This product was developed by reviewing relevant literature needed to produce the guide and sending to referees a questionnaire in which they asked to tell their opinion on the idea of educating Referees in First Aid as well as suggestions of what they think is important information to add as content of the First Aid Guide for Football Referees.

The final product will be presented in a voluntary day-course where referees will be taught in First Aid.

| Keywords: | Product development, first aid, first aid guide, football injuries, Helsinki, football, referees. | | | | |
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Sammandrag:

Fotboll är, om inte den mest populära, en av de populäraste sporterna i världen. Liksom i andra sporter, inträffar skador medan man utövar fotboll. Det är oundvikligt eftersom fotboll är en mycket fysisk och krävande sport. Domarna är de som är ansvariga för matchen fram till att den slutar och de är också de som är närmast spelarna när en skada inträffar. Syftet med denna uppsats är att skapa en Första Hjälps Guide för fotbollsdomare med avsikt att ge domare färdigheter och kunskap i Första Hjälpen ut i fall att en allvarlig skada inträffar under fotbollsmatchen och det finns ett omedelbart behov av vård.

Suomen Palloliitto, Helsingin Piiri är beställare för avhandlingen och det är de domare som tjänstgör i lägre divisionen i Helsingforsregionen som är målgrupp för arbetet. Denna grupp av domare blev utvalda eftersom att det i de Nationella ligamatcherna alltid finns Första Hjälpen team och ambulanser närvarande och då finns det inget behov av att domarna ger någon form av vård om en skada inträffar.

Den här produkten utarbetades genom granskning av relevant litteratur som behövdes för att framställa guiden. Ett frågeformulär skickades ut till domare där de tillfrågades om deras åsikt angående idén av att utbilda domare i första hjälp samt förslag till vad de anser är viktig information att lägga till som innehåll i Första Hjälp Guiden för fotbollsdomare.

Den slutliga produkten kommer att presenteras i en frivillig dagkurs där domare kommer att utbildas i Första Hjälpen.

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Tiivistelmä:

Jalkapallo on yksi maailman suosituimmista urheilulajeista. Niin kuin muissakin urheilulajeissa, myös jalkapallossa tapahtuu loukkaantumisia. Niitä ei voida välttää, koska jalkapallo on hyvin fyysinen ja vaativa urheilulaji. Erotuomarit ovat vastuussa jalkapallopelistä sen päättymiseen saakka, ja he ovat myös lähimpänä pelaajia, kun loukkaantuminen tapahtuu. Tämän opinnäytetyön tarkoituksena on luoda jalkapalloerotuomareille ensiapuopas, joka antaa erotuomareille taitoa ja tietoa ensiavusta, kun jalkapallo-ottelussa tapahtuu vakava loukkaantuminen ja apua tarvitaan välittömästi.

Suomen Jalkapalloliiton Helsingin piiri on antanut tehtäväksi tämän oppaan ja Helsingin piirin alempien sarjojen jalkapalloerotuomarit ovat tämän projektin kohderyhmä. Tämä erotuomariryhmä valittiin, koska Veikkausliigan peleissä on aina ambulanssi paikalla, joten erotuomareiden ei tarvitse antaa ensiapua loukkaantumisen sattuessa.

Tämä tuote kehitettiin tekemällä katsaus oppaan kannalta oleelliseen kirjallisuuteen sekä lähettämällä erotuomareille kysely, jossa heitä pyydettiin kertomaan mielipiteensä jalkapalloerotuomareiden ensiapukoulutuksesta sekä kertomaan mikä olisi heidän mielestään tärkeää tietoa ensiapuoppaaseen.

Valmis tuote esitellään jalkapalloerotuomareille vapaaehtoisella päivän kestävällä ensiapukurssilla.

| Avainsanat: | Tuotekehittely, ensiapu, ensiapuopas, jalkapallovamma, | | | | | |
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1 INTRODUCTION

The idea of this product development is very connected to my own life, interests and hobbies. Sport has always been a great part of my life and time. During my free time I practice a lot of sports, especially Triathlon. In addition to that I am also a Football Referee.

When nursing started to become a reality and not just a dream profession, ideas for the Degree Thesis were under search.

It was always clear to me that I wanted to develop a product. Something, in the future, that somebody could make real and have a real use of.

It was then the idea came from the hobbies I practiced. At some point I always knew I wanted to interconnect a subject that had to do with nursing and sports. The idea produced something to unite both subjects.

While officiating as a referee for a football match a specific situation arose that gave me the idea for this thesis.

A normal day of summer during an A Junior's division match, in the mid time, one of the team's coaches came to the referees asking for a player substitution. He continued talking and mentioned about the physical state of the player. The player was a 17 years old boy. He explained that the player felt dizzy and that he had some sort of chest pain; the player was not feeling good and that is the reason a substitution was needed.

It was then when I, as a Nursing student, felt an alarm. Rapidly I called the game to be on hold for a bit longer and went to see the player and check on how he was feeling, as it wasn't a normal situation he was suffering. The player had had a heart malfunction since he was born and his coach didn't know about it. He was suffering from symptoms of a heart attack. After doing some tests and the player calmed down and the symptoms smoothly went away, but an ambulance was called anyway just to make sure everything was good.

It was at that exact moment when I, a Nursing student and referee, thought of this idea for this thesis. I realized, "What if something more serious happens? How is that situation going to get under control? How long will the ambulance take to arrive to the place? Who will apply First Aid if needed?" I thought that the referee, who is the responsible person during the match and the one that is in contact with the players, would also be the right person to apply First Aid and take control of any situation if the situation demands it. Surely I thought about the club's health team job and responsibility to act in that specific case, but in that specific case they weren't prepared and didn't know how to react.

The idea was approved by Arcada. I then took it to the person responsible for preparing and teaching referees where it received great acceptance. Finally the idea of this product development thesis was accepted and commissioned by Suomen Palloliitto Helsingin Piiri with the condition that I hold a "day-course" for Football Referees at their head-quarters when the final product is done and ready to use.

This product will hopefully make referees react in situations that might need courage and skills. Not only as referees but generally as human beings.

2 BACKGROUND

Football is a team sport in which the main purpose is to score in the rival's goal with a ball by kicking it with the feet or other parts of the body except the hands.

