

The presence of the head coach during a small-sided game: effects on players' internal load and technical performance
La presencia del entrenador durante un juego reducido: efectos sobre la carga interna y rendimiento técnico de los jugadores

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Abstract

The aim of the study was to examine whether the presence/absence of the head coach influenced soccer players' heart rate (HR), rating of perceived exertion (RPE) and technical performance during a small-sided game (SSG). The participants in the study were 27 young male soccer players (age: 17.0 ± 1.0 years; height: 176.0 ± 5.2 cm; weight: 67.6 ± 7.9 kg; HRmax: 195.1 ± 0.7 bpm). The SSG were practiced with the presence (PHC) or absence (AHC) of the head coach. Each SSG had duration of 6 min followed by a 5 min rest period. Significant differences were observed for HRmax (PHC: 190.4 ± 10.8 ; AHC: 182.0 ± 11.9), HRmean (PHC: 175.3 ± 9.4 ; AHC: 167.0 ± 13.1), RPE (PHC: 7.6 ± 0.8 ; AHC: 5.8 ± 1.1) and $>90\%$ HRmax (PHC: 54.09 ± 33.14 ; AHC: 46.71 ± 35.61). Significant differences in 4 technical actions: % success in passing (PHC: 59.05 ± 23.11 ; AHC: 71.08 ± 18.69), % Unsuccessful Passes (UP) (PHC: 40.95 ± 23.11 ; AHC: 28.92 ± 18.69), Number of UP (PHC: 3.19 ± 1.69 ; AHC: 2.26 ± 1.58) and total number of control-conduction-passes (CCP) + Successful Passes (SP) (PHC: 0.81 ± 0.83 , AHC: 0.52 ± 0.64). This study shows that the presence or not of the head coach during SSG significantly influences the intensity of the players and the technical/tactical actions.

Key words: tactical-technical analysis; soccer, number of players; heart rate; rated of perceived exertion.

Resumen

El objetivo del estudio fue examinar como la presencia/ausencia del entrenador, influyó sobre la frecuencia cardíaca (FC), percepción subjetiva del esfuerzo (PSE) y rendimiento técnico durante un juego reducido (JR). Participaron 27 jugadores jóvenes (edad: 17.0 ± 1.0 años; altura: 176.0 ± 5.2 cm; peso: 67.6 ± 7.9 kg; FCmax: 195.1 ± 0.7 ppm). El JR fue realizado en presencia (PE) /ausencia (AE) del entrenador. Cada JR tuvo una duración de 6 min seguida de 5 min de recuperación. Se observaron diferencias significativas en la carga interna: PE (FCmax: 190.4 ± 10.8 ; FCmed: 175.3 ± 9.4 ; PSE: 7.6 ± 0.8 y $>90\%$ FCmax: 54.09 ± 33.14) AE (FCmax: 182.0 ± 11.9 ; FCmed: 167.0 ± 13.1 ; PSE: 5.8 ± 1.1 y $>90\%$ FCmax: 46.71 ± 35.61). Diferencias significativas en acciones técnicas: % Pases correctos (PE: 59.05 ± 23.11 ; AE: 71.08 ± 18.69) % Pases incorrectos (PE: 40.95 ± 23.11 ; AE: 28.92 ± 18.69), Número de pases incorrectos (PE: 3.19 ± 1.69 ; AE: 2.26 ± 1.58) y número total de control-conducción-pase correcto (PE: 0.81 ± 0.83 , AE: 0.52 ± 0.64). Este estudio demuestra que la presencia o no del entrenador durante un juego reducido tiene influencia significativa en la intensidad y rendimiento técnico-táctico de los jugadores.

Palabras clave: análisis técnico-táctico; fútbol; número de jugadores; frecuencia cardíaca; percepción subjetiva del esfuerzo.

