

COPING WITH SPORTS INJURIES AMONG INDIVIDUAL AND TEAM SPORT ATHLETES

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Abstract

In the study, we aimed to explore the differences between individual and team athletes due to their coping with sports injuries. The research consisted of qualitative and quantitative parts: one interview and two questionnaires were recorded. Due to our country's rudimentary form of prevention and rehabilitation procedures for sports injuries, the study would show different results compared to a foreign sample. The practical benefit of the study lies in this, as the more information available about the differences in the psychological functioning of athletes, the more specific help can be provided to them during the activity of a sports psychologist.

Keywords: *sports injury, coping, individual and team sport athletes*

THEORETICAL BACKGROUND

Most of all, everyone associates sports with a healthy lifestyle, with health itself, as it significantly contributes to creating and maintaining physical and mental balance. There are many advantages of playing sports - beyond physical activity - for example, it can provide a social environment, set goals for us, teach us perseverance, dedication, and commitment, develop our self-awareness, help us to get rid of excess energy, or even boost it up. We can even find our vocation in it. However, the dangers inherent in sports should also be mentioned in addition to the benefits. For recreational athletes or professionals, competitive-level injuries are almost inevitable. It is rare to find athletes who have not experienced any injuries during their careers. The question arises is who can be affected by an injury and how. Among competitive and elite athletes, injuries may affect physical and mental levels. Not only can they experience falling from racing, but also the complete transformation of their daily routine as a heavy mental burden. Every sport has its specific injuries. Whatever the injury is, the athlete goes through the same hardships as anyone with any injury. However, the question is, how does one cope with this situation? Are there any differences between the athletes, according to which they can be categorized at some level so that assistance can be more specific? In addition to gender differences, whether an athlete is an individual or a team player can also be important. There are many studies on the differences, so we assumed they may feel and behave differently in such a situation.

Individual athletes can mostly rely on themselves and the coach in preparation, the situation at stake, and success. There are peers, common goals, joint preparation, and mutual support in teams. Competitions or conflicts can characterize the atmosphere of the given team, which affects the performance and attitude of the individual. Based on this, an individual and a team athlete can react differently to an injury. However, the question is, to what extent and exactly how can their coping with this situation differ? Several studies have already been done on coping, a phenomenon also investigated



among athletes. Examining this can be helpful for sports psychologists, associations, and athletes. The information obtained during mapping the differences could already appear in prevention. Still, it could also be beneficial in rehabilitation, as it would enable more targeted assistance. It is significant, for example, to whom the individual turns for help after an injury, which they can rely on, and in what way, whether they accept any help or rely only on themselves. The more we know about the athlete's coping strategies and attitude towards injuries, the more we can incorporate this information during prevention, and it can help us in the rehabilitation process.

SPORTS

Defining sport is not easy since different images may appear before us when we hear the word due to its diversity. Sport is when a group of friends play volleyball together on the beach or when we start the day with a short exercise in the morning to reach the right energy level. Still, those competitors who work every day to present their abilities in world-class competitions can also come to mind, with differences of a second or two points from each other. The shared ones listed here are that all motor activities strive for some result and are bound by specific rules (RÉTSÁGI et al., 2005). Among many definitions, two concepts are highlighted here. The first one is attributed to Frenkl (1978): "A collective term for all organized and unorganized, group or individual physical training activities in which a person satisfies his biological need for exercise in social conditions" (FRENKL, 1978, p. 222). The second one reads like this: "Sport is any physical activity, the purpose of which is to express or develop physical and mental fitness, to create social relationships or to achieve results in various level competitions" (EUROPEAN SPORTS CHARTER, 1997). In addition to the definition, it is also worth mentioning the division of sport, which can be a competition or a hobby, i.e., a leisure sport, according to its purpose. It can be an organized or more spontaneous form, done in a group form, in pairs, or alone. Playing sports with peers is essential in terms of building social relationships. In addition, a healthy lifestyle, enjoyment, active spending of time, and refreshment should also be emphasized as the goals of hobby athletes. The name "leisure sport" can be misleading since all other athletes, except professional athletes, do this activity in their free time (RÉTSÁGI et al., 2005). The topic of competitive sports will be explained in the following literature since it is the focus of the research.

Motivation, joy, and enjoyment appear in recreational and competitive sports. In addition, the pursuit of performance is shared, whether it is overcoming oneself, pushing our limits, or competing with others, in the case of both sports. Also, what is vital in any case is a healthy lifestyle, maintaining and preserving health, and preventive behaviour (RÉTSÁGI et al., 2005). Among the positive effects of sports, the psychological effects are worth highlighting. Sports activities at the appropriate level positively affect the development of the individual, the achievement of realistic body image and body awareness, self-esteem, improved social skills, and reduced anxiety (GYÖMBÉR - KOVÁCS, 2012).



COMPETITIVE SPORT

In terms of the purpose of competitive sports, it is a form of sports in which the goal of the individual or the team is to achieve the best possible performance and result, to surpass others and even themselves. A precise, objective evaluation of the results and an accurate comparison of differences in performance are made possible by the rules and systems of rules that must be followed in all cases, as well as the uniform nature of the measurement methods (RÉTSÁGI et al., 2005). In terms of performance, it will be an elite sport, which is the pinnacle of a competitive athlete's career. Top performance and international success define this category, often practiced by the individual as a profession. Behind the results of a competitive athlete is long, persistent work and preparation, which is supported by several professionals, for example, coaches, managers, sports doctors, and sports psychologists, but we can even include sponsors. No wonder it also has substantial economic importance since it already appears as part of the entertainment industry today (RÉTSÁGI et al., 2005). It is now accepted that not only physical preparation is behind success and peak performance in sports, but mental factors also play an essential role. Success motivation, cognitive skills, and emotional intelligence also affect the athlete's behavior and performance. Stressful situations such as an injury, criticism from the coach, criticism of the individual or the team, a bad referee, or even the reaction of the spectators affect the athlete, but this also includes the environmental stimuli typical of the given sport, along which there may be differences in the different sports and thus also among athletes (KAJBAFNEZHAD et al., 2011). Various factors can also appear during competitions, which, depending on the type of sport, cause different, specific psychological behaviors in athletes. Exploring this can provide helpful information for professionals and coaches who help athletes. For example, comparing team and individual sports, interpersonal conflicts occur more often in the former and seriously impact team performance.

