

CHILDHOOD AND ADOLESCENCE: DEVELOPMENT, PROBLEMS AND STRATEGIES
FOR HEALTH

INTEGRATION OF PHYSICAL AND MENTAL DEVELOPMENT IN ADOLESCENTS

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The physical changes that signal the start of adolescence occur alongside psychological and social changes that mark this period as a critical stage in becoming an adult. The development from prepuberty to full reproductive capacity may take as little as 18 months or as long as five years, average 3#189; years. The physiological changes of puberty, the rapid physical change, the pubertal growth spurt, sexual maturation and accompanying maturational changes in other organ systems, invariably produce psychological reactions which are essentially independent of the culture and include experiences that, although gratifying, also lead to feelings of helplessness, anxiety and despair.

Adolescence is, initially, a biopsychosociological process, a process of adaptation to puberty.

The psychological changes as well as the physiological changes follow a developmental pattern. Adolescence is the only period in human life during which the developmental regression constitutes the obligatory component of normal development and is the precondition for progressive development. The profoundest and most unique quality of adolescence lies in the capacity to move between regression and progression with ease that has no equal at any other period in human life. Regression inevitably constitutes a source of conflict, anxiety and guilt. The distinction between normal and pathognomic regression lies in the alternative whether regression to the undifferentiated stage is temporary or more or less permanent. Variations of mood and temporary deviant behaviours are part of the normal adolescent process. Applying adult based definitions to adolescents and identifying mental health problems in young people is difficult, because there occur symptoms and substantial changes in behaviour, thinking capacities and identity during the teenage years. It can be a breakdown in the process of integrating the physically mature body image into the representation of oneself. The breakdown at puberty expresses the adolescent's anxiety or panic when she or he suddenly is faced with a sexually mature body. The effects of development breakdown may become obvious immediately at puberty or only much later in adolescence

Key words: adolescence, maturation, regression

POLICIES AND STRATEGIES FOR ADOLESCENT HEALTH AND DEVELOPMENTS – A W H O APPROACH

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Health is acknowledged as a fundamental human right. The ‘UN Convention on the Rights of the Child’ enshrines every child’s right to enjoy the ‘highest attainable standard of health’. Human rights and a number of guiding principles have informed the development of the WHO strategy for child and adolescent health and development. They reflect the clear understanding that many factors determine the health of our young citizens. As such, action must embrace all social and economic sectors, not just the health services.

We fully acknowledge that healthy children are more likely to become healthy adults and that in turn healthy adults, as assets in the creation of a more socially and economically productive society, make fewer demands upon the health system. We also know that health is determined not just by the quality of health care provision but also by the physical, economic, social and family environment, and that children and young people need a supportive environment in which to grow and develop into young adults.

The WHO European strategy for child and adolescent health and development aims at supporting countries in the region to take steps to develop and implement comprehensive strategies for child and adolescent health taking into account differences in epidemiological, economic, social, legal and cultural environments. We also recommend to give high priority to making improvements in children’s and adolescents’ health and development, including physical activity and mental health, through advocacy at the highest level, scaling up programmes, increasing the allocation of national resources, creating partnerships and ensuring sustained political commitment

The overall goal must be for Europe’s young people to achieve the highest possible level of health in the light of current knowledge and the resources available. The intention is to encourage healthy growth and development and to reduce illness and mortality, not only among children and adolescents now, but also as adults in later life. An investment in the healthy development of young people today will by definition contribute to economic prosperity tomorrow.

Key words: children’s and adolescent’s health, WHO European strategy

HEALTH PROMOTION

INVESTING IN HEALTH: VALUING THE ASSETS OF INDIVIDUALS, COMMUNITIES AND ORGANISATIONS

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The WHO Venice Office has recently initiated a new programme of work ‘the assets for health and development programme (AHDP)’ which aims to provide scientific evidence and develop best practice to support the promotion of health and reductions in health inequalities by maximising the stock of health and development assets both within and across countries. The programme is based on the idea of salutogenesis put forward by Aaron Antonovsky as way of focusing attention on health generation as compared to a pathogenesis focus on disease generation.

