THE INFLUENCE OF AGE, YEARS OF PRACTICE AND EXPERIENCE ON THE DECISION-MAKING PROCESS IN VOLLEYBALL

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Introduction

Expertise mediates the way an athlete perceives the environmental affordances (Baker, Côté & Abernethy, 2003). Through years of deliberate practice, athletes develop both implicit and explicit learning (Boyer, 2007). Nonetheless, the quantity of practice is not enough to produce an expert, even though it is absolutely necessary. The quality of practice provided by each particular learning environment acts as the true afforder of expertise (Williams & Ward, 2003).

In Volleyball, the attack constitutes a nuclear variable in a team’s success (Yiannis & Panagiotis, 2004). The attack in zone 4 poses as the most common occurrence for every game level (Tsivika & Papadopoulou, 2008). Hence, the purpose of this paper was to analyse the decision making of women volleyball players, all wing-spikers, when in attack. It was intended to search expertise-related differences, considering the players’ age, years of practice, and years of experience as an adult player.

Methods

The participants in this study are Portuguese Women volleyball players, of the two top divisions, with ages between 16-35 years. The Attack Decision Making in Volleyball (ADMV) (Paulo & Mesquita, 2007) was used. This protocol is grounded upon immediate retrospective verbal reports, preceded by video observation. 744 record units were recollected from a content analysis. T tests were applied to variables with two categories, and ANOVA to variables with three categories. For cases with abnormal sample distribution, Mann-Whitney and Kruskall-Wallis were used. Due to the reduced size of the sample, together with the qualitative nature of the analysis, a level of significance of 10% was stipulated. Reliability, measured through Cohen’s Kappa, was superior to 0.75 (Fleiss, 2003), and comprised 10% of the sample (70 record units).

Results

There were no differences relating age groups (under-24; 24+), nor relating the years of experience as an adult player (under-6, 6+). Conversely, the total number of years of practice allowed discriminating between players, as shown in table 1. Namely, the group of 16-21 years of practice presented significantly higher values in the dimension of tactical adaptability of the attack, and in the subcategory action of the defense system, when compared to the group with 0-9 years of practice.

Although there are differences among age groups, these emerge only in one dimension (tactical adaptability of the attack), and in one subcategory (action of the defense as whole). The players with more years of practice tend to attain more often to these specific constraints, when attacking.

Discussion / Conclusions

The results have shown that only the number of years of practice allowed to discriminate the groups relating the attainment to certain constraints. The most experienced players have revealed to be more attuned to contextual affordances (Hong & Newell, 2006), having exhibited a higher-level attendance relating tactical adaptations derived from situational constraints. This finding strongly supports the deliberate practice theory (Ericsson, Kramer & Tesch-Römer, 1993). In fact, even though the years of practice emerged has discriminating, age appeared to have no effect on decision making typologies, further corroborating this paradigm. Since expertise is task-specific, more refined parameters, such as the experience as a wing-spiker, might be more accurate in discriminating experts from non-experts.

References