INDIVIDUAL AND TEAM SPORT

From the point of view of the research, it is crucial to explore the differences and similarities between individual and team athletes, which serve as the basis for the research questions and hypotheses that will be detailed later. To this end, in the following, the two types of sports will be compared, as well as the processes that appear in team sports, which also provide helpful information from the point of view of the investigation.

COMPARISON OF INDIVIDUAL AND TEAM ATHLETES

Many studies have already been done regarding the differences between individual and team athletes. In one such study (NIA - BESHARAT, 2010), individual athletes scored higher on conscientiousness and autonomy, while team athletes scored significantly higher on sociotropy and agreeableness. Based on this, individual and team athletes also have differences in personality characteristics. Based on the results, in the case of individual sports, conscientiousness has an outstanding role, the components of which



are competence, striving for performance, and self-discipline. In Elferink and Gemser's (2004) research, team athletes scored higher in motivation and control anxiety, while individual athletes scored higher in confidence. Competence also appears in team sports, but it mainly belongs to the individual, as it becomes a characteristic of the athlete through individual effort. Along these lines, competence becomes more prominent during individual sports activities due to the process of its achievement. The pursuit of performance, which is also individual-related, shows a greater desire for performance in the case of individual sports.

On the other hand, in the case of team sports, motives of belonging appear more. Finally, individual characteristics include self-discipline, a tendency towards order and discipline, and attentiveness. In contrast to interventions in team sports, during individual sports, the players can only achieve the desired order and discipline by controlling themselves (NIA - BESHARAT, 2010). Athletes rely on their abilities in all sports; however, unlike individual sports, they depend on each other's team performance (KAJBAFNEZHAD et al., 2011). Based on the results of Cox and Liu (1996), individual athletes are more prepared since they cannot rely on the success of their teammates. According to Taylor (1995), every sport has specific physical and technical characteristics that require special skills from the athletes. These sport-specific differences also affect the mental abilities of competitive athletes. According to Jones and Hanton (1996), athletes of different sports give different responses to the stimuli received during the competition, so they interpret anxiety differently according to their mental abilities. In another research, differences in mental abilities were also investigated (KAJBAFNEZHAD et al., 2011). In this case, it was defined as one of the critical factors of athlete success. However, differences in mental ability can manifest in different ways in the case of athletes of different levels (e.g., amateur, beginner, elite) and types (individual or team).

PROCESSES APPEARING IN TEAM SPORTS

The basic concepts that appear in social psychology, which discuss the effects of the social environment on the individual, can also be found in sports, so it is essential to clarify these if we want to examine team athletes. By *social facilitation*, we mean that the mere presence of other people stimulates a person's behavior. This effect can be positive and stimulating, but it can also appear inhibitory, i.e., it can increase or decrease performance. In general, in the case of well-practiced or straightforward tasks, it is stimulating, while in the case of complex, new tasks, it has a harmful effect on performance. In stake situations experienced during sports, proper preparation and practice before important matches and competitions are essential (SMITH et al., 2016). *Social norms* include expectations that the group members, or in this case, the team, accept, consider correct, and shape their behavior accordingly; it determines their thinking and feelings and functions as a cohesive force. Norms are not necessarily conscious, but the consequence of breaking them in severe cases can even be exclusion from the group (SMITH et al., 2016). A related concept is conformity, which is when individuals adjust their thoughts, feelings, and behavior to the group norm. *Roles* can also be observed in social situations, such as in team sports,



which include expectations for the behavior of individual members. These roles are formed in every group, and the members get into these positions sometimes by fighting. This role will determine the hierarchy in the team; that is, they indicate the status of the people who make up the group. If this hierarchy is settled, it helps with cooperation and turns the group into a stable and predictable team. In team sports, trust plays a prominent role because it will help the individual to be able to rely on their teammates to develop their performance and relationships together. Selflessness is equally essential; it serves as the basis for helping each other and teamwork. The third important feature is conformity, which also dominates in team sports. Conformity will bring the individual close to their peers (NIA - BESHARAT, 2010). When discussing groups, common goals, everyday activities, and teamwork or division of labor appear as essential factors. In the case of sports teams, time is another vital component, as it also matters how much the group has already developed together.

There is a difference between a newly or randomly assembled soccer team and a professional national team working together for years. Conflicts occur in joint development, the appropriate management of which plays an important role (RÉTSÁGI et al., 2005). Belonging to a group can be linked to many psychological needs. Based on the theory of social comparison, we need the feedback of our peers to validate our worldviews. According to the theory of social identity and self-categorization, group membership is a crutch in our positioning in the world. The most often highlighted motivation is the need to belong somewhere; that is, group membership satisfies the need and desire to connect with others and maintain relationships. This desire is a basic need in people's lives; it dramatically influences cognitive and emotional processes and is particularly important for psychological adaptation and well-being (HAGGER - CHATZISARANTIS, 2005).

SPORT INJURY

Based on the definition, a sports injury includes injuries that cause a change in sports activity, which can be a quantitative or qualitative decrease in level. Furthermore, after the injury, at least one day of medical treatment becomes necessary, resulting in a social and economic disadvantage. According to the classification, it can be acute, sports accident, overuse change, or chronic injury (TÓTHNÉ STEINHAUSZ - MOLICS, 2015, cited by JUHÁSZ et al., 2022). An athlete's injury can be experienced as a severe mental burden, as it affects many aspects of the individual's life. This is a kind of crisis state, the degree of which can vary depending on the severity of the injury and consequences, as well as the individual's timing and personality (GYÖMBÉR - KOVÁCS, 2012). This mental strain stems from the fact that, for a competitive athlete, the injury forces an involuntary physical passivity that requires a reorganization of the daily routine. This results in the individual trying to overcome the situation by applying coping strategies, some of which may be adaptive and some maladaptive (JOHNSON, 1997). In the case of competitive athletes, the increasingly high expectations and load all increase the risk of injury (PARGMAN, 2007). In addition to the dangers based on the particularities of the type of movement



