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Effect of Situational and Individual Factors on Training Load and Game Performance in Liga Femenina 2 Basketball Female Players

María Isabel Piñar [1], David García [2], David Mancha-Triguero [3] and Sergio José Ibáñez [4,*]

[1] Structure and Processes Involved in Interaction Sports, Faculty of Sports Science, Universidad de Granada, 18011 Granada, Spain
[2] Department of Physical Education and Sport, Universidad de Granada, 18011 Granada, Spain
[3] Department of Physical Education and Sport, Cardenal Spínola CEU Andalucía University, 41930 Sevilla, Spain
[4] Optimization of Training and Sports Performance Research Group (GOERD), Faculty of Sports Science, University of Extremadura, 10003 Cáceres, Spain
* Correspondence: sibanez@unex.es; Tel.: +34-697-257-460

Abstract: There is research that has shown how individual characteristics and performance indicators influence the load in basketball; however, studies on the influence of situational variables on performance are lacking. The aim of this study was to determine the influence of certain situational and individual variables on the training load (weekly load, game load and pre-game recovery) and the individual performance (statistical game evaluation) of female basketball players of Liga Femenina 2 during competition. The 28 games played by the 13 players of a group B team of the Liga Femenina 2 of the Spanish Basketball Federation (FEB) during the 2020/2021 season were analyzed. Data on rate of perceived exertion (RPE), perceived performance and recovery were collected through the Quanter mobile application as well as performance statistics from the FEB website. Five mixed linear analyses for repeated measures were performed to evaluate the effect of each situational and individual variable on each dependent variable (weekly load, game load, game RPE, pre-game recovery, and game statistical assessment). The results show how the weekly load increases after playing against a low-level opponent ($p < 0.001$). In games, the players who play the most minutes and accumulate the most load are also the most valued ($p < 0.001$). The pre-game recovery worsens as the season progresses ($p < 0.001$). After playing against a high-level opponent, the pre-game recovery values for the next game are lower ($p = 0.031$). The results obtained indicate that the situational and individual variables should be taken into account to monitor the workload. These results help coaches and physical trainers to better plan training weeks, taking into account the situational variables studied.

Keywords: basketball; competition; training load; situational variables; female; individual performance

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1. Introduction

The quantification of training load is a tool that coaches use more and more, with the aim of improving sports performance, since it helps to control the progression of players [1]. This is why training monitoring has become one of the most studied research topics in sport in recent years [2]. This monitoring allows staff to obtain quantitative and qualitative information related to an athlete's performance, which allows better understanding of their responses to exercise and the restructuring of training plans [2,3].

Previous research has established different variables that influence training load in team sports. Among them are the characteristics of the training system [4] and the individual characteristics of the players [5]. In relation to this, the player's experience, position and playing time and their influence on basketball load have been analyzed [6–8]. However, there are few studies in which individual characteristics have been related to the weekly training load [9].

It has been proven that different performance indicators influence the load in different sports, both in training [6,10,11] and in competition [12–14]. There is scientific evidence on which performance indicators are the most important to win a game ([15–17], and the effect of some situational variables on the game result have been verified. The most studied situational variables are: game location [18–20], quality of opposition [21–23], season phase [9,24,25], score-line [3,19] and recovery cycle [9,26]. Generally, situational variables have been related to performance indicators. The only situational variables that have also been related to weekly training load are game schedule, playing time and season phase [4,27,28].

The effect of situational factors on internal and external load have been studied recently, with results that lead to a deeper understanding of the training and competition processes. The place of play, phase of the season, result of the game, and score and quality of the opponent can explain 45% of the subjective internal load measured through RPE. In addition, it has been identified that female players in basketball have a higher RPE when playing away from home and playing against weaker opponents [29].

Recent studies have shown how loads are affected by variable situations. Fernández-Leo, Gómez-Carmona, García-Rubio and Ibáñez [30] found that in semi-professional basketball players there were differences in the volume of movements, high intensity actions, impacts and jumps depending on the playing position. The performance of the players decreased as the playing period increased. In addition, in balanced games there was the highest individual technical performance (PIR), while in unbalanced games more high intensity impacts were observed. However, they did not find differences in both physical and technical performance in terms of high difference in points per quarter. The outcome of the competition also influences the load of the players. Players who lose a match present higher values in kinematic variables, while players who win matches have a higher session RPE. The location of the match also influences the load, with the players playing at home presenting higher values in load (PLayerLoad) and in kinematic, objective internal load (HR) and subjective internal load (RPE) variables. This same trend is seen in matches in which the games are more balanced, with a smaller difference in points on the scoreboard [19]. Along the same lines, Scanlan, Stanton, Sargent, O'Grady, Lastella and Fox [31] identified that, when an extra time period is played, the internal (RPE, HR) and external (changes of direction, accelerations) load indicators increased with respect to regular matches. On the contrary, the load borne by the players (PlayerLoad) decreased as the quarters progressed.

Sansone, Gasperi, Tessitore and Gómez [9], after following basketball players for one season, suggest that several individual characteristics (playing experience, playing position and playing time) and contextual factors (recovery cycle, level of upcoming opponent), recovery (playing experience, playing position) and in-game performance (opponent level, weekly training load, pre-game recovery) should be taken into account when monitoring training load. In addition, play actions performed when in possession of the ball and during live playing time in basketball games are affected by playing position [32].

As can be seen, researchers are trying to understand the interactions between the load that athletes receive during competition with individual and situational factors in order to adjust the training processes, which are still in an incipient phase. These studies employ multiple variables, taking into account the needs and material resources of the researchers. For this reason, it is difficult to group research studies by variables. By way of summary, Table 1 graphically presents various studies that have attempted to analyze the influence of situational factors on the indicators of internal and external load, physical performance and technical-tactical performance. It is also possible to observe quantitatively which have been the most used variables in the recorded studies.

Table 1. Summary of studies relating performance indicators to situational factors.

