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Mental Wellbeing of Children and Youth – a shared responsibility

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WHAT DOES A FINNISH SCHOOL DOCTOR DO?

MD Bianca ARRHENIUS¹

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Background:

Required by law, Finnish school doctors mostly perform universal health check-ups to pupils in the first, fifth and eighth grade. In practice, school doctors are needed for a number of other tasks, but these are not firmly outlined or usually taken into account when providing the resources. We wanted to take a closer look on what kind of problems are evaluated and/or treated by the school doctor.

Methods:

We conducted a small follow-up study, in which a school doctor enlisted the following data during a two-month period in autumn 2013: type of appointment (check-up or other), health problems that occurred and the follow-up plan for the patient. 232 appointments were held in six different schools during this period.

Results:

Of all appointments, 88% were routine check-ups. The remaining part conducted of control visits, appointments due to the nurses' worries or appointments to assess mental health problems. Of all the patients, 12% received a referral to specialist care, 7% was referred to the laboratory and 2% to radiologic examination.

In 72% of all appointments, some health problem was assessed by the doctor. The most common problems were mental health problems (28%), obesity (18%) and neurological diseases or learning disabilities (15%).

Conclusion:

School doctors assess a variety of health problems during the routine check-ups and other appointments. Further research is needed to provide wider information on the school doctor's line of work and role in Finnish primary care.

SOCIO-ECOLOGICAL INEQUALITY AND ADOLESCENTS' HEALTH BEHAVIOUR: A LITERATURE REVIEW

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Background:

The purpose of this literature review was to identify and describe adolescents' health-related behaviours from a socio-ecological perspective. Socio-ecological factors are associated with health-related behaviours (smoking, alcohol consumption, physical activity and diet) in adolescence and have an impact on health inequality. The review integrates evidence on the family variables relevant to socio-economic status (income, affluence, education and occupation) and socio-ecological factors (social relationships, family structure, peers, schooling and environment).

Methods:

The data were collected from electronic databases and by manual search consisted of articles (n=91) published during 2002–2014. The selected articles were analysed using inductive content analysis and narrative synthesis.

Results:

We tentatively concluded that socio-ecological circumstances influence adolescents' health-related behaviour, but the role of socio-ecological factors seemed to be highly complex and partially controversial in adolescent health-related behaviour. However, there seemed to be certain socio-ecological key factors that had an association with health behavioural outcomes and increased the health inequality in vulnerable social groups.

Conclusions:

The findings suggest that social and environmental factors are strongly associated with health-related behaviour in adolescence, which is an important pathway to health. These results will help school teachers, nurses and other actors to understand the relationships between socio-ecological factors and health-related behaviours which may be useful in developing interventions to reduce both mental and physical health inequality in adolescence.

NUTRITIONAL STATUS AND EATING HABITS IN ASSOCIATION WITH MENTAL HEALTH OF UNIVERSITY STUDENTS IN EASTERN CROATIA

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Aim of this research was to investigate association between eating habits, nutritional status and mental health of university students in Eastern Croatia.

Data was collected through systematic examination of first-year students of 10 different faculties at University in Osijek in Eastern Croatia during academic year 2013/14. Body mass index (BMI), questionnaire containing Rosenberg's scale of self-esteem, short 6-item CES-D scale for depressive mood and questions regarding eating habits were obtained and analyzed.

Total of 1035 students were examined, 706 females and 329 males. Normal BMI had 68.7% of students, 10% were underweight, 15.7% were overweight and 5.6% were obese. Students have satisfactory eating habits, 49% eat breakfast every day and has a cooked meal almost every day. Only 1% of students never eats breakfast and rarely or never eats cooked meal. There was no significant difference in self-esteem and depressive mood or nutritional status with regard to eating habits. Adipose students have significantly higher self-esteem than all other students. None of adipose male students had low self-esteem. None of morbidly obese students had low self-esteem. Depressive mood was significantly more frequent among adipose females than among adipose males, which is probably result of higher pressure that females feel regarding physical appearance.

Adipose students have surprisingly high self-esteem which is not consistent with literature data that suggests that lack of self-esteem in the childhood is one of the causes of obesity. Association between eating habits and nutritional status or mental health was not established.

ASSOCIATION BETWEEN PHYSICAL ACTIVITY AND MENTAL HEALTH OF UNIVERSITY STUDENTS IN EASTERN CROATIA

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Physical activity has preventive role in anxiety and depression and has positive psychological effect on adolescents. Self-esteem is an image of our self and a foundation of mental health; it expresses our evaluation of our abilities, importance, success and competence. Low self-esteem is connected to passivity. Regular physical activity has positive effects on cognitive, emotional and physical abilities.

Aim of the study was to determine association between physical activity and mental health of university students in Eastern Croatia.

Data was collected through systematic examination of first-year students of 10 different faculties at University in Osijek in Eastern Croatia during academic year 2013/14. Students completed questionnaire containing Rosenberg's scale of self-esteem, short 6-item CES-D scale for depressive mood and questions regarding frequency and type of physical activity.

Total of 1035 students were examined, 706 females and 329 males. 84% of students walk at least 1 hour a day and 77% of students practice recreational sports at least 1 hour a day. Male students are significantly more physically active than female students. Only 5% of students are completely physically inactive and almost all are females. Low self-esteem was associated with physical inactivity. Association between depressive mood and level of physical activity was not determined.

Our study confirmed that exercise encourages a positive self-esteem and improves mental health. Promotion of physical activity should be used as a public health measure in mental health campaigns in Croatia.

THE YOUTH NURSE MATTERS!

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Youth (- or school-) nurses play a crucial role in the preventive healthcare of children and young people. Together with the parents and other healthcare workers, they make a positive contribution to the health, development and wellbeing of children and adolescents. The cornerstone of their pro-active and preventative interventions is a concern over the wellbeing of young people. School nurses are therefore a pivotal part of the youth healthcare system and their role requires a wide range of competencies. At the moment there are big differences throughout Europe in the input and responsibilities of school nurses. Recently, nurses in the Netherlands and Flanders have drawn up a detailed 'profile/area of expertise' of the youth nurse. This profile describes key tasks and responsibilities, ordered according to the CanMed rolls and coupled to specific competencies. The aim of the workshop is to bring together professionals of different countries to discuss the specific tasks and responsibilities of nurses in Youth Health Care. Can we find common ground within Eusuhm to develop a 'profile' of the Youth Healthcare Nurse? How do we approach the required competencies of the Youth Healthcare Nurse both at the beginning and in the course of their careers? What are the challenges for the future? We would like this workshop to be the start of an international cooperation with the aim to develop our profile. We believe that sharing information, working together on scientific research projects and striving for uniformity will enhance the quality and efficacy of our profession.

MIXED DISORDER OF CONDUCT AND EMOTIONS: SCHOOL DOCTOR VS. PSYCHIATRIC TREATMENT, CASE REPORT

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A 13-year old boy and his adoptive mother visit a school doctor seeking help before he fails 6th grade for a second time and before Social Services takes him to foster home. He was adopted at the age of 11 by a single mother. At the age of 7 he was taken from his biological parents and spent 4 years in different foster families where he began to express behavioral problems. Bonding with adoptive mother was difficult. He became violent towards mother and destructive of material possessions in the house-hold. He refused to study and after a while he even refused to go to school. He stayed home playing internet games, neglecting personal hygiene and social interactions. Mother sought help from adolescent psychiatrist and Social Services. However, the child's behavior and their relationship deteriorated. He failed 6th grade of primary school. Social services took him for observation by a multidisciplinary team. They recommended that the child should be taken from the mother and placed in the foster family with a dominant male foster parent. Mother took the child to different psychiatrists, who tried treatment with different antidepressants, antipsychotics and their combinations, without effect. The school recommended consulting a school doctor who started counseling the boy and the mother, coordinating actions with psychiatrist, school and Social Services. Computer was confiscated and locked in doctor's office. The boy started attending school, studying, playing sports, socializing with friends without pharmacotherapy. The key to success was cooperation with parent and school, coordination and networking.

MENTAL HEALTH PROMOTION - PRACTICES AND RESOURCES OF SCHOOL HEALTH CARE STAFF IN NORTH KARELIA, FINLAND AND THE CITY OF PETROZAVODSK, REPUBLIC OF KARELIA, RUSSIA

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School healthcare plays a central role in promoting the physical and mental health of children and adolescents. However, the workers may lack the resources or skills. This study investigated the practices and resources of school health care workers in relation to mental wellbeing of pupils in North Karelia, Finland and in the Republic of Karelia, Russia. Thirty school nurses in North Karelia (response rate 57%) and 33 feldshers or general nurses in the City of Petrozavodsk, Republic of Karelia (response rate 97%) participated in the survey. The data was analyzed with descriptive statistics.

The school healthcare workers in Republic of Karelia were responsible for bigger groups of pupils than school nurses in North Karelia. The working time was spent mainly on health check-ups and paperwork. Mental health issues covered often in both countries included the importance of sleep, rest and physical exercise, and daily rhythm. Mental problems were seen as a threat for primary school-aged children by 17% of Finnish and 42% of Russian respondents, in secondary school age they worried even bigger shares of respondents (47% and 55%, respectively). The respondents expressed a need for further training especially in helping pupils with multiple problems, mental problems of children and adolescents, and early intervention.

Lack of time, responsibility for big groups of pupils and inadequate skills may decrease the possibilities of school healthcare workers to address mental health issues. Further education for school health workers is needed in this field.

ETHNIC DIFFERENCES IN TRACKING PATTERN OF BMI BETWEEN DUTCH, TURKISH, MOROCCAN AND SOUTH ASIAN CHILDREN FROM 3 THROUGH 15 YEARS OF AGE: A HISTORICAL COHORT STUDY

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Background:

The aim of this study is to determine the degree of tracking of BMI in contemporary Dutch, Turkish, Moroccan and South Asian children from 3 through 15 years of age living in the Netherlands, and to determine tracking patterns in thin, normal weight and overweight adolescents aged 13-15 years.

Methods:

Historical cohort study of 7625 children born 1994-1997 with a total of 24376 measurements. BMI z-scores and BMI classes were calculated with universal and South Asian specific BMI criteria. The association between BMI z-scores at different ages was analysed with Pearson's correlation coefficients and linear mixed models. Sensitivity, specificity, positive predictive value, and negative predictive value were calculated.

Results:

The correlation between the BMI z-score at 13-15 years with that at a younger age increased in all ethnic groups with age, from 0.56-0.58 at 3-4 years to 0.80-0.85 at 7-10 years ($P < 0.001$). Especially South Asians differed in tracking patterns compared with Dutch, Turkish and Moroccan children but differences largely disappeared when ethnic specific BMI criteria were applied. The sensitivity of overweight status at 3-4 years for overweight at 13-15 years was low (0.27-0.47), whereas the positive predictive value was already moderate to high (0.55-0.87) and remained fairly stable with age within the ethnic group. The sensitivity of thinness at 3-4 years was generally low (0.25-0.40) as well as the positive predictive value (0.07-0.21).

Conclusions:

This study found ethnic differences in tracking of BMI and BMI class. In all ethnic groups overweight (but not thinness) highly tracks into adolescence. A considerable proportion of overweight develops between the age of 5 and 10 years after which less children shift to another BMI class.

TO SCREEN OR NOT TO SCREEN FOR ADOLESCENT IDIOPATHIC SCOLIOSIS?

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Background:

Over the years, there has been much debate about the desirability and efficacy of screening for adolescent idiopathic scoliosis. One of the reasons for debate was inconclusive evidence for the efficacy of brace treatment. A recent publication showing brace treatment to be effective gave rise to renewed evaluation of the literature.

Methods:

We performed a literature search from January 2000 until February 2014 for systematic reviews or guidelines on screening for adolescent idiopathic scoliosis. We evaluated if screening for adolescent idiopathic scoliosis fulfils the criteria of the UK National Screenings Committee for appraising the viability, effectiveness and appropriateness of a screening programme.

Results:

Adolescent idiopathic scoliosis is a relatively frequent condition with an unpredictable natural history. The optimal age and frequency of screening are unknown; it is not possible to predict which patients will need (conservative or surgical) treatment. The Forward Bending Test has a positive predictive value of 2.6% and a sensitivity of 56% (95%CI 23-88%) for (conservative or surgical) treatment, and is therefore not valid enough for use in a screening programme. There seems to be sufficient evidence that brace treatment is effective for preventing progression of adolescent idiopathic scoliosis. It is not clear if screening is cost effective.

Conclusions:

Despite the evidence that brace treatment is effective for preventing progression of adolescent idiopathic scoliosis, the benefits from the screening programme do not outweigh the harms. From a Public Health point of view, there is not enough evidence to support a screening programme for adolescent idiopathic scoliosis.

GUIDELINES IN PREVENTIVE YOUTH HEALTH CARE: LESSONS LEARNED AND POSSIBILITIES FOR INTERNATIONAL COLLABORATION

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Background:

Guidelines can be defined as documents with recommendations aimed at improving the quality of care and uniformity. They are based on systematic reviews of evidence and an assessment of the benefits and harms of various care options, complemented by expertise and experiences of professionals and patients. Guidelines for Preventive Youth Health Care (PYHC) are developed since 1997 in the Netherlands and since 2001 in Belgium (Flanders).