characteristic of the given sport, performance pressure, inattention, and stress can also be classified as risk factors (RÁTGÉBER et al., 2015). In the United States, 17 million athletes sustain some sports injury each year (DISHMAN et al., 1999). Roughly $\frac{3}{4}$ of the injuries are traumatic, and every sixth or seventh is a severity that forces the athlete to miss more than a month (ENGSTRÖM et al., 1991). Based on the observations of recent years, the frequency of injuries has also increased among athletes competing at a less severe level or following less rigorous training (JOHNSON, 1997). The frequency and occurrence of sports injuries depend on external and internal factors (JOHNSON, 2008). In the latter's case, Weinberg and Gould (2003) highlight physiological factors as the main risk in injury development, and psychological factors also have a significant influence. It is difficult or impossible to prepare for unexpected and unpredictable situations during competitions or even training (KYNSBURG, 2008, cited by JUHÁSZ et al., 2022). According to Dunn et al. (1999), fear of injury is an athlete's state in which focusing on competitive factors is the individual's primary problem related to the injury or its development. This condition can also be seen as a tendency; that is, the athlete experiences cognitive or somatic anxiety in situations in which there is a possibility of injury as a result of injury anxiety (CASSIDY, 2005). The development of injury anxiety depends on several factors. Among the athlete's evaluations, three critical steps should be highlighted. The first is the feeling of the threat of the situation regarding the possibility of injury. The second is the lack of appropriate and sufficient resources for the situation.

Moreover, the third is experiencing the negative consequences of a possible injury (CASSIDY, 2005). Suppose this kind of negative evaluation appears in the athlete. In that case, there is a risk that they will react inappropriately to the challenges and tasks given by the situation due to increased anxiety about the injury. All this results in increased arousal, which can even be at the expense of performance (GOULD et al., 2002) and increases the risk of re-injury (CASSIDY, 2006). Based on the differences between individual and team athletes, it is also worth examining their reactions to injury, which is the primary topic of the present research. The results of a study (JOHNSON, 1997) show that, compared to individual athletes, team athletes are more inclined to give up and passively accept their situation, which is also confirmed by their low scores for the "problem-solving" coping strategy. Personality differences can also explain this difference between the two groups, but it is also worth observing along the lines of training and competition situations. In the case of team athletes, more help comes from peers during training and competitions. This includes the masseuse, the team doctor, and teammates, whom the athlete can count on at any time. When a team athlete is injured, we expect a coping method that is based on the help of others and acceptance of the situation (JOHNSON, 1997).

PREVENTION

Elite athletes are particularly at risk of developing a sports injury. Unexpected situations during competitions or even training sessions are just as difficult to foresee as the athlete's performance or the result of the given match, so preparing for them is not easy



(RÁTGÉBER et al., 2015). Prioritizing injury prevention is vital to avoiding the adverse effects of injury, as it affects not only the individual but also the club, coach, and team. Proper care and planning are essential to reduce the frequency of injuries among competitive athletes. Due to the high number of risk factors associated with the development, a complex prevention method would be most appropriate. In the best case, it appears in the athlete's life without wasting time and money but integrated into the training plan (RÁTGÉBER et al., 2015). Prevention consists of steps that can reduce or even eliminate the psychological and social factors that can cause mental or physical illnesses and social problems or play a role in their development. There are three well-known levels of prevention in competitive sports (JUHÁSZ et al., 2022). *Primary prevention* is a set of steps that include reducing, avoiding, or eliminating the factors causing the problem. Its central part is the protection and support of health, which can be used to reduce the chance of injuries, accidents, and mental disorders. Its purpose is prevention, maintaining resilience and psychological well-being, creating safe environmental conditions, and strengthening protection against disease. *Secondary prevention* is aimed at the early recognition of a problematic condition that has already developed but is still in its infancy. Thanks to this, the aggravation of the condition and the development of complications can be prevented and slowed down. In the case of *tertiary prevention*, the goal is to reduce the chronic effects associated with the existing problematic condition. The important thing is to prevent damage and the factors causing the deficit condition to become permanent. This is already a matter of care and a rehabilitation process (RÁTGÉBER et al., 2015). Joint work involving the player, the medical doctor, the club, and the coaching staff is required to reduce the likelihood and frequency of injuries as much as possible. Everyone has a task to contribute to maintaining the athlete's health (TÓTHNÉ STEINHAUSZ - MOLICS, 2015, cited by JUHÁSZ et al., 2022). Four steps are necessary to develop effective prevention methods (VAN MECHELEN et al., 1992): "1. Step: the definition of the problem of the injury, which includes establishing the frequency of the injuries, as well as their consequences and evaluating their severity. Step 2: Determine the etiology and mechanism of the injury and the physiology of the pathological conditions associated with the injury. Step 3: Plan preventive interventions and introduce them. Step 4: Evaluate the effectiveness of the introduced methods, comparing them with the result of step 1, exploring the application of the necessary changes." (VAN MECHELEN et al., 1992). Based on a study, it was found that stress response procedures and dealing with stress management reduce the athlete's tendency to injury. This preventive intervention aims at cognitive restructuring; the athlete learns to recognize and modify his counterproductive thoughts. A suitable technique for this can be, for example, relaxation, which helps to develop appropriate reactions during stressful situations. In addition to optimizing physical preparation and environmental factors mentioned above, psychological prevention provides the athlete with a wide range of tools to reduce the chance of injury (BREWER, 2009). Introducing preventive tasks into training sessions can be very useful from an early age. The athlete must know the purpose of the task related to the given prevention so that they can become aware of it and incorporate it into their later career (KINCZEL, 2020).



