The relative age effect in olympic swimmers

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Swimming. Relative age effect. Athletes. Olympic Games. London.

ABSTRACT

The aim of this study was to investigate the relative age effect (RAE) on swimmers in the Olympics 2012 by analyzing the differences between continents, genders and the achievement of medals. Nine hundred and seventy-eight athletes (507 men and 471 women) were stratified based on their birthdate. In quartile distribution, there was a higher percentage of athletes born on the 1st and 3rd quartiles. As regards gender distribution, the RAE was observed on females (χ^2 = 12.304, *df* = 3, *p* = .01) but not on males (χ^2 = 1.426, *df* = 3, *p* = .70). Regarding the analysis of RAE according to performance and continent, there was no significant relationship between the quarter of birth and winning medals; additionally, the Asian continent was the only one where the RAE was identified. We concluded that the RAE was present on swimmers from London 2012. Furthermore, it was representative in women, was not related to winning medals and was found only in the Asian continent.

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Efeito da idade relativa em nadadores olímpicos

RESUMO

O objetivo foi investigar o efeito da idade relativa (EIR) em nadadores nos Jogos Olímpicos de 2012, analisando as diferenças entre os continentes, sexos e a relação com a conquista ou não de medalhas. Novecentos e setenta e oito atletas (507 homens e 471 mulheres) foram estratificados a partir do seu quartil de nascimento. Na distribuição dos quartis, foi observado um maior percentual de atletas nascidos no 1º e 3º quartil. Já na distribuição por sexo, o EIR foi verificado para feminino (χ^2 = 12.304; *gl* = 3; *p* = .01), mas não para o masculino (χ^2 = 1.426; *gl* = 3; *p* = .70). Quanto à análise do efeito da idade relativa pelo desempenho e por continente, nào houve relação significativa entre o quartil de nascimento e a conquista de medalha e o continente asiático foi o único em que foi verificado o efeito da idade relativa, respectivamente. Concluiu-se que o efeito da idade relativa está presente em nadadores de Londres 2012. Além disso foi representativo em relação às mulheres, não está relacionado à conquista de medalhas olímpicas e está presente apenas no continente asiático.

PALAVRAS CHAVE:
Natação. Efeito da idade relativa. Atletas. Jogos Olímpicos. Londres.

INTRODUCTION

During the process of growth and development, young people with the same chronological age may differ in maturity, especially considering aspects related to sports, such as strength and speed (Helsen, Starkes, & Winckel, 2000). In sport, it has been observed that these differences cause a direct impact on the selection process of athletes, where athletes born in the early months of the year are selected and trained, while those born in the second half of the year are exempted from teams (Baker & Logan, 2007; Delorme, Boiché, & Raspaud, 2010; Figueiredo, Gonçalves, Coelho, & Malina, 2009; Malina, Bouchard, & Bar-Or, 2004; Moraes, Penna, Ferreira, Costa, & Matos, 2009; Musch & Grondin, 2001; Sherar, Baxter-Jones, Faulkner, & Russel, 2007). Thus, there is the chronological age, which is the age determined by the difference between a set date and the individual's day of birth; while the biological age corresponds to the age determined by the level of maturation of many organs within the human being (Tourinho Filho, & Tourinho, 1998). According to Gallahue and Ozmun (2001), chronological age refers to the total number of years, months and days lived, while the biological age refers to the state of maturation.

As the year of birth is used as a criterion for dividing the categories in sports, young people born in the early months of the year can be benefited in sports performance, since they have greater chronological age and therefore, having a higher probability of being in more advanced stages of biological maturity. It may have advantages in anthropometric aspects, conditional capacity, cognitive knowledge and psychological capacity (Carli, Lughetti, Ré, & Bohme, 2009). Musch and Grondin (2001), when performing a literature review, identified that the athletes born closest to the year of selection often have the advantage of being bigger, stronger and faster compared to those who were born later in most sports analyzed by studies, creating a bias in the distribution of birth dates of youth selected.