Football is one of the most played sports all around the world. It is a hard sport and very physical, leading to injuries. In this sport, injuries are unavoidable and the only way to try to avoid them is by being in good physical condition, by the help of guided training programs. Another way might be by having knowledge in First Aid to help the one injured or even yourself.

Football teams have a person in charge of the team's health in case something happens before, during or after a game. In every Finnish region there are 3h courses for the health team to learn about health care and first aid to be able to work in a football team. (SPL Helsinki / Koulutus 2013). In this course, health teams are taught to provide care when an injury happens, however this specific course focuses on soft injuries and doesn't teach about serious possible injuries that might quickly need First Aid. Therefore, it is possible that the health team doesn't necessarily know how to, in a case of serious injury, give First Aid if needed and that is the reason why this project of creating a First Aid guide for referees is necessary.

Referees are the people in charge of the game until the game ends. This means they are also in charge of security during the game, also they are in charge of the health of the players during the game time until it ends (Suomen Palloliitto 2013a).

Football, in Finland, is a sport that year after year grows very fast according to the player licenses lists. This can be seen in SPL Helsingin Piiri's (Helsinki Region's Football federation) website (SPL Helsinki 2013).

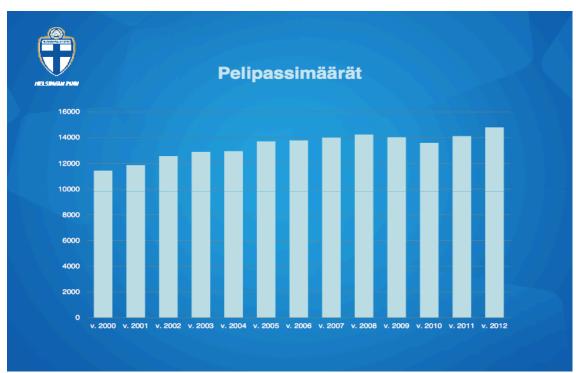


Figure 1. Football growth in Helsinki.

Source: Suomen Palloliitto Helsingin Piiri

In the year 2000 the number of football players in Helsinki region was a little over eleven thousand, when in 2012 the number grew by more than four thousand. The exact number of players in Helsinki at the end of 2012 was 14798.

Football, in Finland, is not only growing in Helsinki, but is also growing in other parts of the country, like in Tampere and Turku, among others.

Data shows that during summer of the year 2011, in the Helsinki region, an exact number of 11753 football matches were played, and in 2012 increased to 12565 football matches. These numbers also show football growth not only in quantity of players, but the increase of player's affects on the following increase of official matches; this is only during one summer league (SPL Helsinki 2013).

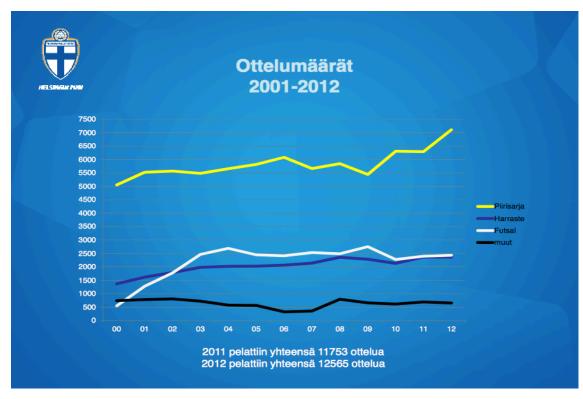


Figure 2. Official football matches played in Helsinki.

Source: Suomen Palloliitto Helsingin Piiri

It must be noted that the information previously given refers to normal official division matches, and does not count friendly games, indoor football matches, or other kinds of matches played during a season. That means the number of games played in one season is a lot higher than the number given before.

Football growth research serves this study as background information to explain the aim of this thesis. As the number of football matches increases so do the injuries that happen on the football field. These injuries are most often quickly taken care of by calling for help and applying First Aid.

There have been many studies done on sports' first aid. But not much focusing on the referee's work and their importance during the football match. In general, studies have been done for specific sports. For example: Volleyball and First Aid (Ovaskainen 2013), Ice Hockey and First Aid (Jakonen 2014) or Mixed Martial arts and First Aid (Lampinen 2011).

As this study is focused on guiding specifically football referees in first aid, it is very important to also follow football rules correctly, as referees work in the field according to football rules.

This project focuses on serious injuries that can happen during a football match. The reason why it is focused on serious injuries is because when they occur quick and effective first aid must be given to the injured player. The "not so serious" injuries may also need first aid, but in that case the team's health team would come into the field, with the referee's permission, and do his duties. After that the player would have to leave the field to continue the treatment (if needed) and come back to the game, again with the referee's permission (Suomen Palloliito 2013).

This study defends the idea of Referees having knowledge and skills in First Aid when dealing with serious injuries because according to football general rules the referee must be in a good position and in the right place in the pitch. This also means that at all times they have to be as closes as possible to the ball (Suomen Palloliitto 2013b).

This study is meant for the lower division leagues, not the National League, as in National leagues there is always an ambulance present and referees don't need to apply First Aid in those cases.

2.1 First Aid

First Aid is the application of initial care to an injury or an illness. Normally non-experts help by giving First Aid, but mostly with instructions given by professionals or by having assisted with previous education of the subject. First Aid is considered any kind of initial care applied, whether it is a superficial injury or not (Castrén et al. 2012d).

In every country First Aid guidelines are regulated in different ways and protocols. This study is done in Finland. Therefore, it will be regulated by the latest First Aid guidelines published in Finland.

Guidelines of First Aid are renewed every few years. That indicates that in order to know the correct application of it, continuous studying and self-preparation is required, as protocols of First Aid might change.

First Aid and Intensive care must be clearly differenced. As already mentioned, First Aid is the application of initial care to an injury or emergency and Intensive care is the application of care to the critically injured. Patients are monitored to control vitals at all times and always in a hospital environment (HUS 2014). This study focuses on the initial care, which needs to be applied in case of a serious injury in football.

This study stresses in the application of initial care to a seriously injured football player while waiting for the ambulance to arrive. This means that adaptation to every situation is required, and the need of acting according to the symptoms, as no diagnose can be made.

