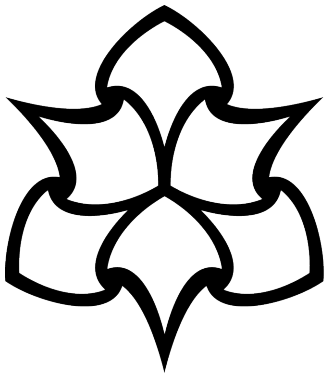

The perceptions of elite rink hockey coaches: Observation, intervention and the rink hockey goalkeeper.

ABSTRACT

The aim of this study was to explore the perceptions of rink hockey coaches in relation to tasks such as observation, intervention and aspects of the rink hockey goalkeeper. Seven experienced First Division Portuguese rink hockey coaches were included in the study. Semi-structured interviews were carried out and the data were analysed through inductive and deductive content analysis. Several categories emerged from the interviews including "observation", "intervention" and "goalkeeper". Rink hockey coaches prefer to "observe" the opponents themselves to plan training, as well as to assist with tactical preparation and implement within-match strategies. They consider video analysis an important tool to analyse the opponents goalkeepers strengths and weaknesses, with particular focus on the opponents goalkeeper. The game moments considered important for analysis are: (1) defensive organization; (2) offensive organization; (3) defensive transition; (4) offensive transition, and; (5) special situations. The training intervention involves the adaption of training exercises, whereby information is communicated during meetings. Coaches consider effectiveness, technical quality and a good positional sense important for the goalkeeper. These data have implications both from a performance and training practice perspective. Future research should focus on players and goalkeepers perspectives of the training process.

Keywords: Roller hockey; match analysis; planning; practice; performance;

Introduction

Rink hockey is characterized as being a fast-paced game with a large number of ball possessions (Duque, 2004; Rosa, 2006; Vaz, 2011). The goalkeeper is a key position that plays an important role in teams success (Sousa, Sarmento, Harper, Valente-dos-Santos, & Vaz, 2018; Sousa, Sarmento, Marques, Field, & Vaz, 2020; Trabal, 2016). Nonetheless, the dynamic of the game doesn't differ much from other invasion team sports, despite the possibility of playing behind the goals (Oliveira, Clemente, & Martins, 2015).

Coaches are required to be able to make quick decisions within an unpredictable environment, while adapting to external factors (Serrano, Shahidian, Sampaio, & Leite, 2013). Performance analysis can be used to gather information that can help improve the coaching process, the understanding of the game and improving training practice and player performance (O'Donoghue, 2009; Sarmento, Bradley, & Travassos, 2015). To achieve sporting success, coaches must prepare and retrieve information from previous games of their own and/or the opposite teams performance (Almeida, Sarmento, Kelly, & Travassos, 2019). Since there is currently thought to be a disconnect between coaching practice and researcher interest, it is essential to receive coach feedback with a view to bridging the gap between evidence-led research and applied practice, ultimately to improve practice and match preparation (Carling, Wright, Nelson, & Bradley, 2014; Sarmento, Bradley, & Travassos, 2015). Interviewing coaches can lead to better understanding of how they perceive the game and therefore to identify and explore the most appropriate methods that uncover the opposition team tactics and match dynamics (Sarmento, Pereira, Anguera, Campaniço, & Leitão, 2014). This approach is important to understand the type of match analysis

used by coaches as well as how this information is used to provide players feedback and adapt training sessions (Sarmento et al., 2015).

Despite the growth of research papers in rink hockey, there is still a paucity of scientific publications. Existing match analysis data within the literature are targeted at increasing knowledge about the demands of the game through studying age-related differences in under-17 (U-17) (Rosa, 2006; Duque, 2004 & Vaz, 2011), under-20 (U-20), and senior players (Ferreira, 2005; Clérigo, 2006 & Ferreira, 2003). In those studies, the authors focused their attention mainly on: (1) ball possession; (2) type of attack, and; (3) finishing actions. Others studies are focused on players activity profiles and contain other information related to: (1) players position (Kingman & Dyson, 1997; 1997b; Sousa, Sarmento, Marques, Field, & Vaz, 2020; Trabal & Riera, 2020); (2) match half (Kingman & Dyson, 1997b); (3) phase of the competition (Bastos, 2005); (4) age group (Oliveira, Clemente, & Martins, 2015; Santos, 2006; Vaz, 2011) and (5) game result (Rosa, 2006; Duque, 2004; Ferreira, 2003; Kingman & Dyson, 1997b). However, to the best of or knowledge there are no studies that focus on rink hockey coaches and their insights into game understanding, the decision-making processes, and the complexities involved with applied practice. In this sense, it is important to explore the perceptions of rink hockey coaches in relation to the observation of the opponent/own team, intervention and adaption of training practices and the bespoke position of the rink hockey goalkeeper.

