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Inside pass predicts ball possession effectiveness in NBA basketball.

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Abstract

The aims of this study were to analyse the effects of using inside pass on ball possession effectiveness and to identify game performance indicators to predict inside pass success in the National Basketball Association (NBA), considering situational variables. A total of 4207 closed ball possessions (± 10 points difference) where recorded from 25 matches of the 2010 NBA Playoffs series. Ball possessions were classified whether including inside pass (n=808) or not (n=3399). Predictive analysis of use and effectiveness was made through a series of binomial logistic regressions and Classification tree analysis (CHAID). Results indicate that ball possessions including inside pass were more effective and longer in duration, finding a greater use in top-4 NBA teams regardless the game period. Additionally, inside pass effectiveness was influenced by: the receiver attitude, reception distance, and defensive help. Particularly, the analysis of combined performance indicators disclosed relevant information on attack effectiveness, suggesting players to adopt a dynamic attitude in the weak side before getting the ball, while their teammates are developing individual and collective actions to create free space and enhance inside game options and effectiveness. Current findings shed some light on specific knowledge concerning tactical behaviours in NBA basketball, contributing in the design of specific programmes to increase inside game options and players' decision-making according to specific game constraints.

Key words: invasion games, match analysis, performance indicator, team sports.

1. Introduction

The last decade has seen a growth in the analysis of performance indicators across team sports, since they can provide information that enhances the training and competition process (Drust, 2010; Hughes & Bartlett, 2008; O'Donoghue, 2009). Specifically, performance analysis aids our understanding on game evolution, offensive and defensive interactions, spatial and time structures, and team configurations (Garganta, 2009; Grehaigne & Godbuout, 2013). In team sports such as basketball, players are continuously interacting either cooperating with their teammates for disturbing and beating an adversary. Thus, one of the main challenges for coaches and researches is detecting and/or predicting effective collective behaviours to better perform against the opponent, enhancing winning chances. To this aim, tactical assessment through match analysis constitutes a powerful tool, making possible data collection of natural behaviours from the competition context; this information may subsequently be used to develop training programmes for improving players' decision-making during competition (Eccles, Ward, & Woodman, 2009).

A number of researches have examined players' interaction in European basketball, finding that space-time coordination across the longitudinal axis (i.e., interactions between outside and inside game) seems to be a crucial element in game performance (Bourbousson, Sève, & McGarry, 2010a; 2010b; Lapresa, Alsasua, Arana, Anguera, & Garzón, 2014). Results suggest that players' inside-outside coordination would increase shooting attempts near the basket, but also enhance unmarked long-distance shots opportunities by an open pass. Besides, evidence revealed greater offensive effectiveness when the ball reaches the inside through passing the ball (Courel, Suárez, Ortega, Piñar, & Cárdenas, 2013; Mexas, Tsitskaris, Kyriakou, & Garefis, 2005). Specifically, Courel et al. (2013) observed in the Spanish Professional male League that attacks including inside pass (i.e., a pass received by a player located at the three-point restricted area) improved the offensive effectiveness from 49.8% to 63.3%, and increased the amount of points scored from 0.68 to 0.84. Moreover, important differences between European and National Basketball Association (NBA) teams have been reported (Mavridis, Tsamourtzis, Karipidis, & Laios, 2009; Mikołajec, Maszczyk, & Zając, 2013; Milanović, Selmanović, & Škegro, 2014). American basketball is characterized by a prevalence of individual offenses, including a lower number of passes per attack phase (2.71 ± 1.84 vs. 2.95 ± 1.84; $p<0.01$) than European one (Milanović et al., 2014). However, Mavridis et al. (2009) found a large use of inside pass (20% vs. 30%, $p<0.01$) in NBA teams compared to European, reflecting a greater importance of inside game.