REHABILITATION

During the rehabilitation of a sports injury, the goal is to restore the abilities and functions lost or reduced due to the injury. This process requires teamwork, in which the sports doctor, trainer, physical therapist, or physiotherapist also participates. In addition, the active participation of the athlete is essential. The commitment of the participating professionals is essential so that the player can return as soon as possible, as well as continuous communication, mutual information, and consultation regarding the athlete's condition (KINCZEL, 2020). To achieve the desired result, it is necessary to use the appropriate methods, for which a thorough mapping of the injury is essential. Along this line, the amount of load and its course over time can be determined, which gradually helps the athlete to get back into the right shape (TÓTHNÉ STEINHAUSZ - MOLICS, 2015, cited by JUHÁSZ et al., 2022). When an injury occurs, the most significant emphasis is placed on the severity of the physical change and the extent and location of the damage. However, psychological factors cannot be neglected, as they are crucial to recovery. Athletes who experience negative emotions, depression, tension, or some mood disorder or anxiety during rehabilitation recover more slowly than those who do not experience similar emotional difficulties. This can also be explained by the fact that emotional disturbance harms the proper functioning of the immune system, thus indirectly affecting the healing process. Along these lines, a positive attitude and a supportive environment can promote trust in the rehabilitation process, thus also adherence to it, which contributes to increasing preparation for return (BREWER, 2009). Based on the results of Prieto (2007), the level of post-injury stress can be related to the severity of the injury. This stress can be reduced if the prognosis is good, if there is adequate progress during rehabilitation, if a support group is available, if the athlete is informed about their current condition, or if their sports performance is only slightly affected by the injury. Wiese-Bjornstal et al. (1998) explain that an emotional and behavioral response appears in the injured athlete due to the situation and the cognitive evaluation. Along these lines, stress can appear not only as one of the root causes of the risk of injury but also as a factor that hinders recovery. Several studies have found stress, fear of pain, motivation, and self-confidence crucial in rehabilitation (ABENZA et al., 2009; BREWER et al., 2007; TRAINOR et al., 2020). Along these lines, integrating psychological interventions into rehabilitation has a unique role. This includes improving treatment adherence, increasing self-confidence, and controlling anxiety (GÓMEZ-ESPEJO et al., 2022; PALMI et al., 2018). To use the appropriate techniques during the psychological intervention, it is vital to obtain information about which psychological variables are most affected and most in need of improvement (GÓMEZ-ESPEJO et al., 2023). According to Palmi and Solé (2014), rehabilitation can be divided into two phases: the psychological intervention appears differently. The first is the immobilization phase, which lasts from the moment of injury, from immediate immobilization to the beginning of recovery, to the gradual restoration of motor functions (PALMI - SOLÉ, 2014). The second, i.e., the mobilization phase, encompasses the recovery, re-adaptation, and return to practice. During the first stage, pain and stress appear, and the question of self-confidence and adherence to treatments dominate. During this period,



the goal is to develop anxiety-reducing techniques, help to accept the injury, stay in the rehabilitation process, and stick to it. In the mobilization phase, the fear of another injury or relapse, the lack of social support, and the excessive pressure placed on the athlete by the environment appear. In this phase, the main goal is to support the athlete's proper adaptation and return (PALMI, 2002).

COPING

"Coping is a goal-directed, deliberate, volitional effort, a cognitive and behavioral effort to adapt by a person who appraises his or her situation as exceeding his or her current resources." (OLÁH, 2005). In the cognitive transactionist model of Lazarus and Folkman (LAZARUS - FOLKMAN, 1984), the critical factor is the attitude to stress, the individual's specific experience. The person and the stressor interact back and forth; a transaction occurs between the two elements. Personal control also appears here, meaning that the person actively participates in the organization of the situation and reacts to the pressures of the environment. In addition, cognitive evaluation is also emphasized during the interpretation. As a first step, the individual performs a primary and secondary assessment during an unexpected, stressful event. The event's significance is assessed, and one considers whether or not one can deal with the situation (LAZARUS - FOLKMAN, 1984). Lazarus' concept of potential stressors means that only the person experiencing the situation can judge whether they experienced stress and to what extent and how much energy had to be invested in coping with it. If the individual judges the stressor as harmful during the primary evaluation, it is considered whether this threat is directed at the present or future or is perceived as a challenge. This process of evaluation is executed chiefly unconsciously. The secondary evaluation also occurs unconsciously, during which it is decided whether the individual's coping skills are sufficient for the situation. If a negative answer is received, i.e., the resources do not prove to be sufficient or reliable, a state of stress is created, which initiates further processes in coping (LAZARUS, 1968). Lazarus and Folkman (1984) separated emotion- and problem-oriented coping strategies. However, these two methods cannot be separated; they overlap. *Problem-focused coping* can be assumed when the individual focuses on the situation and the problem and tries to influence it, change it, transform it, or avoid it. In this case, efforts to resolve the problem are prioritized. This includes considering alternative options, weighing the pros and cons, and deciding what action to take and implementing it.

During emotion-focused coping, the goal is to moderate the emotional reactions caused by the situation and closely relate to it for the individual to avoid the predominance of negative emotions. In this case, emotion regulation dominates, and the individual tries to properly manage the anxiety and aggression caused by the stressful situation. In uncontrollable situations, we resort to such a solution (LAZARUS - FOLKMAN, 1984; ATKINSON et al., 1997). Along this line, Kopp and Skrabski (1995) created seven separate factors in coping. Problem-focused coping methods include problem analysis and purposeful action. Emotion-focused solutions include adaptation, seeking emotional balance, emotionally motivated actions, withdrawing, and asking for help. The latter, the



need for social support, is worth emphasizing, as this presupposes that the individual can indicate his or her difficulties and accept the support and attention of his or her peers, which leads to faster and more successful coping.

COPING WITH SPORT INJURIES

The stress caused by the injury is part of the athlete's daily life from the moment of the injury through rehabilitation, recovery, and return (ABENZA et al., 2010). This frustrated state is mainly caused by the uncertainty that the individual does not know how long the recovery process will take or what changes it will cause in their daily life (MONTERO et al., 2010). The anxiety state that occurs in this case can hinder the recovery process. Therefore, as discussed earlier, treating the athlete's anxiety, self-confidence, and fears should also be part of the rehabilitation process (CLANTON et al., 2012). When dealing with an injury, it is necessary to choose a strategy that protects the athlete's positive attitude and flexibility against environmental conditions, that is, helps the individual to accept the situation as soon as possible and move on (MUMMERY et al., 2004). The age of the athlete also influences the success of the coping. Teenage athletes can handle the problems arising during the injury more effectively, and any symptoms of depression are less noticeable in their case (MANUEL et al., 2002).