Methods

Participants

Seven Portuguese First Division rink hockey coaches (coaching experience: 19.0 ± 8.4 years; range: 5 to 31 years) took part in the study. In order to be included, the coaches

1) provided informed consent 2) were involved in coaching at the time of interviews, and 3) had worked either currently or previously as head coaches within the Portuguese First Division. Three of the coaches had experience as national team head coaches, one coach was the former U-20 Portuguese national coach; another was the current head coach of the Portuguese national team and one was the former coach of the Spanish national team. Because of the in-depth nature of each interview, and the number of high calibre teams included from the first league (i.e., 7 out of 14 [50%]), seven coaches were considered representative of the elite rink hockey population.

Instruments

Semi-structured interviews were conducted as per previously published works (Bardin, 1977; Ghiglione, Matalon, Pires, & de Saint-Maurice, 2001; Sarmento, Pereira, Anguera, Campaniço, & Leitão, 2014).

The interview questions were designed to identify the most relevant issues to the coach and to focus on these issues in detail. To ensure content validity, the interview questions were designed systematically according to common qualitative research methods (Ghiglione et al., 2001; Sarmento, Pereira, et al., 2014). This involved a preparation and discussion of previous drafts of the transcript, based on the following steps (Sarmento, Pereira, et al., 2014): (1) preparation of the first draft of the interview questions based on the specific outcomes of the study; (2) evaluation of the interview transcripts by two senior researchers with substantial experience with interview methods, two rink hockey coaches, and two experienced rink hockey goalkeepers; (3) several alterations were carried out based on these evaluations; (4) a pilot interview with a Portuguese First Division coach; (5) minor alterations to the transcripts resulting from the reflections of the pilot interview; (6) resubmission of this version of the

transcripts to the evaluators. This ultimately resulted in the final version of the interview questions.

Data collection

All the interviews were performed by the first author (TS), between 11th and 29th of November 2019. The same format was used during each interview that began with the disclosure of general study information and the purpose of the research. Finally, the interviewer focused on the coaches' background and demographic information. Each interview lasted between 43 minutes and 79 minutes and was transcribed in a Microsoft Word document using the Cambria font with size 12 and 1.0 spacing (68 pages). All the coaches were assigned a transcription number to ensure coach anonymity.

Data analysis

The purpose of data analysis was to identify categories that emerged from the unstructured data and that represented the organization and utilization of expert rink hockey coaches' knowledge (Sarmento, Pereira, et al., 2014).

Data analysis was performed using qualitative content analysis (Coté, Saimela, Trudel, Baria, & Russell, 1995; Bardin, 1977; Sarmento, Pereira, et al., 2014), using a combination of inductive and deductive approaches (Patton, 1990). The text units were coded and those with comparable meanings were organized into specific categories. Two researchers conducted the analysis independently (TS and HS) to ensure data interpretation and theme credibility was suitable. The software QSR NVivo 12 was used to code the interviews transcripts.

All researchers were trained in qualitative research methods as outlined by several sources (Côté, Salmela, Baria, & Russell, 1993; Creswell, 2007; Lincoln, 1995; Smith & Caddick, 2012). Member checks (the most crucial technique for establishing

credibility) occurred at the end of each interview during a debriefing session and a peer review process that involved a neutral party was developed in order to ensure data credibility. An independent researcher examined the meaning units and any disagreements were debated until a consensus was reached by the research team.

Results

Following the content analysis of the data, three main categories were identified: (1) observation; (2) intervention, and; (3) goalkeeper.

Observation

We define the category "observation" in this study as being the procedures involved with analysing the opponents and their own team as well as the understanding of who performs the performance analysis, how they do it, as well as the knowledge of what to analyse and why (Figure 1).

