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Comparative Analysis of the “Libero” in great Performance Volleyball

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Abstract

Modern volleyball is characterised by a substantial increase of the attack force and regulation changes support defence. This explains the appearance of the “libero” whose use is optional. In this paper, we aimed at establishing a somatic profile of the “libero” based on volleyball players’ parameters that have played in this position in the volleyball teams that participated in the London 2012 Summer Olympics. The subjects of our research were the “liberos” of the 12 volleyball teams that qualified for the competition. We recorded for these players the following parameters: age, height and weight. The study shows that the mean age of a libero was 31.4 years, with the oldest volleyball player in the Brazilian team (39 years) and the youngest one in the British team (24 years). The mean height of a libero was 184.8 cm, with the tallest libero in the volleyball team of the USA (190 cm) and the shortest one in the team of Great Britain (180 cm). The mean weight of a libero is 81.9 kg, with the highest weight in the volleyball of the United States (90 kg) and the lowest one in the Tunisian volleyball team (74 kg). Age – rather high in the liberos of the studied volleyball teams (above 30 years) point to the expertise accumulated in the long years of practicing volleyball.

Keywords: volleyball, libero, constitutional type.

Rezumat

Jocul de volei modern se caracterizează printr-o creștere substanțială a forței de atac, iar modificările de regulament au venit în sprijinul apărării. Pe această linie se înscrie și apariția jucătorului LIBERO, a cărui utilizare este opțională. Lucrarea își propune să stabilească un profil somatic al jucătorului “libero” ca urmare a înregistrării unor parametri ai jucătorilor care au evoluat pe acest post în echipele participante la turneul de volei masculine din cadrul Jocurilor Olimpice de la Londra 2012. Subiecții cercetării au fost jucătorii “libero” din cele 12 echipe calificate pentru această competiție. Am consemnat pentru fiecare dintre aceștia valorile următorilor parametri: vârsta, înălțimea, greutatea. În urma studiului elaborat, consemnăm o vârstă medie a jucătorului libero de 31,4 ani. Cel mai vârstnic libero este cel al echipei Braziliei (39 ani), iar cel mai tânăr al Marii Britanii (24 ani). Înălțimea medie a jucătorilor libero este de 184,8 cm. Evidențiem cel mai înalt libero la echipa SUA (190 cm), iar cel mai scund la echipa mării britanii (180 cm). Greutatea medie a jucătorului libero este de 81,9 kg. Constatăm cea mai mare greutate la libero-ul SUA (90 kg), pe când cea mai mică greutate o înregistrăm la libero-ul Tunisiei (74 kg). Vârsta, în general, ridicată a jucătorilor libero din echipele studiate (peste 30 de ani) indică marea experiență acumulată de aceștia în decursul practicării jocului de volei.

Cuvinte cheie: jocul de volei, jucator libero, tip constitutional.

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Introduction

As any other sport, volleyball needs changes on a constant basis, changes required by the necessity of a “buffer system” between attack and defence. These changes that occur on a constant basis are ensured mainly by changes of regulations.

Thus, the last major change occurred as an “asset” in favour of the defence system was a new position:

LIBERO.

But who knows what else will follow?

Synthesising the strategic elements a coach should rely on in establishing his volleyball team’s strategy, we believe that he should start from the parameters of the present game model and of the players in worldwide volleyball practice.

Modern volleyball is characterised by a substantial increase of the attack force, and regulation changes support the defence. The appearance of the LIBERO – whose use is optional – should be seen from this perspective.(1)

Most volleyball teams use this position with beneficial effects on the game yield.

A LIBERO originates in the reconversion of a medium- or short-height lifter or hitter who knows defence game well and has a substantial competition expertise. Knowing that height is a limiting factor of performance in volleyball and being concerned by pursuing my performance sport activity, I was reconverted from a small-height hitter into a libero ever since junior period. (2)

Goal

The goal of this paper was to establish the somatic profile of a libero based on volleyball players’ parameters evolving in this position in the men volleyball tournament within the London 2012 Summer Olympics. We aimed at seeing if:

- The mean values of the parameters monitored were relevant in establishing the final hierarchy;
- The mean profile of the liberos in the first four volleyball teams is different from that of the other volleyball teams in the competition.

Material and Methods

To carry out this study, we have used three research methods, as follows: the bibliographical study, the statistical-mathematical analysis and the graphic representation.(3)

Research was carried out during the men volleyball tournament within the London 2012 Summer Olympics. The liberos of the 12 volleyball teams qualified for the competition were the subjects of this research.(4)

We recorded, for each of these volleyball players, the following parameters: age (years), height (cm), weight (kg).

Results and Interpretation

Table 1 presents the liberos of the volleyball teams qualified for the London 2012 Summer Olympics.