In contrast, among the elderly, depressive symptoms, exhaustion, frustration, and worry, as well as somatic symptoms, such as loss of appetite or insomnia, are common (WEISS et al., 2003). The gender of the athlete is also decisive; in the case of women, the use of avoidance mechanisms, anxiety, and tension is more common, so it is more difficult for them to cope with the injury (CLANTON et al., 2012). Athletes without developed, problem-focused coping strategies, or those who did not receive sufficient, appropriate support, were forced to undergo a longer rehabilitation process than those who received adequate psychosocial support (PATTERSON et al., 1998; SMITH et al., 1990). Social support, usually from family or friends, is crucial for the injured athlete. In the case of supported athletes, trust can be observed towards their coach and doctor compared to the state before the injury (YANG et al., 2010). According to research, the three most essential supports for an athlete in the event of an injury are the medical doctor, the team, the coach, and the family and friends (PALMI, 2001). Support is paramount in coping; it helps reduce stress and fear of re-injury and increases motivation and self-confidence (SANTI et al., 2013).

METHODS

The study examines the differences between individuals playing individual and team sports when dealing with injuries. In the first half of the research, an interview was conducted, the question list of which was prepared based on the research of Clement et al. (2015). In connection with this, the following research question was formulated: What differences can be observed during coping in light of whether the person experiences the injury as an individual or a team athlete? The second part of the research consisted of two questionnaires. One is the Sports Injury Appraisal Scale, to which H1 belongs, and the



other is the Athletic Coping Skills Inventory, to which hypothesis H2 belongs. H1: Team athletes will score higher than individual athletes on the Sports Injury Appraisal Scale. H2: Individual athletes score more than team athletes in the Athletic Coping Skills Inventory questionnaire. The research was conducted with the approval of the Research Ethics Committee of the University of Debrecen, license number UD-IP-2022/182.

SAMPLE DESCRIPTION

In the qualitative part of the research, the test persons who volunteered for the interview received a paper-based information sheet and a consent statement, in which the course of the interview, the method of storing their data, and the audio recording made during the interview, and the anonymous nature of the test were indicated. Of course, for anonymity, the signed information sheets were stored separately. They were also verbally informed that they were not obliged to answer if a question was uncomfortable. If they do not wish to continue the interview, they can interrupt it, and the previous recording will be deleted, and the information already obtained will not be used. The condition for selection is to be currently or in the past playing sports at a competitive level and suffered an injury - also currently or in the past - that forced them to rest, receive treatment, or do a different form of training than usual (e.g., physical therapy, strength training) for at least three weeks. A total of 10 interviewees were recorded, of which four were individual and 6 team athletes, two women and eight men, aged between 18 and 28. Their average years in competitive sports is 12.8 years; the minimum is three years, and the maximum is over 20 years. Their injuries varied widely. The questionnaires were distributed using the snowball method in the quantitative part of the research. The shares were implemented on various social media platforms. The questionnaire package begins with information in which the purpose and anonymous nature of the study are briefly described. The condition for filling in was the individual's active or past sports activities and the existence or experience of an injury. An informative text was included at the beginning of the questionnaires, which described the purpose of the research, the conditions necessary for participation, and the duration of completion. The data collection lasted from 24 January 2023 to 7 April 2023. A total of 73 questionnaires were analyzed. 38 individual and 35 team athletes participated, 42 women and 31 men; the average age was 24 years. From the data obtained by the questionnaire, 12 persons had to be excluded because the question "Have you ever suffered an injury?" answered no to the question. Respondents cannot continue filling out the questionnaire; they are automatically taken to the last page, so their data is not used.

THE INTERVIEW

An interview was conducted in the qualitative part of the research, while two questionnaires were used in the quantitative part.

After the interview subjects were selected, a personal meeting took place in each case. When choosing the location, the most critical aspect was that the environment should be calm so no one would be affected by disturbing external factors that could disrupt the



process. During the interview, the conversation was recorded with a voice recording application. This audio material was saved with a numerical code, so it was impossible to identify the test person later. The questions were prepared based on Clement et al.'s (2015) study, translation, and additions. Accordingly, the dimensions used in the research were prepared according to the literature, which will be covered in detail during the results. The interview draft contains a total of 24 questions. In the first round, the subject's age and gender were recorded, and what kind of sport he or she plays. We set up a series of questions structured along the lines of the literature, which can be divided into five parts. The first part, the General introductory questions, covers how long the athlete has been a member of the current association, what sport means to him, and his relationship with his teammates and coaches. E.g., "In your own words, what role does/has sport played in your life?". In the next section, which reveals background information, we will get to the circumstances and antecedents of the injury. For example: "Could you tell me about the period before the injury?". The third to fifth sections already contain questions that are of prime importance from the point of view of the investigation and also define the dimensions taken into account during the analysis. The third part covers Cognitive and emotional responses to the experience of injury. E.g., "How did these feelings and thoughts change when the severity of the injury and its consequences became clear?". The fourth contains questions about Behavioral responses and covers support and the rehabilitation process. E.g., "Who did you turn to for support after the injury?". Moreover, in the last stage, the topic of preparation for return comes to the fore. E.g., "What are your feelings and thoughts about the return?" After the interview, the subjects filled out the paper-based questionnaires recorded online. The data recorded in this way was later added to the line of online questionnaire data.

QUESTIONNAIRES

In the qualitative part of the research, two questionnaires were taken, which the interviewees filled out on paper, and the others were accessed online using Google Forms. In the first round, demographic data were recorded, then the Athletic Coping Skills Inventory (SMITH et al., 1995), and finally, the Sports Injury Appraisal Scale (CASSIDY, 2006).

DEMOGRAPHIC QUESTIONS

In this section, the applicant answers the questions relevant to the investigation and the conditions for participation in the research. This includes whether the test person plays individual or team sports and has already suffered an injury that caused them to miss training for a long time.

ATHLETIC COPING SKILLS INVENTORY

The ACSI-28 questionnaire (SMITH et al., 1995) measures athletes' coping strategies. It consists of 28 statements, which the respondents can rate on a 4-point Likert scale. The Hungarian version is attributed to Jelinek and Oláh (2000). Based on the scales, seven



groups can be distinguished in terms of psychological characteristics: Coping with adversity: Measures the athlete's behavior in unexpected situations that are challenging and thus affect performance. Peak performance: Measures the athlete's performance in a competitive situation. A high value indicates a higher performance; challenges stimulate the athlete. Goal setting and mental preparation: It measures the athlete's goals and mental preparation.