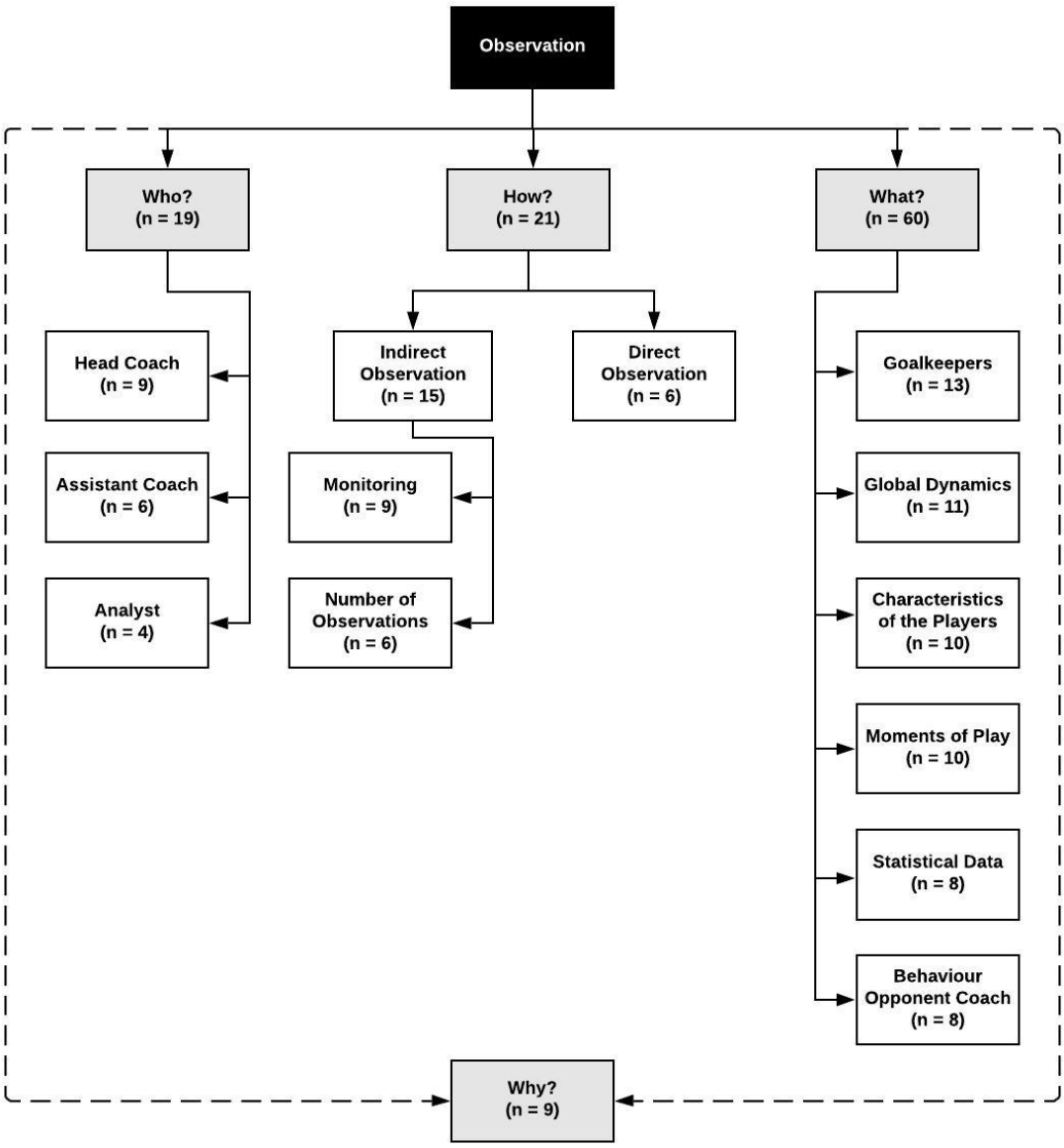

Figure 1 - Graphical representation of the sub-categories for the category "Observation". The number "n" reported represents the number of independent mentions of this idea/concept by the seven rink hockey coaches.

In the sub-category "who?", we tried to understand who performs the observation of the opponent/own team and concluded that it is largely performed by the head coach. In some cases, rink hockey coaches share the observation tasks with the assistant coach or an analyst of the club, in order to reduce their workload. However, most of the time, coaches assign others to conduct the analysis of set pieces, because they feel the need to see the sessions from a different perspective to be able to view the problems that opponent teams can cause in order to implement strategies and training

plans accordingly. Three of the interviewees assumed that they had the help of an analyst to support with the observation of opponent teams.

> "The video analysis of our opponents goes through me. Regardless of whether I have two assistant coaches and being able to delegate it, it is a process that I absolutely do not want to be dissociated from." (Coach 6)

A total of three coaches stated they like to observe the opponents during live competition. However, they reported that this is not always possible due to competitions schedule constraints. Nevertheless, coaches highlighted the importance of observing the opponents during live situations as they can detect key information that is not able to be identified *via* video analysis.

> "It is always important to do a live observation of our opponents and get to know the reality of what we are going to find in competition, because often on video there are things that we miss. One of the big problems that we feel in video analysis is the difficulty that exists in having the perception of the movement of all players." (Coach 2)

All coaches highlighted that "indirect observation" was an important tool for opponent analysis. Coaches were found to observe between 2 – 7 games of the opponent team, and reported that they tried to observe opponent teams playing in similar situations to which the game will take place (e.g., against opponents with a similar game model, away or home depending where the game will take place).