Within this context, there is the variable relative age effect (RAE), known as the possible advantage that the athletes born closer to the beginning of the selection year have in relation to their peers born later (Vaeyens, Philippaerts, & Malina, 2005; Vincent & Glamser, 2006).

The birth quartile considers the division of the year into four parts, the first quartile represents the months of January to March, the second quartile from April to June, the 3rd quartile from July to September and the fourth and last quartile from October to December. Several studies on different modalities that evaluated the categorization of dates of births of the athletes were able to conclude that the distribution of dates of birth is not homogeneous overall (Baker & Logan, 2007; Cobley, Baker, Wattie, & Mckenna, 2009; Musch & Grondin, 2001; Sherar et al., 2007; Vaeyens et al., 2005).

The RAE has been extensively studied in several countries (Musch & Grondin, 2001; Carli et al., 2009; Vaeyens et al., 2005; Cobley et al., 2009; Penna et al., 2010). This phenomenon is especially significant in sports where performance is dependent on strength and power and those where body size is decisive. Sherar et al. (2007) suggest that the date of birth might be able to predict the sporting talent in certain modalities. Other studies show that athletes born in the last two quartiles abandon the sport significantly more than those born in the first two quartiles of the year, due to the low perceived competence and absence of immediate success (Delorme et al., 2010; Figueiredo et al., 2009; Musch & Grondin, 2001).

Some studies indicate that the RAE is not restricted only to basic categories, but it is present at different levels of performance and increases progressively with the level of excellence, including the Olympic level (Cobley et al., 2009; Costa et al., 2009; Raschner, Muller, & Hildebrandt, 2012). When analyzing team sports such as baseball, basketball, hockey and football, for example, the RAE is present on high-performance and international competitions (Costa et al., 2009; Cotê, Macdonald, & Albernethy, 2006; Mujika et al., 2009; Tompson, Barnsley, & Stebelsky, 2001; Vincent & Glamser, 2006;).

When considering individual sports, the Olympics are the focus of any athlete who seeks high yield; the major individual sports featured in the Olympic program are the Athletics, Swimming and Fight.

The RAE has been investigated with fight athletes, both in taekwondo (Albuquerque et al., 2012) and in judo (Albuquerque et al., 2013) and the RAE has not been identified. When considering specifically this phenomenon in swimming, no study has investigated this effect on Olympic level athletes. The only work identified was developed by Ryan (1989), who identified the RAE is also present on the categories of 8 to 12 in swimming. Thus, it is important to establish the existence of RAE on high performance swimmers participating in the Olympic Games.

Based on these data, this study aims at investigating the relative age effect on Olympic swimmers who participated in the London 2012 Olympic Games by analyzing the possible differences among continents, between sexes and verifying the relationship with winning Olympic medals.

METHODS

SAMPLE

Nine hundred and seventy-eight athletes swimmers, 507 male and 471 female, who participated in the London Olympics 2012 participated in this study. This work followed the same ethical adopted by national (Carli et al., 2009; Penna & Moraes, 2010) and international (Albuquerque et al., 2013; Costa et al., 2009) works.

PROCEDURES

Following the methodology used in previous studies (Penna & Moraes, 2010; Cotê et al., 2006; Albuquerque et al., 2012), data on athletes such as gender, country of origin and date of birth were obtained directly from the official site of the London 2012 Olympic Games

(http://www.london2012.com/swimming/athletes/). To analyze the relationship between the birth quartile and yield, the athletes who won medals were considered with higher yield than those non-medalists.

The month of birth of each athlete was categorized into quartiles. It was considered the annual calendar from January 1st to December 31st. The 1st quartile was composed of the months January, February and March; the 2nd quartile, April, May and June, 3rd quartile, July, August and September; and the 4th quartile, October, November and December.

Countries were grouped according to their geographic location in five continents: America. Africa, Asia, Europe and Oceania. Data were tabulated in a spreadsheet for later statistical analysis.

