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Relative age effect of Olympic athletes in Beijing 2008

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Research on expert performance field revealed a strong trend in the association of the birth dates of elite athletes to the first trimesters of the year (Wattie, Cobley & Baker, 2008). The aim of this study was to analyze the birth date distribution of all top elite athletes who participated in Olympic Games at Beijing 2008. Athletes (n = 18,132) were divided according to gender, continent and sports. The birth dates of the athletes were divided into quarters. To analyze the distribution of the population by quarter we used the Chi-square test. Results showed statistical differences in the distribution for the total population, and for females and males population, showing a trend for athletes to born in the earlier part of the year. Relatively to the continent, statistical differences appear only in Africa, Asia and Europe. In terms of sports, statistical differences were found in the distribution of 6 sports in females (athletics, badminton, basketball, modern pentathlon, rowing, and swimming) and 9 sports in males (athletics, basketball, canoeing, road cycling, football, handball, rowing, swimming, and volleyball). In all cases, distribution showed a higher participation of athletes born in the beginning of the year. These results show a clear influence of the athlete’s date of birth in the achievement of expert performance, in several sports and continents.

Key words: sports, birth date, elite athletes