	PERFORMANCE INDICATORS														SITUATIONAL FACTORS																
	Subjective Internal Load					Internal Load		Objective External Load				Physical Tests		PIR	Player Characteristics				Opponent			Outcome				Situation Variables				
Authors	RPE	Session RPE	Weekly Load (Session-RPE)	Recovery (TQR Scale)	Perceived Individual Performance	Saliva Markers	Heart Rate	Load	Game Load	Cinematic Variables	Playing Time	CMJ	SPRINT	Technical-Tactical	Playing Position	Previous Experience	Player Role	Anthropometry	Quality of Previous Opposition	Next Game Outcome	Quality of Next Opposition	Previous Game Outcome	Final Score	Accumulated Point Differences of Each Period	Score-Line	Season Phase	Recovery Cycle	Game Period	Days between Games	Game Location
de Arruda et al. (2018) [33]		■			■	■																									
Pino-Ortega et al. (2019) [21]															■						■							■			
Fox et al. (2019) [19]		■					■	■	■									■		■		■			■						■
Scanlan et al. (2019) [31]	■						■	■		■							■												■		
Izquierdo et al. (2020) [34]	■											■	■		■																
Reina et al. (2020) [35]								■																					■		
Salazar et al. (2020) [36]								■			■				■																
Curtis et al. (2020) [37]		■					■	■							■		■				■	■				■			■		
Fox et al. (2020) [12]		■					■	■																							
Sansone et al. (2020) [4]									■																						

Table 1. *Cont.*

	PERFORMANCE INDICATORS														SITUATIONAL FACTORS																
	Subjective Internal Load					Internal Load		Objective External Load				Physical Tests		PIR	Player Characteristics				Opponent			Outcome				Situation Variables				
Authors	RPE	Session RPE	Weekly Load (Session-RPE)	Recovery (TQR Scale)	Perceived Individual Performance	Saliva Markers	Heart Rate	Load	Game Load	Cinematic Variables	Playing Time	CMJ	SPRINT	Technical-Tactical	Playing Position	Previous Experience	Player Role	Anthropometry	Quality of Previous Opposition	Next Game Outcome	Quality of Next Opposition	Previous Game Outcome	Final Score	Accumulated Point Differences of Each Period	Score-Line	Season Phase	Recovery Cycle	Game Period	Days between Games	Game Location
Fernandez-Leo et al. (2020) [30]							■	■		■				■	■								■	■				■		
Ferioli et al. (2020) [6]										■	■				■															
Sansone et al. (2021) [9]	■	■	■	■							■			■	■	■			■		■	■				■	■				
Suárez Iglesias et al. (2021) [38]							■																								
Total Studies	**3**	**6**	**1**	**1**	**1**	**1**	**7**	**7**	**2**	**3**	**3**	**1**	**1**	**2**	**7**	**1**	**2**	**1**	**1**	**1**	**3**	**3**	**1**	**1**	**1**	**2**	**1**	**4**	**1**	**1**

To control and monitor the training load of the players, it is necessary to have information on performance during the season and how they respond to the training and the competition. For this, it is necessary to use instruments that give us useful information [4]. Currently, technological development allows monitoring training and competition processes by means of inertial devices (IMUs) based on accelerometry [39,40]. The customization and adaptation of external load indicators through inertial devices is necessary to know the real demands of the female players [41]. In basketball, recovery has been monitored along with physical load, using measures such as RPE, which is related to physiological factors and is a reliable method to assess the degree of fatigue of physical exercise [42]. There are studies that have taken into account the schedule, playing time, season phase [4,27,28] and the accumulation of matches [43]. However, there are other situational and individual variables that can influence that training load and that recovery.

Player performance during games should be a variable to control. It is common in basketball to analyze individual performance according to the characteristics of the player and situational variables [44,45]. Recently, Fernández-Cortés, Mandly, García-Rubio, and Ibáñez [24] identified a change in the intervention of female players according to the specific position in each phase of competition. During the regular league, guards (#1) have a greater contribution in field goals and 2-point shots, while power forwards (#4) contribute more free throws. During the play-offs, the point guards (#2) and power forwards (#4) increase their efficiency in 3-point shots. Finally, the offensive game during the play-offs is favored by the contribution of the guards through assists, while the defensive game is increased by the contribution of more rebounds by the centers (#5) and the defensive intensity through steals by the forwards (#3). There is little scientific literature in which this individual performance is related to weekly physical load [9]. It would be interesting to know if there is any relationship between weekly load and the subsequent performance in the game.

Finally, the menstrual cycle has been shown to be a variable to be taken into account in the performance of female athletes [46,47]. Therefore, more and more sports professionals are paying special attention to the monitoring of this variable, which affects both the performance of female basketball players [48] as well as the occurrence of injuries [49,50]. This is a variable that should be taken into account in studies that analyze the processes of training and sports performance in women, with the active and voluntary participation of female athletes being necessary.

Controlling the training load in competition will provide information on its demands [9,39]. Knowing these demands will allow coaches to make better decisions, reduce the risk of injury and improve performance [9,19]. Although it is considered that situational variables can condition performance during competition, most studies in basketball have focused only on some of these, such as the schedule, playing time and season phase. For this reason, it would be beneficial to include more specific ones like weekly load, game load and pre-game recovery.

As highlighted in the review of the state of the art, there is a predominance of studies that address the influence of situational factors on male basketball players, and it is necessary to analyze specifically how these factors affect female basketball players. This is one of the first studies of this topic in professional female players. For this reason, it is generally hypothesized that situational and individual factors will have an influence on the training load and game performance of the female players. Therefore, the aim of this study is to know the influence of situational and individual variables on training load (weekly load, game load and pre-game recovery) and individual performance in a team of Liga Femenina 2, LF2, during competition.

2. Materials and Methods

2.1. Subjects

The study was carried out on a team from group B of LF2 of the Spanish Basketball Federation during the 2020/2021 season. The team consisted of 13 semi-professional players aged between 19 and 46 (mean = 25.2 $\pm$ 7.3 years) of heights between 166 and 195

centimeters (mean = 178.2 ± 8.8 cm); all have at least 10 years of experience in this sport (mean = 15.8 ± 6.6 years).

The 28 games played by the team under study during the 2020/2021 season were analyzed.

2.2. Design

The design is non-experimental, retrospective, and cross-correlational. The study sought to identify relationships between the variables during the 2020/2021 season.

