

# Targeted Dietary Supplementation Improves Mental Performance in Children



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## Abstract

**Background:** Saffron (*Crocus sativus*) dried flower stigma is the world’s most expensive spice and has been used in traditional medicine for alleviating depression, stress, anxiety, and insomnia. Saffron stigma contains more than 160 bioactive compounds including lepticrosalides (safranal, crocin, crocetin, picrocrocin) and numerous flavonoids and terpenes that have been associated with relaxation, positive mood, and mental & physical balance. At least seven controlled clinical trials have shown the antidepressant activity of saffron.

**Objective:** Building on the well-described “mood” benefits of saffron, our objective was to assess the benefits of saffron stigma combined with complementary brain-supporting spices (Holy Basil, Rosemary, Clove, and Oregano) on measures of mental focus and mental performance in healthy children who had not been diagnosed with either depression or ADHD.

**Methods:** Ten healthy children (ages 6-12 years of age) participated in this study. We used the validated NICHQ Vanderbilt Assessment Scales (National Institute for Children’s Health Quality) that are routinely used by healthcare professionals to help diagnose ADHD in children 6-12 years and are part of the American Academy of Pediatrics (AAP) Resource Toolkit for Clinicians Caring for Children with ADHD (3rd edition, 2019). Parents administered the NICHQ survey before and after 30-days of supplementation with a multi-nutrient blend intended to improve mental focus, mood, and stress resilience (Kid’s Mood+; Amare Global). The NICHQ assessment scales have 2 components: Symptom Assessment (in 5 areas: inattention, hyperactivity, defiance, conduct, and anxiety/depression) and Performance Assessment (including school performance on reading, writing, and math; as well as social relationship performance with parents, siblings, and peers including on organized teams).

**Results:** Following 30-days of supplementation, we found dramatic improvements on assessments of both Symptoms (e.g. focus, attention, mood, listening, tension, and irritation) and Performance (e.g. overall school work, math, reading, writing, and social relationships). All participants (10/10) demonstrated benefits in response to supplementation, with average Symptom scores 29% lower (23.4 pre versus 16.6 post) and Performance scores improved 18% (2.24 pre versus 1.83 post).

**Conclusions:** Previous human trials in children and teenagers have shown equivalence of saffron to fluoxetine (Prozac) for depression and methylphenidate (Ritalin) for ADHD. This is the first study in a population of normal healthy (“non-diagnosed”) children showing improvements in not just mental focus attributes, but also mental performance (academically and socially) subsequent to targeted supplementation. **This study provides compelling evidence for safe and effective natural approaches as potential first-line therapy for improving focus, mood, and mental performance in children.**

## Background

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### *Crocus sativus* L. Versus Methylphenidate in Treatment of Children with Attention-Deficit/Hyperactivity Disorder: A Randomized, Double-Blind Pilot Study

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*Jpn Pharmacol Ther* (薬理と治療) vol. 46 no. 8 2018

## Sleep Enhancement by Saffron Extract affron<sup>®</sup> in Randomized Control Trial

Akemi Nishide <sup>1)</sup>	Yukihiro Shoyama <sup>2)</sup>	Tuneyuki Yamamoto <sup>2)</sup>
Takashi Fujita <sup>1)</sup>	Keiko Ohnuki <sup>1)</sup>	Tomonari Watanabe <sup>3)</sup>
Yoshiteru Nagaregawa <sup>3)</sup>	Kuniyoshi Shimizu <sup>4)</sup>	Koichiro Ohnuki <sup>5)</sup>

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Review article

Saffron in the treatment of depression, anxiety and other mental disorders: Current evidence and potential mechanisms of action