Very recently, some researches have been conducted in the NBA league aimed at describing game characteristics by identifying players' profiles and teams' strategies (Fewell, Armbruster, Ingraham, Petersen, & Waters, 2012; Mateus, Gonçalves, Abade Torres-Ronda, Leite, & Sampaio, 2015; Sampaio, McGarry, Calleja-González, Sáiz, i del Alcázar, & Balciunas, 2015). Sampaio et al. (2015) solidly defined a few specific playing profile related to the game roles of scoring, passing, defensive and all-round game behavior. In this line, Mateus et al., (2015) observed an evolution on specific inside and outside players' positions such as centers and guards, tending to find extremely athletic guards with optimal jump, speed and power skills that allow them to perform more blocks, whilst centers are able to effectively play in court zones away from the basket. However, from a collective point of view, Fewell et al., (2012) reported

risks in moving the ball frequently to a specific player or position as allows the opposition to adjust their defence accordingly. For this reason, set up strategies usually evolves into dynamic interactions such as inside-outside game coordination, particularly in the NBA in which players' roles are strongly defined and inside game takes a relevant importance. However, there is scarce information about inside-outside players' interactions in NBA basketball.

According to above-mentioned findings, it should be interesting to shed some light on specific knowledge concerning tactical behaviours to enhance inside game performance, particularly in NBA basketball. Therefore, the aims of this study were (i) to analyse the effects of using inside pass on ball possession effectiveness and (ii) to identify game performance indicators to predict inside pass success in NBA teams, considering situational variables. We were especially interested in investigating how game conditions (i.e., ball possession duration, reception attitude, pass zone, pass distance; reception zone, reception distance, player position, defensive pressure against the receiver and defensive help) and situational variables (i.e., team ranking, game period, game location and match status) impacted on ball possession effectiveness when using inside pass.

2. Methods

2.1. Sample

A total of 4207 ball possessions were recorded from 25 matches of the 2010 NBA (National Basketball Association) Playoffs series. Ball possessions were classified whether including inside pass (n=808) or not (n=3399). Inside pass was considered when the receiver player was stepping the zone or paint. Games were randomly selected including eight teams (four per conference) with a minimum of two matches and at least one victory and one defeated per each, excluding overtime games. Ball possessions recorded had a score difference below 10 points (average = 1.64 ± 4.69 points). The choice of this specific sample was deliberate; first, NBA is the most important basketball club competition of the world; second, Playoffs confronted best season teams to become the champion, thus the maximum competitive level was expected until the end of the game; and third, possessions with short score differences ensure high players' activation and concentration levels (Erčulj & Štrumbelj, 2015).

2.2. Variables

Attack effectiveness: Following Gómez, Lorenzo, Ibáñez, and Sampaio, (2013), we analyse attack effectiveness as dichotomous variable considering: (a) successful ball possessions: when the offensive team scored a 2 or a 3-point field-goal, secured a rebound, or received a foul, including foul shot; (b) unsuccessful ball possession: when the offensive team missed a 2 or 3-point field -goal, received a block shot, committed a foul, made a turnover, or made any other rule violation.

Game condition: A series of categorical variables related to game condition were recorded (Figure 1) based on previously researches conducted in basketball match analysis (Csataljay, James, Hughes, & Dancs, 2013; Courel et al., 2013; Gómez et al., 2013; Faber & Schmidt, 2000; Remmert, 2003).

- Ball possession duration: the possession length was registered just before the possession clock restarted the count according to the game rules specifications. Then, three categories were considered: 0 to 7 seconds, 8 to 15 seconds, and 16 to 24 seconds.
- Pass zone: Two areas were delimited regarding the passer location at the moment of releasing the ball, considering the imaginary diagonal line linking the rim with the midline sides and crossing the paint elbow: frontal and lateral (Figure 1A).
- Reception zone: Two areas were delimited regarding the receiver location at the moment of getting the ball, considering the imaginary line crossing the paint into two parts: low post and high post. Free-throw lines were used to visual reference (Figure 1A).
- Pass distance: Location of the passer at the moment of releasing the ball, considering if stepping inside or outside the 3-point area (Figure 1B).
- Reception distance: Two sides areas were delimited regarding the receiver location at the moment of the pass distinguishing between strong (side of the court where the ball is located) and weak (opposite the strong side, away from the ball) (Figure 1B).
- Receiver's attitude: from the moment the ball was released by the passer, to when the receiver gets the ball, we considered to possible attitudes: dynamic attitude (if the receiver have made a displacement to get the ball) and positional attitude (if the receiver do not move and keep the stance) (Figure 1C).
- Player position: Players' were classified according to their specific player position as: point guard - PG, shooting guard - SG, shooting forward - SF, power forward - PF, and center – C.
- Defensive opposition: receivers' the level of defensive pressure was determined and notated for the moment that the ball was received, considering low pressure (absence or low presence of physical contact with the opponent) and high pressure (notable physical contact with the opponent).
- Defensive help: the presence/absence of a briefly leaving of the direct pair in order to defend the unmarked receiver's action (Figure 1D).

