Conclusions

Healthier lifestyles in childhood track into adulthood. Since better public health results from improved pupils’ health, it is crucial to start health-related education early, in kindergarten, and go through to university, offering healthy options at the same time.

This study will provide an important contribution to overcome the lack of information about plant-based diets linked to sport and exercise in Austrian schools. The findings could help to:
1) justify the need to consider this interdisciplinary but basic dual approach as a highly effective, safe and low-cost intervention to contribute improving pupils’ health,
2) encourage decision makers in education, such as federal/governmental authorities, principals, teachers and families to put this simple approach into action in everyday school scenarios, eg. the canteen and catering, Interdisciplinary events,
3) develop health-orientated action competence and sustainable action readiness relating to pupils’ health through competence-orientated education.

Future perspective: Since food and sports are both considered ‘medicine’, with this study the ‘super’ formula for better health might be applied in practice in Austrian secondary schools: "plant-based diet = [daily sports & exercise] = ’super’ medicine"

References


Acknowledgement & Contact

Research grant from TWF (Tiroler Wissenschaftsförderung), Austria. Supported by the Federal Ministry of Education, Science and Research (BMBWF), Austria.

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From Science 2 School: Sustainably healthy – active & veggy
Survey of the prevalence of vegetarian diets linked to sports and physical exercise among Austrian pupils, teachers and principals of secondary level I and II

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Survey of the prevalence of vegetarian diets linked to sports and physical exercise among Austrian pupils, teachers and principals of secondary level I and II

Katharina C. Wirnitzer

Background to Issue

Health is one of the major topics for human development and the future in education, matching the UN “Sustainable Development Goals”: No. 3 “Good Health and Well-Being” and No. 4 “Quality Education”

Physical inactivity and overweight have been identified as global health issues of urgent concern, ranked 4th and 5th risk factors of global mortality, with 6 % and 5 % of premature deaths respectively1,2. Additionally, among Austrian children/adolescents:

- 73 – 85 % fail to achieve 60 min/day of physical exercise [females > males]3,4,5
- up to 30 % are overweight/obese [males > females]3,4,5

At the same time, ‘veggy’ is booming in the public (main reasons: health, animal welfare):

- 10 % of Austrians eat vegetarian or vegan (880,000)6,7
- 44 % of < 24 yr-olds in the UK view ‘veggy’ lifestyles as cooler than smoking8
- up to 30 % are overweight/obese (males > females)3,4,5
- 73 – 85 % fail to achieve 60 min/day of physical exercise (females > males)3,4

Based on scientific evidence, the lifestyle factors and major pillars of sustainable health4,9,10:

1) diet, at best vegan, and
2) sports & exercise, at best daily moderate,
are key to health, good or bad4,9,10,11 through personal behavior and habits [40 yr]11.

However, only when these tools are permanently linked can the cumulative health effects be achieved by this ‘Healthy Eating – Active Living’ approach to health4,11,12.

Objective

However, there is no information about the trends on plant-based diets of pupils and teachers. Therefore, the goal of this study is to determine the prevalence of vegetarian and vegan diets linked to sports & exercise among Austrian pupils and teachers/principals. It is the first study to assess plant-based diets at Austrian schools of secondary level I and II.

Method

Approach: interdisciplinary, cross-sectional, representative (Austria, nation-wide):

- Mandatory: approval by 9 federal educational authorities & principals at 2,688 schools
- Basic sample size is 860,768 Austrians: 771,525 pupils & 89,243 teachers/principals
- Data collection: October 2018 – May 2020
- Short standardized online survey in German (2 different versions for pupils and adults):
  5 parts, with questions about: person, sports, nutrition, health, miscellaneous, including control questions to ensure reliable data
- Descriptive statistics (sex, age, BW/BMI, school level, diet, sports, urban vs. rural, etc.)
- Non-parametric ANOVA (significant differences among subgroups: p<0.05)
- MANOVA/regression analysis (associations between subgroups, effects of diet & sports)

Based on latest numbers and research, the following results can be expected:

1) 10 – 30 % prevalence of vegetarians/vegans in Austrian secondary schools
2) 64 – 90 % prevalence of insufficiently physically active pupils
3) 2 – 8 vegetarian and/or vegan pupils
4) 6 – 9 overweight and/or obese pupils
5) 24 – 36 % prevalence of overweight/obese children & adolescents
6) 16 – 18 pupils not achieving the minimum recommended physical exercise
7) 24 – 36 % prevalence of overweight/obese children & adolescents

Sample at 1 – 10 % response rate would be in total 8,607 – 86,076 participants:

7,715 – 77,152 pupils
892 – 8,934 adults

Results