The concept of resilience has been identified as an example of a health asset which can be used to support the healthy development of young people particularly those who are growing up in difficult circumstances. Resilient young people possess problem solving skills, social competence and a sense of purpose, which can be utilised as an asset that can help them rebound from setbacks, thrive in the face of poor circumstances, avoid risk taking behaviour and generally continue on to a productive life.

The AHDP will highlight what we already know about the links between resilience and health and development, the predetermining factors required to be in place to support resilience building in young people and the actions required by families, communities, organisations and governments to create health generating environments which are supportive of the development of young people.

This paper introduces the rationale and framework for the AHDP and in doing highlights the potential benefits that investments in youth health and well-being can have on societies as a whole in the future.

Key words: health promotion, health inequalities, best practice

EVALUATION OF HEALTH PROMOTING PROGRAMS IN YOUTH HEALTH CARE

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While schools have for a long time been considered as a key setting for health promotion, the health promoting school is a more recently developed concept. As a multifaceted approach to school health, it entails a broad settings approach to health promotion, which goes beyond the formal health education curriculum in the school to include a consideration of the physical and social environment of schools and of their links and partnerships with parents and the wider community, in pursuit of better health. While it is widely assumed that the health promoting school approach is effective in influencing outcomes related to health and education, attempts to evaluate this approach have only been made recently. The presentation will review the results of existing evaluation studies and look at the methodology to evaluate health promoting school programs, arguing that health practitioners and members of the school community should be involved in the evaluation process. It will start with an overview of different approaches to evaluation and their applicability to the evaluation of health promoting schools. Next, evaluation studies will be reviewed of school-based interventions that are explicitly founded on the concept of the health promoting school, demonstrating that it is possible to integrate health promotion into the school curriculum and policies successfully, and that the health promoting school approach can influence various domains of health for the school community. In a third part, the practice of evaluation of health promoting schools will be considered, whereby the available tools and methodological challenges of evaluating health promoting schools will be discussed, and suggestions will be made to enhance participatory and user-driven approaches to evaluating health promoting schools. The presentation will conclude with a set of recommendations that can serve to guide actions of educational and health professionals at different levels to help promote health through schools.

Key words: health promotion programs, evaluation

EFFECTIVENESS OF HEALTH PROMOTING SCHOOLS: LESSONS LEARNT (257)

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The presentation covers three important issues in developing, practicing and evaluating health promotion in schools: (1) philosophy and theoretical background of Health Promoting Schools' programs with a special emphasis on salutogenic approach, and different examples from European practices, (2) challenges in evaluation and measurements of the effectiveness and impact of the programs, if any, and (3) proposals and recommendations for further development.

(1) Health Promoting Schools: The story so far

The concept of a school as a setting for health promotion has emerged in the last decades in Europe and worldwide as a mechanism to combine a variety of elements to achieve success in pursuing educational and health outcomes. This presentation describes the philosophy and key principles (democracy, equity, empowerment, curriculum design, teacher training, measuring success, collaboration with community and sustainability) in development of health-promoting schools' programs. Special emphasis is given to the role of salutogenic approach in program development.

The facts in historical development of the European Network of Health Promoting Schools are presented. An overview of practice and experiences (case stories from selected countries) is done. This overview shows diversity that exists in implementation of holistic and integrated approach in practice. Strengths and many prospects for development and innovation are presented but also a list of well-recognised weaknesses and obstacles. Using Croatian examples from practice and preliminary results of national survey, the roles and responsibilities of health professionals are pointed out as well as the expectations from teachers, parents, pupils and policy-makers.

(2) Challenges in current evaluation in Health Promoting Schools programs

Over the last years, several research studies have been conducted with the aims to assess levels of effectiveness of health promotion practice in schools, to monitor health outcomes, to ascertain the needs of those involved, to indicate areas for development and to highlight indicators of success.

Based on the IUPHE and the European Commission reports, the evidence of health promotion effectiveness in schools is described. School health promotion interventions were recognised as effective in transmitting knowledge, skills and supportive positive health choices. The evidence indicated that programs were most effective when they were comprehensive, linking the school with other partners in the community. The results also showed that effectiveness and sustainability are governed by how closely the health promotion programs are linked to the primary role of schools in developing educational skills, on cognitive and social outcomes, rather than concentrate on achieving specific behavioural outcomes. One of the most important conclusions is that health promoting school practice depends on healthy policy framework and contextual factors influenced by decision-makers.