Situational variables: based on Gómez, Lago and Pollard (2013) we measured: (i) Team ranking (teams standing according to the end-of-season classification), (ii), Game period (first to forth quarter); (iii); Game location (local and away team) and (iv) Match status (whether the team was winning, drawing or losing at the moment of the pass). Match status was obtained using the accumulative differences between points scored and allowed in each ball possession and then converted into a categorical variable using a two-step cluster analysis (Sampaio, Drinkwater, & Leite, 2010; Sampaio, Lago, & Drinkwater, 2010). Three clusters were identified and categorised as "moderate disadvantage" (differences between -10 and -4 points), "balanced" (differences between -3 and 3 points), "moderate advantage" (differences between 4 and 10 points).

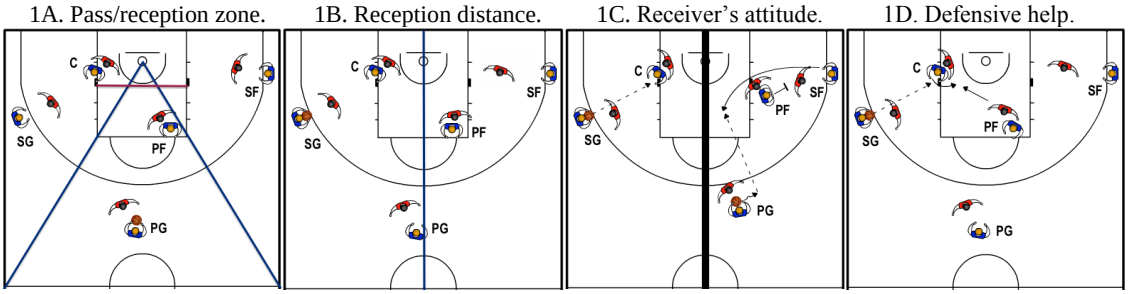


Figure 1. Game conditioning variables. Diagram 1A shows pass (blue lines) and reception (red line) zones: (PG) is frontally located, while (SF) and (SG) are lateral; (C) is in the low post and (PF) in the high post. Diagram 1B shows reception distance: As (SG) has the ball, (C) and (PG) are located in the strong side (blue line, ball side), while (PF) and (SF) in the weak side. Diagram 1C shows receiver's attitude: (C) gets the ball standing positional (left side), while (SF) is moving at the moment (PG) drops the ball to make the pass (right side). Diagram 1D shows defensive help: (C) gets the ball in the inside and face the basket overpassing his direct opponent; then, (PF) defender leaves his direct pair in order to defend the unmarked opponent's action. Continuous arrows indicate player movement without the ball, dotted arrows indicate a pass, and a T indicates a screen.

2.3. Procedures

Four pairs of observers specialising in basketball analysed all games after a 3-week training period. The observers' objectivity (inter-observer reliability) and reliability (intra-observer reliability) were assessed using the multi-rater k free index (Randolph, 2008) and Cohen's Kappa respectively. Scores obtained were over 0.87 in all cases, therefore objectivity and reliability were classified as 'almost perfect agreement' (Altman, 1991). Ball possessions were recorded using the LINCE software (Gabin, Camerino, Anguera, & Castañer, 2012), flexible digital recording software that allows data exportation for its treatment on statistical packages.

