

The relationship between sports and polyphenols: a retrospective analysis of PubMed publications over the last 52 years

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Abstract

Background. Sport (S) and polyphenols (P) represent subjects of research interest, but the relationship between them has been seldom investigated.

Aims. The purpose of the present paper is the evaluation of research concerning the S-P relationship, by the retrospective analysis of PubMed publications over the past 52 years.

Methods. The relationship between S and P was evaluated over two segments of time. A) The 1960-2012 period, where the following were considered: a) the key words "S and P"; b) each year of 1960-2012; c) some of the filters for selection of information provided by the PubMed site, B) The recent period, 2010-2012, where the following were considered: a) the key words "S", "P", "S and P"; b) some types of P; c) each type of P analyzed in combination with the key word S. Statistical evaluation was made on the basis of the Student test.

Results. There are significant differences between the means over 52 years: for the total number (T) of publications, abstracts and full text compared each of them to free full text (FFT); between age groups 19-44 and 65-plus, 19-plus and 45-64, and 19-plus and 65-plus; English and other languages; Journal article (JA) - Randomised controlled trial. In the years 2010-2012, the number of publications for "S" and for "P" is significantly increased compared to that for "S" and "P"; the number for each type of P is higher than for S and every type of analyzed P.

Conclusions. 1) The total number of publications over 52 years is low, 35. 2) The number of FFT is reduced compared with T, which could be an impediment to consult the details for those with modest financial possibilities, but the language of publication of the summaries being English, the access to reliable information is greatly facilitated. 3) The studies in human subjects were the favorites, especially men, mostly aged between 19-44 years. 4) The type of publication the most commonly chosen, of the selected item, was JA. 5) Studies on "S AND P" are diversified across several types of P and out of 17 studies for the years 2010-2012, 16 have favorable conclusions for the use of P in S. 6) The relationship between S and P, although summarily represented numerically, is important through the individual value of S and P, as well as the increasing interest by opening up their use in research related to S.

Keywords: sports, polyphenols, types of polyphenols, PubMed filters.