

No increase in nutritional knowledge of primary school children during the 1st and the 4th grade

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Rationale:

The number of obese school children in Germany increases (1). The aim of the study was to assess the potential need for nutritional training in primary school children. The aspect of different socio-economic environments was important for our school selection.

1) B.-M. Kurth · A. Schaffrath Rosario (2007): Die Verbreitung von Übergewicht und Adipositas bei Kindern und Jugendlichen in Deutschland. Bundesgesundheitsbl - Gesundheitsforsch - Gesundheitsschutz 50:736–743

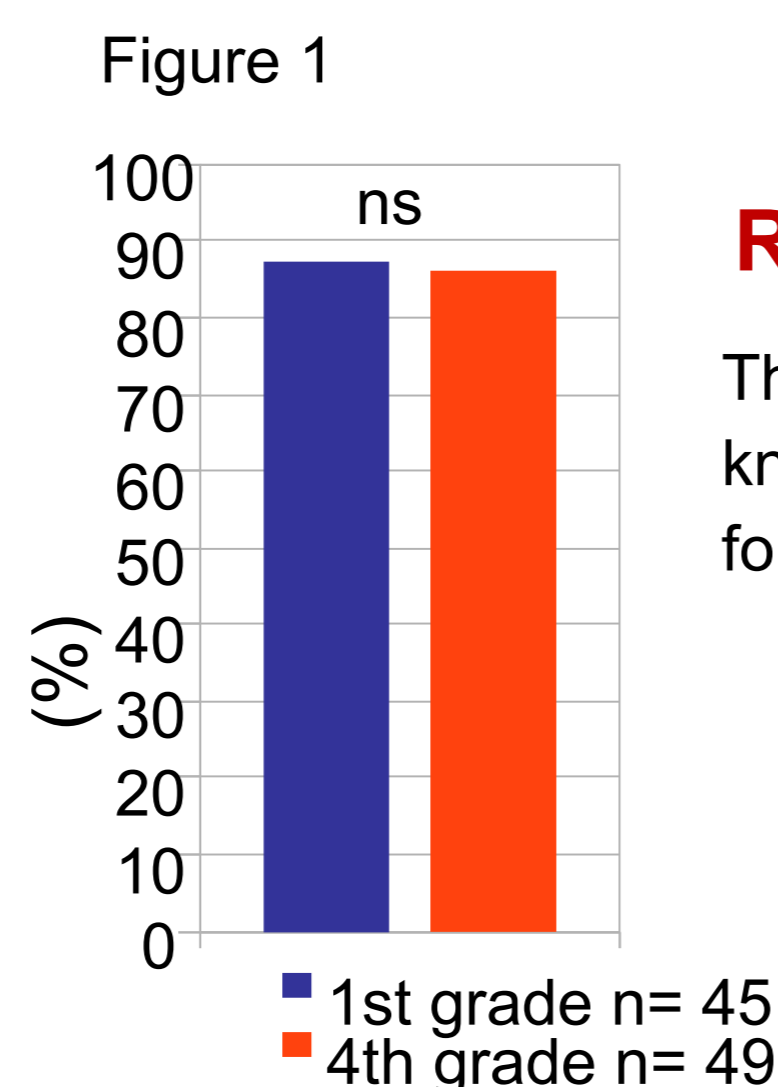
Methods:

A first and a fourth grade each in two different primary schools in Neubrandenburg were chosen. School West was situated in a higher socio-economic environment than School East. The school children (n=92) received a self-developed, age appropriate and anonymised questionnaire including eight food groups during regular school lessons and were asked to answer the questions by themselves immediately. The data were evaluated using SPSS v22 (IBM Corp, Armonk, NY, USA) and p values < 0.05 were considered to be statistically significant.

