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THE RELATIONSHIP BETWEEN 2D:4D RATIO AND SYSTEMIZING AND EMPATHY QUOTIENTS IN PARENTS OF PEOPLE WITH AUTISM SPECTRUM DISORDERS

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Introduction: Interdigital 2D:4D ratio has been considered as an indicator of prenatal exposure to androgens, entailing then a smaller ratio more androgenisation. Although it has been related to systemizing and empathy dimensions in the general population, it has never been studied in parents of people with Autism Spectrum Disorders (ASDs).

Objectives and aims: To analyse the relationship between the 2D:4D ratio and these psychological variables in this population.

Methods: The sample was composed by parents of both genders of people with (n=46) or without (n=42) ASDs. The ratio was calculated as the mean of 3 measurements of each hand evaluated by 3 different researchers. Psychological dimensions were evaluated by means of the Systemizing and Empathy Quotients (SQ and EQ, respectively).

Results: Parents of ASDs persons showed lower scores in the EQ than controls, being these differences replicated only in men. No differences between groups for the 2D:4D ratio were found. Nevertheless, regression analyses indicated that in parents of ASDs a higher 2D:4D left ratio predicted a higher EQ. This result was also observed in men but not in women. In any case, the model was not significant in the control group.

Conclusions: Parents of ASDs persons showed lower EQ than controls, being this quotient predicted by the left 2D:4D ratio only in the former. When analysing in each gender, these results are only obtained in men. Among other parameters, the D2:D4 ratio (especially the left hand one) could be considered a valid indicator of the ASDs parent's idiosyncrasy.