Selected results from the European analysis of evaluation practice present many challenges in methodology of evaluation and measurement of effectiveness. Health indicators at national and school's levels are still in doubt. The answers to questions why, to whom, what and who should be involved in assessment required more discussion and support. There is a variety in needs and competences. Therefore, a tailored approach based on experience in practice seems the best way to help in further development in the field of evaluation.

(3) Proposals and recommendations for further development

There is no doubt that health promoting schools have the potential to empower pupils, parents, teachers and health professionals to achieve and have control over their health, but the setting's approach still has many challenges to be discussed and managed. The evidence is clear that schools could not be expected to solve health and social problems in isolation from other forms of public health action. The Bangkok Declaration supports this need to move from practice to policy and the crucial roles and responsibilities in this process belong to governments and states.

There are many different programs in schools, mainly focused on disease prevention and health interventions, including intensive health educational programs. In further development, more attention should be paid to relationship between different programs running in particular school – this is the time for cooperation, not competition. Special attention must be done in health sector-educational sector-civil

society relationships. Creation and availability of opportunities for sharing information at local, national and international levels must be supported. It is a prerequisite for harmonisation, not unification, in planning, implementation and evaluation of health promoting schools.

Further participatory research is crucial in development and sustainability of health promoting schools. Both sharing methodology experiences and information dissemination in monitoring and evaluation of the program at local, national and international levels should encourage participatory approaches to evaluation that provide meaningful opportunities for involvement by all those with a direct interest in health promotion initiatives.

Key words: health promoting schools

YOUNG PEOPLE'S HEALTH IN CONTEXT: THE INTERNATIONAL HBSC STUDY (67)

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The paper will describe the most recent findings from the Health Behaviour in School-Aged Children: WHO Cross-National Survey. The survey was conducted in 35 countries in Europe and North America in 2001/2. The survey used self-complete questionnaires administered in the classroom to 11, 13 and 15 year olds. In total over 160,000 pupils were surveyed. The international data have been analysed and countries compared on a range of key health indicators and health behaviours. In addition HBSC studies the social context of health with a particular focus on family, school and peers, as well as socioeconomic factors. An overview of main finding of the study will be presented with attention to health determinants in this age group. The relevance of the study's findings to policy and practice aimed at health improvement of young people will be highlighted. Examples of different modes of dissemination of HBSC research to various end users will be described.

Key words: adolescent health, adolescent risk behaviour, health in social context, social inequalities

HEALTH OF YOUNG PEOPLE IN RELATION TO SOCIAL FACTORS IN THE GERMAN FEDERAL STATE OF BRANDENBURG (56)

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BACKGROUND: In the German Federal State of Brandenburg, reporting on health and social issues is closely linked. Brandenburg's Public Health Institute is responsible for continuously reporting to the federal government on children and young people's health.

METHOD: In addition to data from official statistics (demographic trends, employment and social security) and surveys conducted among young adults, the results from serial medical examinations of 10th grade pupils are presented (2002/3; N=31.311).

RESULTS: The number of young citizens in Brandenburg aged 16-25 will rise until the middle of the decade but then fall sharply. This will apply in particular to the rural areas far from Berlin and will have profound implications for the entire infrastructure of the state. Despite the state government's efforts, unemployment among the under-25s rose from 12.6% in 1995 to approx. 20% in 2004. Sociological studies show that "work and family" are people's highest priority. However, less-educated young people are increasingly doubtful about their ability to make these two areas their priority in life.

According to medical statistics, every third young person suffers from eye and hearing disorders, and more every seventh young person suffers from allergies (especially allergic rhinitis). The same applies as regards orthopaedic data. Approx. 7% of young people are obese, pupils of special schools more frequently than grammar school pupils. In general, young people's health is often related to their education level. This is clearly underlined by the results of a sample census on health conducted in 1999.

The percentage of people "ill or injured in the last four weeks" was 6.8 % for those with a low education level and 3.3 % for those with a high education level. Similar findings apply for health-risk behaviour (e. g. smoking).

CONCLUSION: Adopting a setting approach can help strengthen prevention and health promotion in schools and at the workplace. Healthy schooling, healthy professional training and good opportunities on the labour market are the key pillars of health policy in Brandenburg.