	School East	School West
1st grade		
number	22	23
age m(range)[y]	7 (6-9)	7 (7-7)
4th grade		
number	27	20
age m(range)[y]	10 (9-11)	10 (9-11)

m = median

Results:

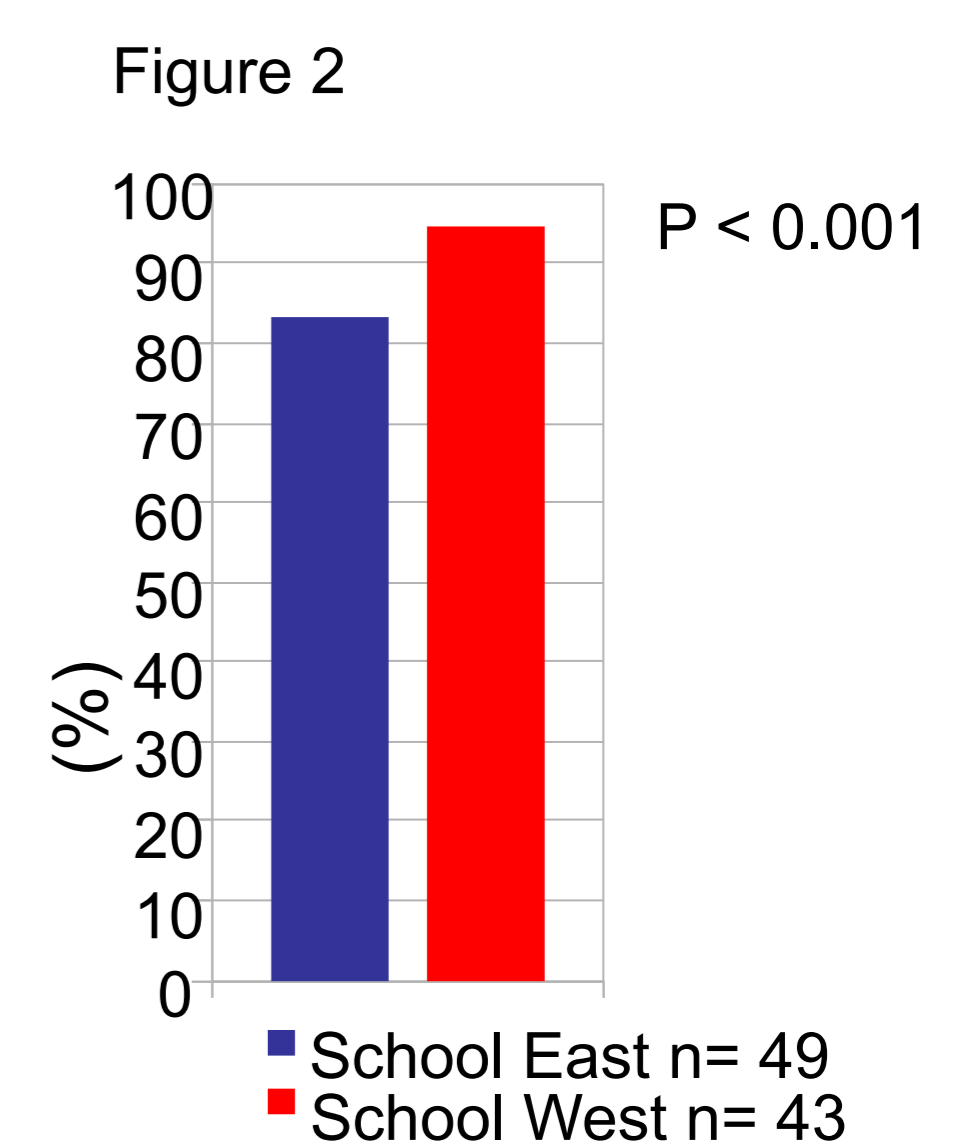


Result 1

There is no increase in nutritional knowledge during the first and the fourth grade.

Result 2

School West (higher socio-economic environment) scored significantly better than School East.



The results were summarized over all eight food groups and the percentages of correct answers are displayed in Figure 1 to Figure 3.

Result 3

Girls scored significantly better than boys.

