Physical activity in childhood - the role of evidence

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Prise de position

Office fédéral du sport (OFSP)
Office fédéral de la santé publique (OFSP)
Société suisse de médecine du sport (SSMS)
Société suisse de pédiatrie (SSP)
Société suisse de santé publique (SSSP)
Réseau santé et activité physique Suisse

Sport, activité physique et santé des jeunes en Suisse

Mise à jour 2004 de la prise de position scientifique

Schweizerische Zeitschrift für Sportmedizin und Sporttraumatologie 52 (3), 124–130, 2004

Revue suisse de Médecine et de traumatologie du sport 47 (4), 175–179, 1999

Santé et pratique du sport pendant l'adolescence: quelques faits

Prise de position scientifique rédigée en commun par les partenaires suivants:
Office fédéral du sport (OFSP)
Office fédéral de la santé publique (OFSP)
Société suisse de santé publique (SGPG)
Société suisse de Pédiatrie (SGP)
Société suisse de Médecine du Sport (SGSM)
Réseau santé et activité physique Suisse
4 ‘Key Tasks’ of a Systematic Evidence-Based Approach to Promoting Physical Activity

- Using the evidence for the health benefits of physical activity to “make the case”
  What is the nature of the problem?

- Conducting surveillance to collect evidence on the prevalence of physical activity
  What is the problem’s extent?

- Reviewing evidence on ‘what works’ in increasing physical activity
  What is the most effective way to tackle this problem?

- Evaluating practice
  How can progress be monitored and evaluated?

Cavill N, Foster C, Martin BW, Oja P. 2005
Physical activity and health – effects in adults from international research

- Life expectancy
- Cardiovascular disease
- Diabetes
- Obesity
- Colon cancer
- (Breast cancer)
- (Prostate cancer)
- Osteoporosis
- Lower back pain
- Symptomatic gallstone disease
- Depression
- Stress tolerance
- Independence in old age

BM, 28.05.98
The Swiss HEPA recommendations

- Half an hour of moderate intensity physical activity or sports daily
- Cardio-respiratory fitness training: 3 times a week, 20-60 minutes
- Strength/Flexibility training: 2 times a week
- Further sports activities
Swiss Health Survey 2002
Physical activity according to age group

- Trained individuals report at least 3 days per week with vigorous intensity activities during leisure time
- Regularly active individuals report at least half an hour of moderate intensity activities on five days of the week
- Insufficiently active individuals report less or no physical activity
Monitoring of Physical Activity in Switzerland

Proportion of inactive individuals

- SHS (leisure time sweat episodes, all year)
- SHS (new moderate intensity items, all year)

Development of culturally adapted interventions for adults with study of effectiveness in Switzerland

- Workplace
- Primary health care
- Conscript Swiss Army
- Tourist region
- Human powered mobility

ongoing

Cavill N, Foster C, Martin BW, Oja P. 2005
Evaluation of large scale projects and programmes for adults implemented in Switzerland

- Majority of infrastructure (Swiss Hiking etc.)
- Majority of offers (sport clubs, fitness industry etc.)
- Vita Parcours
- Cycling in Switzerland
- SlowUp
- Allez Hop
- Active-online.ch
- Seed Money approach
Evidence-Based Approach to Promoting PA

- Evidence for health benefits: +++
- Surveillance: ++
- Effectiveness: +
- Evaluating Practice: (+)

Cavill N, Foster C, Martin BW, Oja P. 2005
Potential health effects

Direct health effects

- Obesity
- Osteoporosis
- Diabetes
- Cardiovascular disease
- Psychological effects

Tracking

- Health effects in adults
- Social effects
- Developmental effects
- Perceived risk

Quality of life

Physical activity in children

THE PEP – Physical Activity
Health Effects in international research

- Obesity
- Osteoporosis
- Diabetes
- Cardiovascular disease
- Psychological effects

Physical activity in children

Direct health effects

Tracking

Physical activity
Inactivity
Obesity

Quality of life

Social effects
Developmental effects
Perceived risk
Why is the evidence for health effects of physical activity in children (still) weaker than in adults?

- Physical inactivity -> chronic disease
- Positive and negative aspects of poor tracking
- Measurement of physical activity still in development
- Methodological limitations for complex outcomes (e.g. developmental effects)
PA recommendations for children (still under discussion...)

At least one hour of physical activity daily

Sports (Endurance, Strength, weight-bearing activities, other aspects...)

Further activities
Physical Activity Behaviour in Swiss Children
0-10 years

Physical Activity Behaviour in Swiss Children
The Swiss Pupils’ Study, 11-16 years, n=5103

- SPS Boys, <3 days per week with 60 min activity
- SPS Girls, <3 days per week with 60 min activity
Physical Activity Behaviour in Swiss Children
The SMASH Study, 16-20 years, n=7428

Physical Activity Behaviour in Swiss Children
National Travel Survey 2000, 6-20 years, n=4468

NTS Boys and Girls, percentage of trips to school with car

- 6-9 years: 8.1%
- 10-12 years: 4.6%
- 13-15 years: 6.3%
- 16-17 years: 9.8%
- 18-20 years: 21.5%
Physical Activity Behaviour in Swiss Children
The Swiss Health Survey, 15-20 years, n=808/703/1039

Physical Activity Behaviour in Swiss Children
The Swiss Pupils’ Study, 11-16 years, n=5103

Physical Activity Behaviour in Swiss Children
The SMASH Study, 16-20 years, n=7428

Physical activity time trends in Swiss Children

- (BMI) ↑↑
- (Fitness) ↓
- PA under 10 years
- Swiss Health Study (15-20y) 1992-2002
- PA Swiss Pupils Study (11-16y) 1998-2002 (↓)
- SMASH (16-20y) 1993-2002 ↑

Development of monitoring system under way (SCARPOL, recruitment, etc)
Development of culturally adapted interventions for children with study of effectiveness in Switzerland

- Kindergarten Evilard (👍)
- KISS study (AG, BL) in development
- Feelok.ch in development
- Other projects (GE etc) in development
Effectiveness of interventions applicable to children in international review

- Prompts to encourage stair use
- Community-wide campaigns
- School-based physical education
- Social support in community settings
- Access to places combined with informational outreach

Effectiveness of interventions applicable to children in international review

- Classroom-based health education focused on information provision
- College-based health education and physical education
- Classroom-based health education focused on reducing television viewing and video game playing

Evaluation of large scale projects and programmes for children implemented in Switzerland

- Majority of infrastructure (Playgrounds, sports grounds etc.)
- Majority of offers (sport clubs etc.)
- PE in school beginning
- Youth + Sports beginning
Evidence-Based Approach to Promoting PA

 Adults Children

- Evidence for health benefits +++ ++
- Surveillance ++ (+)
- Effectiveness + (+)
- Evaluating Practice (+) -

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- Public awareness of problem ++ ++++
- Need for action +++ +++