Key words: teenagers and young adults, social situation, health inequalities, public health services

**ETHNICITY, SOCIOECONOMIC STATUS AND ADOLESCENT'S HEALTH:
ADOLESCENTS, PROFESSIONALS AND PARENTS PERSPECTIVE -
QUANTITATIVE AND QUALITATIVE METHODS (52)**

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INTRODUCTION: This study is (1) to characterize the migrant adolescent's health behaviours with low social economic status, (2) to identify the differences between Portuguese adolescents and African Portuguese speaking adolescents, living in Portugal and (3) to get closer to the migrant adolescent's perspective, professional's perspective (teachers, psychologists, nurses, social assistants) and parent's perspective, opinions, attitudes, discourse and understanding regarding adolescent's health behaviours and how that is influenced by personal, social, economic characteristics.

METHODS: Two different studies were undertaken. Based on HBSC (Health Behaviour in School-Aged Children) a World Health Organization collaborative study [1] was developed a study, to test an ecological model of adolescent health and its relation with the existence of a migrant and low social economic status [2]. A sample of 1037 adolescents attending 6th, 8th and 10th grade, mean age 14.65 SD 2.2, participated in the survey, 27.6% were foreigners, and 24.3% from African countries. Focus Group (qualitative research) involved migrant adolescents, parents and health and social professional [3] [4] [5].

RESULTS: Results show that the foreigners /African adolescents with low and very low social economic status have many difficulties in social and physical contexts, and present higher risk behaviours, poor parent's communication, low school achievement, low peers involvement, substance use, more psychological symptoms and sexual risk behaviour.

DISCUSSION/ CONCLUSIONS: Statistic and qualitative analyses supported the assumption that the existence of a migrant status and the social economic status are associated with adolescent health behaviours. Social contexts mediate the relationship of a migration status with positive health.

The present study highlights the importance of using qualitative research in the clarification of special issues raised during quantitative studies, and confirms that adolescents notice ethnic differences on health behaviours. Implications of the results and directions for further research and community interventions will be discussed.

Keywords: adolescence, health behaviour, ethnicit, socioeconomic status, focus group.

LIFESTYLE, ENVIRONMENT AND SOCIO-ECONOMIC DETERMINANTS OF HEALTH AND WELL-BEING IN SCHOOL AGE IN CROATIA (195)

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INTRODUCTION: WHO European Health Report 2002 emphasises lifestyle, socio-economic determinants and physical environment as the major determinants of health. The purpose of this paper is to examine influence of lifestyle, socio-economic determinants and environment on students' health and well-being in Croatia.

SUBJECTS AND METHODS: Findings from the Croatian sample of the Health Behaviour in School-aged Children, 2001-02; school children, age 11, 13 and 15 (4352 students) Self-rated health as a subjective health indicator is used, explored by the question: Would you say your health is Excellent, Good, Fair or Poor? Correlation with 6 socio-economic (socio-economic inequality), 10 lifestyle (eating habits, physical activity, sedentary behaviour, tobacco and alcohol use) and 5 items related with environment (school as a workplace) is sought.

RESULTS AND DISCUSSION: 25,5% girls and 15,2% boys rate their health as fair or poor (Chi-square=70,3, $p<0,01$). Self-rated health is lower in the older age (Spearman's rho 0,176 for boys and 0,270 for girls, $p<0,01$, 2-tailed). In both sexes higher self-rated health is associated with 6 lifestyle items (having breakfast more regularly, higher level of vegetable and fruit consumption and physical activity, lower alcohol and tobacco consumption), 3 socio-economic items (going hungry to bed or school less often, higher assessment of family wealthy, travelling away on holiday with family more often) and all explored environmental items (peer support, being less involved in bullying, higher academic achievement, lower pressure from schoolwork). Sedentary behaviour doesn't correlate with self-rated health, with exception that the boys rating their health higher spend more hours doing homework. To emphasise is also that following socio-economic items don't influence self-rated health: having own bedroom, number of computers and vehicles in the family, with exception of correlation with the last item in female. Spearman's correlation ($p<0,01$, 2-tailed) and Chi-square test for having own bedroom ($p>0,05$) are used.