> “We try to find technical/tactical behaviours that are repeated in games more similar to what we are going to play (...) we try to find information more similar to what can happen in our game.” (Coach 4)

The interview questions attempted to extract information to assist with understanding where rink hockey coaches focus their attention when analysing opponents’ teams. According to the opinions of our respondents, the analysis of the opponent “goalkeeper” is one of the most important tasks. Coaches try to identify weaknesses in opponent goalkeepers that can be exploited by their players.

> “I look for weaknesses in the opposing goalkeepers. Sometimes those weaknesses arise from a specific moment of the game and not because he has technical weaknesses but rather because the situation forces him to take bad decisions. All scenarios must be analysed. I play counterattacking hockey, direct hockey, and focus on the behaviour of goalkeepers in these specific game situations. We are an attacking team, how does the goalkeeper behave when we counterattack? In situations of equal superiority, what does he do? Gets out of the goal? Stay in between the posts? He leaves the first post, he doesn't leave the post.” (Coach 1)

Concerning the “global dynamics” of the opponent teams, coaches stated that they focus attention on the situations they can take advantage of, and situations that can present problems for their teams.

> “I focus more on their qualities, their best qualities, and their most serious defects to see if I can take advantage of them. It doesn't have to be in the counterattacks, it doesn't have to be in the positional attack. Well, the goal is to find key points where you think you can win the game. (…) I try to look for their weaknesses, be their collective and/or individual behaviours, which for one team can be mental and in another team can be about how they defend a certain game action.” (Coach 4)

Coaches stated that they analyse technical, tactical, psychological and physical “characteristics of the players” searching for individual weakness of the opponent players to explore.

> “If in any player we find a detail that can be a weak point to take advantage of, we look for it.” (Coach 4)

Coaches considered that they focused their attention in 5 moments: defensive organization; offensive organization; defensive transition; offensive transition, and; special situations. Coaches considered ‘special situations’ as both “period of inferiority” (disciplinary and temporary sanction that penalizes the teams whose representatives commit serious disciplinary offenses; during this period the penalised team has to have four players on the rink, including the goalkeeper (World Skate, 2018)) and set pieces, particularly penalty and direct free-hit.

> “Basically, we analyse the offensive process in all its modalities. Counterattack, positional attack, and period of inferiority. There are teams that prefer direct

play, whether or not they are outnumbered. The counterattack and its structure. And, finally, the defensive transition. What do we analyse: (1) the offensive model in all its variants; (2) defensive model in all its variants; (3) the offensive transitions; (4) defensive transitions; (5) and finally the special situations." (Coach 1)

There were conflicting considerations between the interviewed coaches in relation to "statistical data" collection. Those who consider it important to collect statistical data highlighted that they collect data from their own team and that the statistical data they collect from the opponents refer to where the players most frequently shot penalties and direct free-hits, and also the situations whereby goalkeepers tend to concede more goals. However, although other coaches consider that statistical data can be important, they believe that it is more important that the data is qualitatively analysed. On the other hand, there are coaches that declared that they do not collect within-match data, because they need themselves and the assistant coach to be focused on the game. If they consider it necessary to collect data, they do so *via* video analysis post-match.

It was highlighted that the "behaviour of the opponent coach" was analyzed to understand the most frequent substitutions and to identify the tactical systems employed. Also, coaches observe the standard behaviour patterns of players regarding their usage of time during the game.

We also tried to understand "why" coaches deem it important to perform the analysis of the opponent teams. Coaches reported that they performed the analysis of their opponent teams to predict and anticipate problems that can emerge during the game, seeking to exploit weaknesses and counteract strengths.

"What I look for with the analysis is that nothing surprises me. When a player starts a game, the worst that could happen is the uncertainty, it is not knowing what could occur. When you don't know, you can't predict, don't anticipate, everything surprises you. It is easier to be deceived. It's easier for them to beat you. If you have someone in front of you who knows what you are going to do, your life is much easier." (Coach 1)

Intervention

The "intervention" in this instance is both the adaption of training exercises and a set of resources or techniques that the coach uses to effectively transmit the information to the players (Figure 2).