Methods:

The Dutch and Flemish process of guideline development and experiences will be presented. We will discuss potential problems in the process of developing and implementing guidelines. Amongst other problems, evidence for PYHC themes can be scarce, coming to an agreement is often time consuming, and the implementation is often challenging.

Results:

Since 1997, 29 guidelines have been developed: 22 in the Netherlands and 7 in Flanders. The guideline development process has been adapted during the years. A framework has been developed that connects development, implementation and evaluation of the actual use of the guidelines. Also, a measurement instrument for determinants of innovations has been developed.

Conclusions:

The Netherlands and Belgium (Flanders) have a long experience in developing guidelines for PYHC. After presenting our experiences in developing and implementing guidelines, we would like to discuss international experiences and best practices during an interactive session. The workshop is meant for PYHC providers, policy makers, researchers and guideline developers. The goal of the workshop is also to explore the options for collaboration on a European level.

TOOL FOR EARLY IDENTIFICATION OF SPECIFIC LANGUAGE IMPAIRMENT

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Background:

A primary developmental language disorder or Specific Language Impairment (SLI) is with a reported prevalence of 2 to 12 % one of the most common developmental disorders. Early identification will improve the well-being and chances for optimal development of these children. In the Netherlands we have an extensive program for well-child care, but still we have evidence not all children with SLI are detected and not all children with SLI are detected at an early age. Therefore, a tool was developed with decision rules based on language milestones at the age of 2 and 2½ years.

Methods:

We used data from a nested case-control study, where cases were children attending special needs schools for severe speech and language difficulties in the Netherlands. These were matched for gender and date of birth with children attending main stream education as controls. Data on language milestones of 254 pairs of children with and without SLI were collected from the records of well-child care. For establishing the predictive properties of the tool a main scenario and 2 additional scenarios close to the rules of the protocol of the tool were developed and applied on our data.

Results:

We will present the sensitivity, specificity and positive predictive value for predicting SLI for the 3 scenarios.

Conclusions:

Based on the findings we will discuss if the tool is suitable for identifying children with SLI at the age of 2 and 2½ years in well-child care.

FOOLLOW UP STUDY OF THE CHILDREN WITH SPECIAL NEEDS INTEGRATED IN SCHOOLS AND KINDERGARTENS IN ZAGREB, CROATIA

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Integration of the children with special needs in regular schools and kindergartens are the most important issue for their future development and better life quality according to the up to date literature. Inclusion in healthy surrounding seems to be better solution not only for the children with special needs, but also for the other children to have opportunity to respect the differences.

The purpose of this paper was to show on which levels the children are integrated, what are the possibility to realise more then they can get (community support, actions...). For that purpose we included 17 children (from 1. to 8.th class) and 9 preschool children integrated in regular school and kindregartens. This children have different diagnoses but mostly from the field of mental health such as ADHD, Autiyasam, MR, Disfuncton of CNsystem etc.

We followed up retrospectively (8 years) and prospectively (1 year) trying to show how they develop according to their succes in school or some kind of special outcomes of multidisciplinary teams in kindergarten. The socialization of those children showes better and faster development, and better life quality, we also wanted to show how is important are collaboration with parents, social services and community.

BOTTOMS UP- SIT LESS - FEEL BETTER

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The project was instigated by the prevalence of neck and lower back problems, as well as obesity and the illnesses associated with it, among the staff and students at the University of Turku, Finland. All of the above-mentioned problems are related to long periods of sitting. The issue was considered by the Turku FSHS and University of Turku Sports, and the decision was made to instigate a project designed to inform students and personnel about the risks associated with excessive sitting. The aim of the project was to get the students and personnel to reduce the time they spent sitting and actively take breaks from it. Standing up needs to be an acceptable part of lectures and work.

The Bottoms Up project also aimed to impact spatial design enabling standing while studying and working. Reducing the time we spend sitting helps promote wellbeing and weight management, as well as alleviates musculoskeletal ailments.

The campaign produced posters and brochures to raise awareness. In the end of 2014, the effectiveness of the campaign was evaluated. The results indicated that the campaign was considered necessary, many people began to think how much they sit, and many reduced the time spent sitting. Break workout was considered refreshing between lectures or the working day. Some lecturers began to raise students up for a moment during the lecture. The projects was funded by FSHS, Varma Mutual Pension Insurance and THE University of Turku.

The campaign will continue in 2015.

PREVENTION OF MENTAL HEALTH PROBLEMS IN DEVELOPMENT OF CHILDREN AND ADOLESCENTS

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The growing environmental influences are placing ever greater demands on the substructures of personality, particularly affecting the interpersonal relationships which hinder socio-environmental adaptation.

An analysis of correlation between the severity of mental health problems and psychophysiological characteristics at each stage of the educational process was carried out to investigate the relationship of mental health problems with the features of psychophysiological, psychosocial and personal development of students.

220 secondary school students in Moscow schools were included in comprehensive longitudinal study which continued the study of the same set of students after leaving primary school.

The assessment of mental health problems of the children and adolescents was based on the integrated approach using clinical, psychological, and social-psychological methods, which showed main mental health problems.

The correlation analysis revealed a clear "negative" relationship of the symptoms of mental health problems in the adolescents with the development of psychomotor system, with the development of cognitive functions, with the emotional sphere, with the sociometric status and emotional expansiveness, with adjustment to the educational process, with the students' success in school.

The comparative analysis of the data obtained in comparison to long-term studies conducted at the Institute, and to the results of international studies demonstrated that the quality of adaptive mechanisms which help the individual adjust to the environment conditions was crucial for the state of neurological and mental health of children and adolescents. Therefore the special role and responsibility of the family and family education in the raising of a healthy generation is evident.

COLLABORATION WITHIN SCHOOLS: THE ROLE OF FINNISH SCHOOL DOCTORS

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Background:

In Finland, the framework for school health care is outlined by law. A school doctor and a nurse work side by side; the nurse meets every pupil annually and the doctor participates in the health check-up 3 times during the 9-year comprehensive school and once during secondary education. In practice, school doctors are needed also for other tasks. In the city of Helsinki, we evaluated how school doctors themselves prioritize these tasks.

Methods:

There are 25 full-time vacancies for doctors in the Helsinki school and student health care. Nine doctors participated in brainstorming sessions that generated a list of duties in order of importance. The list was then consummated by the meeting of all school doctors.

Results:

In addition to health check-ups of pupils at certain ages, school doctors are required

- to organize extra appointments according to parental, nurse's or teachers' worries,
- to assess mental health problems of children and adolescents,
- to participate in multidisciplinary meetings for children at risk of social exclusion,
- for control visits after specialist consultations, and
- to ascertain appropriate continuation of care.

Holistic health check-ups were considered valuable. Yet nearly all clinicians prioritized the listed tasks over routine health check-ups.

Conclusion:

School doctors' work is composed of more than routine health checks, and sufficient time should be provided to cater for the children in greatest need.

PROGRAMME FOR FINNISH PHYSICIANS TO GAIN SPECIAL COMPETENCE IN ADOLESCENT HEALTH

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Background:

The needs of adolescent patients are often overlooked in health services aimed at children and adults. However, individual physicians of different medical specialities are willing to gain expertise in treating adolescents.

Methods:

The Finnish Association for Adolescent Medicine was founded in 2012. The first task of the Association was to establish a programme for special competence in adolescent health. Physicians who have completed the training programme may be called Adolescent Health Specialists. The programme was accepted by the Finnish Medical Association in June, 2014. (<http://nuorisolaakarit.yhdistysavain.fi/erityispatevyys/programme-for-special-competence/>) To complete the programme, a physician has to work at least two years in tasks mainly concerning adolescents. Practical training may take place at any health care unit where at least half of the visitors are adolescents. Applying physicians must have at least 3 months of work experience outside of their own field of specialty. At least 80 hours of theoretical training is also required. To demonstrate their competence, the applicant composes a portfolio including 10 written case reports encompassing discussion and appropriate scientific references. A committee appointed by the Finnish Association for Adolescent Medicine is responsible for evaluating of the applications and supporting the competence.

Results:

The Finnish Association for Adolescent Medicine now has 61 members. By the end of 2014, the first nine special competencies were granted. Interest towards the programme has been great.

Conclusions:

We hope that the new special competence programme increases awareness of adolescent medicine and leads to more youth-friendly services in the future.

COMPETENCIES IN DEVELOPMENTAL ASSESSMENT IN YOUNG CHILDREN: DESIGN OF AN EDUCATIONAL PROGRAM FOR YOUTH HEALTH CARE PROFESSIONALS BASED ON WHOLE-TASK LEARNING

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Background:

Early identification of developmental disorders is critical to the well-being of children and their families. Therefore, developmental surveillance should be part of every well-child preventive visit. It involves the assessment of motor, sensory, mental and emotional maturation, together with the detection, investigation, and management of children with abnormal development of these functions.

To develop these competencies a learning environment is needed that confronts learners with realistic authentic tasks where they learn to apply these competencies. The Four Component Instructional Design (4C/ID)-model aims at fostering the acquisition of competencies. The aim of this study was to design a prototype for a 4C/ID-based learning environment in the training of Youth Health Care (YHC), and to assess its applicability.

Methods:

After deriving learning objectives from YHC professionals' daily tasks, the supportive and procedural information was defined (document, videos...). Everything was integrated in an electronic learning platform. Assessment of the environment learning occurred through an electronic evaluation survey and analytics of students' activities.

Results:

To date five modules have been developed and implemented in a pilot version. The following topics were included: (i) risk and protective factors of early childhood development, (ii) parental contribution to developmental surveillance, (iii) primitive reflexes, postural reactions, tonus and position, (iv) fine and gross motor development, and (v) evaluation of neuromotor function. In general, students confirm that the program stimulates learning and challenges to solve real-life situations.

Conclusions:

Designing a learning environment according to the 4C/ID model helps to the acquisition of relevant competencies in YHC.

VISION SCREENING IN FLEMISH SCHOOL HEALTH SERVICES: REPORT OF COMPUTERIZED REGISTRATION SINCE 2005

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Background:

In the year 2003, a guideline for detection of visual impairments in schoolchildren was endorsed by the Flemish Government and progressively implemented in all school health services in Flanders. This guideline focuses primarily on the detection of amblyopia and colour vision deficiencies. With regard to the evaluation of visual acuity, test procedures using a logarithmic scale and with a “crowding” presentation are recommended for children ≤ 8 years (Kay 3m Crowding Book or Keeler LogMAR 3m Crowded Test). In 2005, linked to full implementation, computerized data registration was started.

We aim to present data on impaired visual acuity in 3 and 4 year olds (kindergarten), and to evaluate the application of the recommended age-specific test procedures in school health services according to the guideline.

Methods:

Data from nearly entire birth cohorts were analysed for the registration periods 2005-2008 and 2010-2013 respectively, and time trends examined with regard to visual acuity, with special focus on test procedures and referral rates.

Results:

During both registration periods, recommended test procedures were highly implemented, with more than 99% of 3 and 4 year olds tested with one of both logarithmic crowding tests. At the age of 3 years 6.7%-7.8% was directly referred because of impaired visual acuity, and 1.0%-2.5% was retested 3-6 months after a first unreliable attempt. At the age of 4 years the respective proportions were 8.2%-8.6% and 0.3%-0.6%.

Conclusions:

Implementation of the guideline was successful, and referral rates of visual acuity impairment are in accordance with expected rates.

SCREENING AND TREATMENT OF CHILDHOOD OBESITY IN SCHOOL HEALTH CARE IN FINLAND; PRELIMINARY RESULTS OF OBESITY INCIDENCE, CONTINUITY AND RISK FACTORS

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Background:

The study aims to identify issues complicating screening and treatment processes for childhood obesity by analyzing school health care professionals' actual day to day routines. This first part examines the prevalence and development of obesity as well as social and behavioural characteristics of overweight.

Methods:

Finnish standards define overweight as 20-40% and obese as above 40% over the average weight of boys or girls of similar height. From a retrospective cohort of 2000 randomly selected Helsinki sixth graders (spring 2013, ages 12-14) we identified children who were measured overweight or obese once or more since their first grade. From the children's electronic patient records we manually analyzed all pre-seventh grade health checks.

Results:

Of the 2000 pupils, 402 were overweight and 172 obese at least once during the six grades. Of the obese children, 39% were obese and 49% overweight in first grade and 55% obese and 25% overweight already in pre-school checks. Overweightness or obesity was measured in four or more grades for 89% of the obese children.

Of analyzed characteristics, more common in the obese than in the overweight pupils were family crisis (20% vs. 11%, $p=0.005$), special needs for studying (26% vs. 14%, $p=0.001$) and bullying (44% vs. 31%, $p=0.003$).

Conclusions:

Long lasting childhood obesity seems to develop in early age and is related to other challenges in the child's and her family's wellbeing. The results address the need to recognize those at risk of obesity as early as possible.

