

Evolution in swimming “Science” research

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The aim of this study was to analyze the evolution of the swimming “science” research in the last decades.

The content of all the 622 papers published in the Proceedings books of the Symposiums of Biomechanics and Medicine in Swimming from 1971 to 2006 was analyzed. It was adopted the procedures described for content analysis by Queirós and Botelho (in press).

The main “scientific area” applied for the study of the aquatic activities, in all manuscripts, was considered as being the category to analyze. It was defined the following sub-categories (adapted from Clarys, 1996): (i) Biomechanics; (ii) Psychology; (iii) Sociology; (iv) Pedagogy/Teaching; (v) Biochemistry; (vi) Physiology; (vii) Thermoregulation; (viii) Hydrodynamics; (ix) Electromyography; (x) Anthropometry; (xi) Equipments/Methodologies; (xii) Clinical Medicine/Traumatology and; (xiii) Interdisciplinary assessment. Intra-assessment reliability (test and re-test) was very high.

There was an increasing number of papers published within the period of time analyzed (ranging from 23 papers in 1971 to 145 manuscripts in 2006. “Biomechanics” was the area of assessment most often (ranging from 27.3% in 1988 to 60% in 1979) with 37.7% of the papers, followed by the “Physiology” with 17.20%. Since 2003 it is verified an increasing number of “interdisciplinary assessment” manuscripts (e.g., 9.7% in 2003 and 21.4% in 2006, shifting from the third to second area of interest) and representing 8.52% of overall papers within the period of time analyzed.

Key words: swimming, science, papers

Clarys, J.P. (1996). The historical perspective of swimming science. In J.P. Troup, A.P. Hollander, D. Strasse, S.W. Trappe, J.M. Cappaert & T.A. Trappe (Eds.), *Biomechanics and Medicine in Swimming VII* (pp. 21-34). London: E & FN Spon.

Queirós, T.M., & Botelho, G. (in press). *How 5th and 6th grade school books perceived girls and boys?* London: Gender and Education.