Table 1. Liberos of the volleyball teams qualified for the London 2012 Summer Olympics

<i>Country</i>	<i>Name and Surname</i>	<i>Age (years)</i>	<i>Height (cm)</i>	<i>Weight (kg)</i>
Argentina	Alexis Gonzalo	33	184	83
Australia	Aden Tutton	30	182	81
Brazil	Sergio Dutra Santos	39	184	78
Bulgaria	Teodor Salparov	32	187	77
Germany	Markus Stevenwald	25	182	85
Great Britain	Daniel Hunter	24	180	85
	Andrea Bari	34	185	81
Italy	Andrea Giovi	31	183	80

Analysis of the mean parameters in the liberos of the 12 volleyball teams participating in the London 2012 Summer Olympics

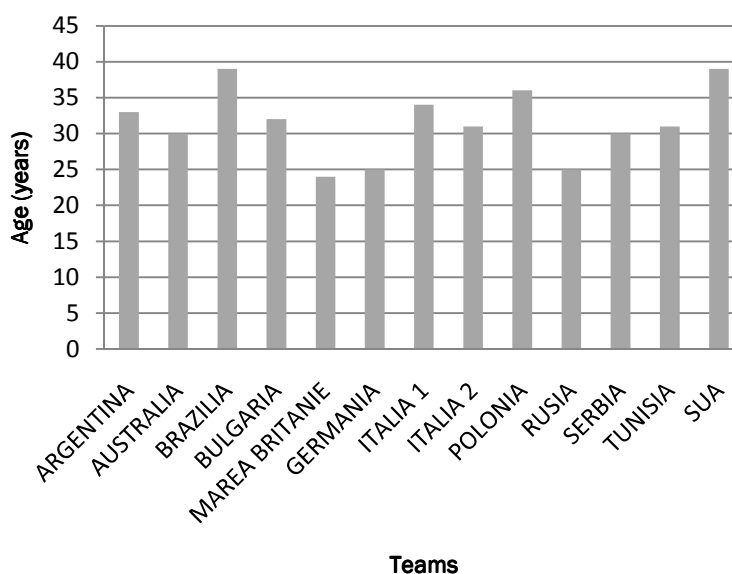


Figure 1. Age (years) of the liberos of the 12 volleyball teams participating in the London 2012

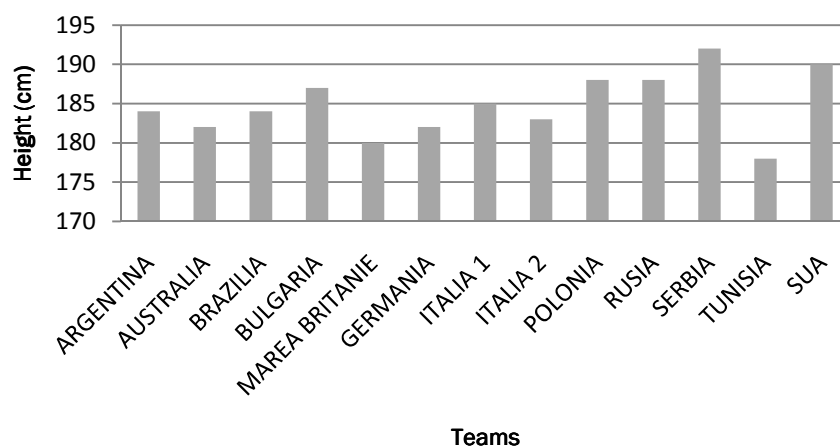


Figure 2. Height (cm) of the liberos of the 12 volleyball teams participating in the London 2012

The mean age of the liberos was 31.4 years (Figure 1). The oldest libero was a volleyball player from the Brazilian team (39 years) while the youngest one was a volleyball player from the British team (24 years). The mean height of the liberos was 184.8 cm (Figure 2). The tallest libero was a volleyball player from the USA team (190 cm) while the shortest one

was a volleyball player from the British team (180 cm). The mean weight of the liberos was 81.9 kg (Figure 3). The weightiest libero was a volleyball player from the USA team (90 kg) while the lightest one was a volleyball player from the Tunisian team (74 kg).

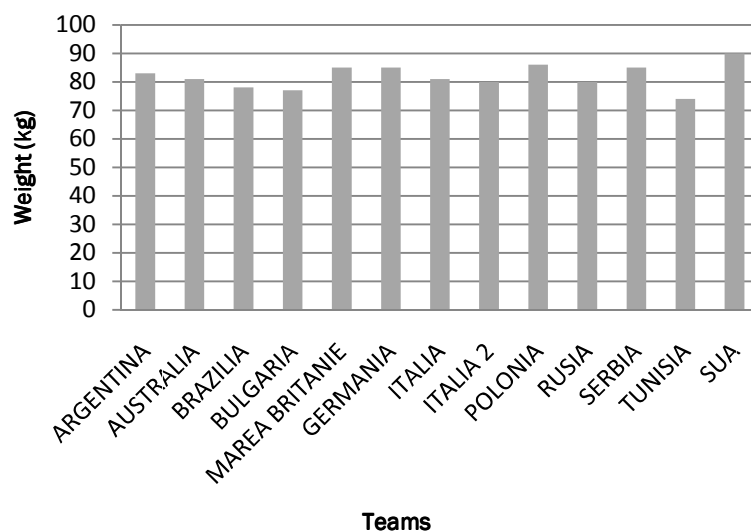


Figure 3. Weight (kg) of the liberos of the 12 volleyball teams participating in the London 2012