2.2 Football injuries and emergenceis

Football injuries are considered any physical injury that happens to a player during football training or during a match. A physical injury does not depend on if it needs medical attention or not, nor if the player will be absent from the training or practice (Fuller et al. 2006).

In the case of serious injuries, the referee is the correct person and the closest person to offer acute help in those situations where First Aid is quickly needed. This also means that in those cases, referees will be in charge of that injured football player until an ambulance arrives. Referees are in control and can delegate others in other duties, for example to call the ambulance, or to prevent people approaching too close to the injured player. All these things are important for a referee to know: to react when something serious happens, knowing what to do, and also knowing what to expect from the situation that is happening. The guide would be a great tool to avoid very serious injuries, chronic injuries and even save the lives of football players.

In general, serious injuries don't happen often, but if they happen it will be very efficient to be prepared to act. Studies show that most injuries in football happen in the lower extremities. Mostly they happen by physical contact, by running, by ball kicking, jumping, etc. (Wong P 2005).

By concentrating on serious football injuries, this study focuses on injuries where there is a need for an ambulance to come. For example, a twisted ankle, ball impacts onto a player, nose bleedings or wounds are not considered serious injuries in football. These examples are ones that also need first aid, but they are not serious as the player will probably be able to continue the game afterwards.

In cases of injuries where the referee will need to give or assist in giving first aid to a player, he or she will need, as in all injuries, the game to be stopped. The difference however with serious injuries compared to non-serious injuries is that the referee is in charge of the injured football player until the ambulance arrives. The game will not continue until the ambulance workers take control of the situation and move the patient off the field. It is only then the game can be continued, if the referee decides it is suitable to proceed.

The referee is the one in charge of the situation. Since the referee is the person closest to the injured player, he or she would be the correct person to perform the care needed to that injured football player while waiting for the ambulance to arrive.

The following serious injuries are considered to happen during a football match.

2.2.1 Chest Pain

When a person suffers from chest pain it might be because of lack of oxygen in the heart muscle. This can lead to a block of the blood circulation in the heart that can be caused from different diagnosis (Myocardial Infarction, Coronary artery disease, Heart failure, Angina Pectoris) (Castrén et al. 2012b).

One of the best-known diagnoses is Myocardial Infarction. It is defined as the changes that occur in the myocardium (heart muscle) due to the momentary lack of blood circulation (Chen 2013).

Myocardial Infarction is more commonly known as "heart attack." The symptoms of myocardial infarction can be:

- Chest discomfort: pain, pressure.
- Pain/discomfort in arms, shoulder, neck, back.
- Shortness of breath
- Nausea, vomiting, dizziness, sweating.

In football, there have been many cases of heart attacks during a match. Some cases have been in worldwide newspapers due to their important status. For example, in the English Premier League, a player had a heart attack; he collapsed and was taken by the ambulance immediately (Huffington Post 2012). Some cases end up in death.

Having access to a defibrillator in these cases is very important, but not all football stadiums or sport resorts have them (Baxter 2012).

Immediate and effective first aid in chest pain cases can save lives and it is important to learn the correct steps that must be taken in order to provide first aid.

When there is the need of applying First Aid to a person with chest pain, as the diagnosis is unknown, the only things that can be done is observing the symptoms and apply care according to them.

The First Aid steps to follow (Suomen Punainen Risti 2014c) would be: immediately call 112, calm the person down in case he/she is agitated, putting the person in a half-sitting position. Next, check pulse. If available, give aspirin. Make sure that the person is not allergic to acetylsalicylic acid. Finally, check breathing is normal.

2.2.2 Unconsciousness and CPR

When a person is unconscious it can be from many reasons and diagnosis, but when talking about First Aid those background reasons are the least we need to care of at that moment. We need to know how to deal with unconsciousness and with lifelessness possibility.

Unconsciousness is when one can't respond to people or activities. It must be treated as an emergency (Heller 2013c). It can also happen in football and quick reaction is needed.

Unconsciousness can happen for many causes. The most common causes are: traffic accidents, severe blood loss, a strong blow on the head, drug poisoning or alcohol abuse.

A person can also be momentary unconscious because of low blood sugar, low blood pressure, dehydration, problems with the heart's rhythm or neurological issues (seizure, stroke) among others (Kahn 2012).

When applying First Aid to an unconscious person breathing becomes the first vital we need to check. A person can be unconscious and can breathe, as well as being uncon-

scious and not breathe. The First Aid steps that must be taken are the following (Suomen Punainen Risti 2011b):

Before checking if the person breaths or not, try to wake up the person by shaking his/her body and talking to him/her. Then call 112 and keep onlookers away.

If person is breathing, make sure the breathing is normal. Listening and checking the breathing is not enough, but also chest must move up and down as a sign that air is going correctly to the lungs. Put in Recovery Position (See Appendix 3).

The Recovery position's instructions are (Epilepsy Society 2013): kneel on the side of the unconscious person; place person's arm nearest you at 90° angle with hand pointing upwards; place the other hand on the opposite side's cheek; take the knee that is furthest from you, bent it in 90° angle and pull the knee towards you until person lies on his/her side; arms and legs placed correctly should support the position; finally raise the chin by pulling it up gently with one hand to open the airways for an easier breathing flow.

If the person does not breathe (Nurmi 2011, Suomen Punainen Risti 2011a) CPR (Cardiopulmonary Resuscitation) should be performed. The steps are:

Place person on his/her back on a hard surface. Then, open airways by gently pulling the chin up with one hand. Place the heel of your hand on top of the breastbone. Place the heel of the other hand on top of the first hand. Straight your arms and place your body in a perpendicular position from the person's chest so that your arms are on a straight line. Now is time for Compressions. Compressions should be about 5-6cm deep and at 100-120-times/minute rate. Use the weight of your body and don't use the strength of your arms, as you might get easily tired. After compressions it is time for blowing air into the person's lungs through the mouth. Open airways again, close the person's nose by pinching the nostrils with two fingers and blow gently two (2) times. You should see the chest moving up and down. Always after 30 compressions comes 2 blows (30+2). Continue until ambulance arrives.

If person starts breathing again, stop CPR and put the person in Recovery Position.

2.2.3 Seizures

Seizures can disrupt functions that the brain controls, such as movement, sensations and thoughts (Fisher et al. 2013).