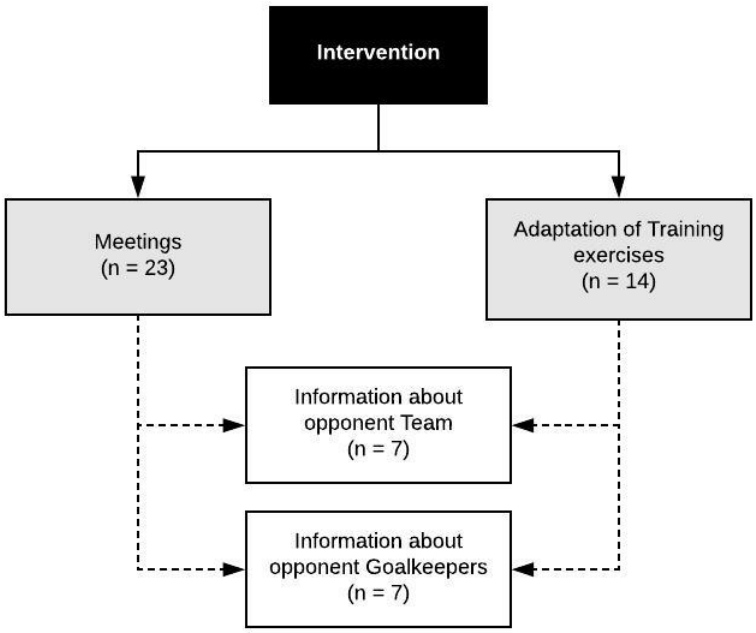

Figure 2 - Graphical representation of the sub-categories for the category "Intervention". The number "n" reported represents the number of independent mentions of this idea/concept by the seven rink hockey coaches.

During the training micro-cycle, the intervention is sustained through adaption of training exercises and through meetings with the players. The number of meetings

held to feedback video footage, depends on the quality of the next opponent and can vary between 1 and 4 meetings per week. The time spent in meetings varies between coaches (20 – 60 minutes) and the footage shown to players does not exceed 13 minutes (8 – 13 minutes).

During the training micro-cycle, the intervention is also sustained by the adaption of training exercises depending based on the analysis performed on the opposing/own teams.

> I program the micro-cycle training in function of what we have to correct individually/collectively and, the things that we have to be aware of or pay close attention to in the next game. (Coach 4)

Coaches use meetings and adapted training exercises to provide players with information about the opponent team and goalkeeper.

> "I try to pass on to the players the essential information that which we consider most important. If we give less information, we get the athlete to retain some of that information. Especially the most important. If we pass too much information, the athlete starts to process and may not catch what is most important." (Coach 1)

Goalkeeper

Due the importance that coaches permit to goalkeepers specifically, a more detailed understanding of this player's activity is presented according to three sub-categories: (1) specificities of the goalkeepers in rink hockey; (2) anthropometric profile, and; (3) technique versus effectiveness.