The variables under study were divided into dependent and independent. The dependents are as follows:

- Weekly load (Session RPE): Borg's adaptive scale was used with values from 1 to 10 [51]. Multiplying the RPE value by the duration of the session gives the session RPE load in arbitrary units [52]. Adding the load of each training session of the week, the weekly training load is obtained, not including that of the game [12,37,53].
- Game load: It is calculated by multiplying the game RPE by the playing time of each player [4,19].
- Pre-game recovery: The Total Quality Recovery (TQR) scale was used, with values from 1 to 10 [54]. The players had to mark their sensations of recovery.
- Performance Index Rating (PIR): The PIR is a performance metric that is calculated from traditional basketball statistics [55]. Its formula is: (Points + Rebounds + Assists + Steals + Blocks + Fouls received) – (Missed field shots + Missed free throws + Turnovers + Blocks received + Fouls committed). To normalize this metric, the value obtained for each player is divided by the playing time [9,56].

The independent variables are as follows:

- Perceived individual performance: A scale from 1 to 10 is used [51].
- Playing position: Defined by the first coach that divided the players into 3 groups: (a) guards, (b) forwards and (c) centers [9,36].
- Previous experience: 3 groups according to the years practicing basketball: (a) a lot of experience (more than 17 years), (b) medium experience (between 14 and 17 years) and (c) little experience (less than 14 years) [9].
- Game location: (a) local or (b) away [19].
- Score-line: (a) equal game (final difference was a maximum of 8 points) or (b) unequal (final difference was more than 8 points) [19].
- Playing time: 3 groups according to the average number of minutes per game: (a) high (more than 22 minutes), (b) medium (between 15 and 22 minutes), or (c) low (less than 15 minutes) [9,36,57].
- Season phase: Period of the year in which the game was played: (a) preseason (4 weeks before the start of the competition), (b) first round (between matchdays 1 and 13), or (c) second round (between matchdays 14 and 26) [9,37].
- Recovery cycle: Days between games were counted: (a) short cycle (less than 7 days) or (b) long cycle (7 or more days) [9,37].
- Previous game outcome: Result of the previous game: (a) victory or (b) defeat [9,19,37].
- Next game outcome: Result of the next game: (a) victory or (b) defeat [9,19,37].
- Quality of previous opposition: (a) high-level team (15 wins or more), (b) medium-level team (between 9 and 15 wins), or (c) low-level team (less than 9 wins). The level of the last opponent that had been played was considered [9,36,37].
- Quality of next opposition: (a) high-level team (15 wins or more), (b) medium-level team (between 9 and 15 wins), or (c) low-level team (less than 9 wins). The level of the next opponent to be played was taken into account [9,36,37].

2.3. Procedures and Materials

Data recording was carried out throughout the 2020/2021 season. In the first session of the preseason there was an informative meeting with the players and the coaching staff to familiarize themselves with the scales to be used during the season and the operation of

the mobile application "Quanter", which was used to collect the data and the protocol to follow throughout the year. The participants signed the corresponding informed consent.

To obtain the recovery data, the mobile app simply sent them a notification in the morning so they could fill out the corresponding questionnaire. While, for the rest of the data, at the end of the session or the game, the mobile application sent them a notification so that they could fill out the corresponding questionnaire; this was done during the 15–30 minutes after the end of the session.

The team, in addition to 1 or 2 weekly games, had a total of 4 training sessions on the court and 2 or 3 in the gym. For home games, the players were summoned 2 h before the game time. When playing away, they also arrived at the court 2 h before the game to follow the same protocol as at home.

All data, collected through the Quanter mobile app, through M400 polar heart rate monitors and from the Spanish Basketball Federation, were stored in Microsoft Excel 2019 for subsequent statistical analysis with the IBM SPSS Statistics 21 program. Only the data of the players who played the game were taken into account.

2.4. Statistical Analysis

The variables that were classified into 3 categories by a k-means cluster analysis were: previous experience, playing time, quality of previous and next opposition, perceived individual performance, pre-game recovery, weekly load, game RPE and PIR.

The normality of the data was confirmed using the Kolmogorov–Smirnov test, and the homogeneity of the variances using the Levene test. Four linear mixed models for repeated measures were performed to evaluate the individual effect of each individual and situational variable on each dependent variable.

Subsequently, a pairwise comparison was made that was evaluated using the Bonferroni test, and the effect sizes were calculated using Cohen's d. The values for effect size were interpreted according to the following scale: $d \leq 0.2$ trivial, $0.2 < d \leq 0.5$ small, $0.5 < d \leq 0.8$ moderate and $d > 0.8$ large [58].

Descriptive data were expressed as mean ± standard deviation (M ± SD). The level of significance was set at $p \leq 0.05$. In the linear mixed models, the results were expressed with their p and F values.

3. Results

Tables 2–5 show the main significant effects of the individual and situational variables on each dependent variable.

Table 2. Main significant effects on weekly load.

Weekly Load	*F*	*p*
Recovery cycle	50,864	<0.001
Previous game outcome	6159	0.014
Quality of previous opposition	18,881	<0.001
Quality of next opposition	5749	0.017

Table 3. Main significant effects on game load.

Game Load	*F*	*p*
Pre-game recovery	3856	0.050
PIR	149,814	<0.001
Previous experience	36,971	<0.001
Playing time	457,069	<0.001

Table 4. Main significant effects on recovery.

Pre-Game Recovery	*F*	*p*
Weekly load	5843	0.016
Previous experience	5168	0.024
Season phase	20,608	<0.001
Recovery cycle	5704	0.018
Quality of previous opposition	4722	0.031

Table 5. Main significant effects on the PIR.

PIR	*F*	*p*
Game load	77,890	<0.001
Perceived individual performance	36,278	<0.001
Playing position	12,032	<0.001
Previous experience	11,669	<0.001
Playing time	39,050	<0.001
Next game outcome	6788	0.010

Pairwise comparisons are shown in Tables 6–9, as well as descriptive data (M ± SD). Table 6 shows that the weekly load is higher in the preseason compared to the first round ($p = 0.012$). In addition, when the recovery cycle was short, the accumulated weekly load was significantly lower ($p < 0.001$).

Table 6. Pairwise comparison for weekly load.