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## SUPPLEMENT FACTS

Serving Size: 4.5 g (1 Stick Pack)  
Servings Per Container: 30

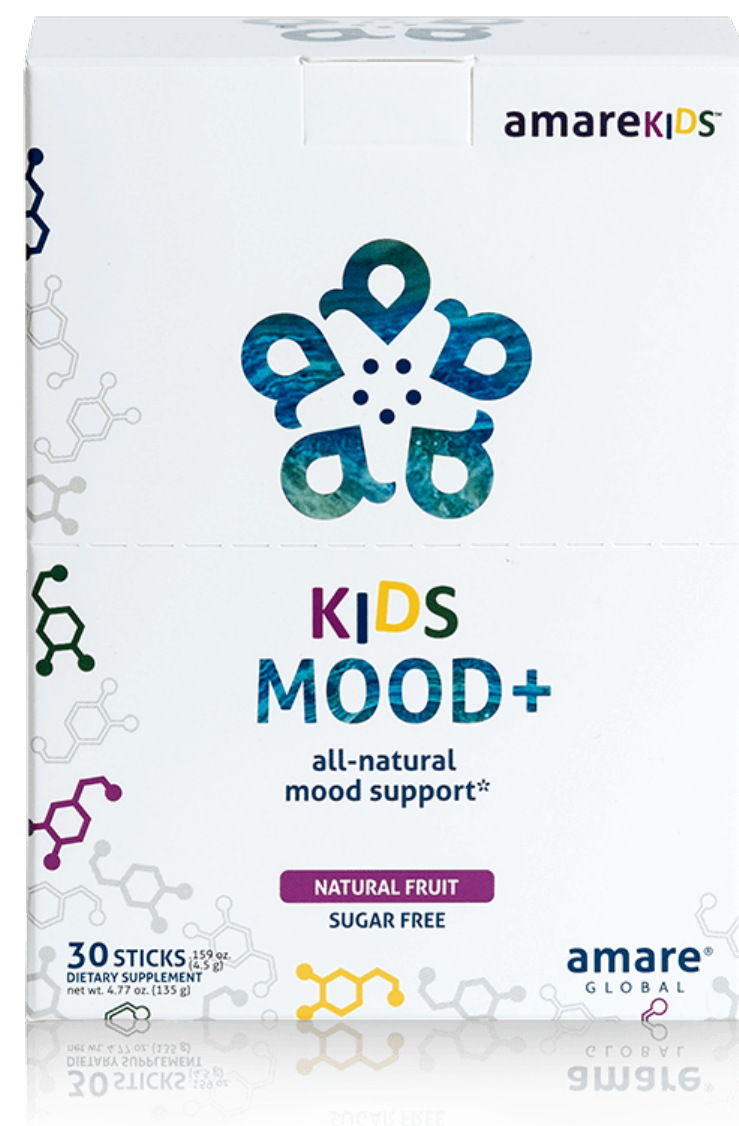
Amount Per Serving	%DV*	
Calories	5	
Total Carbohydrates	4 g	1%
Dietary Fiber	2 g	7%
Total Sugars	0 g	0%

<b>Mood Boost Proprietary Blend</b>	<b>54 mg</b>	<b>†</b>
affron <sup>®</sup> Saffron Stigma Extract, Holy Basil Leaf Extract, Rosemary Leaf Extract, Clove Flower Extract, Oregano Leaf Extract		

\*Percent Daily Values (DV) are based on a 2,000 calorie diet.