2.4. Statistical Analysis

Descriptive analysis included frequencies, means with standard deviations and percentages with standard errors. Odds Ratio (OR) and 95% Confidence Intervals (CI) were calculated by multiple binary logistic regression to predict ball possession effectiveness whereas using or not inside pass. The likelihood ratio Chi-Square test was used to identify main effects of variables studied. Then, adjusted regression models were conducted. Significations of predictors were assessed by means of Wald's test (p<0.05). Secondly, a classification tree analysis was used to determine inside pass effectiveness according to performance indicators predicted (Gómez et al., 2015). The exhaustive CHAID (Chi Squared automatic interactions detection) algorithm was used to identify relationships between independent categorical variables through completing three steps on each node of the root, finding the predictor that exert the most influence on the dependent variable. Significant level was set at p<0.05, considering a maximum

of 100 iterations and a minimum change in expected cell frequencies of 0.001. Strength of associations was studied recurring Adjusted Standardised Residuals (ASRs), considering values from 1.96 to 2.58 as little, 2.58 to 3.29 as weak and over 3.29 as strong associations (Field, 2009). Effect size and goodness of fit were calculated through Cox & Snell and the Nagelkerke pseudo-R2 for regression analyses, and Phi (φ) for Chi-Square tests, considering 0.10 = small effect, 0.30 = medium effect, and 0.50 = large effect (Fritz, Morris, & Richler, 2012). In order to avoid reporting too optimistic predictive models, a leave-one-out-cross-validation process was performed by splitting data into a training sample to estimate and compare the total and the partial models (Norusis, 2004). Independence of observations was assumed, as interactions between players during ball possessions constitute an unpredictable task and environment-related functional information (Duarte et al. 2012). Statistical analyses were conducted in IBM SPSS v. 20.0 for Macintosh (Armonk, NY: IBM Corp.).

3. Results

Distribution of frequencies from studied variables in ball possessions using or not inside pass are shown in Table 1.

Table 1. Distribution of frequencies from studied variables in ball possessions using or not inside pass.

Performance Indicators	No Inside pass (n=3399)	Inside pass (n=808)	Performance Indicators	Inside pass (n=808)
	%	%		%
Effectiveness			**Pass zone**	
Successful	51.8	63.9	Frontal	40.6
Unsuccessful	48.2	36.1	Lateral	59.4
Possession duration (s)			**Pass distance**	
0-7	33.9	26.4	Outside	83.7
8-15	39.6	43.5	Inside	16.3
16-24	26.5	30.0	**Passer position**	
Game period			PG	40.6
1st quarter	29.7	31.8	SG	23.0
2nd quarter	25.5	24.6	SF	21.7
3rd quarter	22.7	24.3	PF	10.7
4th quarter	22.1	19.4	C	4.1
Game location			**Receiver position**	
Home	50.8	51.0	PG	6.5
Away	49.2	49.0	SG	6.2
Match status			SF	18.2
Moderate advantage	44.0	42.7	PF	38.7
Balanced	63.4	38.0	C	30.4
Moderate disadvantage	19.6	19.3	**Reception zone**	
			High post	57.8
			Low post	42.2
			Reception distance	
			Strong side	69.1
			Weak side	30.9
			Reception attitude	
			Positional	39.3
			Dynamic	60.7
			Defensive opposition	
			High pressure	39.2

Low pressure	60.8
Defensive help	
Help	54.1
No help	45.9

Table 2 displays Likelihood ratio Chi-Square values for general and adjusted models predicting use and effectiveness of inside pass. When predicting the use, both general (X2(10)=75.62; p<0.01; R2=.02-.03) and adjusted (X2(4)=70.15; p<0.01; R2=.02-.03) models revealed significant associations of effectiveness and possession duration, considering team ranking influences. Regarding the inside pass effectiveness, general model (X2(24)=82.79; p<0.01; R2=.10-.14) detected influences of variables pertaining to task (possession duration and receiver attitude), space (pass zone and reception distance), players' position (receiver position) and defence (defensive help). However, adjusted model (X2(10)=59.88; p<0.01; R2=.07-.10) excluded pass zone and receiver position as effectiveness predictors.

Table 2. Likelihood ratio Chi-Square values for general and adjusted models predicting use and effectiveness of inside pass.