Comparative analysis of the mean parameters of the liberos of the 12 volleyball teams and of the liberos of the 4 first volleyball teams at the London 2012 Summer Olympics

Table 2. Liberos of the 4 first volleyball teams at the London 2012 Summer Olympics

Country	Name and Surname	Age (years)	Height (cm)	Weight (kg)
Russia	Alexey Obmochaev	25	188	80
Brazil	Sergio Dutra Santos	39	184	78
Italy	Andrea Bari	34	185	81
	Andrea Giovi	31	183	80
Bulgaria	Teodor Salparov	32	187	77
\bar{X}		32.2	185.4	79.2
W		14	5	4

The mean age of the liberos in the four volleyball teams was 32.2 years compared to that of all competitor teams (3.4 years) (Figure 4). The mean height of the liberos in the four volleyball teams (185.4 cm) is rather close to that of all competitor

teams (184.8 cm) (Figure 5).

The mean weight of the liberos in the four volleyball teams is smaller (79.2 kg) than that in the 12 volleyball teams (81.9 kg) (Figure 6).

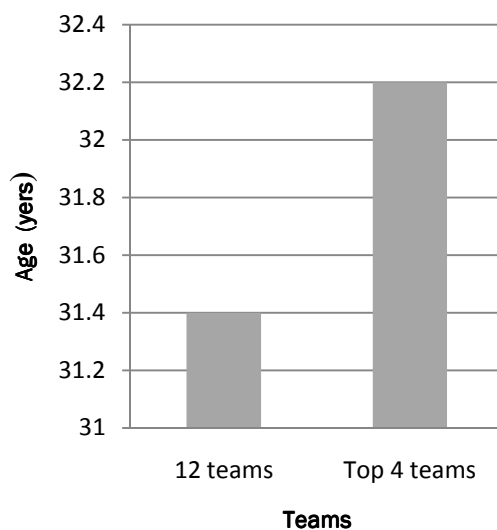


Figure 4. Comparison of mean age (years) of the liberos in the four volleyball teams

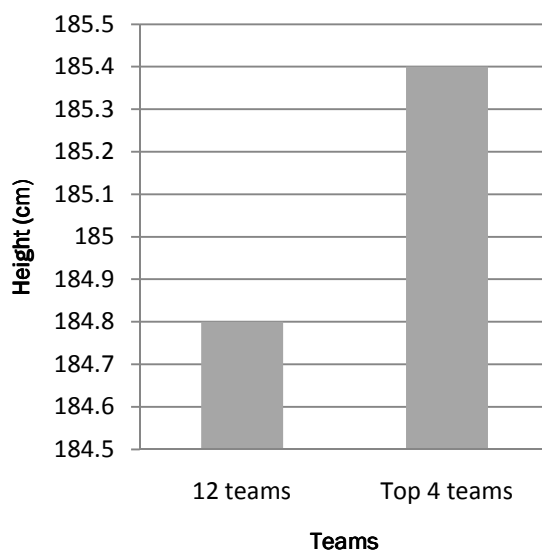


Figure 5. Comparison of mean height (cm) of the liberos in the four volleyball teams

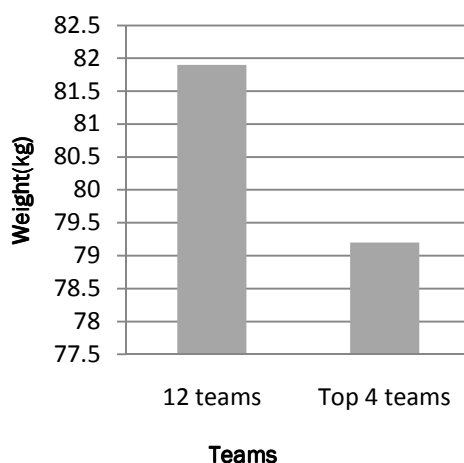


Figure 6. Comparison of mean weight (kg) of the liberos between 4 and 12 volleyball teams

Conclusions

The research allowed us to draw the following conclusions:

- There is a somatic profile of the libero in high performance men volleyball;
- Though the use of a libero is optional, all the volleyball teams qualified for the London 2012 Summer Olympics had one libero while the Italian team had two;
- The profile of the volleyball libero is as follows: he is 31.4 years old, 184.8 cm tall and weighs 81.9 kg;
- The mean values of the parameters in the liberos of the first four teams are very close to those of the other competitors, which allows us to draw the conclusion that these parameters can be useful in the selection of volleyball liberos;
- The high mean age of the liberos in the studied teams (above 30 years) speaks of the expertise accumulated during the long years of practicing

volleyball.

To make volleyball games more efficient, we suggest:

- Including in a volleyball team at least two liberos and using one or another in official games depending on the strategy of the coach;
- Not starting the training of a libero too early since he needs to consolidate specific skills adequate to high level volleyball responsibilities.

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