

Efficacy and safety of omega-3/6 fatty acid supplementation alone or in combination with methylphenidate in pediatric patients with ADHD

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ADHD is one of the most frequent disorders that affect children and leads to scholar failure and behavioral problems; In Latin America the ADHD prevalence is 7%.

ADHD is caused by an impairment in brain function, involving the neurotransmitters dopamine, norepinephrine & serotonin. Genetic and environmental factors & their interaction play a role. The management of ADHD involves a multimodal treatment approach using both drug and non-drug therapies.

Objectives

The study investigated the effects of an Omega 3/6 combination in Latin-American children diagnosed with ADHD as monotherapy and in combination with methylphenidate (MTP).

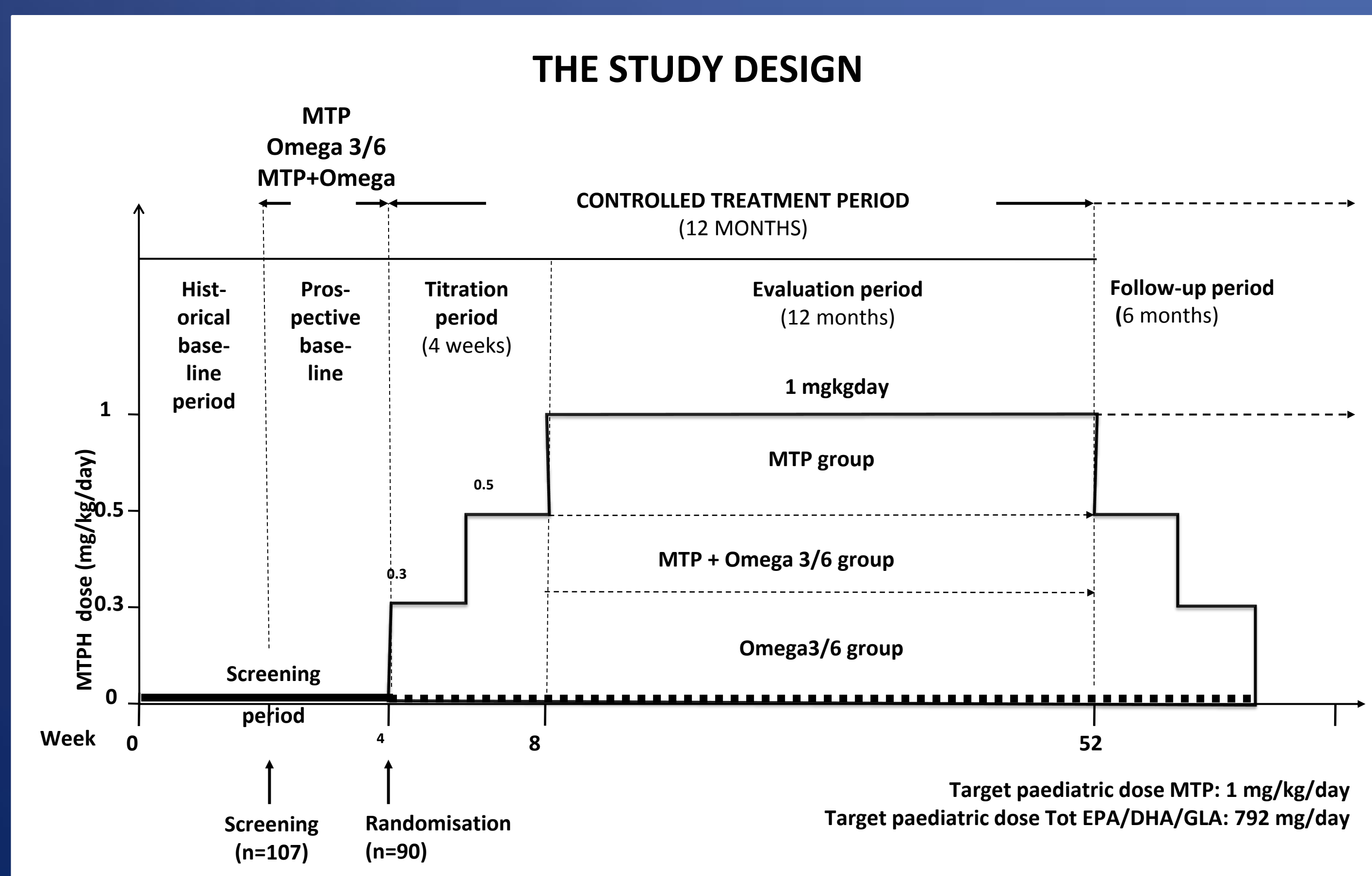
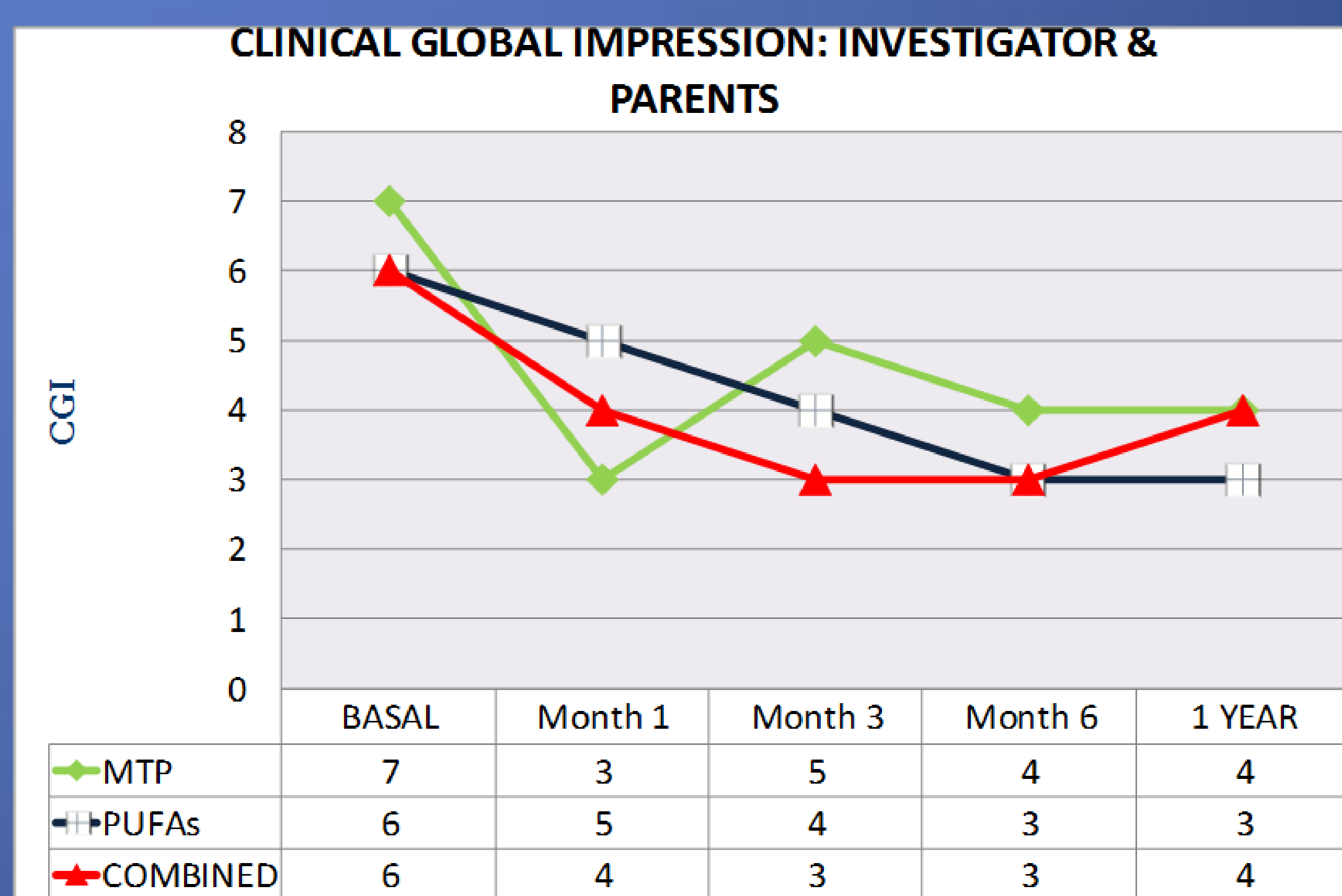
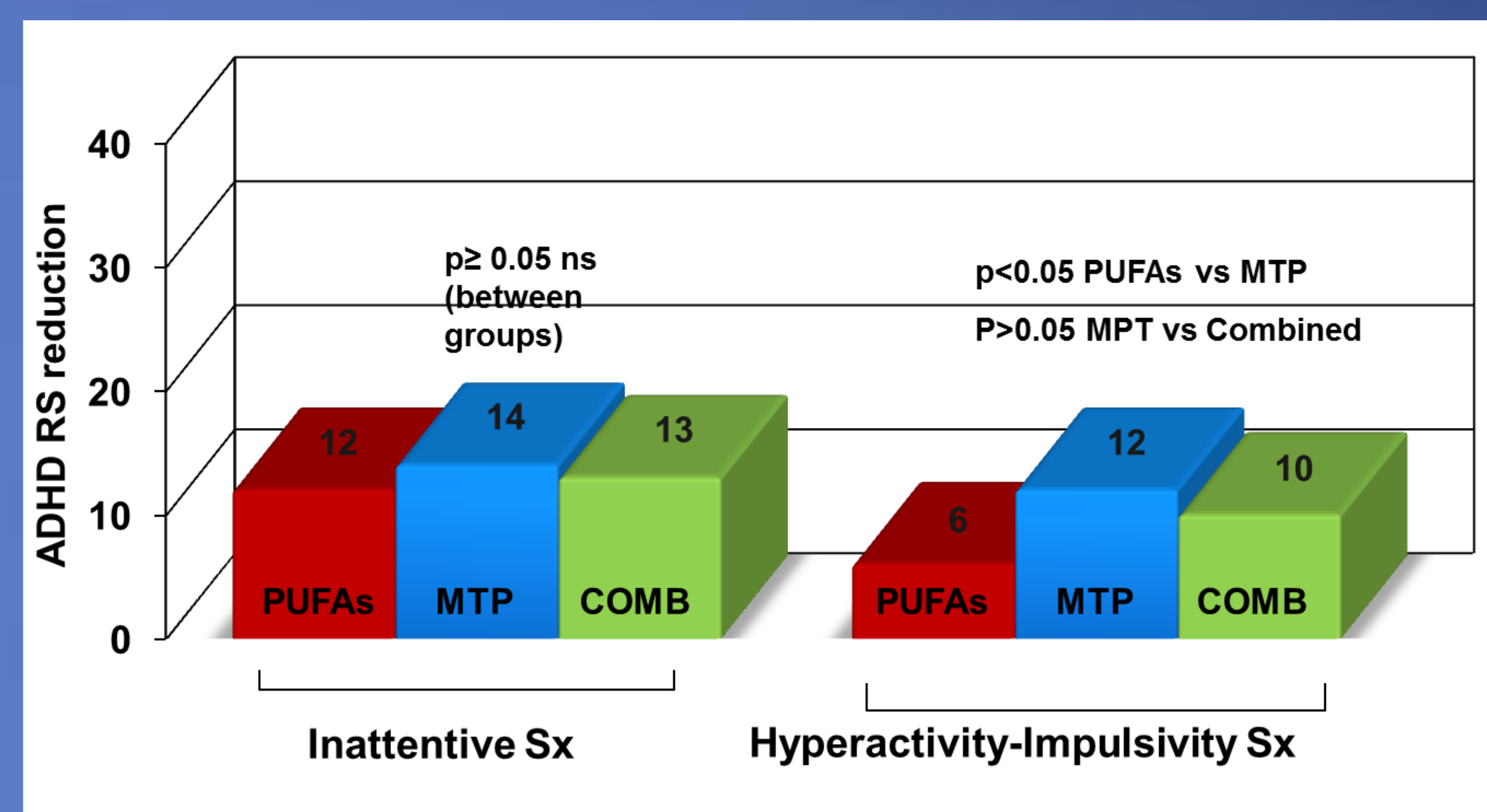
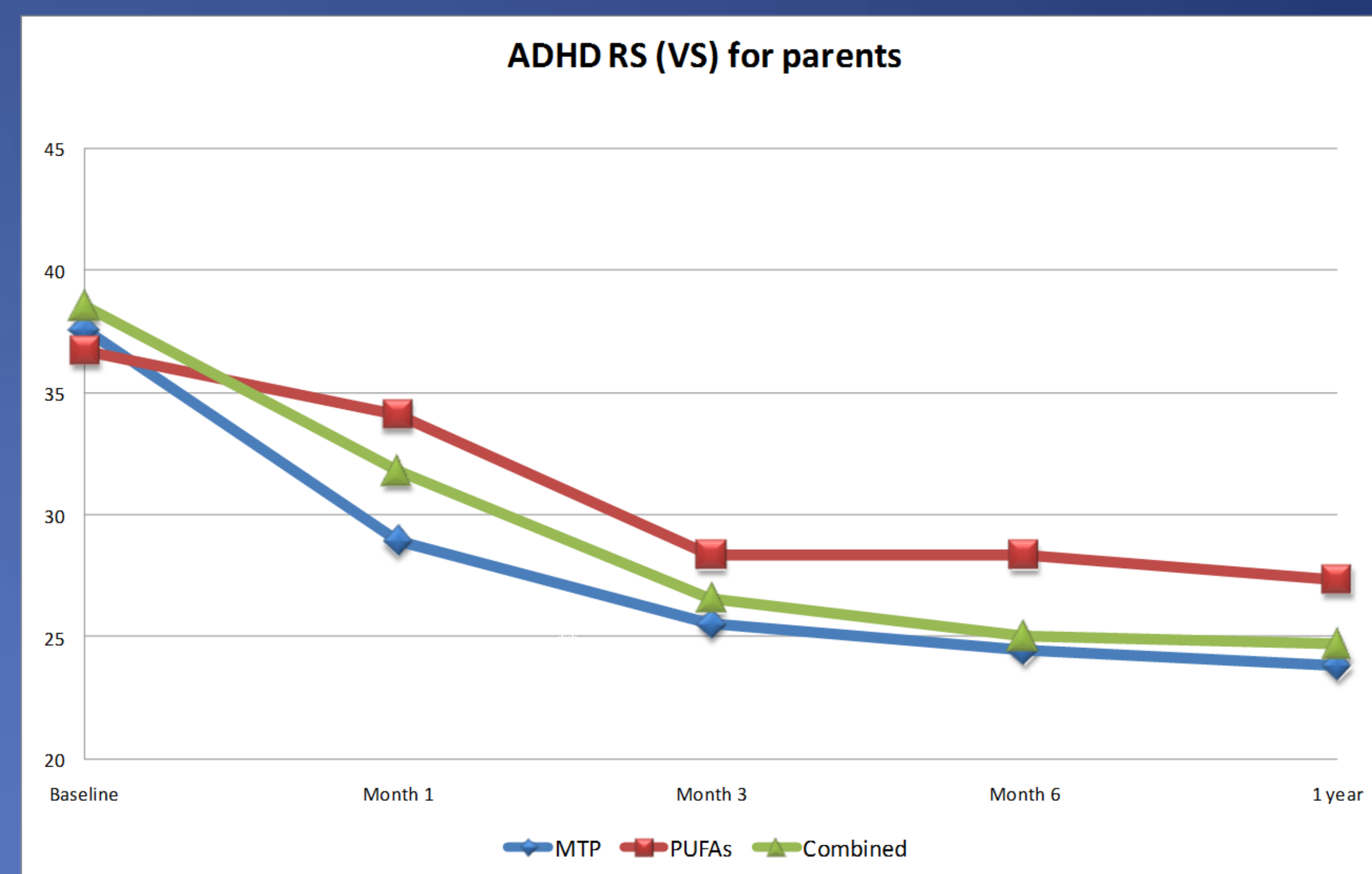
Methods