A motivated athlete has set goals, prepares both conditionally and mentally for his or her competitions, plans, and thinks through his or her game. Concentration: Measures the athlete's concentration during competition and training. The motivated competitor concentrates on the task, can filter out disturbing stimuli, and shows readiness to solve unexpected situations. Confidence and achievement motivation: Measuring levels of confidence and motivation. A high value indicates that the athlete can perform at their maximum almost all the time, including competitions and training. Controllability by the coach: Designed to measure the relationship between the athlete and the coach. It shows how open the athlete is to the coach's instructions, whether he or she accepts criticism and can cooperate with him. Freedom from anxiety: Contains reversed items, so low values indicate freedom from anxiety. The athlete is relaxed if their performance reaches the level expected in preparation. He or she is not worried about other people's opinions about their performance, and their effectiveness is not impaired by the anxiety caused by the environment either.

SPORT INJURY APPRAISAL SCALE

The Sports Injury Appraisal Scale (SIAS) (CASSIDY, 2006) was initially designed to examine 12 assessment aspects related to injury-related anxiety. After testing, seven factors remained, which proved to be reliable. The subscales that appear here are anxiety over loss of athletic ability, anxiety about being judged as weak, anxiety from pain, anxiety about losing social support, anxiety about re-injury, anxiety about letting others down, and anxiety from a damaged self-image. Each questionnaire item begins with the phrase "When I am injured" so the person can feel the situation more quickly. This enables the triggering of appropriate reactions, which is essential from the point of view of the investigation. It is possible to answer on a 6-point Likert scale, where one indicates completely disagree and six indicates agree.

RESULTS

RESULTS OF THE INTERVIEW

The codes were first established to evaluate the interviews, based on the study of Clement et al. (2015). Along these lines, we examined three main dimensions: Reaction to injury, reaction to rehabilitation, and reaction to return. Coding was divided into Emotional, Cognitive, and Behavioral responses. In addition, based on the results, extra categories that proved helpful from the investigation's point of view were established.



REACTION TO INJURY

In the case of the reaction to the injury, the kind of statements the interviewees made at the moment of the injury and the fact of the injury were investigated.

Within the *emotional reactions*, team athletes highlighted the feeling of disappointment and depression three times as often as individual athletes (individual frequency: 3, team frequency: 10). They indicated this with statements such as: "I was disappointed that I was out of the cycle, even though I was finally where I wanted to be" (male, 27, team sprinter). In the case of individual athletes, such a response was received: "I did not want to go through this again, to fail, or for others to be better than me." Feelings of fear and fright, as well as relief, were emphasized in similar proportions by the two groups. In the case of *cognitive responses* to the injury, thinking about the consequences showed a difference between the two groups (individual frequency: 1, team frequency: 6) in the form of such and similar statements: "I saw the doctors, the omission, and the surgeries in front of me." I thought about how long it would take" (male, 21, team). The two groups had no significant differences regarding *behavioral reactions* to the injury. They were crying, escaping to other activities, and adapting to the situation as behavioral responses appeared in very similar proportions. They reacted: "It was not good, but I was able to develop other things alongside it; I learned from it that you need something else to relax at this time" (male, 22, individual).

REACTION TO REHABILITATION

In the answers to rehabilitation, it was observed how the athletes answered the questions based on their feelings and experiences. There was no significant difference between the two groups regarding *emotional reactions*. The joy felt due to the improvement, the feeling of uncertainty and embarrassment caused by the situation, and negative experiences and feelings such as boredom and monotony appeared in similar proportions in the groups' answers. For example: "The treatment was at the spa, it did not make any sense, it was impersonal and inappropriate" (woman, 22, individual). In terms of *cognitive responses*, there was a greater variety. Differences between individual and team athletes can be observed in two cases. One of the answers is that he or she learned from what happened (individual frequency=3, team frequency), to which such and similar statements were made: "The injury could have been shorter if I did not force it at first" (male, 22, individual). Moreover, the other thoughts about accepting the situation (individual=0, team=2) appeared as follows: "The most important thing was how I can fix this in myself" (male, 27, team). During *behavioral responses*, individual and team athletes mention treatments, rest, surgery, and other training techniques, such as physical therapy or strength training, in a similar proportion.

REACTION TO RETURN

Regarding reactions related to the return, how the athletes commented on their related experiences or future ideas was examined. There were more significant differences



between the two groups regarding emotional responses. Regarding feelings of motivation and enthusiasm in connection with the return (individual frequency = 5, team frequency = 10), such responses were received: "I am fully motivated, I am looking forward to being there again, I miss it even more now" (male, 21, team). Concerning the concerns about re-injury (individual frequency=1, team frequency=4), they said: "The most important thing is that I do not get hurt again, that it does not hurt, and that it is not risky" (male, 28, individual). Lack of motivation (individual frequency = 6, team frequency = 2) appeared in the following ways: "As time goes by, my motivation decreases" (male, 26, team). Regarding *cognitive reactions*, two types of responses appeared. One is thinking about goals (individual frequency=0, team frequency=2), which was expressed in this way: "The main thing was not to lose sight of the goals" (male, 19, team). Thinking about new goals and alternatives (individual frequency=2, team frequency=3) appeared as follows: "Due to a previous similar situation, I had a plan b, which is coaching, this came to mind again" (male, 27, team). Regarding *behavioral responses*, caution and attentiveness appeared in equal proportions (individual frequency=1, team frequency=1). In the case of striving to get into an even better state, there was a more significant difference (individual frequency = 3, team frequency = 7). For example, they expressed it this way: "I want to get back as soon as I can, in the best possible shape" (male, 28, individual).