Seizures can be brought from many causes. Some of the causes are: epilepsy, brain bleeding, head injury, infections, meningitis, stroke, medication overdose, high blood pressure, hypokalemia, hyponatremia or high fever among others (Castrén et al. 2012c).

Having seizures doesn't mean a person can't do sport or exercise. In fact, physical activity helps avoid risks of seizures. Seizures may occur without previous warning and this is why it is important to know how to treat them, as they may occur also during a football match (Epilepsy Foundation of Victoria 2012).

This is not much seen in football fields, but it is important to know how to provide first aid if it occurs during a football match.

The best way of applying First Aid when a person suffers from a seizure and diagnosis is unknown is the following (Suomen Punainen Risti 2014a):

First, call 112 and keep onlookers away. Never forcibly hold the person down or put anything inside the mouth. Remove nearby objects that could hurt physical integrity. Remember to never leave the person alone. Keep airways open. When the seizure calms down, put the person in Recovery Position.

2.2.4 Head injury

Head injury is damage to one or more structures of the head from the consequence of a trauma. Damage to the brain can be brought from head injuries. It also involves damage in the bones and muscles of the head (Heller 2013b).

Head injuries can be classified in two groups:

- Open (or penetrating): Hit by an object that broke the skull.

 Closed: Skull did not brake. Invisible signs of injury to the face, head or brain.

Head injuries can cause three different problems:

- Concussions: brain function disturbance consequence of a blow in the head.
- Scalp wounds.
- Skull fractures.

All injuries in the head are considered serious, because even when there are no visible signs of trauma, a small blow to the head can injure the brain or the spinal cord. Symptoms might not happen immediately, but they can appear a few minutes after the injury, sometimes hours or even days later (Heller 2013b). Some symptoms of concussions can be: altered consciousness, disorientation/confusion, headache, changes in the vision, nausea/vomiting, fluid from nose or ears (Heller 2013a).

While injuries in legs and feet happen in 60% of the cases of football injuries, head injuries occur 4% - 22% of the cases of football injuries. It can happen by hitting the ball in an improper way, hitting a high-speed ball, by running into another player, or by hitting an object (ex. goal post) (Kirkendall DT, Jordan SE, Garrett WE 2001).

In total, concussions make up 2% - 3% of all injuries. The affect of concussions is memory loss and confusion (Washington University of Neuroscience 2014).

A Norwegian study has discovered that brain damage has been found in over 35% of 69 football players tested, which is also found in retired players (Tysvaer 1992).

Football players who have suffered from head injuries have also neuropsychological effects. They suffer from lack of attention, concentration, and memory (Fitzgerald 2013).

In these cases the possibilities of applying First Aid are very limited. The process would be like this (Castrén et al. 2012a):

First, call 112. Minimize movement of the head, as it could cause more damage. Keep onlookers away to avoid disturbance. Monitor breathing. Finally, if the person is unconscious and not breathing, apply CPR.

2.2.5 Bone fracture

A bone fracture is a break in a bone, complete or incomplete, consequence of the application of excessive force (Vorvick 2013).

Bone fractures are very common in football. The most common fractures occur in the lower extremities. Injuries such as fractures of the tibia and the fibula are the most frequently seen fractures in football.

Making a wrong kick by kicking the adversary by mistake and not the ball, with the tibia for example can produce this kind of fracture. These injuries are visible and player suffers from a lot of pain when they occur (Boden et al. 1999).

Even though fractures in lower extremities are the most common football fracture injuries, fractures in other parts of the body also occur, for example, in upper extremities, ribs or even in the back.

In general, most fractures need the same kind of first aid treatment. First aid is the first needed treatment, followed by a check-up of a physician to evaluate the need of surgery or another kind of recovery treatment (Quinn 2010).

When there is a fracture, normally the patient suffers from pain, difficulty in movement, bleedings, swelling and often there is deformity.

The initial care to apply is the following (Suomen Punainen Risti 2014b):

Support fracture with clothing items and/or hands if fracture is located in the upper body. Prevent any movement of the fractured bone. Put cold in the injured area, as it relieves swelling and pain. Call 112, because hospitalization might be needed for checkup (unless the patient has possibility to go to hospital without need of an ambulance).

2.2.6 Joint dislocation

Joint dislocation is a displacement of a bone from the joint. It can also be called luxation. The most joint dislocations seen are in fingers, in the thumbs, shoulders, and hips. Loss of motion, temporary paralysis in the joint and pain are some of the symptoms of joint dislocation (Jacob 2012).

These kinds of injuries happen mainly in the lower extremities in football, as these are the body parts that are involved in a higher range of physical contact during the performance of this sport. The most common joint dislocations happen in the shoulder joints, though dislocations can occur in anywhere of the body (Eustice 2006).

These are also injuries that are very visible and shocking in football. Players are in a lot of pain when they suffer joint dislocation injuries.

Joint dislocations share similar symptoms with fractures as well as First Aid processes. It is important to understand the necessity of following strictly the First Aid steps, because of the low rate of possibility of differencing fractures from joint dislocations. Also, often, joint dislocations lead to fractures on the head of the bones (Powell 2013).

3 THEORETICAL FRAMEWORK

The product developed through this thesis will be used to teach referees first aid on the football field therefore it is appropriate to use a pedagogical theoretical framework.

Pedagogy is a content model that aims to transmit information and skills. The teacher decides in advance and prepares the information or skills to be transmitted and then selects the most efficient ways for sharing the content. For example, lectures, readings, exercises or films, among others (Holmes, Abington-Cooper 2000).

Constructivism philosophy in pedagogy defends the idea that learning is an active process of creating meaning from experiences. This means that the learner will learn best by understanding the transmitted information on their own with the guide of a teacher (Chambers, Thiekötter & Chambers 2013).

Quality teaching and pedagogics are based on a professional responsibility by guiding in an ethical way and by having proper previous preparation (Marcum et al. 2002).

The model that this study uses is the lecture, as this product will be presented to the target group in a day-course and the content that will be transmitted will be the product developed in this study, the "First Aid Guide for Football Referees".

The teaching in the day-course will be in a visual form as well as in an interactive form, where students will actively participate in simulations. A plan is developed prior to the course so that it can be easy to follow (McNeil 2012).