90 newly diagnosed ADHD children of both genders, 6 to 12 years old, were included in a RCT with one year follow-up in a 3-arm design (A: MTP, B: Omega-3/6 and C: Omega 3/6 + MTP). The Omega-3/6 fatty acid formulation used was EPA/DHA/GLA (ratio 9:3:1, Equazen™) with a total of 792mg/day. MTP was prescribed in a dosage of 1mg/kg/day (titration in clinical assessment).

The ADHD diagnosis and follow up were made with the DMS-IV scale, ADHD-RS-VE (Spanish version), the CEAL (Latin-American scale for ADHD) and overall clinical impression (CGI). For clinically meaningful response, a reduction of at least 25% of the symptoms was used. The adverse events (AEs) were evaluated by the parents based on the impact on the patients.

Results

30 patients by group were recruited; the combined subtype was the most frequent (56%). 85% finished the one year follow-up; with 75% in all three groups reporting a 50% or more reduction in symptoms. While no difference was observed between groups regarding the effect on inattention, omega-3/6 supplementation seemed to have less effect on hyperactivity. The most frequent AEs were weight reduction, hyporexia, and anxiety (MPT group). In the combined group (Omega-3/6 plus MTP), hyporexia and weight reduction were significantly lower. AEs were reported on demand



Conclusions

Nutritional supplementation with Omega-3/6 fatty acids was effective and safe and can be considered as a good option as monotherapy in inattentive ADHD children and as an adjunctive therapy in combined type, helping not only to improve the symptoms but to lower side effects of MPT.

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