Performance Indicators	**Use**				**Effectiveness**			
	General		**Adjusted**		**General**		**Adjusted**	
	X2	**p**	**X2**	**p**	**X2**	**p**	**X2**	**p**
Outcome								
Effectiveness	42.88*	<0.01*	42.55*	<0.01*				
Task								
Possession duration	20.12*	<0.01*	19.48*	<0.01*	9.49*	<0.01*	10.16*	<0.01*
Receiver attitude					20.60*	<0.01*	16.10*	<0.01*
Space								
Pass zone					4.10*	0.04*	3.39	0.08
Pass distance					1.31	0.25		
Reception zone					2.28	0.13		
Reception distance					5.79*	0.02*	8.73*	<0.01*
Players' position								
Passer position					9.66*	0.04*		
Receiver position					4.72	0.32		
Defence								
Defensive opposition					2.83	0.09		
Defensive help					6.55*	0.01*	8.41*	<0.01*
Situational Variables								
Team ranking	8.86*	<0.01*	9.53*	0.02*	1.69	0.19		
Game period	4.77	0.19			3.84	0.28		
Game location	0.80	0.77			0.02	0.90		
Match status	0.13	0.19			4.34	0.11		
Global	72.43*	<0.01*	70.15*	<0.01*	82.79*	<0.01*	59.88*	<0.01*

* Significant differences (p<0.05)

Table 3 shows results from adjusted multiple logistic regression analysis. Regarding the use of inside pass, attack effectiveness increased from 44 to 98% and ball possession duration was likely to last over 17 seconds when include it. Besides, the high-ranked the team was, the more this action was included. Concerning effectiveness, receiver attitude (dynamic) was the most powerful predictor, followed by possession duration (over 16 seconds), reception distance (weak side) and defensive help (no help).

Table 3. Odds Ratio and their 95% Interval Confidence for adjusted models to predict use and effectiveness of inside pass**.**

Performance Indicators	Use		Effectiveness	
	OR	**95%-CI**	**OR**	**95%-CI**
Effectiveness				
Successful	1.69*	1.44-1.98*		
Unsuccessful (ref)				
Possession duration (s)				
0-7 (ref)				
8-15	1.08	0.90-1.30	0.59*	0.40-0.89*
16-24	1.53*	1.24-1.87*	0.59*	0.41-0.84*
Team ranking	1.06*	1.02-1.09*		
Reception distance				
Strong side (ref)				
Weak side			1.67*	1.18-2.34*
Receiver attitude				
Positional (ref)				
Dynamic			1.87*	1.38-2.55*
Defensive help				
Help (ref)				
No help			1.58*	1.16-2.15*

* Significant differences ($p<0.05$). Ref: Reference category.

Figure 2 displays results from the classification tree analysis, disclosing important increments on attack effectiveness. Regarding the first level (effectiveness and reception attitude) revealed that dynamic attitude was the most powerful predictor compared to positional standing (Node 2; ASRs=3.4; φ=0.16). Second level (includes reception distance) showed increments on attack effectiveness when the receiver was located at the weak side rather than keeping in the strong side (Node 4; ASRs=3.0; φ=0.14). Finally, third level (includes defensive help) added no help as a success predictor (Node 6; ASRs=3.4; φ=0.23). This classification tree model enabled explaining 64.6% of total variance.

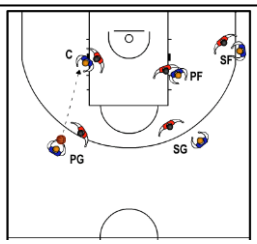
SUCCESS
Node 0

Unsuccessful: 36.0%; n=291
Successful: 64.0%; n=517
Total: 100%; n=808

RECEPTION ATTITUDE
p<0.001; X2=20.895; df=1

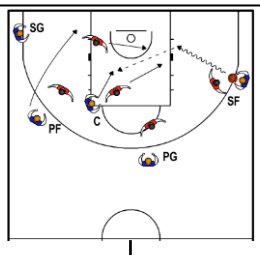
Node 1
Positional

Unsuccessful: 45.6%; n=145
Successful: 54.5%; n=173
Total: 39.4%; n=318



Node 2
Dynamic

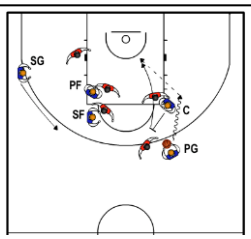
Unsuccessful: 29.8%; n=146
Successful: 70.2%; n=344
Total: 60.6%; n=490