4 AIM

The aim of this study is to create a first aid guide for the use of teaching the football referees of Suomen Palloliitto Helsingin Piiri first aid skills.

This study will focus on three main areas that will help develop the product:

- 1- How is football and what injuries related to football are growing in Finland?
- 2- What kind of serious injuries happen during football matches, and how often do they happen?
- 3- What kind of information would help referees to react properly when injuries happen?

This study will provide information to football referees from Helsinki region to develop first aid knowledge, so that they can be ready in case serious injury happens during a football match. They will be ready to react quickly and prepare the "patient" for the arrival of the ambulance. This also means that it is the referee who is going to take control of the situation and make sure nothing and no one interferes with the safety of the patient.

This study has been commissioned by Suomen Palloliitto Helsigin Piiri's office. Suomen Palloliitto Helsingin Piiri has the right to change information if needed and teach it in the way they might see it better.

In this case, it has been agreed that the way to begin teaching referees in First Aid is to allow the student in charge of the study voluntarily once or twice a year (depending on the needs), teach referees using the First Aid guide shown in this project as the main source of information. This will be voluntary, for the "teacher" as well as for the referees who will participate in the day-course.

The Guide will be sent as a .PDF document to all referees listed in Helsinki region so that they could voluntarily read it and learn from it.

5 METHODOLOGY

This project is a product development study. The end result, a "First Aid guide for football referees", has been developed through researching football injuries as well as First Aid principles.

In order to find the correct information needed for creating the product data was collected through a review of literature and by use of a questionnaire, gathering data on the referees' knowledge of the subject.

Important sources for the elaboration of the background information are Suomen Palloliitto office in Helsinki and the book "Laws of the Game" (Jalkapallo Säännöt 2013).

Similar works done by other students (Anttonen, Toivanen 2013, Lagerblom 2007, Melo 2007) in the health care field were found very helpful and used as guidance to help in the creation of the guide. Although this study is focused on football referees, the principals of First Aid are the same and that is the reason why they are useful in this case.

As this kind of work focused on and for football referees has never been researched, there is not a background proven theory on what needs to be included or not in the guide.

As well as all this material, a questionnaire is been handed out to a group of football referees in Helsinki region.

5.1 Questionnaire

A questionnaire has been sent via web-survey to a group of referees in the region of Helsinki previously accepted by the educational institution. It was sent to a total of 145 referees, of which 28 (19%, n=145) of them answered the questionnaire in a period of one month.

The survey included a total of four questions asking about personal experience working as a referee in football matches, regarding serious injuries. Also, their opinion was asked about the need of First Aid education for referees.

Respondents answered anonymously and their names won't appear anywhere. The questions were answered in a form of free text.

6 ETHICAL CONSIDERATIONS

This Degree Thesis has followed ethical rules throughout the process. Firstly, nothing has been handed out to anybody to read or comment without first getting permission from a responsible teacher.

Suomen Palloliitto Helsingin Piiri's_(important source and target group) has granted permission to write and mention them in this study. All the information given by them is also published on the web for everybody to see. As well, rights have been given to Suomen Palloliitto Helsingin piiri to suggest changes if they think it is needed and they also have the rights to use the final product as they want. As this will be a tool for their use, this way it is better for them to work with.

All sources from where information has been taken, online and printed sources are reviewed and revised in order to gather relevant material that makes this study reliable.

As this kind of study has never been done before from the point of view of a football referee, the information taken has followed ethical considerations from a referee's perspective, always following the Laws of the Game of Football (FIFA 2013).

Football ethics covers equally officials (referees) and players, and it considers rules of conduct, respect, cooperation, fair play and loyalty (FIFA 2012).

Participants of the questionnaire were, at all times, informed of the thesis idea and project. Prior to taking the questionnaire a letter was handed out (see Appendix 1) through a social media service from a private Football Referee group from Helsinki. The letter included the main idea of the Degree Thesis and asked referees to voluntarily answer the questionnaire. They were also informed that the questionnaire was going to be anonymously answered and no names will be published (World Medical Association 2013).

The final product will be presented at the Suomen Palloliitto Helsingin Piiri's headquarters as a "day-course". The course will be voluntary and no one will be forced to assist. Though, as it is ethically correct and good, the final product will be sent to all referees listed in Helsinki Region so that they can read it and learn from it.

7 RESULTS

The guide's function is to teach First Aid to football referees. It is aimed at informing how to apply First Aid in serious situations where quick and effective First Aid is needed. The product developed is done in the Finnish language, as the target group is Finnish speaking.

Together with the answers from the questionnaire, filled out by referees, and my personal knowledge in the subject, the content of the guide has been selected.

Every potential case explained in the guide is shown step by step in the right order so that the care provided would be effective.

The guide's perspective is always from a football referee, by remembering the Laws of the Game (Football), its rules, and acting at all times according to them. When proceeding to apply for First Aid, it will be given according to health and First Aid protocols. At this point some might think this could be a conflict, but this study has at all times been done from the referees' point of view. Meaning that, in reality providing First Aid isn't the referee's job, so in case some serious injury happens and there is need of acting fast because of the severity of the situation the referee will give First Aid, prior putting the game on hold and having at all times control of the game and the people in it.

Pedagogically the product is done in an easy way to understand including visual content as well as text in a form of presentation slides also printable from a .pdf file, which can be shared unlimitedly and only with lecture rights.

The contents of the guide will be taught in lecture form to football referees. Teaching strategies will be performed in order to make the education easier by listening, looking, and making a live diagnosis on how it is better to teach that specific group of students. It will be an interactive teaching method where students (referees) can actively participate in the teaching, asking questions as well as practicing by performing First Aid simulations (Shempp 2003, de Tornyay, A.Thompson 1982).

The author of the guide has taken the photos that appear in the final product.

7.1 Questionnaire Analysis

The questionnaire had, in general, very good feedback after reading all the answers given to each question of the questionnaire (see Appendix 2).

Question number one (1) aims to find out if referees had ever experienced dealing with a serious injury during a football match and if they have had, to explain their personal experience of how it occurred and how it was taken care of. Out of 28 total respondents to the questionnaire, 24 people (86%, n=28) answered this question.

The results of the first question revealed that a referee who has worked for one year has already seen injuries and at least one or two serious injuries. Only 7 (29%, n=24) answered they hadn't seen any serious injuries.

