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Introduction: Obesity is a critical and growing problem throughout the world. Its worldwide prevalence has doubled between 1980 and 2014. Dietary management is one of the best options to prevent and manage obesity. This can be done by consuming edible plants rich in dietary fiber like *Grewia bicolor*.

Objectives: The aim of this study was to evaluate the protective effect of an aqueous extract (AE) of *Grewia bicolor* on some parameters of obesity in Wistar rats.

Method / Design: The AE of *G.bicolor* at a dose of 400 mg / Kg BW were administered to rats feed with high fat/high fructose diet. The rats were weighed and glycemia were measured every three days from the beginning to the end of experiment. After 21 days of treatment, the rats were allowed to twelve hours of fast and sacrificed. The abdominal fat was removed; plasma was used for the lipid profile.

Results: This study revealed that, the simultaneous administration of experimental diet and AE was observed to significantly decrease weight gain (variation of weight: $13,627 \pm 0.001g$), weight of abdominal fat ($242, 19 \pm 0.001g$), triglycerides ($202,224 \pm 1.752mg/dL$), total cholesterol ($108,474 \pm 12.633mg/dL$) and glycemia (variation: $6,25 mg/dL$).

Conclusions: These results suggest that the aqueous extract of the stems of *G. bicolor* could be effective in delaying obesity and its associated complications evolution.

Keywords: (maximum 5): Obesity, *Grewia bicolor*, body weight, lipid profile, glycemia.

149/1319. Could a smoothie, rich in nutrients and bioactive substances, improve school performance?

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Introduction: Fruits and vegetables contain vitamins, minerals and other bioactive substances, which are important for intellectual performance. In a previous study it was shown that approximately two third of the pupils were hungry the last lesson before lunch. The

average fruit and vegetable intake at lunch was much lower than the recommendations.

Objectives: The purpose of this pilot study was to investigate effect on attention and school performance of a vegetable smoothie, rich in berries, fruits and vegetables, served at the mid-morning break.

Method / Design: In total 250 Swedish children aged 10-12 years participated. The study was designed as a cross-over trial with two study periods of ten schooldays. The children were randomly divided into two groups and were administered either an active smoothie (smoothie 1; group A) or a fruit-based placebo with the same energy content (smoothie 2; group B). Both smoothies were designed to provide 5% of the daily energy. After a three week wash-out period, group A was administered smoothie 2 and group B, smoothie 1. Statistical tests were performed using SPSS package, version 22.0, using Independent-Samples T test. Analysis included processing speed (PTO), concentration performance (CP) and percentages of error (Ep) as assessed by the D2-test

Results: Preliminary analyses indicate that PTO and CP increased during the intervention period, whilst Ep decreased, for both groups. The effect was stronger in the group drinking the active smoothie, than in the group drinking the placebo. The effect might partly be caused by the addition of water and energy

Conclusions: Attention, and thereby also school performance, may be improved by mid-morning consumption of a smoothie containing water, energy and preferably nutrients and other bioactive substances.

Keywords: (maximum 5): School performance, fruit and berries

149/1328. Sports nutrition case-control study in the community pharmacy throughout a multidisciplinary approach

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Introduction: Currently there is a large population practicing sports as amateurs but highly demanding physically: runners, cyclists... The community pharmacists are healthcare professionals that have the closeness and availability of seeing them on a regular basis and with enough education and tools can do food counseling and provide personalized food supplements for better a physical performance.

Objectives: conduct a pilot study with an intervention group of runners where food counseling, advice on food supplementation and other lifestyle habits are provided. The results of their improvement