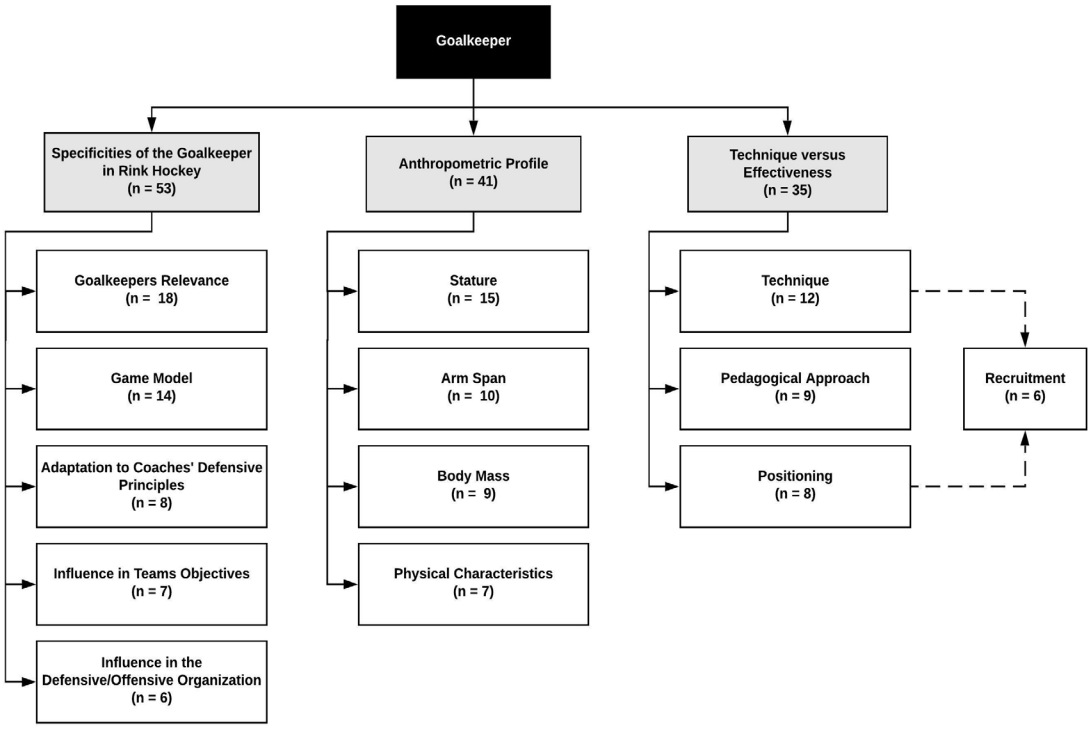

Figure 3 - Graphical representation of the sub-categories for the category "Goalkeeper". The number "n" reported represents the number of independent mentions of this idea/concept by the seven rink hockey coaches.

All the interviewed coaches consider that the goalkeeper is the most important player in a rink hockey team.

> "It is a fundamental position of a team. We can vary in a slightly higher or lower percentage, but I think we all agree that it is a fundamental position." (Coach 4)

When questioned about the importance of rink hockey goalkeepers and their characteristics in the construction of the "game model" there are some coaches that identified that their game model has nothing to do with the characteristics of the goalkeeper (Coaches 1, 4 and 7). On the other hand, Coaches 2, 5 and 6 stated that their game model is adapted to the characteristics of their goalkeepers, while coach 3 stated that it is the goalkeeper that must adapt to the game model.

The interviewed coaches consider that rink hockey goalkeepers are more likely to adapt to the coach's defensive principles. Additionally, they attributed considerable

importance to having a “quality” goalkeeper in order to achieve success. When coaches address the theme of the influence of goalkeepers on the teams' sporting goals, they argue that in order to reach the top spots of the league table, they need to have goalkeepers who can make a difference by their individual quality.

> “At the beginning of the season we always talk to the goalkeeper about the defensive principles we have defined for the team and we try to adjust with what the goalkeeper feels most comfortable with. But I think that goalkeepers today are trained to adapt easily to a style of play or game model, as we want to call it.” (Coach 3)

Some coaches declared that the influence of goalkeepers is higher in the defensive rather than in the offensive organization.

> “(…) defensive transition issues are prepared according to the goalkeeper and what he wants. (…) In spite of everything, we have our ideas, but then if the goalkeeper wants the 2x1 or 3x2 depending on whether in a certain area go more to the player of the ball, leave the second post, leave 1xGR or in the 3x2 in the middle distance in one of the corridors, I won't be saying no. I adapt my defensive principles, in some situations, to what goalkeepers think is best for them.” (Coach 7)

Coaches do not consider stature as being decisive in the recruitment of a goalkeeper. However, they consider that taller goalkeepers have greater advantages when compared to smaller goalkeepers, and that the weight must be suitable for the

stature. When questioned about the importance of arm span, coaches argued that they didn't consider it a relevant factor when recruiting a goalkeeper, however, considering that this is the goal technique adopted by some goalkeepers, they deemed that this anthropometric characteristic can play an important role. As opposed to identifying physical characteristics, the interviewed coaches consider that they first look for quality goalkeepers who are effective. They also account for psychological characteristics, such as character, and only afterwards do they analyse their physical characteristics. The coaches attributed a high degree of importance to the following physical traits: agility, strength and elasticity.

> "(...) goalkeepers with a greater stature and greater arm span, associated with technical qualities and individual tactical quality, are the best goalkeepers in the world. Goalkeepers, who are smaller in size and have the same technical and tactical skills, are not so good." (Coach 1)

Coaches assumed that they seek a balance between technical quality and effectiveness. Coaches mentioned that although they like technically advanced goalkeepers, though it is also important that the technique corresponds with a high degree of effectiveness. Coaches declared that if they do not have a goalkeeping coach in their technical staff, they use video images to correct goalkeeping errors. However, if they have a goalkeeping coach, coaches tend to allow corrections to be made by the goalkeeping coach, either through the presentation of video images, the creation of specific exercises or through conversations.

> “I like to see a goalkeeper in goal that is aesthetically beautiful. Now if he is aesthetically pleasing to the eye, he has a good technique, he has a good position, but then he is not effective, obviously we will not think of him. What we want is effectiveness.” (Coach 2)

Interviewed coaches considered that good positioning is more important than a good technique.

> “The association between technique and positioning is ideal. The ideal will be dominating the two. Now if I have to choose between positioning and technique I’ll choose positioning (…) Clearly, when choosing a goalkeeper in the first place is effectiveness.” (Coach 7)

Discussion

This study explored the perceptions of rink hockey coaches in relation to the analysis of the opponent/own team, intervention and adaption of training practices and the bespoke position of the rink hockey goalkeeper.