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Introduction

Small-sided games (SSGs) are one of the most commonly used tasks during soccer training at all age and competitive levels. The principle of specificity justifies the use of these kinds of drills in training (Rampinini, Impellizzeri, Castagna, Abt, Chamari, Sassi, & Marcora, 2007), and SSG are mainly characterized by their ability to replicate the game but using a reduced number of players per team. The greater ratio of players' time with the ball obtained during SSGs in comparison with habitual competition has benefits during the process of soccer conditioning. Firstly, there is a greater physiological stress in workload per minute of game (Casamichana & Castellano, 2012) being proposed as optimal training drills to develop specifically the endurance capacity of the soccer player (Dellal, Chamari, Pintus, Girard, Cotte, & Keller, 2008; Hill-Haas, Coutts, Rowsell, & Dawson, 2009), and several long-term studies (Dellal et al., 2008; Rampinini et al., 2007) have shown that training with SSGs develop similar endurance adaptations to fitness training compared to running-based exercises. Secondly, SSGs are an efficient way to develop technical and tactical behavior of the player (Sánchez-Sánchez, Yagüe, Fernández & Petisco, 2014). Regardless of their age or skill/experience level, it has been shown that players perform a greater number of ball possessions, ball touches, dribbles, passes, shots, goals, tackles, interceptions, ball recoveries, and "off the ball" movements per min of play during different SSGs in comparison with the normal game (Owen, Twist, & Ford, 2004; Owen et al., 2014; Dellal, Drust, & Lago-Penas, 2012).

The wide use of SSGs in daily training may explain why their analysis is one of the most addressed topics in soccer contemporary research (Aguiar, Botelho, Lago, Maçãs & Sampaio, 2012; Hill-Haas, Dawson, Impellizzeri, & Coutts, 2011). Numerous researches have focused on analyzing the effects that the modification of a SSG rule has on player response. Modifications such as the number of players involved, the size and the shape of the pitch, the presence or not of goals or the exercise-rest ratio have received wide coverage (Hill-Haas et al. 2011). One modification that has received little attention has been the presence/absence of coach encouragement (Rampinini et al., 2007). While several authors (Bangsbo, 1998; Kelly & Drust, 2009; Mazzetti, Kraemer, Volek, Duncan, Ratamess, Gómez, Newton, Häkkinen, & Fleck, 2000) have suggested this rule as one of the factors that can influence training load during the SSGs, only one study conducted using amateur players has quantified its effects (Rampinini et al., 2007). The results showed an increase in internal training load (measured using heart rate (HR), blood lactate and rating of perceived exertion (RPE) when the coaches provided encouragement during the SSG. So the supervision of training by the head coach generates a higher load and greater adherence to training (Sánchez, Pereira, Guillén, Martín, Romo, Rodríguez & Villa, 2014). However, there is no information about the only presence/absence of the head coach during SSG without encouragement in both situations. Therefore, the aim of the present study was to examine, in young soccer players, whether the presence/absence of the head coach influenced players' heart rate, perceived effort and technical performance during a standard SSG.

Material and Methods

Participants

The participants in the study were 27 young male soccer players (17.0 ± 1.0 years; 176.0 ± 5.2 cm; 67.6 ± 7.9 kg; HR_{max} : 195.1 ± 0.7 bpm). Players belonged to three different teams in the same category (National Young League) and had an average experience in licensed football of ~ 5 years. All parents and participants were informed about the purpose of the study and giving the signed consent. The present investigation was approved by the Research Ethics Committee of Local Institute, and was conducted in accordance with the Declaration of Helsinki.

Procedures

The study was conducted over a two-month period (February and March) during the 2012-13 competitive season. All training sessions were performed at the same time of day (19:00-21:00 pm). Players were familiarized previously with the SSG used during the study, and with the material (heart rate recordings, RPE scale and camera). The pitch size was the same during both conditions (40 x 30 m), such that the relative area per player was 120 m^2 excluding the goalkeepers (GK), (Casamichana & Castellano, 2010; Hill-Haas et al., 2011) including monitoring. Except for the offside rule, the standard rules of 11-a-side soccer were followed. A space with 2 official portable goals was also used. In different sessions with at least 48 hours of recovery, the players played with the presence (PHC) or absence (AHC) of the head coach. Based on a previous study (Gabbett, Walker, & Walker, 2015) players were informed that the duration of the task was 6 min.

For the quantification of the levels of internal load, values of HR and RPE with the CR-10 modified by Foster (Coutts, Rampinini, Marcora, Castagna, & Impellizzeri, 2009; Fanchini, Azzalin, Castagna, Schena, McCall, & Impellizzeri, 2011; Rampinini et al., 2007) were used. Both have previously been defined as valid elements to quantify the intensity levels or internal load achieved on a task (Abrantes, Nunes, Maçãs, Leite, & Sampaio, 2012; Casamichana et al., 2010; Coutts et al., 2009; Dellal et al., 2008; Fanchini et al., 2011; Hill Haas et al., 2011).