COGNITIVE AND BODY ORIENTED SHORT-TERM GROUP THERAPY FOR STUDENTS WITH OBSESSIVE COMPULSIVE DISORDER (OCD)

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Background:

The aim of the study was to evaluate if the students with OCD (obsessive compulsive disorder) could benefit the short-term group therapy with elements of cognitive therapy, body oriented therapy and the peer group support.

Methods:

Seven students with OCD were chosen to short-term therapy group by an interview. The group with two therapists met in the Students Health Service in Turku during 10 sessions. The intervention method will be presented. The participants filled in self-report questionnaires at the beginning and after the group therapy process. The questionnaires were CORE (psychological distress questionnaire) and SPIN-FIN (social phobia questionnaire). The students filled in also the Feedback questionnaire after the group therapy process.

Results:

According to the students feedback the experience of the group therapy was positive. Elaborated results will be presented.

Conclusions:

This was the first time this kind of group intervention was used. According to preliminary remarks the short-term group therapy with the elements of cognitive and body oriented therapy and peer group support is effective increasing psychological wellbeing of the students suffering OCD. More information and experience of the future groups are needed to improve the method.

MENTAL HEALTH CONCERNS OF INTERNATIONAL STUDENTS UNIVERSITY OF ZAGREB IN CROATIA

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Background and aim:

International students on the University of Zagreb are diverse and increasing population. Demands for cultural adjustments frequently place international students at greater risk for psychological problems compare to than are students in general. The aim of this study was to analyze the reasons for utilization of existing counselling service by international students regarding mental health issues.

Subjects and Methods: Data from medical records of 56 international students who visited counselling service because of mental health during the year 2014 were analyzed by descriptive statistic. The chi-square test was used to determine difference between sexes.

Results:

Help due to mental and behavioural disorders was required more by girls than boys (39 vs. 17). The most common reasons were adjustment disorders, present in 12 students, specific (isolated) phobias (seven students) and nonorganic insomnia (six students). Adjustment disorders (seven vs. five) and specific phobias (six vs. one) were present more in girls than in boys. Nonorganic insomnia had three boys and three girls. There was no statistically significant difference between sexes. Schizotypal disorder, predominantly obsessional thoughts or ruminations and post-traumatic stress disorder were present in equal number of students (four). Schizotypal disorder and predominantly obsessional thoughts were present only in girls (four) and post-traumatic stress had one boy and three girls.

Conclusion:

The results highlighted the importance of sufficient and readily accessible counselling health services for international students with holistic, preventive and optimistic approach.

SELF ESTEEM AND RISKY BEHAVIOURS IN FIRST YEAR MEDICAL STUDENTS UNIVERSITY OF ZAGREB IN CROATIA

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Background and aim:

The aim of this study was to assess presence of risky behaviour in first year medical students regarding level of self-esteem.

Subjects and Methods:

We analyzed data of 262 first year medical students (70% females). Data was collected by questionnaire and analyzed by descriptive statistics.

Results:

Very high self-esteem (Rosenberg Self-Esteem Scale) had only female (N = 104) and low had only male students (N = three). Normal range of self-esteem had 74 male and 79 female students. Significantly more male students smoked experimentally than female (33. vs. 22, $P=0.04$) whereas more female than male students smoked every day (13 vs. eight, $p=0.005$). Significantly more male than female students drank alcohol (63 vs. 39, $P < 0.001$). Female students with high self-esteem smoked significantly less than those with normal (eight vs. 13, $P=0.013$). Three or more sexual partners in one year had two female students with high and none with normal self-esteem. Male were significantly more sexually active than female students (48 vs. 36, $p=0.009$) and had more than one sexual partner (17 vs. four, $P=0.007$).

Conclusion:

Results of this study show difference of risky behaviour between sexes within same self-esteem level and between levels of self esteem separately for male and female students. The results imply that screenings of risky behaviour and mental health in student population should be provided within health services available for students and therefore promotion of healthy life style.

PREVENTIVE YOUTH HEALTH CARE IN THE NETHERLANDS: EFFECTIVE AND UNIQUE. TIME TO EXCHANGE EXPERIENCES.

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Background:

Preventive youth health care (PYHC) started in the Netherlands more than 100 years ago. It is a unique system in which all children aged 0 to 18 years old, are offered preventive care free of charge. Children are seen by physicians and nurses specifically trained for PYHC.

Methods:

Traditionally, all children receive about 15 routine health assessments organised by the local PYHC organizations. In the Netherlands these are not obligatory, but the reach is 90-95%. In these visits children are offered the following: immunization, systematic screening for several disorders (such as visual, cardiac disorders or psychosocial problems), a physical examination, giving advice and minor interventions. In comparison to the start of PYHC, when hygiene and medical problems were main themes, nowadays more focus is on mental health disorders and lifestyle issues. The organisation of PYHC is changing as well: more attention is paid to the family's specific needs and task shifts between disciplines is taking place.

Results:

It has been studied that PYHC is cost-effective. It is found that every euro invested in PYHC for physical care saves 11 euros in later costs of care, and that every euro invested in help for nurturing, gives a three to five times return on investment.

Conclusions:

It is studied before (Wieske 09), that within all EUSUHM countries, big differences exist in the way PYHC is organized, if it is organized at all. We would like to exchange examples of PYHC through the countries in order to learn from each other.

HIGH SCHOOL ENROLLMENT OF CHILDREN WITH DEVELOPMENTAL DISABILITIES IN SPLIT AND DALMATIAN COUNTY, CROATIA

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Introduction:

The analysis of decisions concerning developmentally appropriate school program for children with developmental disabilities in the final year of primary school and during high school enrollment, for the school year 2013/2014, in Split and Dalmatian County, Croatia.

Aim of study:

To determine the type of disability and the age of pupil when the decision on the developmentally appropriate school program was received, as well as the type of high school enrolled.

Methods:

In the cross-sectional study, the results processing for children with developmental disabilities were presented. The data were obtained from 4900 preventive medical records in the last grade of elementary school.

Results:

Among the last grade of elementary school pupils there were 4,53% (n=222) of pupils with developmental disabilities, having received decisions on developmentally appropriate school education was found.

Out of 222 pupils with developmental disabilities, 61.71% were provided with an individual education program, 35.13% with an adjusted program, while 3.15% pupils were provided with a special program. According ICD-10 to qualification, diagnoses were following: 82,43 % with Dg F81-94, 5,40 % with Dg F70-F71, 8,10% with Dg G40-G83, 1,35% with Dg Q90 and 2,7% had sensory disturbances. All pupils were in the process of counseling/treatment of the Center for Career and Professional Development. 74.77% children enrolled vocational high schools with the duration of three years, while 25.23% enrolled the four-year high schools.

Conclusion:

Specific school program implementation, introducing professional rehabilitation procedures and counseling of children is essential to enable efficient school education of children with disabilities.

THE IMPORTANCE OF PREVENTION OF ADOLESCENTS' SUICIDE

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Suicide and suicidal behavior is one of the most important causes of death among adolescents from 10 to 19 years age.

Aim:

Evaluation, observation and recognition of possible risk factors its correlation with suicidal ideation and attempts have significant influence for prevention of suicide.

Methods:

The relationship between suicidal ideation and attempts, family and school environment, person characteristics and various risk behavior were examined among 3080 adolescents aged 10 to 19 years. Students filled up anonymous questionnaire. We analyzed all suicidal cases with or without previous suicidal attempts. Data from medical records, interview of attempters, close relatives and friends deceased were used.

Results:

Girls attempt suicide more often than boys, but boys are three times more likely to succeed in their suicide attempts. Younger adolescents more likely have only suicidal ideation versus actual attempts. Significant association persisted between suicidal attempts and stressful life events, low social status of family, parental psychiatric disorders, school bullying, substance abuse. Low parental monitoring, lack of family relationship and risk behaviors are associated with increased risk of suicidal ideation and attempts. Overdose of medication is most common methods for suicide in girls. Impulsive behavior in boys is more apt to act on suicide. The most effective way to prevent suicide is to recognize the risk factors for suicide take warning sign seriously and respond with adequate prevention measures and intervention.

Conclusion:

Suicide of adolescents have to studied multidisciplinary.

SCHOOL NURSE PROMOTING STUDENTS' MENTAL HEALTH

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About one in five of person under the age of 18 experience somekind of developemental, emotional or behavioural problem and one in eight has diagnosed mental health problem (Aldinger et al 2008; CAMHS 2005; WHO 2005). In Estonia children´s mental health problems are not well detected and not much has done in the terms of inverventions for promoting mental health. (Kooltervishoiu näitajad 2009 II PA; 2010 I PA).

The aim of the research firstly to describe factors of influence of mental health and secondly to describe nursing interventions promoting mental health. This research is the theses (lõputöö) of the student of Tallinn Health Care College in 2012. It is an overview of 52 different evidence based literature. The key words: school nursing interventions, promoting mental health. The interplay of protective and risk factors play important role of development of mental health. The significant protective factor is personal resilience (Alperstein et al 2003). School nurse has important position promoting mental health, she is trusted and accessible at school. Promoting mental health at school has three spheres: the general health promotion; second is indicative in which adequate help is given to students who does not meet diagnosed mental health criteria, but have emotional and behavioural problems; and thirdly treatment in cooperation with specialists and families (Aldinger et al 2008).

School nurse role is multi-dimensional. School nurse screens children mental wellbeing; consults students; communicates and cooperates with families.

The reasearch is informative resource for Estonian mental healthch care specialits of students.

EARLY DETECTION OF NEONATAL CHOLESTASIS: INADEQUATE ASSESSMENT OF STOOL COLOR BY PARENTS AND YOUTH HEALTHCARE DOCTORS.

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Aim of the study:

Early diagnosis and surgery (<60 days of age) improve outcomes in children with biliary atresia (BA). Only 56% of patients undergo timely surgery in the Netherlands. Lack of acquaintance with symptoms such as discoloured stools might underlie this delay. We analysed whether Dutch parents and youth healthcare doctors recognised discoloured stools and evaluated the effect of the Infant Stool Colour Card (ISCC) on recognising discoloured stools.

Methods:

We asked 100 parents and 33 youth healthcare doctors to classify ten photographs of normal and discoloured stools as 'normal' or 'abnormal'. Subsequently we asked whether they would seek medical help resp. refer the patient for medical investigation. Finally parents scored the stools using the ISCC. Sensitivity and specificity of the ISCC were determined.

Main results:

Two-third of both parents and youth healthcare doctors recognised all discoloured stools. Only half of them would seek medical help for all discoloured stools resp. refer the patient for medical investigation. Using the ISCC, the percentage of parents recognising all discoloured stool increased from 66% to 87% ($p<0.01$). Sensitivity and specificity of the ISCC used by parents were 97% and 99%, respectively.

Conclusion:

Neither parents nor youth healthcare doctors reliably recognise discoloured stool. The ISCC is an effective screening method for discoloured stool and may lead to earlier diagnosis and treatment of BA with improved outcomes. Our data indicate that the ISCC should be accompanied by unequivocal advices regarding referral for medical investigation upon detection of discoloured stools.

GROWTH GUIDE BOOKLETS, WEBSITE AND APP FOR PARENTS IN THE NETHERLANDS

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(Mental)Health, development and upbringing

(Future) parents are usually full of questions concerning their child's health, development and upbringing. Information material has been brought together and comes to the parents through seven booklets, internet and an app of the Growth Guide: from planning parenthood through to adolescence.

Several nation-wide prevention programs have been inconspicuously incorporated in the text.

Growth GuideApp!

The basic idea of the App is to enable parents to keep track of their child's 'Growth path'. Parents film and photograph development milestones and link them to their child's age line. The age line is triggered by the pregnancy. At specific moments, the App will remind a (future) parent of a check-up or of an important milestone. The App shows the child's growth information in growth curves. Ultimately, there will be a link with the child's digital file and the App will be able upload information such as growth, vaccinations and development to the parents' own files. Parents can share the information concerning the child with others or with the professional. The App 'pushes' health-related messages from the health professionals, the Municipal Health service or the Municipality itself. As an addition to the paper and digital information, the App will enable us to provide parents with even better (mental)health information and help us to achieve our ultimate objective: optimal health care for the parent and child.

Study about the background of the parents and revenues of the Growth Guide app will be presented.

PSYCHOLOGICAL EFFECTS OF AN INNOVATIVE EDUCATIONAL SYSTEM FOR SCHOOLCHILDREN IN SITTING AND STANDING POSITIONS

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Background:

Innovative educational systems are created to provide learning and health conditions, using new approaches. The purpose of the study is to evaluate the impact of training children in dynamic postures on the psycho-emotional state and the adaptive processes.

Methods:

23 children 1st class were studying in room, equipped with tables- chairs and desks (group 1) and 22 children – in room, equipped with tables-chairs only (group 2).

The desks were provided learning in standing position. Mental capacity (MC) as an indicator of adaptation to learning were estimated during I, II, III and IV quarters by correction-test and psycho-emotional state - by the color- test during the school week.