Concerning “observation”, the interviewed coaches were unanimous in considering that the analysis of opponent teams allows them to identify the opponent teams patterns of play, as such exploiting their weaknesses and nullifying their strengths.

Rink hockey coaches assumed that they prefer to complete the analysis of the opponents’ team themselves, instead of delegating these tasks to the other technical staff (assistant coaches and analysts). In this way, they can outline strategies and training plans to effectively prepare the team and players for the opposition. This

situation is contrary to what happens in football, where the head coaches assign the tasks of observing the opponent teams to a performance analyst or assistant coaches (Sarmento, Pereira, et al., 2014). Potentially due to differences in financial resources, the use of sophisticated software (e.g., Amisco, ProZone) assists football teams with analysing match data (Carling, Bloomfield, Nelsen, & Reilly, 2008). However, in rink hockey, finances and technologies that facilitate the analysis of performance during training/competition are scarce. However, the use of video remains an important tool for performance analysis (Sarmento, Pereira, et al., 2014). Because of the congested calendar, coaches are not always able to carry out a live observations of their opponents, despite enabling the analysis of environmental factors not always able to be seen on video. Carling et al. (2008) believe that the use of video is an essential tool for performance analysis and assists with evaluating and presenting information about performance in sport. Therefore, coaches may have to rely on performance analysts and other technical staff to 'analyse' and 'feedback' on the opposition team.

Rink hockey coaches observe 2 to 7 opponent games, paying attention to specific situational aspects such as analogous situations to which the game will take place (away or home games), as well as games played against teams that present some similarities in game model to themselves. These data are in line with previous work by Sarmento and colleagues (2013) that suggest soccer coaches must observe at least two to six games of their opponents, in order to detect the most regular patterns of the opponents play. Like the rink hockey coaches in our study, football coaches consider it important to analyse a large number of games in order to collect the information required to improve their decision-making processes (Sarmento, Pereira, et al., 2014; Travassos, Davids, Araújo, & Esteves, 2013). Therefore, coaches who are unable to

attend matches regularly during a competitive season may be at a disadvantage to those who manage to analyse more opponent matches in-person.

One of the main tasks highlighted, was the analysis of the opponent goalkeeper activity and weaknesses. In rink hockey, the goalkeeper is considered the most important position of the team and the performance of the goalkeeper is associated with the success of the team (Trabal, 2016; Sousa, Sarmento, Harper, Valente-dos-Santos, & Vaz, 2018). In sports such as futsal and football, coaches do not attribute much importance to the observation of the opponent goalkeeper (Sarmento et al., 2015; Sarmento, Pereira, et al., 2014). However, in rink hockey, almost half of the offensive actions end with an attempt at goal (Ferreira, 2003). Additionally, due to the speed of the game and the reduced number of field players, the goalkeepers are frequently involved with play (Sousa et al., 2020). Due to their constant involvements in key actions of the game, it is essential to exploit goalkeeper weaknesses for teams to have attacking success.

Coaches highlight the need to analyse "global dynamics" of the opponents' team as well as "characteristics of the players". In the "global dynamic" analysis of the opponent teams, coaches seek to find qualities (i.e., strengths) and deficiencies (i.e., weaknesses) in the opponents' team and individual players. This analysis is based mainly on collective and/or individual behaviours that in some cases can be psychological, physical, tactical or technical. Detecting these characteristics are important for the development of game strategies by coaches, similar to those observed in elite football (Carling, Reilly, et al., 2008; Drust, Atkinson, & Reilly, 2007; Sarmento, Marcelino, et al., 2014), handball (Prieto, Goméz, & Sampaio, 2015) and futsal (Serrano et al., 2013; Agras, Ferragut, & Abraldes, 2016).

Coaches focus on the different "moments of play" to find patterns and

behaviours in the opposition teams. Rink hockey coaches break those into 5 moments: (1) defensive organization; (2) offensive organization; (3) defensive transition; (4) offensive transition, and; (5) special situations (e.g. direct free-hits, penalties, indirect free-hits, periods of inferiority). The analysis of the 'special situations' is very important since a rule change in 2009 (World Skate, 2018). This involved a technical sanction (i.e. concede a direct free-hit) each time a team accumulates 10 fouls or five additional team fouls. This results in a temporary expulsion of an offending player (i.e. period of inferiority), which has brought greater emphasis to these specific moments of the game. Currently, most goals are scored from direct free-hits and during the period of inferiority. It has been previously identified that the probability of scoring a goal is higher after a break in play (e.g. penalty, direct free-hit, indirect free-hit) in comparison with situations of dynamic movements (e.g. interception, disarm, ball recovery; Sousa et al. 2020). Additionally, the probability of scoring a goal after a break in play is higher in situations of direct free-hits and penalties. To the best of our knowledge, there is no study that analyzes the probability of scoring goals in the "periods of inferiority" in comparison with situations of dynamic movement in rink hockey. Therefore, most of what is known about "periods of inferiority" is derived from anecdotal observation, though it is well established within applied rink hockey, that these situations play a crucial part in determining the outcome of a match.