Small-Sided Games

Two teams (5 vs 5 + GK) were created by the head coach to ensure no technical /tactical differences existed between them. Each team was composed of 1 GK, 2 central defenders, 2 midfielders and 1 center forward, with the participants' usual playing position in the team (Casamichana et al., 2010). The number of ball touches was unlimited and when the ball came out of the playing area, the fitness coach quickly inserted another ball ensuring maximum effective playing time (Casamichana, Castellano, González-Morán, García-Cueto, & García-López, 2011; Castellano, Casamichana, & Dellal, 2013; Hill-Haas, Coutts, Rowsell, & Dawson, 2009(b); Mallo & Navarro, 2007). If a goal was scored, the GK restarted play. When a foul or offside occurred, the opposing team started the play from that area. In the situation with PHC, the head coach was only present in the task to supervise without providing encouragement or any other indication. In the situation with AHC, only the fitness coach was present during the task, without providing encouragement. The signal start and end was whistled by the fitness coach.

Internal Load: Heart Rate and RPE

Maximum Heart Rate (HR_{max}) of each athlete was estimated through the formula ($207-0.7 \times age$) of Tanaka (Suarez-Arrones, Núñez, Munguia-Izquierdo, Portillo, & Mendez-Villanueva, 2013; Tanaka, Monahan, Seals, 2001). During the SSG, the HR was continuously measured using short-range telemetry (Polar Team Sport System, Finland) and the HR values shown during the SSG were retained and used in the analysis. HR data were classified based on the percentage of total time spent in each of the following four HR zones: $<75\% HR_{max}$, $75-84\% HR_{max}$, $84-90\% HR_{max}$, and $>90\% HR_{max}$ (Castellano et al., 2013). RPE also was used to assess the internal load during SSG. Each player's session RPE was collected immediately after each SSG using Borg scale-10 (Borg, Hassmen, & Lagerstrom, 1987).

Technical Performance

A recorder system with video camera (Sony, model HDR-CX190 High Definition Handycam 5.3 MP Camcorder), placed on a fixed tripod height and lateral to the field was used for visualization and subsequent quantification of technical actions. The quantification of technical actions was performed using Match Vision Studio Premium (Castellano, Perea, Alday, & Hernández, 2008; Gutiérrez, Camerino, & Anguera, 2011). All technical actions were recorded individually during the analysis of SSG (Kelly & Drust, 2009). Given this information, the technical actions have been defined and organized as shown in Table 1. Absolutely typical error of measurement values (coefficient of variation) for technical actions ranged from 0.5% to 5.3% respectively for inter-coder reliability.

Table 1. Definition of technical actions quantified.		
START GAME		
SP	Successful Passes	A pass that is performed with the foot or head that is received successfully by a teammate (Harper, West, Stevenson, & Russell, 2014)
UP	Unsuccessful Passes	A pass that is performed with the foot or head that is not received successfully by a teammate (i.e., is instead either intercepted by an opposition player or leaves the field of play) (Harper et al., 2014)
INT	Interception	When an opposing player cuts the path of the ball between two players of the same team. It uses zone different of contacts (foot, heel, thigh, knee, chest, head)
TAC	Tackle	When an opposing player, makes contact with the ball either by making a tackle on or above the pitch
HEAP	Head Passes	When the player uses his head with the intention of a pass or interception
CP	Control and Passes	The player receives the ball, controls it and then makes a pass (this is taken into account if the pass is SP or UP)
CCP	Control Conduction and Passes	The player controls the ball and starts the movement by making the pass taking into account the fact that there was an attempt made to pass, even if the pass was UP

END OF PLAY		
OFF	Offside	"Closer to the goal line" means that any part of his head, body or feet is nearer the goal line than the ball and the second last opponent. The arms are not included in this definition
HEA	Headers	Contacts made with the head to end of attack
SONT	Shots On Target	Any goal attempt that (Harper et al., 2014): a) Goes into the net b) Would have gone into the net but for being stopped by a goalkeeper's save c) Would have gone into the net but for being stopped by a defender who is the last man
SOFT	Shots Off Target	Any goal attempt where the ball is going wide of the target, misses the goal or hits the woodwork (Harper et al., 2014)
SUCCESS OF ATTACK		
GOA	Goal	When the whole ball has crossed the line between the 3 goal posts
STOP	Stop	Actions of goalkeeper of stop the ball after shot of rival players