There were 17 (71%, n=24) referees who answered that they had recognized seeing serious injuries. Mostly, in every case shared, an ambulance was called and as soon as it arrived the paramedics took care of the situation. Respondents commented about injuries, such as, bone fractures, joint dislocations and head injuries. None of the respondents reported seeing the symptoms of a heart attack, an actual heart attack, nor seizures at a football match.

Question number two (2) aims to find out referees' opinions on the idea of receiving education in First Aid and if they thought it was necessary and/or useful.

All respondents answered this question. With exception of 3 referees (11%, n=28), they all answered it was necessary and useful, not only as referees, but also in everyday life. The answers suggested that if they were trained in First Aid, they could also use it when needed in football matches. Although, those who answered that First Aid training wasn't needed or useful as referees also thought as human beings it is a needed and useful training. Those that opposed First Aid training for referees commented that during a football match that job corresponds to the club's health team and there is no need on teaching referees about First Aid, as health teams should have been already taught First Aid.

Question three (3) aims to obtain information on how many referees have participated in a First Aid course before.

All respondents answered this question. 19 of them (68%, n=28) have had education in First Aid before. Mostly all received it during their army service in a young age and some mentioned their First Aid training was many years ago. Nine of them never had this kind of education before.

Finally, question four (4) aims to find out referees' opinions on the idea of having a one-day course in First Aid for football referees and if they would like to participate. It was also asked what, in their opinion, was important to learn about.

Out of 28 total respondents to the questionnaire, 27 (96%, n=28) answered this last question. Only 6 (22%, n=27) answered they wouldn't participate in the course offered. The answers to this question suggest that there is a great motivation and interest for this subject.

Suggestions to what would be important to learn in a one-day course vary from one question to another. There were suggestions such as, "what to do when there are fractures," or "for heart attacks," or "what to do when a seizure happens," or "just to learn some basic knowledge in First Aid".

It was interesting having different points of view from a single question. It helped in putting together the content of the "First Aid guide for football referees".

Referees, in general, understand and support the idea presented in the questionnaire. The focus was to find out the interests of referees in this specific subject of First Aid.

8 DISCUSSION

This thesis has been both a challenge and a great personal experience. Throughout the making of the entire thesis content and the product there has been several phases, some easier and some others harder. But in general, the word I could use is challenging.

Taking the idea for this thesis to the next level was easy as I, as a referee, had the contacts of the responsible person in Suomen Palloliitto Helsingin Piiri, and the idea was accepted and signed in a very short period of time. Communication with the representa-

tive and responsible person of Suomen Palloliitto Helsingin Piiri was kept throughout all the time.

Once the thesis project was commissioned came the phase of literature review. This phase took the most time, as this phase was where most of the content of the study was decided and collected.

When I started the writing process the main idea of the content was in the plan, but during writing, some of the content was changed, as some was added and some was taken off. Next, the questionnaire was sent to the football referees listed in Helsinki region. 28 referees answered the questionnaire (19%, n=145). The answer rate was low but they came in a quite short period of time and that gave me an extra motivation to continue with the thesis. The number of answers received were enough for me to help make the selection of material that was to be included in the final product.

By following guidelines in First Aid, the making of the guide was easy. Having used reliable sources, guidelines and methods to create the guide, the final product is suitable for teaching First Aid to a non-health professional target group, and that was the main aim of this project. Hopefully it is easy to read, has good visual content and it is therefore easy to follow.

Unfortunately, the one-day long course that was planned together with Suomen Palloliitto Helsingin Piiri to teach Football referees in First Aid couldn't be held this spring due to the low participant applications to the course. The reason for this is unknown. Throughout the process of the making of the thesis and the product I had always received very good comments from the referee community when talking about my project. However in those conversations a few referees asked if attending the course would give credentials in First Aid and if they would receive the EA1 First Aid license signed by me. I believe that as it not possible for me, as student, to give First Aid licenses to anybody that this might be one of the reasons of the low participant applications to the day-course in First Aid for football referees.

The responsible person in Suomen Palloliitto Helsingin Piiri has informed that I can hold the one-day course in First Aid for football referees another time during this year, most likely after the summer. They will be in contact with me as soon as there is an exact day fixed for the course and course enrollment applications can be submitted.

Despite the day course not taking place as planned, the final product will be sent by email to all referees listed in Helsinki region as promised.

REFERENCES

- Anttonen, H. & Toivanen, M. 2013, Ensiapuoppaan laatiminen jalkapalloseuralle, Lahden Ammattikorkeakoulu.
- Baxter, K. 2012, *The frightening frequency of heart attacks in soccer*, 01st edn, LA Times / http://articles.latimes.com/2012/apr/21/sports/la-sp-baxter-soccer-20120422.
- Boden, B., Lohnes, J., Nunley, J. & Garrett, W.J. 1999, "Tibia and fibula fractures in soccer players", *Knee Surg Sports Traumatol Arthrosc.* 1999;7(4):262-6., vol. 7 (4), pp. 262-6.
- Castrén, M., Kinnunen, A., Paakkonen, H., Pousi, J., Seppälä, J. & Väisänen, O. 2012a, "Mekaaninen vammautuminen Pään ja kaulan vammat" in *Ensihoidon Perusteet* Finland, pp. 276-279.
- Castrén, M., Kinnunen, A., Paakkonen, H., Pousi, J., Seppälä, J. & Väisänen, O. 2012b, "Rintakipu" in *Ensihoidon Perusteet* Finland, pp. 184-187.
- Castrén, M., Kinnunen, A., Paakkonen, H., Pousi, J., Seppälä, J. & Väisänen, O. 2012c, "Kouristelun syyt" in *Ensihoidon Perusteet* Finland, pp. 234.
- Castrén, M., Kinnunen, A., Paakkonen Heikki, Pousi, J., Seppälä, J. & Väisänen, O. 2012d, "Ensihoitopalvelun tavoitteet ja käsitteitä" in *Ensihoidon perusteet*, 1st edn, Pelastusopisto / Punainen Risti, , pp. 17-19.
- Chambers, D., Thiekötter, A. & Chambers, L. 2013, "Preparing student nurses for contemporary practice: The case for Discovery learning", *March* 6, 2013, , pp. http://www.sciedu.ca/journal/index.php/jnep/article/viewFile/1794/1413.
- Chen, M.A. 2013, 5/1/2013-last update, *Heart Attack* [Homepage of A.D.A.M. Health Solutions, Ebix, Inc.], [Online]. Available: https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001246/ [2014, 04/04].
- de Tornyay, R. & A.Thompson, M. 1982, "Teaching by Lecture" in *Strategies for Teaching Nursing*, Second edition edn, John Wiley & Sons, USA, pp. 89-101.
- Epilepsy Foundation of Victoria 2012, 2012-last update, *Epilepsy and exersice / Better Health Channel*. Available: http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Epilepsy and exercise [2014, 02/23].
- Epilepsy Society 2013, November 2013-last update, *Step-by-step Recovery Position*. Available: http://www.epilepsysociety.org.uk/step-step-recovery-position#.U0bfopFiYkI [2014, 04/09].
- Eustice, C 2006, May 27th, 2006-last update, Sports injury guide: the common types of sport injuries / Dislocation: Common joint dislocations. Available: http://arthritis.about.com/od/sportsinjuryandarthritis1/ss/sportsinjuryqa_8.htm [2014, 02/01].