CONCLUSION: There are many items in the field of environment, lifestyle and socio-economic determinants of health observed in school age. Many of those promptly influence youth health and well-being, not to mention the impact on health in later life. This emphasises the need for health-promoting actions aimed to detected items already in school age.

Key words: self-rated health, lifestyle, physical environment, socio-economic determinants

FOOD POVERTY AMONG IRISH ADOLESCENTS (182)

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INTRODUCTION: To investigate the relationships between food poverty and risk behaviours, health and life satisfaction among Irish adolescents.

Subjects: 8,424 schoolchildren (aged 10 to 18 years) from 176 primary and post-primary schools.

METHODS: Analysis of data collected by the 2002 Health Behaviours in School-aged Children national representative study. This paper focuses on the associations between food poverty and, health perceptions, somatic and mental symptoms, and life satisfaction.

Main outcome Measure: Substance use, violent behaviour, health perceptions, mental and somatic symptoms, measures of life satisfaction.

RESULTS: After adjustment for age and social class, experiencing food poverty is found to be associated substance use, violent behaviour, negative health perceptions, frequent somatic and mental symptoms and low life satisfaction. Food poverty increases the risk for smoking, being drunk and cannabis use: adjusted odds ratios vary from 1.38 (95% CI 1.15-1.61) to 1.86 (95% CI 1.64-2.08), and for involvement in violent behaviours: adjusted odds ratios vary from 1.41 (95% CI 1.21-1.61) to 2.06 (95% CI 1.86-2.26). Food poverty also increases risk for somatic and mental symptoms: adjusted odds ratios vary from 1.48 (95% CI 1.18-1.78) to 2.57 (95% CI 2.33-2.81), and with negative health perceptions: adjusted odds ratios are 0.63 (95% CI 0.43-0.83) for boys and 0.52 (95% CI 0.28-0.76) for girls. Food poverty is also related to dissatisfaction in life: adjusted odds ratios vary from 1.88 (95% CI 1.64-2.12) to 2.25 (95% CI 2.05-2.45). For all risk behaviours outcomes the effect of food poverty was stronger among girls, whereas for most of the health perceptions, symptoms and life satisfaction measures, the effect of food poverty was found to be slightly stronger among boys.

DISCUSSION: The experience of food poverty among adolescents poses a substantial risk to their health and well being and requires the increased attention of policy makers and practitioners.

Key words: risk behaviours, HBSC, food poverty

MINDMATTERS - A PROGRAMM FOR MENTAL HEALTH PROMOTION IN AND WITH SECONDARY SCHOOLS IN GERMANY AND SWITZERLAND (18)

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Mental health promotion in and with schools is going to be one of the most important thematic strategies in school health promotion in the near future as epidemiological data show. One of the worldwide most recommended programmes ("MindMatters") which deals with mental health at school level will be presented as well as first results from a German-/Swiss- pilot. MindMatters is a resource for secondary schools (grades 5–10) which originates from Australia. The program consists out of eight booklets and a video. It addresses the following aspects: Mental health promotion and prevention of mental illness of all school members; enhancing respect and tolerance in classrooms; creating a supportive and caring school culture; creating networks and partnerships as well as improving teaching and learning. The programme is based on a whole school approach and focuses on three levels of intervention in schools: 1. Curriculum/teaching and learning, 2. School culture and environment and 3. Partnerships and services. It offers schools curriculum booklets (five booklets) and material for school development (three booklets). The pilot is funded by the BARMER Ersatzkasse (health insurance company), three GUVs (statutory accident insurances for pupils on state level) and the Swiss Network of Health Promoting Schools. The pilot started in August 2002. From February 2004 up to July 2005 the program was tested in 32 pilot schools in Germany and Switzerland. It is planned to disseminate and implement it in all "Bundesländer" in Germany and in all "Kantonen" in Switzerland. It is also planned to enrich the program with other relevant aspects of mental health promotion at school level (e.g. strengthen the cooperation with families: "FamilyMatters").

Key words: mental health, promotion, pupils, schools

THE HEALTH PROMOTING PROJECT "THIS IS ME" (223)

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In Slovenia many teenagers manifest lack of optimism, self-esteem and self-confidence and see no aim to live.