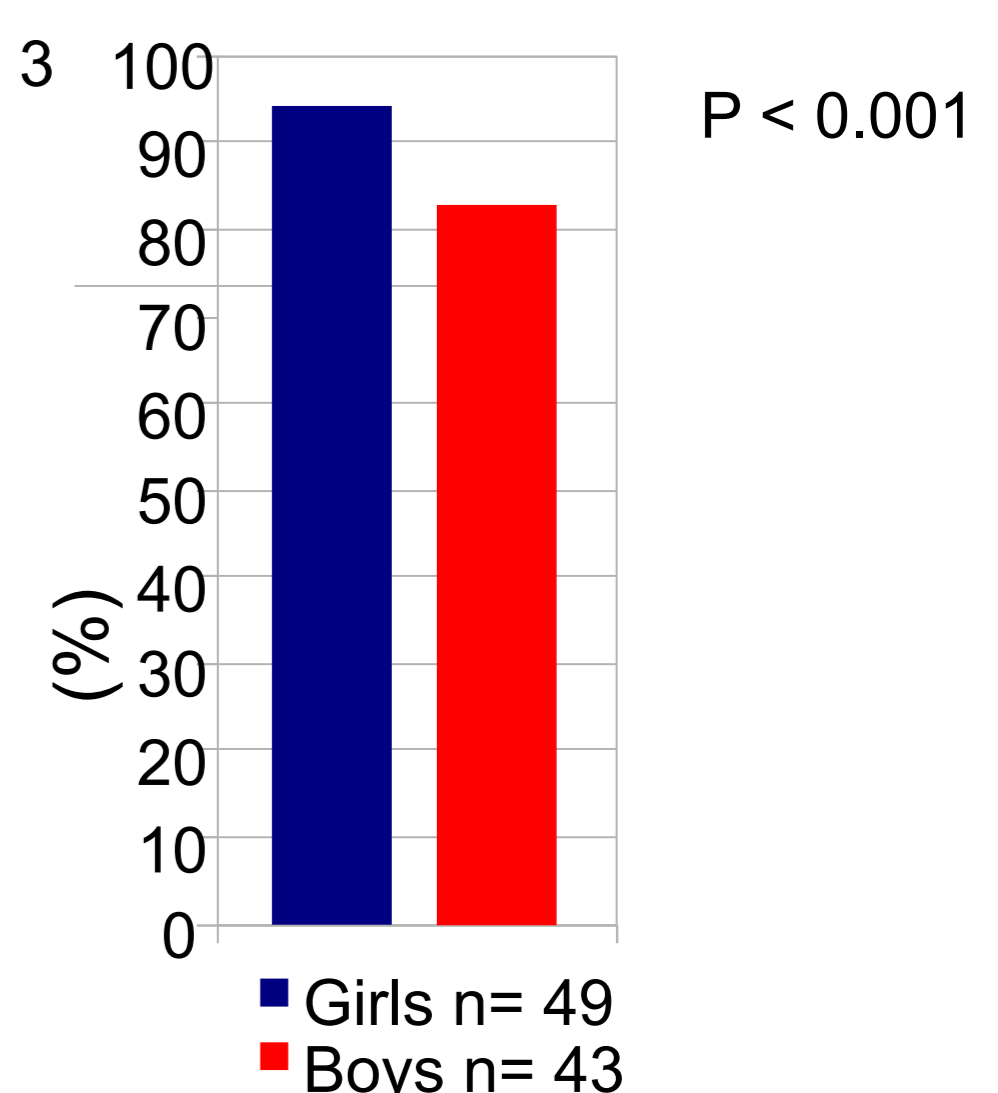


Table 1: Percentage of correct answers in School East compared to School West

The school children were asked to answer the following question for each food group:
Which of the two choices is better for your body?

School East n=49	76%	76%	86%	88%	76%	90%	88%	88%
School West n=43	86%	95%	93%	95%	95%	98%	98%	98%
P	0.069 ²	0.003¹	0.304 ²	0.078 ¹	0.003¹	0.033¹	0.031²	0.019¹

¹ one missing answer; ² two missing answers; ³ three missing answers

Conclusion:

The results point towards a significant need of nutritional training in primary school children, especially in boys and lower socio-economic environment. These aspects have to be considered if measures of nutritional intervention and prevention are planned.