- FIFA 2013, *Laws of the Game 2013-14*, 1st edn, Fédération Internationale de Football, Zurich, Switzerland.
- FIFA 2012, FIFA Code of Ethics, 2012 edition edn, , http://www.fifa.com/mm/document/affederation/footballgovernance/02/01/46/18/e-learningslides%5fen.pdf.
- Fisher, R.S., Acevedo, C., Arzimanoglou, A., Bogacz, A., Cross, J.H., Elger, C., Engel, J., French, J., Glynn, M., Hesdorffer, D., Lee, B., Mathern, G., Moshé, S.L., Perucca, E., Scheffer, I.E., Tomson, T., Watanabe, M. & Wiebe, S. 2013, *An Operational Clinical Definition of Epilepsy*, International Reach, International League agains Epilepsy.
- Fitzgerald, K. 2013, *Soccer headers can lead to Brain injury*, Sports Medicine / Neurology Neuroscience, http://www.medicalnewstoday.com/articles/261804.php.
- Fuller, C., Ekstrand, J., Junge, A., Andersen, T., Bahr, R., Dvorak, J., Häg- glund, M. & McCrory, P.&.M. 2006, "

 '>Consensus statement on injury 27 definitions and data collection procedures in studies of football (soccer) injuries. British Journal of Sports Medicine 2006 ", WH, vol. 40, pp. 193-201.
- Heller, J.L. 2013a, 1/1/2013-last update, *Concussions*. Available: https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001802/ [2014, 04/14].
- Heller, J.L. 2013b, 01/01/2013-last update, *Head Injury first aid* [Homepage of A.D.A.M. Health Solutions, Ebix, Inc.], [Online]. Available: https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001095/ [2014, 04/04].
- Heller, J.L. 2013c, 07/20/2013-last update, *Unconsciousness First Aid*. Available: http://www.nlm.nih.gov/medlineplus/ency/article/000022.htm [2014, 09/04].
- Holmes, G. & Abington-Cooper, M. 2000, "Pedagogy vs. Andragogy: A false Dichotomy?", *Summer/Fall 2000*, vol. 26, no. 2, pp. http://scholar.lib.vt.edu/ejournals/JOTS/Summer-Fall-2000/holmes.html.
- Huffington Post 2012, "Fabrice Muamba Heart Attack", *Bolton Soccer player* "*in effect*" *dead for 78 minutes*, , pp. http://www.huffingtonpost.com/2012/03/21/fabrice-muamba-doctor-heart-attack-bolton-collapse n 1371104.html.
- HUS 2014, , *Tehohoito*. Available: http://www.hus.fi/sairaanhoito/sairaanhoitopalvelut/tehohoito/Sivut/default.aspx [2014, 04/08].
- Jacob, L. 2012, 4/12/2012-last update, *Dislocation* [Homepage of Health Solutions, Ebix, Inc.], [Online]. Available: https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001084/ [2014, 04/04].
- Jakonen, M. 2014, Jääkiekkoilijan ensiapuopas, Satakunnan Ammattikorkeakoulu.
- Kahn, A. 2012, July 9-last update, *First Aid for Unconsciousness* [Homepage of Health Line], [Online]. Available: http://www.healthline.com/health/unconsciousness-first-aid#Causes [2014, 04/14].

- Kirkendall DT, Jordan SE, Garrett WE 2001, "Heading and head injuries in soccer", *Pub-Med.gov*, vol. 31, no. 5, pp. http://www.ncbi.nlm.nih.gov/pubmed/11347686.
- Lagerblom, L. 2007, *Jalkapallovammojen ennaltaehkäisy Veikkausliigassa*, Lahden Ammatti-korkeakoulu.
- Lampinen, M. 2011, Vapaaottelun yleisimmat vammat ja niiden ensiapu, Pohjois-Karjalan Ammattikorkeakoulu.
- Marcum, J., Ridenour, M., Shaff, G., Hammons, M. & Taylor, M. 2002, "A study of professional nurses' perceptions of patient education.", *Journal of Continuing Education in Nursing*, vol. 33, no. 3, pp. 112-118.
- McNeil, B.E. 2012, "You "Teach" BUT Does Your Patient REALLY Learn? Basic Principles to Promote Safer Outcomes", *Clinical Resource Associates of Raleigh*, *NC*, , no. Tar Heel Nurse, pp. 9-12.
- Melo, É 2007, Smart Bike: A vehicle for the elderly, Arcada Polytechnics.
- Nurmi, J. 2011, 2/21/2011-last update, *Elvytys käypähoito*. Available: http://www.kaypahoito.fi/web/kh/suositukset/naytaartikkeli/tunnus/hoi17010?hakusana=cpr#s1 [2014, 04/09].
- Ovaskainen, H. 2013, *LENTOPALLOILIJAN YLEISIMMÄT VAMMAT JA NIIDEN ENSIAPU OPAS LENTOPALLOILIJALLE*, Karelia-ammattikorkeakoulu.
- Powell, L. 2013, 02/25/2013-last update, *Sprains*, *strains*, *fractures and dislocations* [Homepage of Health 24], [Online]. Available: http://www.health24.com/Fitness/Sports-injuries/Sprains-strains-fractures-and-dislocations-20120721 [2014, 09/04].
- Quinn, E 2010, April 26th, 2010-last update, Fracture broken bone diagnosis and treatment [Homepage of Health / Sport Medicine], [Online]. Available: http://sportsmedicine.about.com/od/paininjury1/a/Fractures.htm [2014, 02/01].
- Shempp, P.G. 2003, "Teaching Strategies" in *Teaching Sport and Physical activity Insights on the Road to Excellence*, ed. S. Wikgren, 1st edn, Human Kinetics, USA, pp. 121-130.
- SPL Helsinki 2013, , *SPL Helsingin Toimintakertomukset*. Available: http://www.palloliitto.fi/helsinki/piiri/asiakirjat/toimintakertomukset [2014, 01/11].
- SPL Helsinki / Koulutus 2013, , *Huoltajan peruskoulutus*. Available: http://www.palloliitto.fi/helsinki/koulutus/huoltajakoulutus/huoltajan-peruskoulutus-c-taso [2014, 01/17].
- Suomen Palloliitto 2013, Jalkapallo Säännöt 2013, Finland.
- Suomen Palloliito 2013, "Loukkaantuneet pelaajat" in *Jalkapallo säännöt 2013*Finland, pp. 61-62.
- Suomen Palloliitto 2013a, "Erotuomari" in *Jalkapallosäännöt 2013*Finland, pp. 18--21.