STATISTICAL ANALYSIS

The chi-square test (χ^2) was used for testing the relative age effect by comparing the expected and observed distribution in quartiles of birth of the six athletes. According to a previous study (Albuquerque et al., 2012), the expected values were calculated assuming equal distribution of births in each quartile of the year. To test the association between variables were used cross-tables. All tests were performed using SPSS 19.0 for Windows program at 5% significance.

RESULTS

Descriptive data on age, height and body mass of athletes are shown in Table 1 below.

TABLE 1. General characteristics of swimmers participating in the London 2012 Olympic Games.

	MALE (N=507)	FEMALE (N=471)	ALL (N=978)
Age (years)	24.0 ± 3.8	22.2 ± 3.8	23.1 ± 3.9
Weight (kg)	79.6 ± 8.5	63.0 ± 7.0	71.5 ± 11.4
Height (m)	1.86 ± 0.08	1.73 ± 0.07	1.79 ± 0.10

The results of the distribution of birth dates (quartiles) of all the athletes are shown in Figure 1; statistically significant differences were observed in the distribution of quartiles of birth (χ^2 = 9.542, *df* = 3, *p* = 0.02). In paired comparison between quartiles, significant differences were observed between quartiles 1 vs. 4 (χ^2 = 8.076, *df* = 1, *p* = 0.004) and 3 vs. 4 (χ^2 = 6.450, *df* = 1, *p* = 0.01), with higher percentage of athletes born in quartiles 1 and 3, compared to quartile 4.

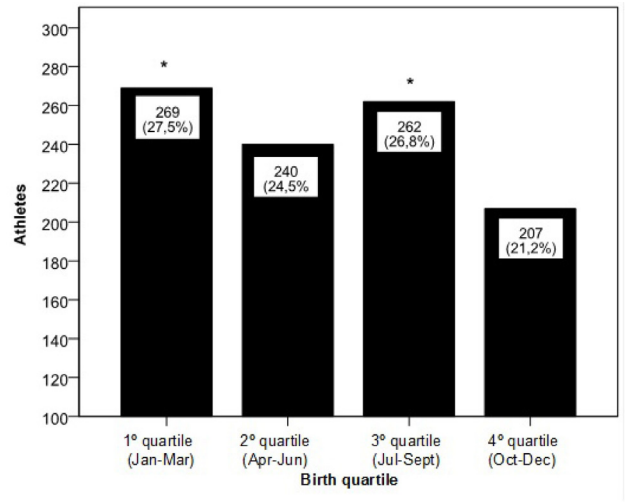

FIGURE 1. Distribution of quartiles of birth of the swimmers who competed in the Olympic Games in London 2012 (*n* = 978). (*Significant difference 1st Q vs 4th Q, *p* = .004, 3rd Q vs. 4th Q, *p* = .01).

Table 2 shows the values of χ^2 test for the distribution of birth dates of athletes by gender. The relative age effect was observed on female athletes (χ^2 = 12.304, *df* = 3, *p* = 0.01) but not on male ones (χ^2 = 1.426, *df* = 3, *p* = 0.70). In females, there was highest percentage of athletes born in quartiles 1 and 3, compared to quartile 4. Regarding yield, no association between quartile of birth of the athletes and Olympic medal winning was observed (χ^2 = 1.174; *df* = 3; *p* = 0.76).

TABLE 2. Evaluation of the quartiles of birth of the swimmers in the London 2012 Olympic Games by gender using

	1ST QUARTILE	2ND QUARTILE	3RD QUARTILE	4TH QUARTILE	X^2	(P)
	n (%)	n (%)	n (%)	n (%)		
Male	127 (25.0)	127 (25.0)	136 (26.8)	117 (23.2)	1.426	(0.70)
Female	142 (30.1)*	113 (24.0)	126 (26.8)*	90 (19.1)	12.304	(0.01)

Note: * Significant difference 1st Q vs 4th Q, p = .004, 3 vs. 4th Q, p = .01).