Weekly Load	*Mean (±SD)*	*Comparison*	*p*	*ES*	
Season phase					
Preseason	2168 (±911)	Preseason–First round	0.012	0.3	Small
First round	1612 (±881)	Preseason–Second round	0.090	0.25	Small
Second round	1750 (±729)	First round–Second round	0.489	0.09	Trivial
Recovery cycle					
Short	1479 (±803)	Short–Long	<0.001	0.4	Small
Long	2139 (±688)				
Previous game outcome					
Win	1819 (±776)	Win–Loss	0.014	0.14	Trivial
Loss	1581 (±872)				
Quality of previous opposition					
High	1501 (±860)	High–Medium	0.135	0.13	Trivial
Medium	1712 (±797)	High–Low	<0.001	0.37	Small
Low	2117 (±699)	Medium–Low	0.006	0.26	Small
Quality of next opposition					
High	1586 (±837)	High–Medium	<0.001	0.33	Small
Medium	2100 (±644)	High–Low	<0.001	0.32	Small
Low	1059 (±694)	Medium–Low	<0.001	0.61	Moderate

Table 7. Pairwise comparison for game load.

Game Load	*Mean (±SD)*	*Comparison*	*p*	*ES*	
Pre-game recovery					
High	646 (±101)	High–Medium	<0.001	0.65	Moderate
Medium	414 (±164)	High–Low	0.002	0.53	Moderate
Low	431 (±219)	Medium–Low	1.000	0.04	Trivial
PIR					
High	589 (±125)	High–Medium	<0.001	0.48	Small
Medium	428 (±166)	High–Low	<0.001	0.90	Large
Low	159 (±86)	Medium–Low	<0.001	0.71	Moderate
Perceived individual performance					
High	515 (±117)	High–Medium	0.003	0.41	Small
Medium	386 (±171)	High–Low	0.207	0.21	Small
Low	445 (±205)	Medium–Low	0.030	0.15	Trivial
Previous experience					
High	542 (±215)	High–Medium	0.008	0.25	Small
Medium	450 (±142)	High–Low	<0.001	0.39	Small
Low	367 (±192)	Medium–Low	0.001	0.24	Small
Playing time					
High	576 (±123)	High–Medium	<0.001	0.56	Moderate
Medium	413 (±117)	High–Low	<0.001	0.85	Large
Low	193 (±110)	Medium–Low	<0.001	0.70	Moderate

Table 8. Pairwise comparison for pre-game recovery.

Pre-Game Recovery	*Mean (±SD)*	*Comparison*	*p*	*ES*	
Playing position					
Guard	7.61 (±0.73)	Guard–Forward	0.015	0.24	Small
Forward	7.14 (±1.13)	Guard–Center	0.321	0.15	Trivial
Center	7.33 (±1.06)	Forward–Center	0.454	0.09	Trivial
Season phase					
Preseason	7.81 (±1.17)	Preseason–First round	0.558	0.15	Trivial
First round	7.49 (±0.99)	Preseason–Second round	0.003	0.34	Small
Second round	7.01 (±1.03)	First round–Second round	<0.001	0.23	Small
Recovery cycle					
Short	7.19 (±1.07)	Short–Long	0.018	0.14	Trivial
Long	7.49 (±1.00)				

Table 9. Pairwise comparison for PIR.

PIR	*Mean (±SD)*	*Comparison*	*p*	*ES*	
Game load					
High	0.36 (±0.29)	High–Medium	0.001	0.24	Small
Medium	0.22 (±0.28)	High–Low	<0.001	0.41	Small
Low	0.08 (±0.34)	Medium–Low	0.009	0.22	Small
Perceived individual performance					
High	0.58 (±0.31)	High–Medium	<0.001	0.56	Moderate
Medium	0.21 (±0.24)	High–Low	<0.001	0.48	Small
Low	0.22 (±0.34)	Medium–Low	1.000	0.02	Trivial
Playing position					
Guard	0.22 (±0.27)	Guard–Forward	0.533	0.1	Trivial
Forward	0.16 (±0.33)	Guard–Center	0.025	0.24	Small
Center	0.36 (±0.29)	Forward–Center	<0.001	0.31	Small
Previous experience					
High	0.32 (±0.31)	High–Medium	1.000	0.03	Trivial
Medium	0.30 (±0.3)	High–Low	0.017	0.23	Small
Low	0.17 (±0.32)	Medium–Low	0.003	0.21	Small
Playing time					
High	0.36 (±0.29)	High–Medium	0.001	0.24	Small
Medium	0.22 (±0.28)	High–Low	<.001	0.41	Small
Low	0.08 (±0.34)	Medium–Low	0.009	0.22	Small
Recovery cycle					
Short	0.26 (±0.32)	Short–Long	0.326	0.06	Trivial
Long	0.22 (±0.32)				
Next game outcome					
Win	0.29 (±0.32)	Win–Loss	0.010	0.16	Trivial
Loss	0.19 (±0.31)				

In relation to the game load (Table 7), this was significantly higher when the pre-game recovery values were high than when they were medium ($p < 0.001$) or low ($p = 0.002$). The players with a high PIR also accumulated more load in the games ($p < 0.001$), and the more experienced players accumulated more load in relation to those with medium ($p = 0.008$) or low ($p < 0.001$) experience. Regarding playing time, the players who played more minutes had higher loads ($p < 0.001$).

Table 8 shows that during the second round, the pre-game recovery data were significantly worse than those during the preseason ($p = 0.003$) and the first round ($p < 0.001$). When the recovery cycle was short, the pre-game recovery values were also significantly lower ($p = 0.018$).

Table 9 shows that the players who perceived that their individual performance had been high also had a significantly higher PIR ($p < 0.001$). The centers had a better PIR than the guards ($p = 0.025$) and the forwards ($p < 0.001$). The less experienced players had a lower PIR than the players with medium ($p = 0.003$) and high ($p = 0.017$) experience. The players who spent the most minutes on the court were the most valued ($p \leq 0.001$). When the game was won, the players' PIR was also higher ($p = 0.010$).

4. Discussion

The aim of this study was to determine the influence of situational and individual variables on the training load (weekly load, game load and pre-game recovery) and individual performance (PIR) of female players in Liga Femenina 2 during competition. The results obtained after the study of this team show that the design of the training load by the coach takes into account these situational and individual variables.