Results:

Integral score P (the ratio of the number of favorable to non-favorable types) were reported more favorable dynamics of the MC for children of group 1 in the I, II, III and IV quarters, respectively, 2,1; 2,1; 2,2 and 2,3 (rel. un.); for children of group 2, respectively, 1,6; 1,8; 1,8 and 1,6 (rel.un.). Color index indicated high psycho-emotional level for children of group 1, comprising at the beginning of the week before and after lessons, respectively, $3,8 \pm 0,4$ and $4,0 \pm 0,4$; at the middle - $4,0 \pm 0,5$ and $5,3 \pm 0,5$; at the end of the week - $4,4 \pm 0,2$ and $4,2 \pm 0,4$ (conv.un). For children of group 2, this indicators were taken, respectively, the following values: $2,9 \pm 0,3$ and $3,2 \pm 0,3$; $3,4 \pm 0,4$ and $3,9 \pm 0,4$; $4,0 \pm 0,4$ and $3,4 \pm 0,3$ (conv.un).

Conclusion

Combined learning in standing and sitting positions promotes successful adaptation and provides a high level of psycho-emotional state.

MOTIVATION-FORMING TO INCREASE PHYSICAL ACTIVITY AMONG CHILDREN AND ADOLESCENTS

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Background:

Physical activity is a leading factor in preserving and health promotion of children and adolescents, including mental health. However, modern children and adolescents in many countries have a sedentary lifestyle. The aim of the study is development of methodological and scientific-methodical approaches to motivation-forming to increase physical activity among children and adolescents

Methods:

189 students from 2nd, 5th and 9th grades were surveyed; 585 children and adolescents from the 1st to 11th grades participated in the questionnaire.

Results:

The key condition for the formation of motivation to increase physical activity is the adequacy of exercises to functional capabilities and health. Their inconsistency causes the difficulty of carrying out standards of physical fitness and unwillingness to exercise (86.7% students of primary school and 79.3% students of secondary school have difficulties to pass the standards of physical fitness).

Schoolchildren with a high level of physical fitness have a kinesthetic channel as their main channel of information perception.

The ratio of the relative power of theta- and beta1 EEG waves in sagittal frontal leads as an indicator of the need for movement was 4.4 rel. units in groups with high physical activity and 2.3 rel. units in groups with low physical activity.

Pedagogical aspects of motivation are connected with application of innovative technologies of physical education, including the systematically realized the educational program "From motivation to self-determination."

Conclusion:

The motivation-forming to physical activity should be considered as a unity of medical, psychological, neurophysiological and pedagogical approaches.

CARE AND RESEARCH FOR CHILDREN WITH PSYCHOSOCIAL PROBLEMS: ACADEMIC COLLABORATIVE CENTERS

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Background:

Health, education and social services are in a process of transformation to achieve better care for children at risk for psychosocial problems or neglect in the Netherlands and many other countries. Improvements are needed in the access to preventive interventions, the risk assessment for the health and wellbeing of young people, and the coordination of care for multi problem families. The transformation of youth care has to be based on scientific studies. In the Netherlands local government, science and youth care organizations work together in local academic collaborative centers (ACC) to bring about integrated care putting children in the center of their social environment.

Methods:

Examples of projects of the ACC are presented such as the care driven 1 family 1 plan project and the education driven school coach project. They are organized along four lines of interest:

1. Being attentive together: assessment and management of risks for the health and wellbeing of young people.
2. Growing up together: improvement of the access to preventive interventions for young people and their families.
3. Acting together: coordination of care for families with complex problems.
4. Educating together: development of an interactive network of organizations for implementation and education.

The projects aim at improving the school and child care systems.

Main results:

The collaborating organizations have started projects in each line of interest. They actively disseminate and implement project results. The projects comprise both small scale studies and large scale (PhD) studies. Examples of projects that are currently conducted in the Academic collaborative center. Development and evaluation of an innovative method for assessment of care needs (GIZ). GIZ facilitates the participation of young people and parents in the appraisal process. A study into the implementation of the method 'one family, one plan', making a multidisciplinary team, the family and child together responsible for the helping process and quality of life. Cohort study into determinants of care use and care coordination in multi-problem families.

Conclusions:

Clear agreements have to be made on frequent feedback of results of long term studies to get support of local policy makers. Small scale studies pave the path for large scale evaluation studies. Support of the implementation of study results makes you a valuable partner for local government.

THE MAIN TRENDS OF AGGRESSIVE BEHAVIOR IN RUSSIAN ADOLESCENTS

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Background:

High prevalence of aggressive attitude of schoolchildren to other people is a major concern today. The clearest manifestation of open physical aggression in adolescents is participation in fights. The aim of this study was to analyze and provide systematic data on the prevalence of fights among Russian boys and girls aged 11, 13 and 15 years in the dynamics of years.

Methods:

We used the data of the international reports "Health behavior of school-aged Children" (HBSC) in 2001, 2005, 2009. We compared the prevalence of fights between boys and girls during the current year; 11 and 15-year-olds; in the dynamics of years; between Russian and foreign peers.

Results:

Girls in all three age groups significantly less participated in fights than boys: the proportion of 11-aged boys was 27-37%, 6-11% in girls, at the age of 13 - 25-31% and 8-10%, at the age of 15 - 18-23% and 5-7%.

The prevalence of fights among Russian boys decreased with age by 9-14%, this trend was absent among girls.

The proportion of boys involved in fights, decreased significantly in 2009 compared to previous years, this trend was absent in girls.

Russian adolescents were more likely than their peers in most foreign countries to be involved in fights (Russia is among the ten countries "leaders" where fights are common among schoolchildren).

Conclusions:

It is necessary to monitor constantly the prevalence of risky behavior among Russian children; develop measures on preventing aggressive behavior, focus on boys aged 11 and 13.

THE PREVALENCE OF BULLYING AMONG ADOLESCENTS IN RUSSIAN SCHOOL IN THE DYNAMICS OF YEARS

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Background:

The behaviour intended to cause physical or psychological harm to someone who is weaker (bullying) is little studied in Russia, although bullying does not only complicate the child's life, but also has long-term psychological consequences. The aim of this study: analysis and systematization of the prevalence of bullying among Russian teenagers aged 11, 13 and 15 years in the dynamics of years.

Methods:

We used the data of the international reports "Health behavior of school-aged Children" (HBSC) in 2001, 2005, 2009, subjected to statistical analysis, comparative analysis and interpretation. We compared the prevalence of bullying between boys and girls at school at least twice a month for the last couple of months; 11 and 15-year-olds; in the dynamics of years; between Russian and foreign peers.

Results:

Boys were significantly more often caused offense others than girls: at the age of 11 years, 19-20% of boys and 10-13% - of girls; at the age of 13 years, respectively, 19-25% and 15%; at the age of 15 years - 18-21% and 10-12%.

The highest percentage of bullying was occurred in 13-aged adolescents. A significant reduction in the prevalence of bullying in 13-aged boys was noted since 2001 (25%) till 2009 (19%). In other children the obvious regularities were not identified. Higher levels of bullying were met among the Russians compared with students in most other countries.

Conclusions:

It should be more activities to focus on the prevention of bullying among boys and make greater efforts to young adolescents.

MODERN BEHAVIORAL FACTORS OF MENTAL HEALTH DISORDERS IN SCHOOLCHILDREN

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Background:

Health of schoolchildren is largely due to the negative behavioral factors.

Methods:

762 high school students in Moscow and Moscow region were examined. To identify behavioral factors we used questioning students.

Results:

There is a high prevalence of neuropsychiatric abnormalities (56%) among schoolchildren aged 15-16. The analysis of the prevalence of bad habits among 15-16 year olds shows that girls are influenced by negative behavioral factors as well as boys. 12.7% of girls and 15.1% of boys smoke daily, 54.6% of girls and 48.1% of boys tried to smoke. 29.1% of girls and 32.0% of boys used alcohol at least once per month.

Modern students use daily the hardware in their leisure activity: a tablet, smart phone, reader and computer. 39.8% of girls and 36.4% of boys spend at the computer up to 15 hours per week and 6.2% and 13.1%, respectively - more than 30 hours per week. Using technology reduces the motor activity of schoolchildren. Additional lessons (foreign languages, mathematics, etc.) which are attended by 66.4% of girls and 63.2% of boys 2-3 times a week also reduce locomotor activity.

The correlation and regression analysis revealed a statistically significant impact of daily use of technology (-0.44) and duration of additional classes (0,50-0,85) on the neuropsychological health of students aged 15-16.

Conclusions:

The data on modern behavioral risk factors of mental health disorders in schoolchildren show the need for effective preventive work in educational institutions with the involvement of teachers, health professionals, psychologists and students themselves.

MODEL OF HEALTH CARE UNITS' PREVENTION ACTIVITIES IN EDUCATIONAL INSTITUTIONS

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Background:

Health status of children population of Russia, including presence of many risk factors for non-communicable diseases and risky life styles, require justification and implementation of up-to-date prevention model.

Purpose – to justify up-to-date model of health care institutions' prevention activities in educational institutions.

Methods:

Regulatory and reporting documents from non-communicable diseases prevention area. The main method applied is analytical approach.

Results:

Health services system for students suffers from a lack of medical offices and properly trained health care personnel in schools, especially in the field of mental health. Activities of school health care unit should start from students' health status examination. Children's health risk factors prevalence should be evaluated twice a year. Data analysis provides enough information to develop health care action plan by October. It is important to form risk groups related to children's health behavior.

Cyclical nature of the school health units' work implies assessment of the students' level of knowledge and formed skills of healthy life style reached in the course of the academic year.

Conclusion:

Prevention among students is the most effective health protection intervention. Its implementation requires ensuring the regular state monitoring of major behavioral risks that are dangerous to the health of schoolchildren, the monitoring of the quality of children's life; ensuring the restoration of medical offices in educational institutions; eliminate the deficit of medical staff working in educational institutions.

BODYWEIGHT TRENDS AMONG FINNISH UNIVERSITY STUDENTS IN 2000–2012

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Background:

Obesity-related diseases are a serious individual and public-health concern. For the present study, we analysed bodyweight development among Finnish university students in 2000–2012.

Methods:

The data derive from Finnish Student Health Surveys in 2000, 2004, 2008 and 2012. The national surveys covered undergraduate students aged under 35, with representative samples of 5,000 students/survey. Response rates were 63%, 63%, 55% and 49% (a postal questionnaire study, online responding possible since 2008).

Results:

In 2000–2012, the proportion of overweight students (BMI ≥ 25 kg/m²) increased from 26% to 39% in males and from 13% to 19% in females. Obesity (BMI ≥ 30 kg/m²) doubled (3.8% vs. 6.7% in males, 2.1% vs. 5.4% in females), whereas the proportion of underweight (BMI ≤ 18.5 kg/m²) students remained unchanged.

Mean bodyweight increased by 3.0 kg (76.9 kg vs. 79.9 kg, $p < 0.001$) for males, and by 2.3 kg (60.9 kg vs. 63.2 kg, $p < 0.001$) for females.

Overweight became more common across all age groups. While 16% of men under 22 were overweight in 2000, the corresponding figure in 2012 was 27%. In the oldest age group (30–35 years), 44% of men were overweight in 2000, and in 2012, more than one half were overweight.

Conclusions:

The trend of increasing overweight and obesity among university students is clear, and students are more frequently overweight already when entering the university. Student healthcare should offer diverse tools for weight management, and also enhance staff members' abilities to address the matter during appointments. We need to develop community interventions, group activities, self-care materials, service pathways and mobile health support.

THE HEALTH BEHAVIOR AND BMI OF MALE FINNISH UNIVERSITY STUDENTS

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Background:

Both overweight and obesity as well as underweight could be associated with mental problems. The health behavior of these students is probably different than students with normal BMI.

Methods:

The fourth national Finnish Student Health Survey was carried in 2012. The survey covered university students (age 18-35 years) with representative sample of 5000 students. The response rate of this online or postal questionnaire survey was 39 % for men, N=911. The health behavior of students with low (<19), normal (19-24,9) and high (≥ 25) BMI were compared.

Results:

2 % of the male students were underweight, 50 % were normal and 38 % were overweight. The underweight students had more anxiety and depression diagnoses than others. The overweight students were more often diagnosed musculoskeletal problems as well as atopic eczema. The students with normal BMI perceived their health better than others. There were no statistical differences in eating habits, physical activity or smoking between the groups. The alcohol consumption measured with the AUDIT-tool was more common in the overweight group.

Conclusions:

In this age group, low BMI seems to be associated with mental health problems like anxiety and depression. It is possible that mental health problems associated with high BMI will appear later. The overweight students' alcohol consumption must be noted.

PREVENTING BULLING BEHAVIOR PATTERNS IN KINDERGARTEN USING PROGRAM “FREE FROM BULLING” . EXPERIENCES IN ESTONIA.

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Preventing bullying behavior already in the age of 3-8 is the way of ensuring the child rights for secure and accepting environment where the child's comprehensive development becomes possible. Half of all kindergartens in Estonia are using the program “Free of bullying” as tool for systematic work for creating the culture of tolerance in children groups. Uniqueness of program Free of bullying can be seen as bond between kindergarten and school. 25 schools are using the program. The program includes as well introductions for value based processes in teacher's groups and leaders in educational organizations and in groups of parents. Also several researches are going on. Previous researches show better cooperation with parents and kindergartens and children became more aware of prosocial behavior.