SUPPORT

In the case of support, it examined who the interviewees mentioned, how often, and whether there was a difference between the two groups. Family, teammates, the coach, and the psychologist are especially highlighted. The *family* as a supportive background showed significant variation (individual frequency = 4, team frequency = 11), and this is how the interviewees mentioned: "The family supported me in everything" (male, 19, team). The role of *teammates* was not mentioned among individual athletes; team athletes mentioned them 14 times, in this and similar ways: "It helped that they were waiting for me back in the team, I felt that I was important and that they cared for me" (male, 27, team). The *coach's* support was shown in the case of both groups (individual frequency=6, team frequency=9) in the following ways: "Until now, it did not even occur to me how much I can thank my coach, his support" (male, 28, individual). *The psychologist* as a support person was mentioned ten times (individual frequency=4, team frequency=6). They reacted: "It was difficult to cope, but the psychologist helped a lot" (man, 18, team). Friends, relationships, the club, and the medical doctor were also mentioned, but no significant differences existed.

TESTING HYPOTHESES

The R studio program was used to analyze the data obtained from the questionnaires.

H1: Team athletes will score higher than individual athletes on the Sports Injury Appraisal Scale. The comparison of the scores achieved on the Sports Injury Appraisal Scale began with an examination of normality from the perspective of individual and team athletes.



Based on the Shapiro-Wilk procedure, both groups showed a normal distribution (team $W=0.97$ and individual $W=0.97$). Then, based on the F-test, the standard deviation showed the same distribution (see Figure 1.). Later, an independent sample t-test was performed, based on the results of which there was no significant difference between the two groups ($t(71)=0.58$; $p=0.28$).

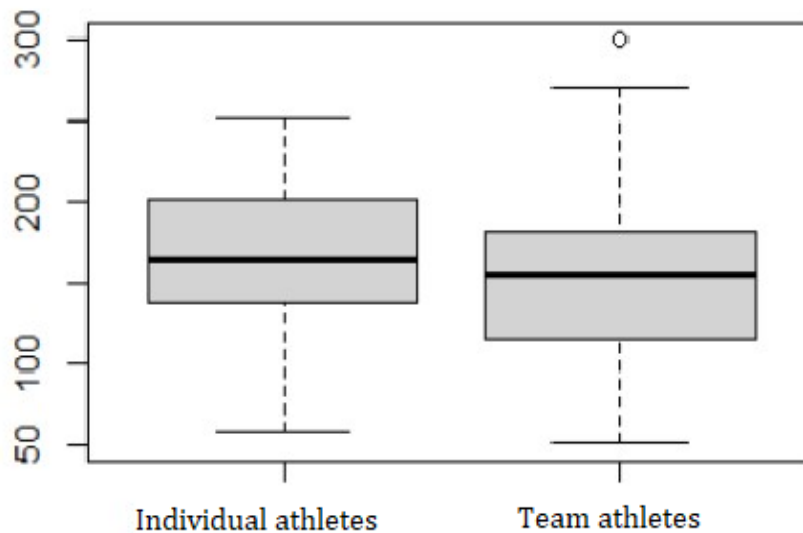


Figure 1: Total scores achieved on the Sport Injury Appraisal Scale comparing individual and team athletes

H2: Individual athletes score more than team athletes in the Athletic Coping Skills Inventory questionnaire. Based on the Shapiro-Wilk test for individual and team athletes, both groups were normally distributed (individual $W=0.95$ and team $W=0.95$).

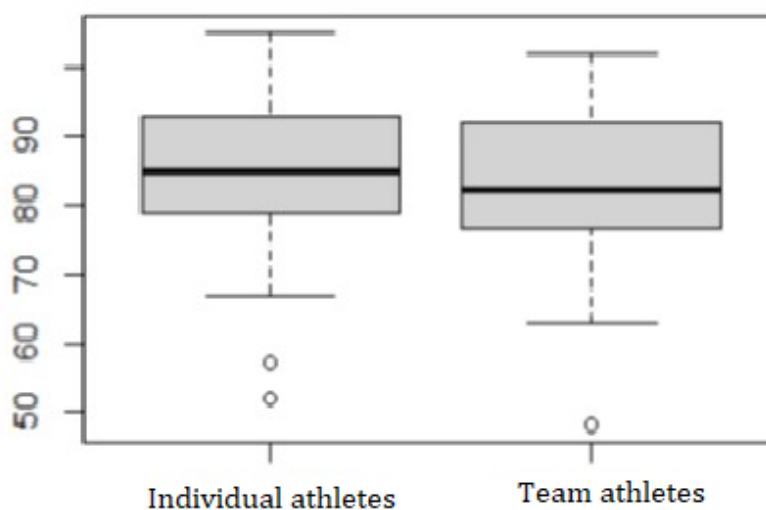


Figure 2: Total scores achieved on the Athletic Coping Skills Inventory comparing individual and team athletes

Based on the results (see Figure 2.), there is no significant difference in the total score between the two groups ($t(71)=0.65$; $p=0.52$). The subscales comparing individual and team athletes were also examined using the same methodology. Based on the t-test results, no significant difference between the two groups can be observed for any of the subscales.

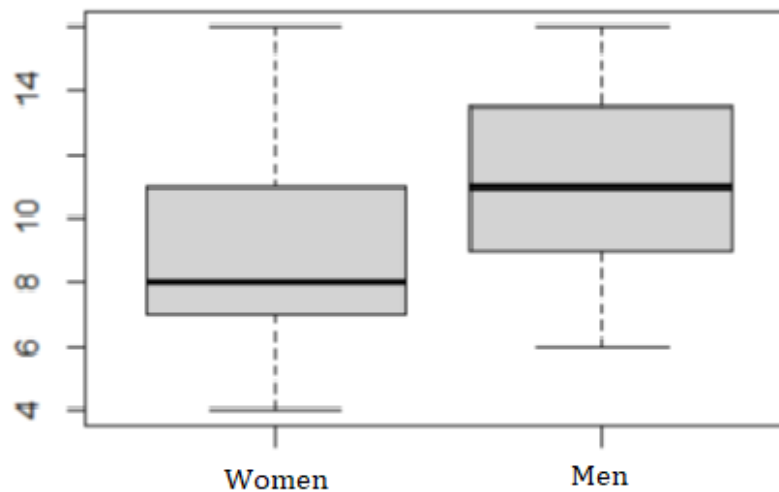


Figure 3: Coping with adversity subscale scores comparing women and men

The same procedures were followed for the subscales as well. Based on the t-tests, there was a significant difference between the group of women and men in the case of two subscales. One is the Coping with adversity subscale, on which there is a significant difference (see Figure 3.) based on the results ($t(37)=-2.2$; $p=0.03$), the average for men was higher (average value for women=10.81; average value for men=12.13).