In the analysis by continent, the relative age effect was observed only on the Asian continent (χ^2 = 9.695, df = 3, p = 0.02), with greater representation of athletes born on 1st and 2nd quartiles compared to the 4th quartile – Figure 2. In other continents, no significant difference was observed in the percentage distribution of the quartiles of birth of Olympic swimmers.

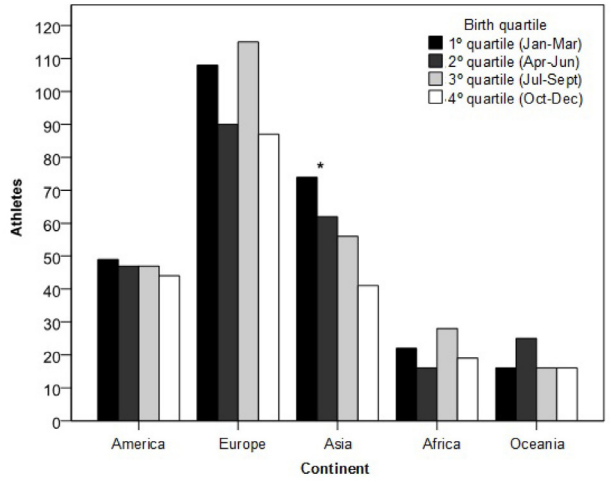

FIGURE 2. Distribution of quartiles of birth of the swimmers who competed in the Olympic Games in London in 2012 by continent (n = 978). (* Significant difference to Asia: 1st Q vs 4th Q, p = .002; 2nd Q vs 4th Q, p = .04).

DISCUSSION

The aim of the present study was to investigate the relative age effect on Olympic swimmers who participated in the London 2012 Olympic Games, analyzing the possible differences between continents, between sexes and to verify the relationship with winning Olympic medals. The results indicated that the RAE is present in this modality, but is only statistically significant in female athletes and athletes from the Asian continent, and it has no relationship with winning Olympic medals.

The results of this study corroborate those found in the literature that point the RAE on various modalities, especially those where the physical component plays a decisive role on the yield and the most practiced and popular modalities (Tourinho Filho, & Tourinho, 1998; Vaeyens et al., 2005; Cobley et al., 2009; Penna & Moraes, 2010; Delorme & Raspaud, 2009). Studies indicate that the RAE is not restricted to base categories, but it is present at different levels of excellence, including the Olympic level. The study of Raschner et al. (2012) noted the RAE on the Youth Olympic Games in 2012, whose authors found that the relative age had a highly significant influence on the participation of young athletes in various sports in this competition.

In the present study, concerning to distribution of the athletes by continent, the RAE was evidenced only in Asia, with most athletes born on 1st and 2nd quartiles. In the other continents, there was no significant difference in the distribution of quartiles of birth of swimmer athletes. One factor that may explain the presence of the RAE in Asia is due to the early start in sports in some modalities. According to Fairbank and Goldman (2009), sport policy in China, for example, develops the sport initiation at around age 6 years, when children spend living in a boarding school in Beijing with military methodology, learning 9 Olympic sports. Regarding gender, the RAE is well characterized in female athletes, whereas in males the results are inconsistent. There are studies that found the RAE on female athletes (Delorme & Raspaud, 2009), while others do not (Edgar & O'Donoghue, 2005; Medic, Young, Starkes, Weir, & Grove, 2009). In a study conducted with Swiss female athletes of football, there was RAE on the youth categorioes up to 14 years, but not on the elite teams (Roman & Fuchslocher, 2011). This fact can be characterized due to selection processes usually occur at an age when women have reached puberty, so that the differences in biological maturation are smaller (Helsen et al., 2005).

Studies suggest that the RAE depends on the context of the sport, being more evident in those whose strength and power are the key factors (Cobley et al., 2009; Raschner et al., 2012). Since initiation of swimming still happens in childhood, ranging from age 3 to 7 years (Tubino, 1979), knowledge of the relative age effect becomes even more important. The greater participation of athletes born in the first quartile may be related to the selection process of athletes, those born closest to the beginning of the selection year may have physical advantages over those born later; this is because, with the age group, young people born in the first months of the year have higher chances to be in more advanced stages of biological maturation, therefore having greater chance of being selected to participate in the training process (Musch & Grondin, 2001; Carli et al., 2009).