4.1. Weekly Load

In this study, it was found that the weekly load is significantly higher when the recovery cycle is long than when it is short. If the days between games are few, coaches often modify training plans by increasing the number of rest days and decreasing the training load [26]. The same arguments are defended by Sansone et al. [9] in basketball and Curtis et al. [37] in soccer. Coaches should modulate the training load based on the recovery cycle between games to allow for supercompensation processes. It would be interesting to know the acute:chronic ratio of the players to adjust these volumes based on objective parameters.

4.2. Match Load

Regarding the game load, it can be seen how the players who give the best pre-game recovery data are the ones who accumulate the most load during the games. The game load is also higher in those with the best PIR. The players who play the most minutes are also the ones who accumulate the most game load [9,35]. By being more rested and giving better recovery data, these players can spend more time on the court. In addition, since the game time is used to calculate the game load, the more time spent on the court, the more the game load accumulates [9,19,37]. Additionally, by spending more time playing, the possibilities of performing more actions increase, as do those of having a better PIR [9,35]. Coaches must know the individual situation of each player, since they must dose the training loads to allow maximum sports performance.

The players in our study reported significantly higher weekly loads when the last game had been won than when it had been lost. This is contrary to the findings of Sansone et al. [9]; in their study the previous outcome did not influence the weekly load. In soccer, Curtis et al. [37] also found no significant differences in the load after a victory or a loss. However, in rugby there are studies in which players reported a higher training load in the weeks in which a game had just been lost [26]. These discrepancies could perhaps be explained by psychosocial factors, such as the style of the coach, the kind of sport or the adaptation of training plans [59]. Increased training load should not be used as a punishment for losing. The planning of the training load must be carried out based on technical–tactical reasons.

In relation to the previous game, the lower the opponent's level, the higher the weekly training load after that game. Sansone et al. [9] and Reina et al. [60] did not obtain any significant difference in relation to this variable. This may indicate that in the team they analyzed, the coach planned the loads the same regardless of the opponent they had faced in the last game. With the next opponent, it happened that the load was higher when it was of medium level than when it was high level, and the lowest loads were given when it was a low-level opponent. This may be due to the fact that, when facing a medium-level opponent, the game is expected to be equal, and therefore game preparation was deemed more important, so more training sessions were scheduled with more load. Although Sansone et al. [9] obtained higher loads when the next opponent was medium level, the differences were not significant. The modulation of the weekly training load can be conditioned by the level of the opponent. This practice can only be done when the competition is advanced, since the classification of the teams is constantly changing.

4.3. Recovery Cycle

The weekly load in preseason was significantly higher than the first round. This is in line with what was obtained by Sansone et al. [9], who found the highest weekly loads at the beginning of the season. In the preseason, to prepare the players for the competition, the coaches tend to include more work sessions and of more volume to condition the players properly.

The more experience a player has, the more game load she accumulates. This is basically due to the age of the players, since the most experienced are also the most veteran and therefore the ones who suffer the most to maintain their physical level. This is in agreement with Sansone et al. [9], who found that experience is in line with the age of the players. As seen in soccer, older players have poorer physical performance during games due to their lower physical abilities [61,62]. The preparation of a squad of players must take into account age (linked to experience). A coach must know the technical–tactical performance that an experienced player contributes; this player often does not demonstrate the best physical performance.

The analyses carried out on the pre-game recovery show how the weekly load has a significant relationship with recovery. The players who report the most load during the week are the ones who give the worst pre-game recovery values, because they are more fatigued. These data are similar to those obtained by Sansone et al. [9] and Reina et al. [35].

The players with more experience are those who reported better recovery values. This may be due to the fact that they know their body better and are able to dose themselves better during the week to arrive more rested on game day. However, the results of Sansone et al. [9] and Reina et al. [35] are contrary to this: the most experienced players are those who gave the worst recovery values, due to their lower physical capacities.

The season phase and the recovery cycle also have a significant influence on pre-game recovery. As the season progresses, the players report increasingly worse pre-game recovery values, due to the fatigue that accumulates over the weeks. When the recovery cycle is short, recovery values are worse. However, Sansone et al. [9] found no significant relationship between these variables, and Sansone and Tschan et al. [63] also found no differences in the recovery values in the final phase of the season. This may be because the teams analyzed in those studies had a more relaxed schedule in the final phase of the season. These data highlight the importance of load control, and mechanisms must be used to determine the acute:chronic relationship.

The recovery values were higher in relation to the lower the level of the last opponent they had faced. When playing low-level teams, the demands were lower, and that resulted in players reaching the next game in better physical condition. This is in agreement with what was obtained by Sansone et al. [9] and Reina et al. [35]. Games against high-level rivals, being more demanding, end up having an impact on the next game as well, as the players arrive more fatigued.

4.4. Playing Performance

The players who perceive their performance as high are also those who have a high PIR. The less experienced players are the ones who have the lowest PIR, while those who have a medium or high experience are the ones that have the best PIR.

The playing position is significantly related to the PIR; the centers are the ones with the best performance. These results are different from those reported by Fernández-Cortes et al. [24] with female players from a higher-level league. These results can be explained taking into account the composition of the team analyzed and cannot be extrapolated to other teams because they are data from a single team under certain conditions. Despite this, these results are in line with those obtained in other studies in which centers were also the most valued [39,40].

One of the limitations found in this study was the impossibility of analyzing the influence of the menstrual cycle on the performance of the female players, as not all the female players gave their consent to use this confidential personal data. The sports

culture of some female players limited this part of the study. Another limitation is that the results should be confined exclusively to the team analyzed, as the generalizability is relatively low.

5. Conclusions

After analyzing the results, it can be concluded, for the sample studied, that:

(a) With respect to the weekly load, the more it accumulates, the more days there are between games and after a victory in the previous game. In addition, after a game against a low-level opponent, the weekly load should be higher.
(b) The weekly load is directly related to the players' pre-game recovery value. In addition, as the season progresses, the recovery values are lower.
(c) If a team plays with a high-level opponent, the pre-game recovery value of the next game will be lower.
(d) The players who obtain the highest PIR are those who spend the longest time on the court, the ones who accumulate the most load during the games, and those who have a medium or high experience.
(e) The players who obtain the highest PIR are the centers.