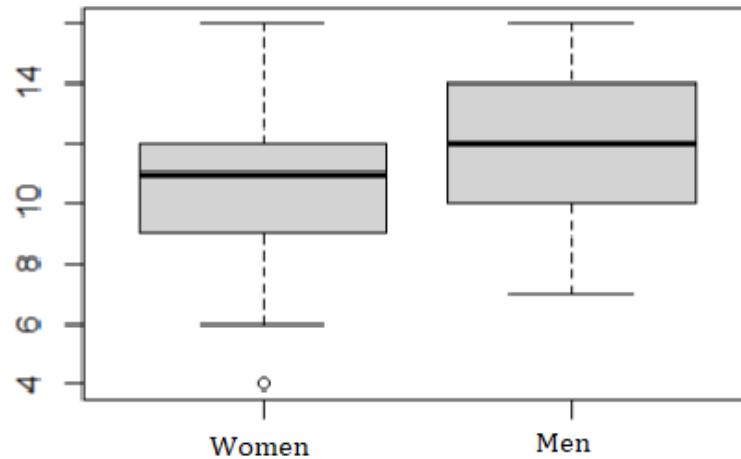


Figure 4: Scores on the anxiety-free subscale comparing women and men

The other is the Freedom from Anxiety subscale, which also shows a significant difference ($t(37) = -3.48; p = 0.0008$). In this case (see Figure 4.), a higher average can also be observed for men (average value for women = 8.69; average value for men = 11.23)

CONCLUSION

In the case of the reactions to the injury, the team athletes emphasized the feeling of disappointment and depression to a greater extent, as well as thought about the consequences of the injury in more cases than the individual athletes. The connection between the two statements may be that the idea of missing out on upcoming competitions or training sessions leads to the experience of automatic negative emotions. Both groups experienced pain and fear at the moment of the injury, which aligns with the reactions described in the literature (CLEMENT et al., 2015). The two groups had no significant differences regarding emotional and behavioral responses to rehabilitation. All athletes experienced similar uncertainty, confusion, and experiences such as boredom or monotony during rehabilitation and treatments. However, positive emotions also emerged for both groups, such as joy caused by improvement. The similarity between the groups may be due to the same rehabilitation procedures. Most of the results overlap with the literature. The only difference is that in the case of the subjects interviewed in this research, the monotony and tedium of the rehabilitation processes were highlighted. At the same time, the related literature mentions the professional conditions of the care and its high level of usefulness. This difference can be attributed to the difference in rehabilitation conditions in Hungary and abroad.

There was a difference between individual and team athletes; in the case of the former group, learning from what happened appeared rather than a cognitive response, while in the case of team athletes, clarification of the situation by themselves appeared. Since both answers received a low number of mentions. We considered the result possible previous personal experiences, or rather the lack thereof. More significant differences between the

two groups have already appeared regarding the responses to the return. Regarding motivation, team athletes were more enthusiastic about returning than individual athletes. This result is consistent with the fact that the team athletes emphasized the lack of friends beyond the game, so there were several factors behind their motivation, in contrast to the individual players. However, fear of injury was also mentioned more often among team athletes. This discrepancy may be due to the severity of the injury, as fractures and tears were more common among team athletes while straining was more likely to cause some problems among individual athletes. Lack of motivation appeared several times among individual athletes. It is consistent with the higher levels of motivation observed in team athletes. Sport-related goals appeared in the case of team athletes, while alternatives appeared in both groups. Age characteristics can explain it, as the athletes engaged in alternative goals were older. Returning in a better state than the injury or the previous state appeared in a higher proportion in the case of team athletes, which can be associated with high motivation.

We considered the observation of differences in support to be of particular importance since, from the point of view of coping, it is essential who the individual can count on during a difficult situation. The coach and psychologist appeared similarly among the four prominent and frequently mentioned supports. In the case of the coach, a difference in quality can be found, according to which team athletes spoke about their coach more in a mention-like manner, as an extra help appearing in addition to other support. In comparison, the individual athletes described their relationship with the coach as more of an intimate relationship and emphasized the support they received.

The support of family and teammates also received more emphasis among team athletes. In many cases, individual athletes train with partners and even have a good relationship, but they do not count on their support as much as in the case of a team. Regarding family support, the discrepancy can be explained by the fact that among the team athletes, young interviewees mentioned their family in several cases, as it is still an integral part of their everyday lives.

Regarding the first hypothesis, expectations were not confirmed; that is, there was no difference between individual and team athletes in evaluating sports injuries. Furthermore, there was no difference between women and men, and age did not show any correlation with the scores. Based on the results, there is no difference between individuals in this grouping. However, it would be worthwhile to investigate this concerning other groups, for example, by observing contact and non-contact sports. In the case of the second hypothesis, assumptions were not confirmed either, so there were no differences in the coping of individual and team athletes. Complementing this result with the differences established by the interview, the difference is to be found in the nature and source of the support, rather than in its quality, during the coping of individual and team athletes. Differences in coping, more precisely in the area of freedom from anxiety, the higher result of women shows that they experience more anxiety than men, which social factors can also explain. However, the goals of this research should have included an in-depth examination of this.



DISCUSSION

The main goal of the research was to examine the differences between individual and team athletes in terms of coping with sports injuries. Based on the interview and the questionnaires, there is no significant difference between the two groups regarding coping strategies, but there is a difference in the source of support.

In the future, it may be worthwhile to repeat the study with a more significant number of sample elements and to address issues such as the frequency and severity of injuries. Furthermore, examining the athletes from other grouping points, such as contact and non-contact athletes or hobby and competitive athletes, may be worthwhile. Due to our country's rudimentary form of prevention and rehabilitation procedures for sports injuries, the study would show different results compared to a foreign sample. The practical benefit of the study lies in this, as the more information available about the differences in the psychological functioning of athletes, the more specific help can be provided to them during the activity of a sports psychologist.



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