Statistical Analysis

Descriptive statistics (mean \pm SD) for the outcome measures were calculated. Precision of estimated are indicated with 90% confidence limits (CL). In addition to the analyses for statistically significant (i.e., paired t-tests), possible differences between SSG were analyzed (pairwise comparisons) for practical significance using magnitude-based inferences (Hopkins, 2006). The data were log-transformed prior to analysis to reduce non-uniformity of error. Standardized differences or effect sizes (90% confidence interval) in HR and RPE response were calculated, and the threshold values for Cohen ES statistics were: trivial (0.0 – 0.19), small (0.2 – 0.59), moderate (0.6 – 1.1), large (1.2 – 1.9), and very large (>2.0). Magnitude-based inferences were also used to assess possible differences between playing positions and halves using the following qualitative probabilities: $<1\%$; almost certainly not, $<5\%$; very unlikely, $<25\%$; unlikely/probably not, 25–75%; possibly/possibly not, $>75\%$; likely/probably, $>95\%$; very likely, $>99\%$; almost certainly. A substantial effect was set at $>75\%$ (Aughey, 2011; Jennings, Cormack, Coutts, & Aughey, 2012; Suarez-Arrones et al., 2013).

Results

Internal Load

Both types of SSG (PHC or AHC) are presented in Table 2. HR_{max} , HR_{mean} and RPE were substantially greater during the SSG-PHC [$+4.4\%$ (moderate ES), $+4.7\%$ (moderate ES) and $+23.7\%$ (very large ES), respectively]. During the SSG-PHC there was a substantial increase in the percentage of time spent by players at very high-intensity of exercise $>90\%$ HR_{max} [$+13.7\%$ (moderate ES)], while there was a substantial decrease compared to SSG-AHC in

the percentage of time at lower intensities [-46.0% (small ES), -17.8% (small ES) and -20.0% (small ES) for HR zones <75% HR_{max}, 75-84% HR_{max} and 84-90% HR_{max}, respectively] (Table 2).

Table 2. Internal Load during each SSG. Data are mean ± SD				
Variables	PHC	AHC	ES ± 90% CL	QA
HR _{max}	190.4 ± 10.8	182.0 ± 11.9	0.78 ± 0.31	Likely
HR _{mean}	175.3 ± 9.4	167.0 ± 13.1	0.90 ± 0.32	Likely
RPE	7.6 ± 0.8	5.8 ± 1.1	2.54 ± 0.64	Likely
Zone 1 (<75 % HR _{max})	7.51 ± 7.93	13.99 ± 18.38	-0.57 ± 0.52	Likely
Zone 2 (75-84 % HR _{max})	14.78 ± 21.11	17.97 ± 15.12	-0.35 ± 0.29	Likely
Zone 3 (84-90 % HR _{max})	19.97 ± 21.75	24.97 ± 18.80	-0.43 ± 0.32	Likely
Zone 4 (>90 % HR _{max})	54.09 ± 33.14	46.71 ± 35.61	0.70 ± 0.68	Likely

Note: HR: Heart Rate; HR_{max}: Maximum Heart Rate; HR_{mean}: Mean Heart Rate; RPE: Rating of Perceived Exertion; % HR_{max}: Percentage time in Heart Rate, PHC: Presence of Head Coach; AHC: Absence of Head Coach; ES: Effect Size; CL: Confidence Limits; QA: Qualitative Assessment.

Technical Performance

Technical actions during both types of SSG (PHC or AHC) are presented in Table 3. During the SSG-PHC, a substantial increase in the number and percentage of unsuccessfully passes [-29.2% and -29.4% (small ES), respectively] was observed, while the total number of CCP+SP was substantially increased in PHC [+35.8% (moderate ES)].