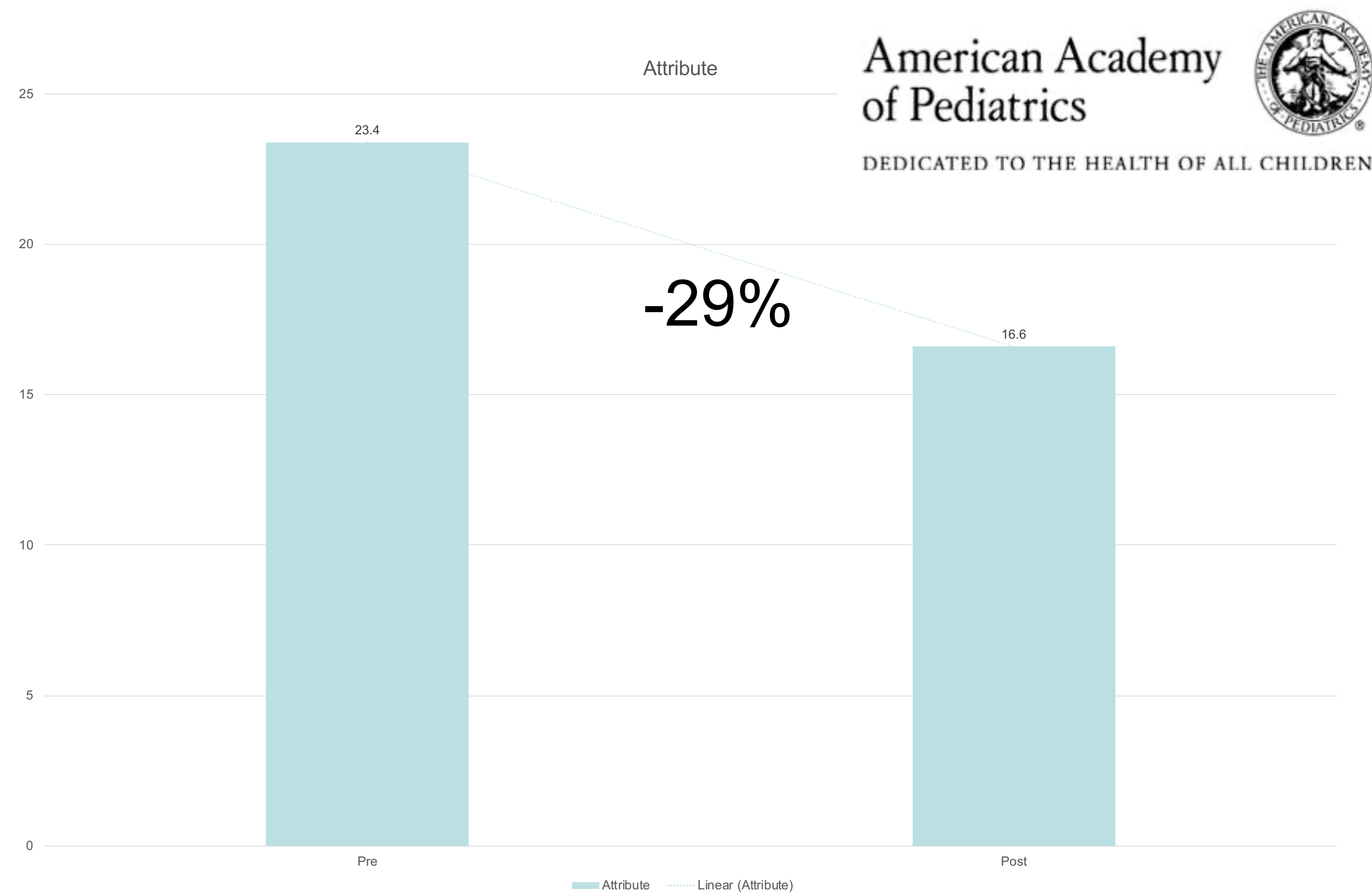
† Daily Value not established

**Other Ingredients:** IsoFiber™ Prebiotic Fiber (Iso-Malto-Oligosaccharides), Natural Sweetener Blend (Xylitol, Erythritol, Stevia Leaf Extract), Natural Fruit Flavors Blend (Orange Fruit, Grapefruit, Lemon Fruit, Vanilla, Turmeric, Citric Acid), Rice Hulls