The knowledge that information related to weekly load, game load and pre-game recovery has an impact on the individual performance of female players in basketball should be taken into account by coaches and physical trainers during the planning process. Specifically, they should reduce training sessions as the season progresses, so that in the last weeks of a season they should train less than at the beginning of the season, since the accumulated load at that time will be high. In addition, by knowing which female players give the best performance, coaches can plan game systems so that these players can obtain advantages. In the study conducted, these female players were the pivots.

For future studies, in addition to the variables included in this research, it would be very interesting to be able to have the information related to the menstrual cycle of the female players, since it has already been shown that it can have an influence on sports performance and should be considered in the processes of training planning and recovery of the female players.

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References

1. Casamichana, D.; Sánchez-Sánchez, J.; Hernández, D. La cuantificación de la carga de entrenamiento como estrategia básica de prevención de lesiones. *Rev. De Prep. Física En El Fútbol* **2017**, *24*, 33–39.
2. Bourdon, P.C.; Cardinale, M.; Murray, A.; Gastin, P.; Kellmann, M.; Varley, M.C.; Gabbett, T.J.; Coutts, A.J.; Burgess, D.J.; Gregson, W.; et al. Monitoring athlete training loads: Consensus statement. *Int. J. Sports Physiol. Perform.* **2017**, *12*, 161–170. [CrossRef] [PubMed]
3. Rago, V.; Rebelo, A.; Krustrup, P.; Mohr, M. Contextual Variables and Training Load Throughout a Competitive Period in a Top-Level Male Soccer Team. *J. Strength Cond. Res.* **2019**, *35*, 3177–3183. [CrossRef] [PubMed]
4. Sansone, P.; Tessitore, A.; Lukonaitiene, I.; Paulauskas, H.; Tschan, H.; Conte, D. Technical-tactical profile, perceived exertion, mental demands and enjoyment of different tactical tasks and training regimes in basketball small-sided games. *Biol. Sport* **2020**, *37*, 15–23. [CrossRef]
5. Gallo, T.; Cormack, S.; Gabbett, T.; Williams, M.; Lorenzen, C. Characteristics impacting on session rating of perceived exertion training load in Australian footballers. *J. Sports Sci.* **2015**, *33*, 467–475. [CrossRef]
6. Ferioli, D.; Rucco, D.; Rampinini, E.; la Torre, A.; Manfredi, M.M.; Conte, D. Combined Effect of Number of Players and Dribbling on Game-Based-Drill Demands in Basketball. *Int. J. Sports Physiol. Perform.* **2020**, *15*, 825–832. [CrossRef]
7. Scanlan, A.T.; Dascombe, B.J.; Reaburn, P.; Dalbo, V.J. The physiological and activity demands experienced by Australian female basketball players during competition. *J. Sci. Med. Sport* **2012**, *15*, 341–347. [CrossRef]
8. Staunton, C.; Wundersitz, D.; Gordon, B.; Kingsley, M. Accelerometry-Derived Relative Exercise Intensities in Elite Women's Basketball. *Int. J. Sports Med.* **2018**, *39*, 822–827. [CrossRef]
9. Sansone, P.; Gasperi, L.; Tessitore, A.; Gómez, M.A. Training load, recovery and game performance in semi-professional male basketball: Influence of individual characteristics and contextual factors. *Biol. Sport* **2021**, *38*, 207–217. [CrossRef]
10. Bredt, S.G.T.; Torres, J.O.; Diniz, L.B.F.; Praca, G.M.; Andrade, A.G.P.; Morales, J.C.P.; Rosso, T.L.N.; Chagas, M.H. Physical and physiological demands of basketball small-sided games: The influence of defensive and time pressures. *Biol. Sport* **2020**, *37*, 131–138. [CrossRef]
11. Reina, M.; Mancha, D.; Feu, S.; Ibáñez, S.J. Is training carried out the same as competition? Analysis of load in women's basketball. *Rev. De Psicol. Del Deporte* **2017**, *26* (Suppl. 1), 9–13.
12. Fox, J.L.; O'Grady, C.J.; Scanlan, A.T. The Relationships Between External and Internal Workloads During Basketball Training and Games. *Int. J. Sports Physiol. Perform.* **2020**, *15*, 1081–1086. [CrossRef]
13. McGown, R.B.; Ball, N.B.; Legg, J.S.; Mara, J.K. The perceptual, heart rate and technical-tactical characteristics of 3 x 3 basketball. *Int. J. Sports Sci. Coach.* **2020**, *15*, 772–782. [CrossRef]
14. Reina, M.; García-Rubio, J.; Antúnez, A.; Courel Ibáñez, J.; Ibáñez, S.J. Load Variability of Training Sessions and Competition in Female Basketball. *Rev. De Psicol. Del Deporte* **2019**, *28*, 93–99.
15. Fichman, M.; O'Brien, J.R. Optimal shot selection strategies for the NBA. *J. Quant. Anal. Sports* **2019**, *15*, 203–211. [CrossRef]
16. Ibáñez, S.J.; Sampaio, J.; Feu, S.; Lorenzo, A.; Gómez, M.A.; Ortega, E. Basketball game-related statistics that discriminate between teams' season long success. *Eur. J. Sport Sci.* **2008**, *8*, 369–372. [CrossRef]
17. Leicht, A.S.; Gomez, M.A.; Woods, C.T. Team Performance Indicators Explain Outcome during Women's Basketball Matches at the Olympic Games. *Sports* **2017**, *5*, 96. [CrossRef] [PubMed]
18. García-Rubio, J.; Ibáñez, S.J.; Gómez, M.A.; Sampaio, J. Basketball Game-related statistics discriminating ACB league teams according to game location, game outcome and final score differences. *Int. J. Perform. Anal. Sport* **2014**, *14*, 443–452. [CrossRef]
19. Fox, J.L.; Stanton, R.; Sargent, C.; O'Grady, C.J.; Scanlan, A.T. The Impact of Contextual Factors on Game Demands in Starting, Semiprofessional, Male Basketball Players. *Int. J. Sports Physiol. Perform.* **2019**, *15*, 450–456. [CrossRef]
20. Gómez, M.A.; Ibáñez, S.J.; Parejo, I.; Furley, P. The use of classification and regression tree when classifying winning and losing basketball teams. *Kinesiology* **2017**, *49*, 47–56. [CrossRef]
21. Pino-Ortega, J.; Rojas-Valverde, D.; Gomez-Carmona, C.D.; Bastida-Castillo, A.; Hernandez-Belmonte, A.; García-Rubio, J.; Nakamura, F.Y.; Ibáñez, S.J. Impact of Contextual Factors on External Load During a Congested-Fixture Tournament in Elite U'18 Basketball Players. *Front. Psychol.* **2019**, *10*, 1100. [CrossRef] [PubMed]
22. Gómez, M.-A.; Lorenzo, A.; Ibáñez, S.J.; Sampaio, J. Ball possession effectiveness in men's and women's elite basketball according to situational variables in different game periods. *J. Sports Sci.* **2013**, *31*, 1578–1587. [CrossRef] [PubMed]
23. Garcia-Rubio, J.; Gómez, M.A.; Canadas, M.; Ibáñez, S.J. Offensive Rating-Time coordination dynamics in basketball. Complex systems theory applied to Basketball. *Int. J. Perform. Anal. Sport* **2015**, *15*, 513–526. [CrossRef]
24. Fernández-Cortes, J.A.; Gustavo Mandly, M.; García-Rubio, J.; Ibáñez, S.J. Contribution of professional basketball players according to the specific position and the competition phase. *E-Balonmano Com* **2021**, *17*, 223–232.
25. García, J.; Ibáñez, S.J.; Martínez De Santos, R.; Leite, N.; Sampaio, J. Identifying Basketball Performance Indicators in Regular Season and Playoff Games. *J. Hum. Kinet.* **2013**, *36*, 161–168. [CrossRef] [PubMed]
26. Dalton-Barron, N.E.; McLaren, S.J.; Black, C.J.; Gray, M.; Jones, B.; Roe, G. Identifying Contextual Influences on Training Load: An Example in Professional Rugby Union. *J. Strength Cond. Res.* **2021**, *35*, 503–511. [CrossRef]
27. Conte, D.; Kolb, N.; Scanlan, A.T.; Santolamazza, F. Monitoring Training Load and Well-Being During the In-Season Phase in National Collegiate Athletic Association Division I Men's Basketball. *Int. J. Sports Physiol. Perform.* **2018**, *13*, 1067–1074. [CrossRef]