Despite differences in chronological ages less than 12 months having little relevance in adults, they can be important during childhood and adolescence in individuals with rapid rates of growth and development. Those born in the beginning of the selection year of age groups often have an advantage over their peers by being larger, stronger and faster (Musch & Grondin, 2001; Sherar et al., 2007). Within this context, they have more chances to continue in the sport and develop their tactical and technical capabilities, resulting in greater perceived competence and therefore, greater intrinsic motivation (Musch & Grondin, 2001).

Younger and lower biological age athletes may be considered less talented in the process of training and development and as a consequence, abandon the trainings and competitions due to the low perceived competence and lack of success (Musch & Grondin, 2001; Gustafsson, Kenttä, Hassmén, & Lundqvist, 2007; Helsen, Starkes, & Van Winckel, 1998). In soccer players, it was found that those who reached the elite level were bigger, stronger, faster and more skilled than those who left the modality (Figueiredo et al., 2009). However, the date of birth cannot be used alone to indicate a tendency to discriminate younger athletes or players with lower biological age in talent identification, because those of the third or fourth quartiles may have early maturation and being larger than those in the first and second quartiles (Carli et al., 2009). In addition, other factors may affect the selection of athletes (Cotê et al., 2006).

The emphasis on the physical aspects related to sports performance for selection of athletes and grouping on age categories that last about two years are the aspects mainly responsible for RAE (Vaeyens et al., 2005). There are suggestions and strategies to try to reduce the RAE, including: setting quotas for each year of birth within each age group of two years (Raschner et al., 2012), constant changing in the date of beginning of the selection year (Helsen et al., 2000) creation of other levels of tournament (gold, silver and bronze series for the same category) (Carli et al., 2009), awareness of coaches to lower valuation of the physical aspects in the selection of athletes and preparation of programs that offer more vacancies at different levels of practice avoiding premature exclusion of talents (Wattie, Cobley, & Baker, 2008). This study had as main limitation of not evaluating the time of competitive practice of these athletes, a factor that can interfere with the performance of these athletes.

CONCLUSION

Thus, it was concluded that RAE is accounted for swimmers of London 2012, furthermore, it was representative in women, it is not related to conquer of medals and can be found only in Asian continent. The knowledge of this effect on the part of coaches is of paramount importance for possible talents are not early excluded, since the physical advantages may be temporary. Further studies are needed on swimming because of the shortage of studies aiming at investigating the possible RAE on functional abilities related to swimming performance in the youth and high-yield categories.

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REFERÊNCIAS

Albuquerque, M. R., Lage, G. M., Costa, V. T., Ferreira, R. M., Penna, E. M., Moraes, L. C., & Malloy-Giniz, L. F. (2012). Relative age effect in Olympic taekwondo athletes. *Perceptual & Motor Skills, 114*(2), 461-468. doi:0.2466/05.25.PMS.114.2.461-468

Albuquerque, M. R., Tavares, V., Lage, G. M., Paula, J. J., Costa, I. T., & Malloy-Giniz, L. F. (2013). Relative age effect in Olympic judo athletes: A weight category analysis. *Science & Sports, 28*(3), 59-61. doi:10.1016/j.scispo.2012.09.004

Baker, J., & Logan, A.J. (2007). Developmental contexts and sporting success: Birth date and birthplace effects in national hockey league draftees 2000-2005. *British Journal of Sports Medicine, 41*(8), 515-517. doi:10.1136/bjsm.2006.033977

Carli, G. C., Luguetti, C. N., Ré, A. H. N., & Böhme, M. T. S. (2009). Efeito da idade relativa no futebol. *Revista Brasileira Ciência e Movimento, 17*(3), 25-31.