- Suomen Palloliitto 2013b, "Sijoittuminen pallon ollessa pelissä" in *Jalkapallo säännöt* 2013Finland, pp. 62-67.
- Suomen Punainen Risti 2014a, , *Kouristelu*. Available: http://www.punainenristi.fi/ensiapuohjeet/kouristelu [2014, 04/14].
- Suomen Punainen Risti 2014b, , *Murtumat*. Available: http://www.punainenristi.fi/ensiapuohjeet/murtumat [2014, 04/14].
- Suomen Punainen Risti 2014c, , *Rintakipu* [Homepage of Suomen Punainen Risti], [Online]. Available: http://www.punainenristi.fi/ensiapuohjeet/rintakipu [2014, 04/14].
- Suomen Punainen Risti 2011a, , Cardio-pulmonary resuscitation CPR, Basic Lifesaving support BLS. Available: http://www.redcross.fi/sites/frc2011.mearra.com/files/tiedostolataukset/ENGLISH%20PPE %20AIK%202011.pdf [2014, 04/14].
- Suomen Punainen Risti 2011b, , *Tajuttoman Ensiapu*. Available: http://www.punainenristi.fi/sites/frc2011.mearra.com/files/tiedostolataukset/Tajuton_aikuinen_2010.pdf [2014, 04/14].
- Tysvaer, A. 1992, "Head and neck injuries in soccer. Impact of minor trauma", vol. 3, no. Sports med.
- Vorvick, L.J. 2013, 4/13/2013-last update, *Broken bone* [Homepage of A.D.A.M. Health Solutions, Ebix, Inc.], [Online]. Available: https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001072/ [2014, 04/04].
- Washington University of Neuroscience 2014. *Neuroscience for kids Soccer*. *Available:* https://faculty.washington.edu/chudler/soccer.htm
- Wong P, H.Y. 2005, "Soccer injury in the lower extremities. British journal of sport medicine.", http://bjsm.bmj.com/content/39/8/473.full, vol. 39, no. 8.
- World Medical Association 2013, "WMA Declaration of Helsinki Ethical principles for Medical Research Involving Human subjects", *October 2013*, vol. 64, pp. http://www.ub.edu/recerca/Bioetica/doc/Declaracio_Helsinki_2013.pdf.

APPENDICES

Appendix 1

OPEN LETTER SENT TO REFEREES PRIOR THE QUESTIONNAIRE (In Finnish)

Tervehdys.

Valmistun tämän vuoden lopussa sairaanhoitajaksi, ja teen nyt opinnäytetyötä. Opinnäytetyön aiheena olen tekemässä teille jalkapalloerotuomareille Ensiapuopasta. Se on mielestäni on erittäin tärkeä asia osata, jos olemme alimmaisissa sarjoissa viheltämässä, eikä ambulanssia tai minkäänlaistä ensiapujärjestelmää ole yleensä paikalla. Olen siis yhteystyössä SPL Helsingin piirin kanssa, ja tämä projekti on heille tarkoitettu.

Opinnäytetyöhön liittyen tein teille pienen kyselyn joka sisältää VAIN 4 kysymystä. Olisin tosi kiitollinen jos voisitte vastata niihin. Kyselyyn voitte vastata joko suomeksi tai englanniksi.

Jos teillä on kysyttävää, ottakaa minuun yhteyttä. Huhtikuussa tulen pitämään yhden päivän kestävän ensiapukurssin piirin koulutustiloissa. Kurssi on täysin vapaaehtoinen sekä kurssin vetäjälle että osallistuville. Lisää infoa tulossa. Kiitos etukäkeen osallistumisestasi kyselyyn!

Terveisin,

Besai Muñoz Sanchez

WEB-SURVEY FOR FOOTBALL REFEREES:

1. As referee, have you ever been in a situation where a player has been seriously injured? If the answer is YES, please explain shortly what happened

Oletko koskaan ollut tuomarin roolissa tilanteessa, jossa pelaaja on loukkaantunut vakavasti? Jos vastauksesi on KYLLÄ, kerro lyhyesti mitä tapahtui.

2. What is your opinion on football referees receiving education in First Aid? Do you think it is necessary/useful?

Mitä mieltä olet jalkapalloerotuomareiden ensiapukoulutuksesta? Onko se mielestäsi tarpeellista/hyödyllistä?

3. Have you ever participated in a First Aid class?

Oletko koskaan osallistunut ensiapukoulutukseen?

4. Would you like to participate on a day course of First Aid for football referees? If the answer is YES, what do you think it would be important to learn?

Haluaisitko osallistua päivän kestävälle jalkapalloerotuomareiden ensiapukurssille? Jos vastauksesi on KYLLÄ, mitä asioita olisi mielestäsi tärkeää oppia?