28. Paulauskas, H.; Kreivyte, R.; Scanlan, A.T.; Moreira, A.; Siupsinskas, L.; Conte, D. Monitoring Workload in Elite Female Basketball Players During the In-Season Phase: Weekly Fluctuations and Effect of Playing Time. *Int. J. Sports Physiol. Perform.* **2019**, *14*, 941–948. [CrossRef]
29. Garcia, D.; Escobar, R.; Pinar, M.I. Effect of Situational Factors on the Rate of Perceived Exertion of Liga Femenina 2 Players. *Rev. De Psicol. Del Deporte* **2021**, *30*, 292–297.
30. Fernandez-Leo, A.; Gomez-Carmona, C.D.; Garcia-Rubio, J.; Ibanez, S.J. Influence of Contextual Variables on Physical and Technical Performance in Male Amateur Basketball: A Case Study. *Int. J. Environ. Res. Public Health* **2020**, *17*, 1193. [CrossRef]
31. Scanlan, A.T.; Stanton, R.; Sargent, C.; O'Grady, C.; Lastella, M.; Fox, J.L. Working Overtime: The Effects of Overtime Periods on Game Demands in Basketball Players. *Int. J. Sports Physiol. Perform.* **2019**, *14*, 1331–1337. [CrossRef] [PubMed]
32. Ferioli, D.; Rampinini, E.; Martin, M.; Rucco, D.; La Torre, A.; Petway, A.; Scanlan, A. Influence of ball possession and playing position on the physical demands encountered during professional basketball games. *Biol. Sport* **2020**, *37*, 269–276. [CrossRef] [PubMed]
33. de Arruda, A.F.S.; Aoki, M.S.; Paludo, A.C.; Drago, G.; Moreira, A. Competition stage influences perceived performance but does not affect rating of perceived exertion and salivary neuro-endocrine-immune markers in elite young basketball players. *Physiol. Behav.* **2018**, *188*, 151–156. [CrossRef] [PubMed]
34. Izquierdo, J.M.; Redondo, J.C. Acute effects of basketball competition on physical performance factors in under-18 female players. *RICYDE* **2020**, *16*, 285–297. [CrossRef]
35. Reina, M.; García-Rubio, J.; Esteves, P.T.; Ibáñez, S.J. How external load of youth basketball players varies according to playing position, game period and playing time. *Int. J. Perform. Anal. Sport* **2020**, *20*, 917–930. [CrossRef]
36. Salazar, H.; Castellano, J.; Svilar, L. Differences in External Load Variables Between Playing Positions in Elite Basketball Match-Play. *J. Hum. Kinet.* **2020**, *75*, 257–266. [CrossRef] [PubMed]
37. Curtis, R.M.; Huggins, R.A.; Benjamin, C.L.; Sekiguchi, Y.; Adams, W.M.; Arent, S.M.; Jain, R.; Miller, S.J.; Walker, A.J.; Casa, D.J. Contextual Factors Influencing External and Internal Training Loads in Collegiate Men's Soccer. *J. Strength Cond. Res.* **2020**, *34*, 374–381. [CrossRef]
38. Suárez Iglesias, D.; Leicht, A.S.; Pojskić, H.; Vaquera, A. Impact of contextual factors on match demands experienced by elite male referees during international basketball tournaments. *J Sports Sci* **2021**, *39*, 936–943. [CrossRef]
39. Reina, M.; García-Rubio, J.; Ibáñez, S.J. Training and Competition Load in Female Basketball: A Systematic Review. *Int. J. Environ. Res. Public Health* **2020**, *17*, 2639. [CrossRef]
40. Reina, M.; García-Rubio, J.; Feu, S.; Ibáñez, S.J. Training and Competition Load Monitoring and Analysis of Women's Amateur Basketball by Playing Position: Approach Study. *Front. Psychol.* **2019**, *9*, 2689. [CrossRef]
41. Ibáñez, S.J.; Gómez-Carmona, C.D.; Mancha-Triguero, D. Individualization of Intensity Thresholds on External Workload Demands in Women's Basketball by K-Means Clustering: Differences Based on the Competitive Level. *Sensors* **2022**, *22*, 324. [CrossRef] [PubMed]
42. Kilpatrick, M.W.; Bortzfield, A.L.; Giblin, L.M. Impact of aerobic exercise trials with varied intensity patterns on perceptions of effort: An evaluation of predicted, in-task, and session exertion. *J. Sports Sci.* **2012**, *30*, 825–832. [CrossRef] [PubMed]
43. Ibáñez, S.J.; García, J.; Feu, S.; Lorenzo, A.; Sampaio, J. Effects of consecutive basketball games on the game-related statistics that discriminate winner and losing teams. *J. Sports Sci. Med.* **2009**, *8*, 458–462. [PubMed]
44. Escudero-Tena, A.; Rodríguez-Galan, V.; García-Rubio, J.; Ibáñez, S.J. Influence of the Specific Position on The Final Result of The Match in Professional Basketball. *Rev. De Psicol. Del Deporte* **2021**, *30*, 19–24.
45. Gómez, M.A.; Gasperi, L.; Lupo, C. Performance analysis of game dynamics during the 4th game quarter of NBA close games. *Int. J. Perform. Anal. Sport* **2016**, *16*, 249–263. [CrossRef]
46. Paludo, A.C.; Paravlic, A.; Dvořáková, K.; Gimunová, M. The Effect of Menstrual Cycle on Perceptual Responses in Athletes: A Systematic Review With Meta-Analysis. *Front. Psychol.* **2022**, *13*, 4068. [CrossRef]
47. Carmichael, M.A.; Thomson, R.L.; Moran, L.J.; Wycherley, T.P. The Impact of Menstrual Cycle Phase on Athletes' Performance: A Narrative Review. *Int. J. Environ. Res. Public Health* **2021**, *18*, 1667. [CrossRef]
48. Yapici-Oksuzoglu, A.; Egesoy, H. The effect of menstrual cycle on anaerobic power and jumping performance. *Pedagog. Phys. Cult. Sports* **2021**, *25*, 367–372. [CrossRef]
49. Shultz, S.J.; Sander, T.C.; Kirk, S.E.; Perrin, D.H. Sex differences in knee joint laxity change across the female menstrual cycle. *J. Sports Med. Phys. Fit.* **2005**, *45*, 594–603.
50. Belanger, M.J.; Moore, D.C.; Crisco, J.J.; Fadale, P.D.; Hulstyn, M.J.; Ehrlich, M.G. Knee laxity does not vary with the menstrual cycle, before or after exercise. *Am. J. Sports Med.* **2004**, *32*, 1150–1157. [CrossRef]
51. Borg, G. A category scale with ratio properties for intermodal and interindividual comparisons. In *Psychophysical Judgment and the Process of Perception*; Geissler, H.-G., Petzold, P., Eds.; VEB Deutscher Verlag der Wissenschaften: Berlin, Germany, 1982; pp. 25–34.
52. Scanlan, A.T.; Wen, N.; Tucker, P.S.; Dalbo, V.J. The relationships between internal and external training load models during basketball training. *J. Strength Cond. Res.* **2014**, *28*, 2397–2405. [CrossRef] [PubMed]
53. Fox, J.L.; O'Grady, C.J.; Scanlan, A.T. Game schedule congestion affects weekly workloads but not individual game demands in semi-professional basketball. *Biol. Sport* **2020**, *37*, 59–67. [CrossRef] [PubMed]
54. Kentta, G.; Hassinen, P. Overtraining and recovery—A conceptual model. *Sports Med.* **1998**, *26*, 1–16. [CrossRef] [PubMed]