Five years ago the project "This is me" has been developed to boost self-confidence and to encourage them not to underestimate their abilities. It communicates to the young: "This is me-and that is it. I am what I am. I am creating my own self".

The project contains the website "This is me" and a variety of school activities and leaflets about love, self-esteem and healthy way of life.

The activities are running in 75 schools.

An expert team of 30 counsellors from field of medicine, social and psychology answered already 7546 teenagers' questions about their problems. They are all available on the website. The questions are about sex and love, anorexia, bulimia, self-esteem, body weight...

The evaluations of the project are very good, the teenagers accept the project very well.

We hope the long term results of the project will result in the decrease of asocial behaviour and in increase of their self-esteem and self-confidence.

Key words: youth health promoting project, teenagers, self-esteem, website advising

«CHILDREN'S ETIQUETTE OR HOW TO BE FRIENDS WITH EVERYBODY» AND ITS IMPACT ON MENTAL HEALTH OF SCHOOL CHILDREN (196)

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Croatian Union of Physically Disabled Persons Associations will conduct a program in 63 cities in Republic of Croatia, which will contribute to solve still existing problem of resistance against integration of children with special needs in Croatia and will improve mental health of school children, at the local level.

By the presentation and distribution of a very popular picture book «Children`s etiquette or how to be friends with everybody», we are going to give our contribution to the improvement of mental health of school children - future aware citizens of the society,

As the Croatian Union of Physically Disabled Persons Associations has associations on the local level, which have a good contact with the local government and media, activities for improving mental health of school children will be well networked in the cooperation with the school physicians and employees in elementary schools. It will be established one main team which should meet one a months. Two press conferences should be held, one at the beginning and one at the end of the program, when it will be presented integral review of the activities.

In each of 63 cities it will be established small organisation teams as holders of the activities in their local level. Team will consist of the local school physicians, represents of the local associations, school directors or teachers, represents of the department for education, health and social welfare. The team will animate media, as well.

While the PowerPoint presentation it will be given 50 examples of picture book Children`s Etiquette. For 63 cities total amount will be 3.500 examples. Each school will get a present – framed placard of the «Etiquette of everyday communication with disabled persons».

Results of this program will be presented on the 13th Congress of European Union for School and University Health and Medicine, as an example of good praxis.

Key words: mental health, school children

ACCIDENT PREVENTION IN THE FEDERAL STATE OF BRANDENBURG (53)

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INTRODUCTION: In the 1990s, the Federal State of Brandenburg had an approx. 25% higher rate of fatal and non-fatal accidents among children (<15 years) at home, on the roads and during leisure activities than the national average. This led to the establishment, in 1997, of a voluntary interdisciplinary alliance on "Prevention of Accidents Among Children" under the auspices of Brandenburg's State Medical Council/Public Health Institute.

GOALS: The following goals have been defined based on safe-community criteria:

No. 1 Injury monitoring for child accidents

No. 2 Protecting babies and toddlers from the most frequent accident risks at home

No. 3 Providing toddlers with a safe life and play environment

No. 4 Injury prevention for primary-school children during school break-time, physical education classes and on the way to and from school

No.5 Evaluation of the injury prevention projects

INTERVENTION MEASURES:

- Since 1997, a statewide campaign entitled "Growing Up in a Safe Environment" and conducted by an alliance of more than 30 institutions

- Training of key persons (midwives, etc.)

- A statewide campaign by paediatricians (participation rate: 70%) and midwives (participation rate: 60%) to advise parents on age-specific accident prevention measures.

- Learning in Motion, School Break-Time in Motion, Parent Evening in Motion – conducted by the State Accident Insurance Association at Brandenburg's primary schools.

- Since 2003, accident prevention has been an integral part of the Brandenburg government's health programme "Growing Up Healthy in Brandenburg".

- Accident prevention projects are analyzed according to uniform criteria and made available statewide.

- Injury monitoring by Brandenburg's Public Health Institute (since 1997) in cooperation with Cottbus's Paediatric Clinic (since 2003).

CONCLUSION: Since 2003, accident prevention has been one of the Brandenburg government's established fields of action. Analysis of the measures focuses on sustainability as well as structure and process evaluation.