RECEPTION DISTANCE
p=0.002; X2=9.198; df=1

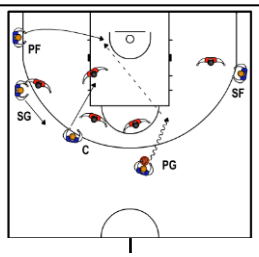
Node 3
Strong side

Unsuccessful: 34.1%; n=113
Successful: 65.9%; n=218
Total: 41%; n=331



Node 4
Weak side

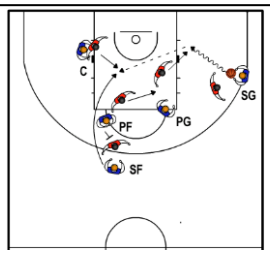
Unsuccessful: 20.8%; n=33
Successful: 79.2%; n=126
Total: 19.7%; n=159



DEFFENSIVE HELP
p=0.008; X2=6.945; df=1

Node 5
Help

Unsuccessful: 30.4%; n=21
Successful: 69.6%; n=48
Total: 8.5%; n=69



Node 6
No help

Unsuccessful: 13.3%; n=12
Successful: 86.7%; n=78
Total: 11.1%; n=90

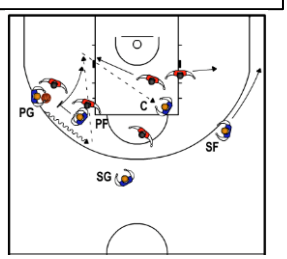


Figure 2. Classification tree analysis of inside pass effectiveness. Continuous arrows indicate player movement without the ball, zigzag arrows indicate player movement with the ball, dotted arrows indicate a pass, and a T indicates a screen.

4. Discussion

Current study aimed to analyse the effects of using inside pass on ball possession effectiveness and to identify game performance indicators to predict inside pass success in NBA basketball, considering situational variables. Obtained results strengthen the importance of using inside pass to increase ball possession effectiveness. More importantly, it has been detected a variety of game performance indicators that may predict inside pass success. Concretely, adjusted predictive models included reception distance, receiver attitude, receiver action, and defensive help as main performance indicators.

Nearby 20% of ball possessions included inside passes, being 1.4 to 2.0 times more likely to be effective compared to those that did not include this action. This is in line with Courel et al. (2013) who reported higher effectiveness (63.3% vs. 49.8%) and more points scored (0.84 vs. 0.68) when using inside pass in the Spanish Professional male League. Conforming to out expectation, playing near the rim enlarge offensive efficiency providing close shooting options and increasing scoring-rates (Gómez et al., 2013; Gómez, Gasperi, & Lupo, 2016). Chiefly, our findings point out the importance of the post game in NBA basketball emphasizing in pass and reception interactions to improve inside game effectiveness. Furthermore, best-ranked NBA teams included this action slightly more during the offences in the Playoffs stage regardless the game period. As previously stated, All-star NBA players consistently outperformed non-all star players particularly in locations close to the basket (Sampaio et al., 2015). Thus better skills and physical condition expected in best-ranked teams might explain these differences, being however necessary to further explore teams' configuration when performing inside game.

Ball possessions including inside pass likely lasted over 17 seconds in duration, however success options increased if finishing earlier than 7 seconds. These results concur with those reported by Courel et al. (2013), who found longer possessions (14.46 ± 4.4s. vs. 13.28 ± 5.92s.) when using inside. In basketball, making a pass involves the risk of losing the possession of the ball and benefiting the opponent to score through a fastbreak (Gómez et al., 2013; Trninić, Dizdar, & Lukšić, 2002). Thus, teams should invest enough time during the offence in completing collective actions to create space near the basket, and then explore the options to take the best decision (Cárdenas et al., 1999; Ortega, Cárdenas, Sainz de Baranda, & Palao, 2006; Mavridis et al., 2003). In particular, we found a prevalence of inside passes in the longer ball possession. This could be a direct consequence of defensive distractions and poorer decision-making during the last seconds of the possession (Gómez et al., 2015; Mesagno et al., 2015). On the other hand, an expected higher inside pass effectiveness was observed in short-duration possessions (0-7 seconds) which indicates that teamwork intensity may account for inside game success, avoiding defensive anticipation through performing fewer actions across a shorter time duration (Bazanov, 2005).

According to our findings, inside pass effectiveness was mainly influenced by: receiver's attitude, possession duration, reception distance, and defensive help. Concretely, players should include a previous movement (dynamic) before receiving and taking advantage of defensive imbalance in order to avoid defensive helps. These results are in line with previous studies, establishing that a player who receives the ball close to the basket generates opponents' imbalance, facilitating the offence play, so defense is less effective when an inside pass is performed (Álvarez, Ortega, Gómez, & Salado, 2009; Ortega et al., 2006).