Coaches in our study, have different perspectives about the importance of "statistical data". Not all coaches from our sample believe in the need to collect statistical data. Those who collect data, use these data to evaluate the efficiency of set pieces (e.g. direct free-hit and penalty). Other coaches believe that qualitative data should also be collected to facilitate understanding of the quality of the actions performed by the players. In football, Carling, Williams and Reilly (2005) considered

it important that coaches make use of simple statistical data during the game such as number of passes failed, and the number of times the team enters the offensive third. In our study only one coach stated that it was important to collect statistical data such as ball recovery and the number of ball losses (Coach 5).

After analysing the opponents' team, coaches select the most relevant information (i.e., strengths and weaknesses) and pass this onto their players. Coaches' intervention during the micro-cycle mainly involves the adaptation of training exercises fed back to players *via* meetings where the information is communicated through video analysis. According to Castelo (2009), coaches should apply the available information in appropriate training sessions and game strategies to improve performance. Training exercises are considered the best way to transmit information to players (Sarmento, Pereira, et al., 2014). The use of video analysis to highlight the strengths and weaknesses of the opponents has been found to be beneficial (Carling et al., 2005; Knudson & Morrison, 2002; Carling et al., 2008; Sarmento, Pereira, et al., 2014). Therefore, using these combined methods, coaches can improve individual and team performances.

Despite the goalkeeper being considered the most important player in a rink hockey team (Sousa et al., 2018; Trabal, 2016), not all coaches from our sample develop their game model while taking into consideration the characteristics of their goalkeepers. There were coaches that assume that their game model has nothing to do with the characteristics of the goalkeepers, while others adapt to the goalkeeper's characteristics and one of the seven coaches interviewed stated that the goalkeeper has to adapt to the game model of the team. As such, despite their relevance, coaches have different approaches in how the goalkeeper can influence the way teams defend and attack. This may be why coaches considered that it was very important to have a

“quality” goalkeeper. Developing a game model that seeks to exploit or enhance the best qualities of the goalkeeper can optimize the team's performance and consequently increase team success. The interviewed coaches stated that rink hockey goalkeepers tend to be capable of adapting to the coach’s defensive principles, and perhaps that's why only 42.8% of the interviewed coaches adapt their game model to the goalkeeper. Further research is required to assess the effectiveness of goalkeepers in response to different game models.

The coaches in the present study considered it was most important that goalkeepers have a proficient technique. However, coaches highlighted that a greater stature was a preferable physical trait, though this had to be combined with technical quality for the trait to be used effectively. Coaches also consider it important that goalkeepers need have a body mass that is in proportion to the stature. However more than being aware of the physical characteristics of rink hockey goalkeepers, coaches believe effectiveness, technical quality and a good positioning in the goal are important. The whole process of reading and anticipating what the opponents intend to do when attacking the goal facilitates 90% of the goalkeeper's work.

Conclusion

It is through the processes of observation and analysis of the game that coaches seek to obtain information that can yield benefits; not only to increase knowledge about the game, but also to improve the quality of the team and individual player performance.

Rink hockey coaches highlighted that they: (1) prefer to perform the observation themselves, rather than delegate the role; (2) consider video analysis an important tool for the observation and analysis of their opponents; (3) focus on the opponents goalkeeper analysis; (4) identify qualities and deficiencies in the opponents’ team and

individual players; (5) focus their analysis on five moments of the game (defensive organization; offensive organization; defensive transition; offensive transition, and; special situations); (6) assess the strengths and weaknesses' of the opponents' teams, and adapt training exercises accordingly, while feeding back information through video analysis, and; (7) coaches consider that it is important that rink hockey goalkeepers are effective, show technical quality and have good positional sense.

This study facilitates understanding of how rink hockey coaches operate in an applied environment. These data have implications for rink hockey head coaches, performance analysts and goalkeeping coaches from both a performance and training practice perspective. Rink hockey goalkeepers may also benefit from these findings such that coaches highlight the types of characteristics that they consider important. Future qualitative research should focus on the perspectives of rink hockey players and goalkeepers.

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