55. Torres-Unda, J.; Zarrazquin, I.; Gravina, L.; Zubero, J.; Seco, J.; Gil, S.M.; Gil, J.; Irazusta, J. Basketball Performance Is Related to Maturity and Relative Age in Elite Adolescent Players. *J. Strength Cond. Res.* **2016**, *30*, 1325–1332. [CrossRef]
56. Pérez-Toledano, M.A.; Rodríguez, F.J.; García-Rubio, J.; Ibáñez, S.J. Players' selection for basketball teams, through Performance Index Rating, using multiobjective evolutionary algorithms. *PLoS ONE* **2019**, *14*, e0221258. [CrossRef]
57. Reina, M.; García-Rubio, J.; Antúnez, A.; Ibáñez, S.J. Comparison of internal and external load in official 3 vs. 3 and 5 vs. 5 female basketball competitions. *Retos* **2020**, *37*, 400–405.
58. Cohen, J. *Statistical Power Analysis for the Behavioral Sciences*; Lawrence Erlbaum Associates: New York, NY, USA, 2013; p. 567.
59. Sagar, S.S.; Jowett, S. The effects of age, gender, sport type and sport level on athletes' fear of failure: Implications and recommendations for sport coaches. *Int. J. Coach. Sci.* **2012**, *6*, 61–82.
60. Reina, M.; García-Rubio, J.; Pino-Ortega, J.; Ibáñez, S.J. The Acceleration and Deceleration Profiles of U-18 Women's Basketball Players during Competitive Matches. *Sports* **2019**, *7*, 165. [CrossRef]
61. Lorenzo-Martinez, M.; Rey, E.; Padron-Cabo, A. The effect of age on between-match physical performance variability in professional soccer players. *Res. Sports Med.* **2020**, *28*, 351–359. [CrossRef]
62. Gastin, P.B.; Fahrner, B.; Meyer, D.; Robinson, D.; Cook, J.L. Influence of physical fitness, age, experience, and weekly training load on match performance in elite australian football. *J. Strength Cond. Res.* **2013**, *27*, 1272–1279. [CrossRef]
63. Sansone, P.; Tschan, H.; Foster, C.; Tessitore, A. Monitoring Training Load and Perceived Recovery in Female Basketball: Implications for Training Design. *J. Strength Cond. Res.* **2020**, *34*, 2929–2936. [CrossRef] [PubMed]