A main contribution of this study is the exploration of combined performance indicators through a classification tree analysis. This analysis allowed us to obtained accurate information on players' behaviours and interactions to enhance inside game use and effectiveness. In this sense, it is worth noting that dynamic receiver's attitude resulted in greater effectiveness compared with positional standings (70.2% vs. 54.3%). This data suggest overlapping collective interactions to create free space in favour of the receiver (Lamas, Junior, Santana, Rostaiser, Negretti, & Ugrinowitsch, 2011; Remmert, 2003). More importantly, we observed that success rate increased up to 79.2% when the receiver was on the weak side at the moment of the pass. These findings add relevant insights on tactical behaviour during inside game interactions from a spatial point of view, strengthens the notion that individual and collective actions away from the ball would benefit those in the strong side. Indeed, cooperative actions would facilitate the offence against a misplaced defence, avoiding the use of helps and increasing the success rate up to 86.7% (Figure 3).

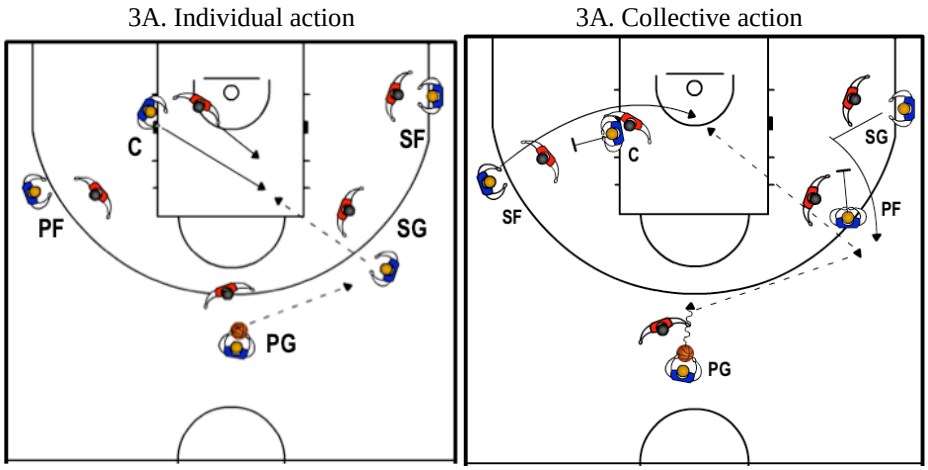


Figure 3. Individual and collective actions before an inside pass. Diagram 3NBA AA shows inside player (C) movement from the weak to the strong side previous to the reception from (SF). Diagram 3B shows overlapping of actions before the inside pass. (PG) dribbles to the basket, while (C) screens to free (PF) and (SF) screens to free (SG). Continuous arrows indicate player movement without the ball, dotted arrows indicate a pass, and a T indicates a screen.

Surprisingly, we did not identify significant effects between players' specific position and inside pass effectiveness. This intriguing result was previously reported in similar studies exploring collective behaviours in elite basketball such as ball screens (Gómez,

et al., 2015). As the authors stated, this kind of actions are likely to be quite pre-determined by the coaches during elite basketball close games. Additionally, elite basketball players are characterized according to their specific position. In this sense, inside players need to be physically powerful to dominate receiving and shooting skills near the basket against high defensive pressure, as well as being good rebounders, screeners and blockers (Cárdenas, Ortega, Llorca, Courel, Sánchez-Delgado, & Piñar, 2015; Gómez, et al., 2015; Ortega, et al., 2006).

In sum, our results strongly suggest making efforts to include an inside pass during the set offence and controlled game possessions. Particularly, players should adopt a dynamic attitude in the weak side before getting the ball, while their teammates are developing individual and collective actions to create free space and enhance inside game options and effectiveness. These findings may have implications in basketball training process, contributing in the design of specific programmes to increase inside game options and players' decision-making according to specific game constraints. Further research is needed to examine, group-tactical behaviours when using inside pass in order to obtained accurate information about players interactions to improve performance.

5. References

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