Table 3. Technical Performance during each SSG. Data are mean \pm SD

Variables	PHC	AHC	ES \pm 90% LC	QA
# Total Shots	1.15 \pm 1.10	1.48 \pm 1.65	0.37 \pm 0.62	Unclear
# SOFT	0.41 \pm 0.64	0.56 \pm 0.80	0.00 \pm 1.07	Unclear
# SONT	0.78 \pm 0.97	0.96 \pm 1.26	0.24 \pm 1.01	Unclear
# STOP	0.37 \pm 0.56	0.44 \pm 0.85	0.13 \pm 0.62	Unclear
# GOA	0.41 \pm 0.69	0.52 \pm 0.70	0.57 \pm 3.34	Unclear
# PASSES	8.30 \pm 3.23	7.81 \pm 3.21	0.14 \pm 0.30	Unclear
% UP	40.95 \pm 23.11	28.92 \pm 18.69	0.45 \pm 0.50	Likely
# UP	3.19 \pm 1.69	2.26 \pm 1.58	0.50 \pm 0.55	Likely
# SP	5.11 \pm 2.69	5.56 \pm 2.65	0.13 \pm 0.34	Unclear
# SP to a touch	2.56 \pm 1.85	2.56 \pm 1.97	0.25 \pm 0.39	Unclear
# UP to a touch	1.89 \pm 1.37	1.22 \pm 1.22	0.04 \pm 0.47	Unclear
# CP+SP	1.74 \pm 1.48	2.48 \pm 1.78	0.31 \pm 0.60	Unclear
# CP+UP	0.89 \pm 0.85	0.70 \pm 0.72	0.00 \pm 0.66	Unclear
# CCP+SP	0.81 \pm 0.83	0.52 \pm 0.64	0.92 \pm 0.82	Likely
# CCP+UP	0.41 \pm 0.80	0.33 \pm 0.68	0.33 \pm 0.77	Unclear
# Passes a Touch	4.44 \pm 2.42	3.78 \pm 2.41	0.15 \pm 0.36	Unclear
# Passes after CP	2.63 \pm 1.74	3.19 \pm 1.98	0.12 \pm 0.48	Unclear
# Passes after CCP	1.22 \pm 1.15	0.85 \pm 1.03	0.30 \pm 0.81	Unclear
# INT	2.59 \pm 1.89	2.15 \pm 1.61	0.17 \pm 0.49	Unclear
# TAC	0.30 \pm 0.87	0.15 \pm 0.36	0.76 \pm 4.80	Unclear
# HEA	0.04 \pm 0.19	0.11 \pm 0.42	0.37 \pm 0.79	Unclear
# HEADP	0.15 \pm 0.36	0.26 \pm 0.53	0.30 \pm 0.56	Unclear
# OFF	0.04 \pm 0.19	0.07 \pm 0.27	0.19 \pm 0.32	Unclear

Note: PHC: Presence of Head Coach; AHC: Absence of Head Coach; ES: Effect Size; CL: Confidence Limits; QV: Qualitative Assessment; SP: Successful Passes; UP: Unsuccessful Passes; CP: Control Passes; CCP: Control-Conduction-Passes, %: Percentage, #: Number.

Discussion

The main findings of our research were that the players' internal load was greater with the presence of the head coach. This was confirmed by increased HR_{max} , HR_{mean} , RPE and % of time at very high-intensity ($>90\% HR_{max}$). In soccer training, SSG are commonly used to aid the physical preparation of players (Hill-Haas et al., 2011). Indeed, SSG aid development of the aerobic (Dellal, Varliette, Owen, Chirico, & Pialoux, 2012; Hill-Haas et al., 2009) and anaerobic (Radziminski, Rompa, Barnat, Dargiewicz, & Jastrzebski, 2013) condition of players via manipulation of different intensities determined by the configuration of the selected task (Hill-Haas et al., 2011). Changes in pitch dimensions (Casamichana et al., 2010), introduction of goals (Castellano et al., 2013; Köklü et al., 2015), variations in the number of players (Hill-Haas et al., 2009 (b)), constraints in ball touches per individual possession (Dellal, Lago-Penas, Wong, & Chamari, 2011), or the introduction of man-marking (Ngo, Man-Chung, Smith, Carling, Gar-Sun, & Wong, 2012) all influence the intensity of the SSG. In addition, in team sports where the coach can communicate with the athletes, it does so using keywords to conduct efforts to the maximum possible intensity, this is valid for variables such as the information provided by the head coach before (Sampaio, Lago, Gonçalves, Maças, & Leite, 2013) and during the task (Rampinini et al., 2007) seems to influence the intensity during SSG positively. However, to our best knowledge, this is the first study to examine the potential influence of the presence / absence of the head coach on the internal load and frequency of technical/tactical aspects.