GENDER DIFFERENTIATION AS A MECHANISM TO PRESERVE THE MENTAL HEALTH OF STUDENTS IN EDUCATIONAL INSTITUTIONS

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Relevance:

The health indicators and learning environment relationship dictates the need of educational process optimization with the aim of preserving and strengthening the younger generation health. One of the variants of this optimization can be the gender differentiation in the education of children and adolescents. The aim is to study the peculiarity of mental working capacity and mental health status among the middle school students during their training in gender and mixed gender groups (from 5 to 9 grades).

Methods:

About 400 students in grades 5-9 of two schools have become of the object of this study. In one of the schools the separate organization of classes (by gender) of boys and girls is practiced and the standard system is used for teenagers in another one. Mental working capacities, psycho-emotional state of the students, their degree of neurotic, educational motivation, health status have been studied.

The Results:

It has been established the saving of health potential under application of the differentiated by sex methods of the teenagers education. That was confirmed by lower physiological cost of adaptation to subjected learning, high rates of mental working capacities and learning motivation, lower prevalence of pronounced cases of fatigue and neurotic of gender group's students. Distinct neurophysiological differences have been revealed in the cognitive activity indicators of different gender teenagers.

Conclusions:

Therefore it gives the base for a more detailed methodological development gender educational technology that is very important for saving of mental health of students.

SHARED DECISION-MAKING BY YOUTH HEALTH CARE PROFESSIONALS AND PARENTS/TEENAGERS IN THE ASSESSMENT OF NEEDS FOR SUPPORT.

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Background:

Youth Health Care is available for every child in the Netherlands and has an important role in risk-assessment. Nevertheless, not all children with problems are identified and/or receive appropriate care. Current assessment methods are focused on the identification of problems and less on needs and strengths and are based on unilateral processes.

The lack of participation of teenagers/ parents in the assessment contributes to a mismatch between the child's needs and the care provided. Current study aimed to develop a method based on shared decision-making to improve the assessment and to assess the feasibility of such method in youth health care.

Methods:

The shared decision-making method (GIZ-method in Dutch) comprises a comprehensive scheme to discuss with parents/teenagers needs and strengths in child development, parenting abilities, and environmental context. The GIZ-method was tested among parents/teenagers during preventive health assessments. After each contact parents (n=236), teenagers (n=261) and YHC-professionals (0-12 year: n=379 / 12+ : n= 255) completed an evaluation questionnaire. Interviews were held with YHC-professionals on the implementation.

Results:

The GIZ-method was used in nearly every contact. Professionals, parents/teenagers satisfaction varied between 87% and 99%. They appreciated the shared assessment and attention for strengths. A majority of parents (68%) and teenagers (67%) indicated to have had an important contribution in the assessment. A majority of professionals, parents and teenagers reported to have reached consensus regarding the needs for support.

Conclusions:

The GIZ-method involves teenagers/ parents positively and actively in the assessment and fits well in youth health care.

CHILDREN'S PARTICIPATION AND CHILDREN'S RIGHTS

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KinderrechtenNU(KRNU) developed a methodology for implementation of children's participation and children's rights in education. The program is based on the convention on the Rights of the Child(CRC). Therefore KRNU translated, together with children, the Treaty concerning the Rights of Children in the CR-checklist. "What is necessary to grow up? - How do we treat each other? - How do we take care of each other?". KRNU gives the floor to all children in the age of 9 to 13 to answer these questions and stimulates and supports them to map their own social environment and become aware of their social network. The Children's Protocol Meld code: "Find an adult whom you can trust, who will listen to you and wants to help you", supports a child to ask for help for itself or for somebody else. The CR-checklist is to be used by teachers and counsellors, in small groups of classmates, so intimacy is guaranteed and children are free to talk. The discussion develops around children's rights and their implementation. Finally, the discussion is used to teach children to detect signs of alarm around child abuse and domestic violence and how to turn when these cases occur. If a problem is mentioned or suspected, the counsellor will advice the child and his family. Depending on the kind of problem the school will consult the Youth Health Care organization(YHC).

By using the KRNU-methodology in schools, there are much more moments to enable the early detection of problems in children.

EVALUATION TOOL IN SCHOOL HEALTH CARE PRACTICE – THE EXPERIENCE IN SWEDEN AND ESTONIA

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The role of school nurse work has changed dramatically over the last period. The student health medical care service consists of a separate sphere of student health activities including psychological, psychosocial and special education. Competency of nurses is assessed based on their knowledge, judgment, energy and different skills in communication, cooperation and teamwork. They need to have a clear overview and high motivation to meet performance expectations and professional responsibilities in an effective and appropriate manner.

The primary goals in school nurse evaluation process are to ensure competency, to promote professional practice and to develop lifelong learning motivation among school health care specialists.

Evaluation tool provides the purpose and job requirements of the school nurse, her duties within the school system as well as providing direction and guidance for work expectations and helping all employees to identify areas that need improvement or growth. Performance evaluation includes data from observations, interviews, document analysis, and personal and professional goals. The final evaluation is carried out by leading nurses, with reference to the school nurse's self-evaluation.

The example of Sweden shows that the evaluation tool has proved to be effective in clarifying and increasing the control of school health medical care service in accordance with given goals. It helps to develop each individual's implementation in the students' physical and mental health promotion in the best manner and in accordance with the needs of today's practice. Based on the Swedish experience the evaluation instrument has spread to Tallinn school health care system.

BINGE DRINKING AMONG MEDICAL STUDENTS UNIVERSITY OF ZAGREB – SHOULDN'T THEY KNOW BETTER?

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Background:

Binge drinking is increasing problem in Croatian youth. The aim of this study was to determine prevalence of binge drinking and related consequences in cohort of medical students University of Zagreb, on first and sixth year of study.

Methods and participants:

Study included 243 students (69% female) in 2004/05 and 130 students (75% female) of same cohort (53%) in 2010/2011. Data was obtained by anonymous questionnaire "School health survey" and analysed using descriptive statistics.

Results:

Binge drinking prevalence among females was 50.9% on first year of study and 60.82% six years later. Prevalence among males was 73.68% and 96.97%. Significant difference was found between genders on first ($p=0.001$) and sixth year of study ($p=0.0001$), and among males on first and sixth year ($p=0.005$). Prevalence of destructive behaviour related to binge drinking among females was 8.24% in 2004/05 and 8.47% in 2010/11, and in males 17.86% and 21.88%. Prevalence of fighting related to binge drinking among females was 9.41% on first year and was not present on last year of study, and in males it was 10.71% and 9.38%. Significant difference was found between both genders on sixth year ($p=0.04$), and among females on first and sixth year of study ($p=0.02$).

Conclusion:

Binge drinking prevalence among medical students is high and shows increase from first to sixth year of study even though prevalence of negative consequences is low. Risk behaviour among medical students is of special concern because of their future role as health professionals.

EVALUATION OF THE NEW PREVENTIVE HEALTH CHECK-UP FOR ADOLESCENTS

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Background:

The preventive health check-up for adolescents of 15-16 years intends to increase adolescents physical and mental health and wellbeing. The intervention was developed together with adolescents, parents, teachers and others. Adolescents complete at school a digital questionnaire (56 questions) on physical and mental health, relation with peers, substance-use and wellbeing at home. Afterwards they receive feedback including links to relevant websites. Furthermore, they are invited for a consult with a Youth Health Care Nurse or Physician. The main research question was: how do adolescents appreciate the intervention and is the questionnaire used valid and useful.

Methods:

To identify how the adolescent appreciated the intervention, we interviewed 100 participating adolescents (mixed methods). To approximate the validity of the used questionnaire, we analysed the results of 500 respondents and compared the prevalence rates on psychological problems and substance use with the rates measured in other studies.

Results:

Adolescents were positive about their experiences with the check-up. Girls were more positive than boys. Girls reported significantly more frequently mental health problems like eating disorders (38,4% vs.16,0%) and depressed feelings (29,5% vs.8,8%). Many adolescents (25%) asked themselves for a consult with the Nurse/Physician. The prevalence rates measured in the study were comparable to known prevalence rates.

Conclusions:

The adolescent health check-up promises to be an interesting approach to identify adolescent physical and mental health problems at an early stage. Adolescents completed the questionnaire honestly. The check-up gives youth health care professionals the opportunity to respond to questions, give advises and identify adolescents at risk.

10-11 YEAR OLD CHILDREN SCREEN TIMES AND MOST POPULAR TELEVISION SHOWS: VIEWS OF FINNISH AND RUSSIAN CHILDREN AND PARENTS IN AHIC PROJECT

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Background:

Children spend increasingly more time with electronic media. Television (TV) is still the most widely used form of electronic media, and viewing TV more than two hours a day may expose children to sleep-related problems, and can effect negatively on their mental health. This paper presents findings from the project AHIC (2013-2014). Research questions are: 1) According to parents, what are the screen times of 10-11-year-old children during weekdays and weekends?

2) What are the most popular television programmes reported by 10-11-year-old children?

Methods:

Data were collected by quantitative surveys in May 2013. Children completed the surveys at school. Parents' data was analysed by T-tests. A quantitative content analysis was used to categorize the responses of open questions of children's data.

Results:

According to parents, the daily screen time of their children varied from 0 to 8 hours on weekdays and from 0 to 12 hours on weekends. Russian parents estimated their children to have more screen time on weekends compared to Finnish parents ($p=0.005$). Children reported most popular TV programmes were drama series and animated TV shows. All children did not obey the age limits of TV programmes.

Conclusion:

Parents allowed their children to have screen time on average for two hours a day on weekdays and three hours a day on weekends. Some children were more excessive users of television than others, as well as watched programmes that were not suitable for their age. The role and support of parents is essential in guiding children's media use.

THE ROLE OF SCHOOL DOCTOR IN TIMES OF COMPULSORY EDUCATION OF CHILDREN WITH SPECIAL NEEDS IN SLOVENIA

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With the Law of children with special needs integration in compulsory education all children at the age of 6 are integrated in compulsory education – children with special needs require doctor's approval (school doctor is included in commissions for children with special needs counseling):

- Mild disorders in regular primary school – adjusted programme, adjustments)
- Moderate and difficult disorders in schools – departments with special conditions – adjusted programmes
- Centers for training – institutions

After compulsory education vocational guidance, employment or workshops for children with special needs – problems

After 18 years of residence in institutions for severely handicapped children the area is badly managed.

SENSE OF APATHY AS A PREDICTOR OF ELEVATED BLOOD PRESSURE IN CROATIAN SCHOOL CHILDREN

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Background and aim:

Sense of apathy is a feeling of having no enthusiasm about anything. Link between mental health and elevated blood pressure (BP) has been investigated and recognized. The aim of this study was to analyze sense of apathy as a predictor of elevated BP.

Subjects and Methods:

Representative sample comprised 3053 children of first and eighth grades of primary and third grade of high schools. Data were obtained from questionnaire and anthropometric measurements and analyzed by descriptive statistics and multiple logistic regressions.

Results:

For the purpose of this study, data of 926 first graders (49% girls) and 948 of eighth graders in primary (49% girls) and 931 third graders in high school (42% girls) were analyzed. Elevated systolic and/or diastolic BP was present in 12% of first and 13% of eighth graders in primary and in 15% third graders in high school. First graders who had sense of apathy more than once a week were 3.49 time more likely ($P = 0.015$) to have elevated systolic and 7.77 time more likely ($P < 0.001$) to have elevated diastolic BP.

Conclusion:

The results imply that screening for cardiovascular and mental health risk factors should be conducted in children as early as possible. School is one of the most appropriate settings for prevention and intervention programs conducted by school health service.

ALCOHOL DRINKING AS A PREDICTOR OF ELEVATED BLOOD PRESSURE IN CROATIAN YOUTH

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Background and aim:

Unhealthy lifestyle including drinking of alcohol is recognized as a risk factor for elevated blood pressure (BP). The aim of this study was to analyze alcohol drinking as a risk factor of elevated BP.

Subjects and Methods:

For the purpose of this study we analyzed data of 948 eight graders in primary (48.8% girls) and 931 third graders in high school (41.5% girls). Data were obtained from questionnaire and anthropometric measurements and analyzed by descriptive statistics and multiple logistic regressions.

Results:

Elevated systolic and/or diastolic BP was present in 13% eight graders (13% girls vs. 12% boys) and in 15% third graders (15% boys vs. 13% girls). Third graders who drank alcohol separate from meal three to five times monthly were 1.73 times more likely ($P=0.01$) and those who drank six to nine times 1.69 more likely ($P=0.042$) to have elevated systolic BP than those who didn't drink alcohol. Those who drank alcohol one to two times monthly were 1.51 times more likely ($P=0.037$) to have elevated systolic BP.

Conclusion:

Alcohol drinking was present as a significant predictor of elevated systolic BP in third graders in high school who drank alcohol separate from meal. The results imply that risk factors of elevated blood pressure, such as alcohol drinking, well recognized in adults could also be detected in adolescents. Preventive and intervention programs of mental and cardiovascular health should be provided in schools by school health service.