Cobley, S., Baker, J., Wattie, N., & McKenna, J. (2009). Annual age-grouping and athlete development: A meta-analytical review of relative age effects in sport. *Sports Medicine, 39*(3), 235-256. doi:10.2165/00007256-200939030-00005

Costa, V. T., Simim, M. A., Noce, F., Costa, I. T., Samulski, D. M., & Moraes, L. C. (2009). Comparison of relative age of elite athletes participating in the 2008 Brazilian soccer championship series A and B. *Revista Motricidade, 5*(3), 13-17. doi:10.6063/motricidade.5(3).190

Côte, J., Macdonald, D.J., Baker, J., & Abernethy, B. (2006). When "where" is more important than "when": Birthplace and birthdate effects on the achievement of sporting expertise. *Journal of Sports Sciences, 24*(10), 1065-1073.

Delorme, N., & Raspaud, M. (2009). Is there an influence of relative age on participation in non-physical sports activities? The example of shooting sports. *Journal of Sports Sciences, 27*(10), 1035-1042. doi:10.1080/02640410902926438

Delorme, N., Boiché, J., & Raspaud, M. (2010). Relative age effect in elite sports: Methodological bias or real discrimination? *European Journal of Sport Science, 10*(2), 91-96. doi:10.1080/17461390903271584

Edgar, S., & O'Donoghue, P. (2005). Season of birth distribution of elite tennis players. *Journal of Sports Sciences, 23*(10), 1013-1020. doi:10.1080/02640410400021468

Fairbank, J. K., & Goldman, M. (Eds). (2009). *China: Uma nova história.* Porto Alegre, RS: L & PM.

Figueiredo, A. J., Goncalves, C. E., Coelho, E. S. M. J., & Malina, R. M. (2009). Characteristics of youth soccer players who drop out, persist or move up. *Journal of Sports Sciences, 27*(9), 883-891. doi:10.1080/02640410902946469.

Gallahue, D. L., & Ozmun, J. C. (2001). *Compreendendo o desenvolvimento motor: Bebês, crianças, adolescentes e adultos.* São Paulo, SP: Phorte.

Gustafsson, H., Kenttä, G., Hassmén, P., & Lundqvist, C. (2007). Prevalence of burnout in competitive adolescent athletes. *The Sport Psychologist, 21*(1), 21-37. doi:10.1123/tsp.21.1.21

Helsen, W. F., Starkes, J. L., & Van Winckel, J. V. (1998). The influence of relative age on success and dropout in male soccer players. *American Journal of Human Biology,* 10(6), 791-798. doi:10.1002/(SICI)1520-6300(1998)10:6<791::AID-AJHB10>3.0.CO;2-1.

Helsen, W. F., Starkes, J. L., & Van Winckel, J. V. (2000). Effect of a change in selection year on success in male soccer players. *American Journal of Human Biology, 12*(6), 729-735.

Helsen, W. F., Van Winckel, J., & Williams, A. M. (2005). The relative age effect in youth soccer across Europe. *Journal of Sports Sciences, 23*(6), 629-636. doi:10.1080/02640410400021310

Malina, R. M., Bouchard, C., & Bar-Or, O. (Eds.). (2004). *Growth, maturation, and physical activity.* Champaign, IL: Human Kinetics.

Medic, N., Young, B. W., Starkes, J. L., Weir, P. L., & Grove, J. R. (2009). Gender, age, and sport differences in relative age effects among US Masters swimming and track and field athletes. *Journal of Sports Sciences, 27*(14), 1535-1544. doi:10.1080/02640410903127630

Moraes, L. C. C. A., Penna, E. M., Ferreira, R. M., Costa, V. T. & Matos, A. F. (2009). Análise do quartil de nascimento de atletas profissionais de futebol. *Revista Pensar a Prática, 12*(3), 1-9.

Mujika, I., Vaeyens, R., Matthys, S. P. J., Santisteban, J., Goiriena, J., & Philippaerts, R. (2009). The relative age effect in a professional football club setting. *Journal of Sports Sciences, 27*(11), 1153-1158. doi:10.1080/02640410903220328.