The HR data reported in our study indicate that the physiological stress obtained (Table 2) were greater than the average HR during match-play (160-170 bpm) according to the Mallo & Navarro (2007) study, with higher values reflected during the PHC. Slightly lower values were also reported for HR_{mean} (156 ± 13 bpm) and HR_{max} (187 ± 9 bpm) during match-play in a previous study (Krustrup, Mohr, Steensberg, Bencke, Kjaer, & Bangsbo, 2006) with the values obtained in our task clearly exceed these levels of intensity. Regarding the percentage of time in different HR zones (Table 2), players with PHC spent a higher percentage of time in zone 4 ($>90\%HR_{max}$). The time spent in this intensity zone is decisive in order to improve the aerobic fitness of athletes as it is notably associated with improvements in maximal oxygen uptake, speed at 2 and 4 $mmol \cdot L^{-1}$ blood-lactate concentrations and running performance in the Yo-Yo Intermittent Recovery Test level 1 (Castagna, Impellizzeri, Chaouachi, & Manzi, 2013). Therefore, with the AHC players spent a greater percentage of time at lower intensities (zones 1 ($<75\% HR_{max}$), 2 ($75-84\% HR_{max}$) and 3 ($84-90\% HR_{max}$)). This could be explained by the self-regulation or self-paced effort of players. During free exercise, the athlete is able to select their game pace to regulate performance in order to prevent changes in physiological systems that may be limiting or detrimental to performance (Tucker & Noakes, 2009). There is little information regarding game pace while performing SSG. Sampaio et al. (2013) studied the effect of informing players before the start of game pace (slow pace, normal pace and fast pace). No differences were reported between normal pace and fast pace, suggesting that players not informed about the pace of play can lead to a very small quantity of slow pacing game.

During SSG with PHC the soccer players' perception of exertion was significantly greater compared to AHC (PHC: 7.6 ± 0.8 ; AHC: 5.8 ± 1.1). Marcora & Staiano (2010) suggest that exercise tolerance in highly motivated subjects is limited by perception of effort as postulated by the psychobiological model based on motivational intensity theory. Despite the lack of information on absence versus presence of the head coach, the encouragement from the head coach was shown to significantly increase the HR, lactate concentration and RPE (Rampinini

et al., 2007; Sánchez et al., 2014 (b)). The study by Rampinini et al. (2007) evaluated several factors affecting load including the influence of encouragement in SSG with different numbers of players and different dimensions of pitch. The factor having the greatest influence on the physiological responses to SSG was coach encouragement followed by the number of players and pitch dimensions respectively. However, no technical-tactical task related information to understand the behavior of the players in these situations from a more global perspective was provided.

Small-sided games play an important role in the acquisition and refinement of technical and tactical aspects (Owen et al., 2004). In our study, significant differences were obtained in 4 technical actions during the PHC/AHC during the tasks. The differences in completion percentage for passing actions according to head coach presence or not (PHC: 59.05 ± 23.11 ; AHC: 71.08 ± 18.69) suggests that in the AHC, the playing environment is more relaxed and friendly environment achieving greater success in the passes performed. The percentage of UP (PHC: 40.95 ± 23.11 ; AHC: 28.92 ± 18.69) and the number of UP (PHC: 3.19 ± 1.69 ; AHC: 2.26 ± 1.58) indicate that in PHC the intensity of the SSG increases and causes precipitation and subsequent failure. The last technical action is the total number of CCP + SP (PHC: 0.81 ± 0.83 ; AHC: 0.52 ± 0.64). Because of all the technical actions are clearly influenced by the presence or absence of head coach, one of the possible explanation could be that players generate further, more individual technical actions with the ball in PHC and want to 'impress' the coach by getting involved in play, because the head coach is an important motivational factor (Marcora, Staiano & Manning, 2009).

Three of the four technical aspects related with the pass (success/error), were conditioned by the PHC/AHC. In this case, the percentage of success in passing was benefited by the AHC, while the percentage of error in passes was higher in the PHC. According to (Redwood-Brown, 2008), the implementation of the accurate passes is not only to create scoring opportunities, but also helps to restrict possession of the opposing team. Therefore, knowing this fact, we must be aware that the PHC is not favoring the success of this important point in the overall development of the sport technical action. Although the lack of confirmation strategic behaviors of the teams to explain their organization and dynamics during these practices (Sampaio et al., 2013), it could be accepted that the head coach's presence has significantly influenced the intensity of defensive and offensive actions, which has led the team in possession of the ball decreases their success and increased error in technical actions.

Some of the major limitations of this study relate to ignore the effective playing time, since the presence of head coaches could reduce the time for each set of putting ball in play when the game is interrupted (Casamichana et al., 2010). Knowledge of the locomotors demands of players during the task (e.g., time-motion analyses) and the tactical/strategic behavior of the players could also provide interesting information, for example dynamics of emergent behavior (Sampaio et al., 2013) with the intention of determining the response of the players in different situations from a global perspective. In conclusion, the present data clearly demonstrate that the presence or absence of the head coach during the task, significantly influenced the intensity of the game and technical- tactical actions.

Practical Applications

This information can help to coaches of amateur and semi-professional football teams to understand that the presence or absence of the head coach during tasks where technical, tactical and physical aspects are mixed can substantially determine the exercise intensity. Therefore, this should be considered during training prescription.

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