SEX AND GENDER STEREOTYPES AS MENTAL AND PHYSICAL HEALTH INFLUENCERS FOR MEN'S HEALTH

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Background:

The results of men's premature mortality affects substantially the social and economic situation of families when looking towards future, but this does not only have to be a question about gender equality, but a more fundamental concern which is connected with all men's right to live a long and full life. Still, the health of men, including social, mental and physical health, has been more active topic in Estonia during last years, but it has not been dealt according to gender roles and stereotypes.

Objectives:

The aim of the present survey is to describe and to compare the connection between mental and physical health and the impact it has for the health behavior amongst Estonian and Hungarian men.

Method:

Quantitative research, which is bringing into the public true information not bringing out already proved existing arguments.

Conclusions:

Gender and stereotypes and the lack of awareness of the equal possibilities affect the mental and physical health of men. Survey showed that nowadays society is still functioning according to stereotypes, men are continuously oriented on career and success, during the time while they are trying to support their family, they have with their self-destructive control lead themselves to mental health problems. Gender stereotypes have exhausting effect for men, damaging and reducing their self-realization possibilities, which involve risk behavior and premature mortality rate and effect substantially not only men but also their families and also the whole societies socio-political status in general.

FOCUSED EXAMINATIONS IN SCHOOL HEALTH SERVICES

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In Finland, medical doctors screen all school children at grades 1, 5, and 8, in addition to evaluating specific problems at other grades, contrary to many other countries. In Helsinki, a number of dedicated school doctors are each responsible for several schools, where the appointments take place at. In this case study, we report the experiences from a temporary school doctor's office, set up at a health care centre, aimed to provide doctor's services to the pupils of the 4 schools in Helsinki that were without an assigned school doctor, of the total 151 elementary schools.

Altogether, there were 17 patients. Many of the patients had both psychiatric and somatic problems. Six of the patients were referred to a specialist (5 psychiatry, 1 otology), 4 to a school psychologist, and 2 to child welfare. There was only one no-show. The average time needed per patient was 2h10min including back-office work.

The setting had advantages: No interruptions were caused by other pupils. The families were motivated to show up because of the specific problems. The premises were well suited for the work. On the other hand, cooperation with other school personnel required extra effort.

The experiment suggests that some families would benefit from appointments in better premises than what schools can offer. It also raises the question of how to utilise school doctors' expertise most effectively. Hence, we call for further research and discussion on the organizational models of school health services in Finland.

HEAVY EPISODIC DRINKING AMONG CROATIAN ADOLESCENTS

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Background:

Drinking five or more drinks in one occasion, especially in adolescents is harmful pattern of alcohol consumption.. According to ESPAD 2011 survey data the proportion of pupils reported heavy episodic drinking during the past 30 days in Croatia is above ESPAD average

Methods:

Data collected as part of ESPAD 2011, 6143 (3086 m and 3057 f) 15 -16 years old. Binary logistic regression was conducted to analyse the association between heavy episodic drinking in the last 30 days and thirteen independent variables.

Results:

The model as a whole explained 9, 2% (Cox and Snell R Square) and 12, 3% (Nagelkerke R Squared) of the heavy episodic drinking status variance, and correctly classified 63,8% cases. Nine of thirteen independent variables made unique statistically contribution to the model. The strongest predictor of reporting heavy episodic drinking at least once a month was school performance. Boys who had poor school performance were over 1.5 more likely to engage in heavy episodic drinking at least once a month, controlling for all other factors in the model. Boys with perceived lower family material status, poorer mother and father relationship, better relationship with friends and less parental control related to spending time in the evenings, who express having more depressive symptoms were 1.0 times more likely to report heavy episodic drinking at least once a month.

Conclusion:

Considering the limitations of presented model the paper argues about factors related to heavy episodic drinking. Examining factors could contribute to prevention and health promotion.

EXPLORING CAUSES OF MENTAL HEALTH PROBLEMS IN GIFTED CHILDREN AND ADOLESCENTS

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Background:

According to parents and caregivers, gifted youth have more mental health problems than non-gifted peers. In international literature high intelligence, a lack of fit between educational needs and provisions, other diagnoses ('dual labeling'), and negative effects of being labeled as gifted have been considered possible causes. It is the aim of this study to investigate how giftedness relates to mental health problems in a Flemish cohort.

Methods:

Questionnaire data from a cohort of 1891 children and 1499 adolescents, and from 232 clients of a counseling service in Flanders. Parental questionnaires included items on behavior (e.g., Strengths and Difficulties Questionnaire, SDQ), diagnoses and labels (e.g., giftedness, ADHD, ASS), school and socio-demographic background. Self-report questionnaires for adolescents included the SDQ and KIDSCREEN-10. Questionnaire data were analyzed in relation to total intelligence scores on the Wechsler Intelligence Scale for Children-III (WISC-III) in a subsample of 290 children with and without signs of giftedness.

Results:

Children labeled as gifted had significantly higher SDQ overall problem scores at ages 7 ($p < .001$) and 8 ($p < .001$). When corrected for the giftedness label, effects of intelligence on SDQ scores were non-significant or tended to lower problem scores. Gifted participants often received other diagnoses (e.g. ADHD) and less than half received educational interventions.

Conclusions:

While being labeled as gifted is associated with mental health problems, this study found no relationship between high intelligence, corrected for the giftedness label, and these problems. Possible relations between mental health problems, educational interventions and dual labeling are discussed.

INFORMATION AND EDUCATIONAL LOADS AND THEIR IMPACT ON PUPILS' HEALTH

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Backgrounds:

Insufficient level of preparedness of the majority of students for final exams determines their high employment in additional education on academic disciplines already in the 5-9th grades. It increases informational loads, the total congestion, significantly changes the mode of life, limits physical activity of adolescents.

Methods:

980 Moscow students in grades 5-9 were questioned.

Results:

It was found the daily volume of total educational loads of schoolchildren in grades 5-9 reached 10-13 hours. By the 9th grade adolescents more often choose intellectual loads (more than 60% vs. 45% of students attending sports sections), spending on average 7 hours per week. Every fourth 9-grader has 3-4 kinds of intelligent loads. During the secondary education the number of pupils engaged in additional disciplines significantly increases - up to 6 times, thus not less 46% of 9-graders in addition learn a foreign language and 14% - other disciplines.

At increasing computer employment and insufficient night sleep and walk, more than 70% of teenagers have poor health indicators. Over the 5-year period of training they have a lot of complaints about poor health: headache, about one third of 9-graders have fatigue, the number of "absolutely healthy" students (up 45.2%) is reduced in 1.4 times, the number of students who describe their health - "not very well" is increased in 3 times (about 12.6%).

Conclusions:

Increasing loads of information and hygienically irrational daily regimen of adolescents contribute to the development of chronic fatigue and the formation of disorders of their mental health.

THE ROLE OF SCHOOL NURSES IN THE PREVENTION OF OVERWEIGHT STUDENTS' MENTAL HEALTH PROBLEM

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Obesity is one of the most common problem among children and young people. According to the recent international research carried out among students (HBSC 2010) in Estonia 17% of boys between the ages of 11 and 15 and 11% of girls of the same age are overweight or obese. A similar research in 2006 showed 12% and 7% respectively, which demonstrates an upward trend. In addition to the impact of obesity on physical health, there are psychological complications: anxiety disorders, depression, emotional distress and social stigma (Young-Hyman 2006:2249-2258).

The objective is to reduce the prevalence of mental health problems in overweight students by providing an appropriate competence to school nurses.

1. Develop the guide (a short questionnaire) for a mid-level students to identify students with mental health problems.
2. Explain to the 13-14 year old students' characteristics and the incidence of mental health problems.
3. To compare the results of overweight girls and boys.

Methods:

- Relevant literature collection, processing, analyzing and abstracting
- Medical examinations carried out among the target group (BMI, and weight growth curve, waist circumference), a total of 220 student
- Student Welfare Survey

The collected data showed increasing rate of obesity among adolescents (2012 -1.5%; 2013 - .8%; 2014 -2%). Mental health problems occur in obese young people, most frequently appearing are disturbed body image, low self-esteem, excessive stress, depression, emotional trauma.

Conclusion:

Obesity is a complex problem, with in genetics, environment, metabolism, lifestyle and eating habits and for this reason we recommend lifestyle counseling.

HPV VACCINE- FUTURE OR PHARMACEUTICAL DELUSION?

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Background:

Public health action in Bjelovar offered 13-years old pupils 3 free doses HPV vaccinations with prior education of physicians. From a total of 200 pupils, only 33 girls responded.

Methods:

to examine girls with the anonymous specially designed survey (sexual behavior, gynecological examinations, side effects after vaccination and knowledge about STD).

Results:

Vaccinated girls did not have side effects after application. No one in the family suffers or had suffered from cervical cancer. Most mother made a decision about vaccination, and the girls do not know who is the manufacturer of the vaccine. 88.46% would recommend vaccine to other girls. 53.8% girl didn't know if vaccine protects from another sexually transmitted diseases and 46.15% didn't know if this vaccine protects them 100% from disease. 65.38% should be introduced vaccine in mandatory calendar. 65.38% thought that price of 3,000 kuna is too high for all three doses of the vaccine, 19 of them had sexual intercourse and two girls had four sexual partners, one girl had three sexual partners, three girls had two sexual partners, and 13 of these had one sexual partner. Sexually active girls didn't go to gynecologist and did not do "Papa" test but no one ever had any STD.

Conclusions:

Large proportion of girls under the age of 19 had sexual relations and some of them had more partners. Frequently changing partners in vulnerable younger population can not be prevented 100% vaccination, but can significantly increase incidence. Youth and family need education about the rules of sex life in order to reduce the number of sexually transmitted disease.

QUALITY OF LIFE CHILDREN WITH DISABILITY

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Background:

to examine quality of life students with disabilities.

Methods: to evaluate satisfaction with the support of the family, environment, improving quality of life and the benefits of associations for people with special needs using interview method.

Results:

The study included six boys and four girls aged 17-21 years of life, going in a special educational schools. 2 students have physical disabilities, 7 mental retardation and one student have rare disease. 5 respondents are satisfied, 3 is very satisfied and 2 were partially dissatisfied by supporting of their families. Environment accepts me respectfully considered 40%, same number did not have opinion and 20% said negatively. 4 respondents feel that their quality of life can be better if teaching staff will be more friendly, one respondent thought that families can affected the quality of life, three respondents thought that the better school system can increase quality of life, 2 respondents wants to be accepted of the environment. 90% are members of Association of persons with disabilities, 4 is satisfied, 2 partially dissatisfied, 4 of them are very satisfied with the education, source of information, help and support of associations.

Conclusions:

Disability is a physical or mental deficiency, which limits a person in one or more major life activities. Disability refers to the ability, in the form of complex activities and behavior, which are generally accepted as essential elements of everyday life. Since the number of people with special needs growing, the society must help them to fulfill their potential and enable them to independent life.

BULLYING AMONG UNIVERSITY STUDENTS IN FOUR COUNTRIES: ASSOCIATIONS WITH HEALTH AND WELL-BEING

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Engagement in bullying is a stressful experience, the consequences of which can be long-term for the well-being of both its victims and perpetrators. The research on bullying and its consequences has mainly focused on elementary and middle schools. However, a small number of surveys conducted in higher education institutions indicate that bullying exists in university too. Since the measures and analyses used to examine university contexts have varied significantly between the individual studies, more research is needed to examine whether cultural factors within countries influence young adults' bullying experiences, and consequently contribute to inequalities in individuals' health and well-being between countries.

We will review the results from a cross-cultural study, for which data were collected by survey method from undergraduate university students in four countries: Argentina (N=969), Estonia (N=1,053), Finland (N=4,403) and the United States (N=2,082). Using similar measures in data collection and analyses (e.g., Mann-Whitney U-tests) to examine the data sets, the study demonstrates that bullying is a prevalent phenomenon among students at universities, with significant similarities and differences across the four countries studied regarding its prevalence and nature.

We will discuss the results in the light of studies which demonstrate that experiences with bullying are associated with higher reports of psychosocial ailments among students at university; with victims experiencing a significantly higher number of ailments in comparison to bullies and those with no bullying experience. Implications for student health services and prevention of risky social behavior on campuses are discussed.

SCHOOL ENVIRONMENT AND PERSONAL INDICATORS THAT SUPPORT ESTONIAN PUPILS' SUBJECTIVE WELLBEING.

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General wellbeing in adolescence is primarily related to cognitive assessment of one's life in general and specific areas like school environment and relationships with peers. This study aims to ascertain the effect of school environment and personal indicators of subjective wellbeing of Estonian basic school pupils of forms 6 and 9 (n= 934; average age 13.9).

Survey results indicated that higher subjective wellbeing was predicted by personal indicators: self-esteem, perceived stress level, health, general availability of help, assessment of life status and perceived coherence.

School environment indicators that predicted higher subjective wellbeing were relationships with teachers and fellow pupils, involvement in school environment and receiving help. Personal indicators appeared as more likely predictors of wellbeing than school environment indicators.

A questionnaire was developed for the survey based on Konu and Rimpelä's (2002) model of school wellbeing and predictors of school wellbeing outlined by Randolph et al. (2010). Questions and scales measuring personal indicators were included in the questionnaire.