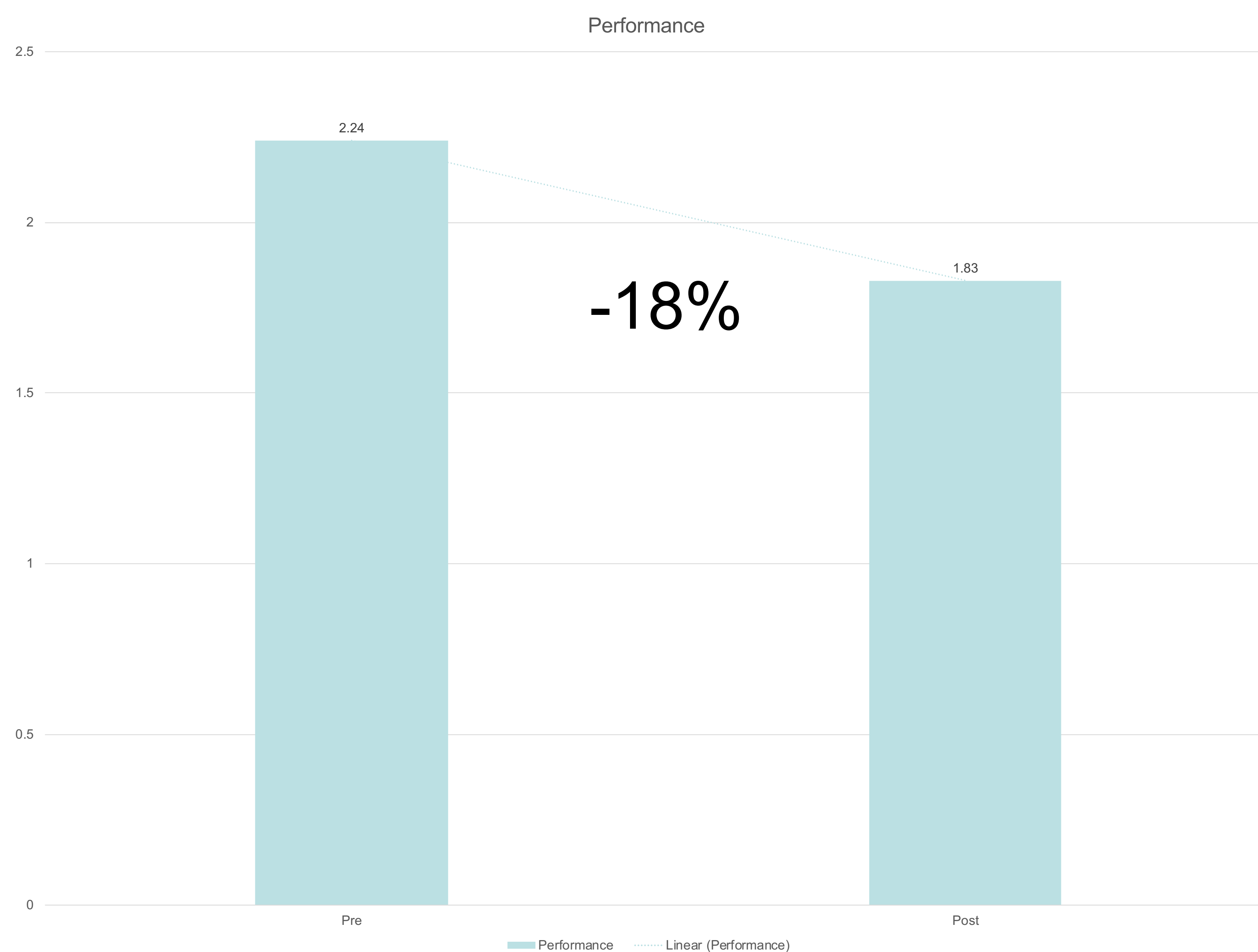


## Results

### Focus, Attention, Mood, Listening, Tension, Irritation



### School work, Math, Reading, Writing, Social Relationships



The specific saffron extract (affron) used in Kid’s Mood+) has previously been shown in numerous clinical trials to be equivalent to methylphenidate (Ritalin) and fluoxetine (Prozac) for improving mental focus and mood in children and teens, respectively.

Using a validated assessment scale (NICHQ – National Initiative for Children’s Healthcare Quality) developed by Vanderbilt University and endorsed by the American Academy of Pediatrics, results showed meaningful improvements in both Symptoms (Attributes) and Performance following 30-days of supplementation with Kid’s Mood+