Musch, J., & Grondin, S. (2001). Unequal competition as an impediment to personal development: A review of the relative age effect in sport. *Developmental Review, 21*(2), 147-167. doi:10.1006/drev.2000.0516

Penna, E. M., & Moraes, L. C. C. A. (2010). Efeito relativo da idade em atletas brasileiros de futsal de alto nível. *Revista Motriz, 16*(3), 658-63. doi:10.5016/1980--6574.2010v16n3p658
Raschner, C., Muller, L., & Hildebrandt, C. (2012). The role of a relative age effect in the first winter Youth Olympic Games in 2012. *British Journal of Sports Medicine, 46*(15), 1038-1043. doi:10.1136/bjsports-2012-091535.
Romann, M., & Fuchslocher, J. (2011). Influence of the selection level, age and playing position on relative age effects in swiss women's soccer. *Talent Development & Excellence, 3*(2), 239-247.
Ryan P. (1989). *The relative age effect on minor sport participation.* Masters thesis, McGill University, Montreal, Quebec, Canada.
Sherar, L. B., Baxter-Jones, A. D., Faulkner, R. A., & Russell, K. W. (2007). Do physical maturity and birth date predict talent in male youth ice hockey players? *Journal of Sports Sciences, 25*(8), 879-886. doi:10.1080/02640410600908001
Tompson, A. H., Barnsley, R. H., & Stebelsky, G. (2001). Born to play ball: The relative age effect and major league baseball. *Sociology of Sport Journal, 8*(2), 146-151. doi:10.1123/ssj.8.2.146
Tourinho Filho, H., & Tourinho, L. S. P. R. (1998). Crianças, adolescentes e atividade física: Aspectos maturacionais e funcionais. *Revista Paulista de Educação Física, 12*(1), 71-84.
Tubino, M. J. G. (1979). *Metodologia científica do treinamento desportivo.* São Paulo, SP: Ibrasa.
Vaeyens, R., Philippaerts, R. M., & Malina, R. M. (2005). The relative age effect in soccer: A match-related perspective. *Journal of Sports Sciences, 23*(7), 747-756. doi:10.1080/02640410400022052.
Vincent, J., & Glamser, F. D. (2006). Gender differences in the relative age effect among US Olympic development program youth soccer players. *Journal of Sports Sciences, 24*(4), 405-413. doi:10.1080/02640410500244655.
Wattie, N., Cobley, S., & Baker, J. (2008). Towards a unified understanding of relative age effects. *Journal of Sports Sciences, 26*(13), 1403-1409. doi:10.1080/02640410802233034

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Características motivacionais de corredores de diferentes provas do atletismo

PALAVRAS CHAVE:
Psicologia do esporte.
Autodeterminação. Corridas.

RESUMO

O objectivo do presente estudo foi comparar as características motivacionais dos corredores do atletismo, levando em consideração a especialidade de prova, o tipo de motivação e o género. A amostra foi constituída por 40 atletas (24 do sexo masculino) de alto rendimento do atletismo, divididos em grupos de acordo com a especialidade: oito velocistas (20.38 ± 2.88 anos), 10 meio fundistas (25.91 ± 6.79 anos), 14 fundistas (30.46 ± 7.46 anos), e oito ultramaratonistas (36.13 ± 7.41 anos). Para investigar as características motivacionais foi utilizado o *Sport Motivation Scale* (SMS), validado para a língua portuguesa (SMS-BR). A motivação dos corredores das diferentes modalidades foi similar, à exceção da subescala de motivação extrínseca identificada que foi maior nos ultramaratonistas, quando comparados aos corredores meio fundistas (p= .029). Em todos os grupos, os valores de motivação intrínseca total apresentaram valores ligeiramente superiores à motivação extrínseca; contudo, apenas no grupo de fundistas foi constatada diferença estatística (p= .004). Os resultados sugerem características motivacionais dos corredores de diferentes provas do atletismo são bem similares. Além disso, corredores de fundo possuem maior motivação intrínseca do que extrínseca.

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