SHOULD WE EXCLUDE CHILDREN WITH OVERWEIGHT OR OBESITY FROM HEIGHT REFERENCE SAMPLES? DATA FROM BELGIUM AND NORWAY SHOWS THAT IT MAKES LITTLE DIFFERENCE.

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Background:

Growth reference charts are usually based on children free from conditions that affect growth. However, because obesity increases linear growth, recent reference curves could be biased by the presence of a relatively large proportion of children that are overweight or obese. In this paper, we analyze height according to weight status; and the effect of the current overweight epidemic on recent growth reference curves.

Methods:

Data from a cross-sectional sample of 12252 Belgian and 6159 Norwegian 2–18 year old children measured in 2002–6. Height for age was converted to standard deviation scores and compared among weight groups. Height reference curves were estimated with the LMS method including or excluding children that are overweight or obese according to the International Obesity Task Force.

Results:

The prevalence of overweight (including obesity) and obesity was 13.0% and 2.8% in the Belgian sample and 13.8% and 2.3% in the Norwegian sample. Children with overweight or obesity were respectively 0.1–0.5 SD and 0.2–0.7SD taller before and during puberty, but not after the age of 15 years. Excluding overweight and obese children had only a minor impact on the growth curves, with a maximum decrease in the median of -0.1 SD, and a corresponding small increase of 0.5–1.2% in the number of children above +2 SD.

Conclusion:

Although we confirmed that obese children are taller, Belgian and Norwegian height growth references were only slightly affected by the current proportion of overweight and obese children in the reference sample.

OCCUPATIONAL WELL-BEING BALANCE AT SCHOOLS IN FINLAND AND ESTONIA

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Background:

This research is based on the project Promoting the Occupational Well-being of School Staff – an action research project in Finland and Estonia in 2009–2014, whose purpose was to promote occupational well-being of school staff in Finland (21 Finnish schools) and Estonia (39 Estonian schools). This study evaluates the results from the baseline survey (in 2010) and final survey (in 2013) of the project. When the well-being of school staff is in order, employees can offer high-quality teaching and take care of matters related to the well-being of children and adolescents.

Methods:

In 2010, quantitative baseline survey data were collected in Finland (n=486) and Estonia (n=1330) by using the Well-being at Your Work Index Questionnaire. Similarly, in 2013, the same measurement tool was used to collect final survey data from school staff members in Finland (n=545) and Estonia (n=974). The data were analyzed with statistical methods.

Results:

School staff in Finland and Estonia evaluated their occupational well-being to be at a fairly good level. In general, the mean values of the sum variables of the aspects of occupational well-being (working conditions, working community, worker and work and professional competence) were higher in Estonian than in the Finnish school communities, even though the Finnish participants were able to make this gap smaller during the action research project.

Conclusions:

Having a balance of community resources and stress factors is a precondition for occupational well-being. In order to achieve and maintain this balance, continuous and systematic development of occupational well-being is required.

IMPLEMENTATION OF HPV VACCINATION THROUGH THE SCHOOL PREVENTIVE HEALTH CARE PROGRAMS IN LJUBLJANA-SLOVENIA

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Slovenia is a small and young country of EU, but has a long tradition of good preventive health-care network and immunization programs for preschool and school children from 5.5 to 19 years. Our vaccination schedule programs are mandatory. Since 2009 new HPV vaccine was approved from the Ministry of Health. This vaccination was the first recommended vaccine, free of charge and paid from the government, but not mandatory. This was a new challenge for our country. Due to the EU references and guidelines we vaccinated girls in the 7 grade of primary school age 12 years. In LJHCC unit Siska we provide preventive health care PHP for 7 primary schools having 173 girls in the 7 grade. The first school year 2009/10 we had a bad achievement the % of vaccinated girls was 12.8.

Methods:

At the beginning we had problems with our internal communication between medical professionals (school doctors, gynecologist) on one hand, and the external communication (school children and parents) on the other side. We started to cope with all these problems working on target groups, parents girls, teachers, website for girls, preparing CD for girls (life stories of girls affected with HPV), we arranged the meeting with journalist and lobby against vaccination.

Results:

The five years results are interesting. In the year 2010/11 vaccination drastically grew to 38.3%, the next year 2011/2012 to 57.2%. The last two years are falling from 41.9% to 36.5%.

Conclusion:

The acceptance of new vaccine mostly depends on education, information, communication and confidentiality of health providers. We established a good communication between school doctors in gynecologists on one side and parents and their children - girls on the other side. The parents and teenagers need a good school doctor whom they trust and be willing to answer on all their questions.

There is never a stupid question but only a stupid answer.

Our main goal:

School doctors mission is to bring adolescent together with their parents healthy and responsible in the adult age.

SUBSTANCE (AB)USE AND LIFE HABITS AMONG UNIVERSITY STUDENTS AT THE KU LEUVEN, BELGIUM

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Background:

Substance abuse among university students is a well known issue which can cause dysfunctioning and great harm at different levels (social, studying,...). Therefore the KU Leuven (Belgium) organized a survey to monitor behavior regarding substance (ab)use and life habits.

Methods:

An electronic questionnaire (122 questions) was sent in April 2013 to 13 806 students. The global response was 34.6% (N= 4 777) and found out to be representative. The survey included questions about substance (ab)use (alcohol, tobacco, drugs and medication), mental wellbeing and life habits (sport, sleeping patterns, internet use, social activities,...).

Results:

Regarding substance abuse, alcohol is the most present one in the life of students. About 50% of students show risky drinking behavior (positive AUDIT score, binge drinking). The use of hard drugs is minimal but especially male students have the tendency to experiment with cannabis. A small group of students takes medication without medical reasons. About 38% of students have symptoms of mental unwell being (using GHQ). Studying and attending lessons are for students high priority but meeting friends and doing sports are also important. Students spend a lot of time on the internet and even 8.4% show signs of compulsive internet use. If students get into troubles regarding substance abuse, they prefer to discuss this with their friends.

Conclusions:

The results of the survey give a detailed overview regarding substance abuse and life habits of university students and will be used as a good base to develop health promoting campaigns and Health care programs.

VOORZORG/NFP, AN EFFECTIVE EARLY INTERVENTION FOR HIGH RISK YOUNG (PREGNANT) WOMEN

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Background:

Child abuse and neglect in early life have severe and lifetime consequences for the physical and mental development of a person. We adapted the Nurse Family Partnership (NFP) program, developed by David Olds (US), in the Dutch version called VoorZorg. This is an early intervention targeting by potentially high risk young women, from early pregnancy until the child becomes two years old.

Methods:

A randomized controlled trial (RCT) was conducted in 460 eligible women with several risk factors for child abuse. The intervention group (I; n=237) received the program while the control group (C; n=223) received usual care, during pregnancy until the child's second birthday.

Results:

(1) 98% have four or more risk factors: 76% single, 74% poverty, 68% violence in the past and/or present, 19% depression and 25% substance abuse.

(2) smoking is reduced (number of women and number of cigarettes) during and after pregnancy AND they don't smoke near the baby.

(3) significantly more breastfeeding (14%) at 6 months, usual care group (6%).

(4) domestic violence has declined both during pregnancy and two years later (psychological and physical violence).

(5) child abuse reports were significantly less in the VoorZorg group (11%); usual care (19%).

(6) cost effectiveness analysis showed a positive effect with a gain of around 20%

Conclusions:

VoorZorg improves health and lifestyle of high risk mothers and their children, and diminishes and prevents home violence and child abuse. By this VoorZorg is a good and preferred investment in the municipal preventive youth health care policy.

PSYCHOEMOTIONAL STATE AND HEALTH OF SECONDARY SCHOOL STUDENTS

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Background:

Malfunctions of psychoemotional domain play a certain role in forming medical disorders; therefore the study of their effect on schoolchildren's health is necessary to conduct timely prevention of illness.

The aim of the study is to explore psychoemotional state of schoolchildren and its connection with health condition.

Methods:

Results of complex medical examinations of 389 students of the 2-10th grades were analyzed in the educational dynamics. In children aged 8-11, diagnosis of anxiety was conducted by Projective Anxiety Test by R. Temple, M. Dorky and V. Amen; for children aged 12-17, Self-Assessment Questionnaire by C. Spielberger was used that allowed us to differentiate anxiety as a trait of personality (personal anxiety) and as a state (reactive anxiety).

Results:

At the age of 8 years old, 25.5% of boys and 15.0% of girls show high level of anxiety; this level reaches 47.4% ($p \leq 0,01$) in boys aged 16-17 years. Boys with the high anxiety level demonstrate arterial hypertension 3.8 times more often; functional deviations of bone-muscular system, 2.5 times more often, and functional disorders of the gastrointestinal tract, 2 times. Cases of high personal anxiety are more frequently observed in girls than in boys (32.5 and 20.6%; $p \leq 0,05$). For girls, connection of personal anxiety with chronic eye diseases is very typical ($p \leq 0,01$), with bone-muscular system ($p \leq 0,001$); for boys, with chronic diseases of gastrointestinal tract.

Conclusion:

Schoolchildren with the high anxiety level are at risk of developing functional deviations and chronic diseases that predefines the need in prompt correction of school-centered anxiety.

A NARRATIVE THERAPY FOR BODY IMAGE DISORDERS IN ADOLESCENCE AND YOUTH: ESTONIAN AND ITALIAN CASE STUDIES

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This research aims to assess the efficacy of a narrative therapy for body image disturbance among adolescents and youths (White, Epston, 1990). Nowadays, the hypothesis that an increasing number of both young males and females fall short an ideal body image objectified by media is preliminary to the implementation of therapeutic protocols in out- and inpatient clinics. For instance, health services offered in Tallinna Lastehaigla and Gaslini di Genova children's hospitals (EST, ITA) constitute both the setting of this comparative study, which aims to integrate narrative therapy as an alternative and supportive methodology of surgical techniques. Accordingly, the study population is mostly adolescent, and the access to collect data is a collaborative assistantship with thoracic and plastic surgeons starting from the diagnosis of body image preoccupation, owing to bodily deformities, eating problems or body dysmorphic disorders. Undergoing a solution focused therapy allow patients and their family to make sense of a physical and mental condition, which in some cases affects negatively the social and occupational functioning of a person. On the other hand, interpretative phenomenological analysis contributes to co-author with clients the findings of the study in the form of storied accounts, showing an increased body-esteem and sociability even after short series of narrative sessions (Smith, 1999). The main outcome of this study is to meet the needs of adolescents and youths who experience a growing loss of voice and body shame, through conversations and therapeutic letter writing. Consequently, sound narratives on body image can make the difference.

THE PROBLEMS OF CHILDRENS` MENTAL HEALTH DEMAND TIMELY DETECTION, DIAGNOSIS AND COOPERATION OF SPECIALISTS FROM DIVERSE FIELDS

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Background:

Presentation will focus on mental health findings of the study on the children in detention (N=50) to reveal their characteristics of social background, mental health, personality and cognition, being considered behavioral risk factors. The study was financed by EEA program „Children and youth at risk“ and carried out in 2014 in Kaagvere Reformatory School, Tallinn Center for Children at Risk and Viru Prison.

Methods:

Selective MINI-KID interview was used for assessment of possible psychiatric disorders, dependencies and abuse behaviors. Additionally the social background interview, questionnaires and tests of cognitive abilities were applied. Data of children in detention were compared with data (N=50) from regular schools.

Results:

Contrasting to children from regular schools the children in detention displayed numerous symptoms of psychiatric disorders, mainly ADHD, substance dependencies and abuse. Social background data revealed unsatisfied needs for love, care and attention. As a rule, their problems of mental health have remained timely undiagnosed and uncured.

Conclusions:

Helping these children presupposes early detection of problems and providing integrated services: timely diagnosis and cure, feasible study level, abolition of school violence and support of personality development. Presently information about the diagnoses, disorders and their cure, about the level of education, educational and other special needs and about the services provided earlier do not reach the institute of detention together with the child. Today these institutions lack appropriate conditions and specialists for providing on-site help in serious cases. Positively, the closed institutions are able to offer secure environment, clear rules and supportive people.

DENTAL TREATMENT PLAN – REALISATION AND SUCCESS

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The retrospectively study clinical records of the dental treatment plan and the correctness of the implementation.

The first dental examination is free of charge. During studying time students have an opportunity to have recall-examination, but they are not called.

There were 1070 students, who had the first oral check-up in 2010 in our clinic in FSHS Tampere. The study group is a random sample (n=100) of them. There was 55 % female, 45 % male. They were divided into two groups: in group A they had DMF-index (decayed, missed, filled teeth) under 6 (n=58) and group B DMF-index 6 or more (n=42). According to oral health indices the randomised sample was representative.

Results:

There was 8 % dropped out (female 3%, male 13 %). 57 % of students had the recall-examination. The recommended recall time was average 26.7 months; in reality it was 33.7 months.

In group A 66% had the recall-examination, in group B 45%. There was increased DMF-index because of dental caries 23% in group A and 36% in group B; drop out was 3% in group A and 14% in group B.

Although we use Current Care Guidelines to evaluate need of third molars removal, still there were 24% of all recall-patients who needed third molar removal.

Conclusion:

The better oral health correlates positive attitudes to dental care. Good examination including bitewing x-rays is a good basis for the dental treatment plan even for those who have low DMF-index.

DRUGS, ... HOW TO HELP YOUTH?

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One of the most serious health problems of youth in Estonia are the problems related to drugs. To plan the necessary and efficient intervention measures it is necessary to explain which factors increase the probability of drug use. In the course of an international program „Youth in Europe“, on the initiative of Iceland, a survey of Tallinn students' life and welfare was carried out in 2012 and 2014. The aim of the survey was: to evaluate the occurrence of risk and protective factors related to drug use among Tallinn students aged 15-16 years; In 2012, 3776 and in 2014, 3674 questionnaires were returned, the results of the analysis of which gave answers about students' lifestyle, ways of spending free time, communicating with parents and social-psychological influences and values. Students' drug use was related with their participation in workout and recreational activities, relations within family and occurrence of mental health problems. In 2012, girls who reported they often felt unhappy were 15%, boys 5%, the numbers of sadness and not wanting to do something were 23% and 10% respectively. 31% of girls and 26% of boys thought it was difficult to discuss their personal problems with parents and 13% said they did not find caring and warm attitude at home. To ensure a healthy development and welfare of children and youth, it is necessary:

- to support and develop practical parent education;
- to widen students' possibilities of participating in recreational activities;
- to implement counselling services for students with mental health problems.

"MY CHILD HAS NORMAL WEIGHT"

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Background:

An integral part of every general medical examination of the child is to measure her/his weight and height. Depending on the results parents are instructed to seek guidelines regarding their child diet through Nutrition Counseling Program. Close cooperation with parents is a prerequisite for the success in dealing with body weight disorder of children. The aim of the study was to explore how parents perceive their child's weight.

Methods:

Anonymous questionnaires. The study included 245 children aged 5.5 to 6.5 years (124 girls and 121 boys) and their parents.

Results:

Out of 124 girls, 73.38% had normal weight, 8.06% were overweight, 15.32% were obese and 3.24% were underweight. 7.5% of parents of girls with normal weight thought they were underweight, 90% of parents of overweight girls think they have a normal weight, 73.68% of parents of obese girls think that they have a normal weight while 20.05% think they are just overweight and 25% of parents of underweight girls think they have normal weight.

Out of 121 boys, 73.55% had normal weight, 26.8% were overweight, 10.74% were obese and 7.45% were underweight. 100% of parents of overweight boys think they have a normal weight, 53.84% of parents of obese boys think that they have a normal weight while 46.15% think they are just overweight and 44.44% of parents of underweight boys think they have normal weight.

Conclusion:

Parents tend to have wrong perception of their child's weight.

RAISING UP OR LAYING DOWN - A BIDIRECTIONAL EFFECT OF INTERNET ON STUDENTS WELLBEING

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Background and Methods:

Finnish male University students use internet on average 33 hours and female students 25 hours per week. Nearly ten percent of students spend over 35 hours per week in internet for leisure use. In this study the effect of internet usage for students wellbeing and study ability is examined both by statistical analysis from the data collected from Finnish Student Health Survey 2012 with a sample of 10 000 Finnish Bachelor's or Master's degree students under 35 years of age and by practical experience in students mental health services. The hypothesis was that students using internet remarkable many hours per week have more difficulties in their study ability, social life and physical/psychological wellbeing but they can also find peer support and valid information for their problems through the net.

Results and Conclusions:

Students spending over 35 hours per week in internet for leisure use had significantly more mental and study ability problems than other students. Their experience of their physical and social wellbeing was as well weaker. However, during the counseling and therapy hours students often mention internet as their "lifesaver"; the only way to find company or a hobby or stay in touch with the world too frightening to meet in real life.

Primary care and mental health workers should acknowledge the essential role of internet in childrens and youths everyday life but also be aware of and able to assess the causes and risks of excessive use of digital equipment.

INTEGRATED SERVICES TO SUPPORT CHILDRENS` MENTAL HEALTH IN ESTONIA

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Mental health problems are multidimensional and span health, behaviour, learning and social problems. These problems have to be dealt with in similar manner, combining services from health, education and social sector.

Development of such a system should start by mapping current situation and using best evidence based knowledge to create a strategic concept that could be used as a roadmap and evaluation base for next steps to follow.

The objective of the project is to develop a concept paper to build up a system of children`s mental health services and interventions with reduced fragmentation in service provision and improved regional coverage with integrated health and social care services for children and families.

The situation in practical field looks fragmented. 27 different named specialists provide to services to improve or to support childhood developing and mental health, but cooperation and link between different sectors is limited. Some services are not available in every region and competencies of providers are not agreed in state level.

The concept paper will describe, how to ensure mental health services and promote for every children and family mental health. The concept paper for integrated services and evidence based programs to improve children`s mental health and reduce the risks of children and young people, be willing to the of 2015.

Important key words are: family centered, community based, evidence based and integrated approach.

THE FLEMISH DIGIT TRIPLET SPEECH IN NOISE TEST: ON-FIELD EVALUATION FOR NOISE-INDUCED HEARING LOSS IN SCHOOLCHILDREN IN FLANDERS

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Introduction:

The high prevalence of noise-induced hearing loss in adolescents is an important societal concern. According to current legislation and new guidelines in Flanders, periodic screening for early detection of noise-induced hearing loss is performed in school health care at the age of 10 and 14. The Flemish Digit Triplet Test (DTT) - a quick automated speech-in-noise self test - has been designed for this purpose and was found reliable and valid, and more convenient in a screening setting than pure tone audiometry.

Objectives:

To fine-tune age-specific cut-off values for referral, and to evaluate the feasibility of the DTT in the context of school health care.

Methods:

A pilot study with on-field evaluation is running since September 2014 in 11 school health services. All 10 and 14 year old pupils who fail the age-specific criterion (respectively -7.2 and -8.5 dB Signal-to-Noise Ratio) are referred to an ENT-specialist for further evaluation.

Results:

After 4 months 6028 children have already been screened with the DTT. According to current cut-off criteria, 4.8(10y) and 5.0(14y)% failed the test and were referred to a specialist. Mean test duration was about 7 and 6 minutes in both age groups, respectively. A low measurement error could be obtained.

Conclusions:

The DTT proves to be a suitable and valid screening instrument for noise-induced hearing loss in schoolchildren. Preliminary results show its feasibility in school health services. Results from specialist evaluation will allow to fine-tune cut-offs for large-scale implementation of the screening program.

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ADDRESSING MEDICAL ABSENTEEISM IN LOWER PRE-VOCATIONAL STUDENTS: EFFECTIVENESS OF A PUBLIC HEALTH INTERVENTION.

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Background:

The MASS intervention (Medical Advice for Sick Reported Students) aims to address medical absenteeism in pre-vocational secondary education. It provides a clear framework in which schools, in collaboration with youth health care physicians, are able to reach students and their parents, discuss aspects of the student's medical absence, and design and monitor a management plan to optimize students' health and maximize students' participation in school activities. The objective of the study was to investigate the effectiveness of MASS on students' medical absenteeism.

Methods:

A quasi-experimental design with an intervention group and a control group was applied. Multilevel analysis was used to study differences in the development of the level of a student's medical absence over time (after 3 and 12 months).

Results:

In the intervention group, the level of absenteeism decreased from 8.5 days reported sick in 12 school weeks to 5.7 days after 3 months, and to 4.9 days after 12 months. The number of absence periods fell from 3.9 in 12 school weeks to 2.5 after 3 months, and to 2.2 after 12 months. In the control group, the absence days initially decreased from 10.4 to 9 in 12 school weeks, after which an increase to 9.3 was measured. The number of absence periods initially decreased from 4.4 to 3.4, after which an increase to 3.7 was measured. The number of absence days per period remained about the same in both groups.

Conclusion:

The intervention appears to be effective in reducing medical absenteeism in lower pre-vocational education. Since the average length of absence is not affected, the effectiveness is confirmed by a decrease in the number of periods of absence.

HIGH PREVALENCE OF A NEGATIVE BODY-IMAGE IN A NORMAL WEIGHT ADOLESCENT GIRLS FROM ZAGREB: A PILOT-STUDY

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Background:

Girls in adolescence, a developmental period characterized by physical and psychological changes, are often dissatisfied by their appearance believing that they are overweight/obese. This dissatisfaction has an adverse effect on their mental health causing low self-esteem, depression, anxiety, and may also lead to eating disorders. In many cases a negative self-image and impression that they should lose weight exists in girls who are actually at a healthy weight. In order to determine a prevalence of such cases, and to evaluate if there is a need for developing a self-esteem promoting program for the adolescent girls from Zagreb, Croatia, we conducted this pilot-study.

Methods:

887 randomly selected girls (15-19 yrs) participated in the study. The protocol consisted of an interview regarding their family background, impression on body image and short anthropometry.

Results:

32.2% (N=286) of all girls said that they had excess weight, although most of them (83.2%) had BMI<85th percentile, waist circumference<90th percentile (74.5%) and waist/height ratio<0.5 (81.3%). Still, t-test results showed that of all girls with BMI<85th percentile, those who think of themselves as overweight/obese have higher mean weight, BMI, waist circumference and waist/height ratio than their peers with a positive-self image (all p<0.001). No significant differences were found in school success and parents` marital status between girls with negative and positive self-image.

Conclusions:

26.8% of adolescent urban girls were dissatisfied with their shape and size although they were not overweight/obese. We emphasize a strong need for development of program that would help raising self-esteem in this population.

ARE GROUPS AIMED AT ALLEVIATING DEPRESSION EFFECTIVE?

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Our aim in this study was to see if groups that are aimed at alleviating depression are effective. We held two groups, in autumn 2013 and spring 2014. In a couple of weeks our third group will start. The groups have consisted of seven meetings and were held once a week. The participants were university students. A general questionnaire about the group and Beck depression inventory were given to the participants in the beginning of the group and in the end of the group.

In the meetings we focused on different themes each time, such as stress, relationships, feelings and thoughts. The work consisted of discussion groups and lectures. Homework was given between the meetings. Our two groups were very different, and we only analyzed the first one because in the second group there were too few students present the last time. The results from the first group showed that the depression had alleviated, with a bdi mean of 20.7 in the beginning and 14,6 in the end. In the beginning 29% were unable to study, but none when the group ended. The results should be viewed in light of the fact that 71% reported that the problems had gone on for over two years. Nobody reported that they didn't benefit from the group, and 57% reported that they had benefited a lot from the group. This indicates that groups like this are effective in alleviating depression and might facilitate further studies.

SCHOOL PERFORMANCE, BODY CONSTITUTION AND THE AUGMENTATION INDEX IN YOUNG ADOLESCENTS

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Background:

Girls in adolescence, a developmental period characterized by physical and psychological changes, are often dissatisfied by their appearance believing that they are overweight/obese. It has been suggested that obese children have lower educational attainment, but strict connection between obesity and lower school performance has not been shown yet. Childhood obesity is the main reason for early atherosclerosis and later cardiovascular disease. Increased arterial stiffness could be estimated by the augmentation index (Alx), an independent sign of arterial health. In our study the relations between the body constitution, school performance and Alx were investigated. Our hypothesis was that an early atherosclerosis affects school performance in children.

Methods:

81 healthy school children aged 11-16 participated in our study. We checked anthropometry. Body mass indices BMI and SDS BMI were calculated. Information about the grade of general school performance was given to us by children.

Aix was measured on brachial artery by oscillometric method (Arteriograph).

Results:

The Alx has been negatively correlated to BMI in the range between 15–22 kg/m², SDS BMI - 3 to 1 and to waist circumference (WAIST) of 85 cm independent of sex, at higher ranges the correlations turned to positive. School performance was not correlated to body constitution. The negative correlation of Alx to grade of school performance was found. Less successful children have higher Alx than children with excellent grades. In 4% of children, extremely high values of Alx were found. All of them show average or low school performance.

Conclusions:

The influence of body constitution measures (BMI, SDS BMI, WAIST) on Alx were found. Higher Alx suggests increased arterial stiffness in a children with lower school performance.

ORAL HEALTH AND DURATION OF STUDYING

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Will oral health indices, use of health services correlate for the duration of the studies? In 2010 the oral examination was made to 691 students whose had begun their studies before the year 2005. In 2014 409 students had unfinished studies and 282 students have graduated. The students were divided in three groups: Studies on schedule (A), studies slightly delayed (B) and studies significantly delayed (C).

Use of health services will refer to the contacts that have been taken to the general or oral health of FSHS Tampere after the year 2000, visits, the telephone or e-mail contacts. In this study we compare oral health index DMF (decayed, missed, filled teeth) and use of health services of groups.

Results:

The mean of DMF was 8.5. DMF is clearly higher in group C (9.5) than in group A (7.1). The mean of D was 1.3. Also the D-index is higher in group C (1.9) than group A (0.9). CP-index was not significantly different.

Contacts have been a minimum of 2 and a maximum of 740 per student, the mean of contacts was 76.9. The group C had more contacts (88.2) than group B (69.8) or group A (65.5). If DMF-index was 14 or more there were contacts over 100.

Conclusion:

There is a connection for the duration of studying with the indexes of the oral health and use of health services. Previous studies have shown that the oral health and the control of the life have a strong correlation.



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