Key words: accident prevention, injury monitoring, statewide campaign, evaluation

FINNISH UNIVERSITY STUDENTS` COMMUNAL HEALTH PROJECT TO REDUCE HARM CAUSED BY ALCOHOL CONSUMPTION AND TO SUPPORT A CHANGE IN DRINKING CULTURE IN 2005-2006 (47)

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Information on alcohol has practically not at all specifically directed to the critical public such as university students. There is a great amount of motivation to bring out alcohol matters, but they lack serviceable tools. Habits adopted during student years easily pass into working life and that is why there is a need to develop a student-oriented approach. This project is a part of a preventive drug programme in 2004-2006 to which the organizations mentioned above are engaged.

Objects in this project: First, we aim to bring out the social structures maintaining abundant alcohol consumption. Second, we aim to give rise to a critical discussion on the prevailing alcohol culture among university students and third, to support attitudes supporting less harmless alcohol consumption. The target group consists of the university students in Finland (140 000).

Aims in our project: First, we aim to develop an informative content output of a high level, planned with the target group. Second, we aim to introduce "ten questions" about the social disadvantages of alcohol consumption to be used as a conversational disposition. And third, we aim to produce a guide to self-control, also planned and tested with the target group. In the cooperation with the Finnish Student Health Service local health centres we present and offer out realization models how to actively change one's drinking habits. We shall carry out the project in cooperation with several student media and other media connected with student life. The process of the project will be evaluated, though the informative part of the project will be evaluated as a panel procedure by an expert group.

The condition of university students' health is an important part of the health of the population. Alcohol consumption results in harmful consequences, such as prolongation of one's studies, health, social and economic problems as well as resulting effects of inconsiderate behaviour. In the long run, a wider cultural change and change in one's drinking habits bring socially desirable and remarkable model effect in the target group.

Key words: alcohol consumption, students, student culture, information on health

SCHOOL CHILDREN'S HEALTH: 'PAPER ROUNDS' VERSUS PHYSICAL EXAMINATION? (74)

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INTRODUCTION: In Finland doctors used to examine physically all school children on the first and the eight grades. The city of Espoo changed this practice in 1999. Since then a nurse and a doctor did 'paper rounds' to find pupils with health problems. The doctor examined only those who came out this way. As a result some pupils never met a school doctor. The aim of this study is to evaluate whether the 'paper round' could replace the physical examination performed by a doctor.

MATERIALS AND METHODS: The study includes 386 pupils. The pupils were 14-15 years old. After the pupils had filled in a health questionnaire, a 'paper round' was carried out. The documents were discussed by a doctor and a nurse. The pupils were divided into two groups, those who would meet the doctor and to those who would not. In spite of the group division the doctor examined clinically all the pupils.

RESULTS: Based on the 'paper round' the doctor recommended a physical examination for 69% of the pupils, whereas the nurse recommended the same for 67%. In 240 cases (62%) this recommendation was made by both. In 41 cases (11%) it was made by either the nurse or the doctor. After the doctor's physical examination the need for a follow-up by a health professional was considered to be necessary in 83% of the cases. Percentages of pupils in need of special care were: 9 % paediatric care, 5 % surgery, 7% adolescent psychiatry, 9% ophthalmology, 2% paediatric neurology and 4% ENT special care.

On the basis of the 'paper round' it was concluded that 104 (27%) pupils were not in need of physical examination. In the school doctor's examination, however, it was found out, that 17 pupils (16%) of these 104 pupils needed special health care.

In addition a number of pupils were considered to be in need of a follow up by a health nurse and professionals of the primary health care.

DISCUSSION AND CONCLUSION: 'Paper rounds' will find a considerable part of pupils in need of health promotion, disease prevention and medical diagnostic procedures. This study shows that 16% of those not found by paper rounds, would on the basis of a doctors examination be in need of referral to specialist care. 'Paper rounds' in all probability cannot replace the previous practice of physical examination to all adolescents.

Key words: school health, adolescent, physical examination

AUDIOMETRIC SCREENING EVALUATION IN THE POPULATION OF 1ST GRADE PRIMARY SCHOOL PUPILS (100)

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AIM: To evaluate justifiability of audiometric screening conduction in 1st grade primary school pupils.

MATERIAL AND METHODS: The research included 2771 first grade primary school pupils from Split in school year 2002/03 and 2003/04. The results presented here were obtained by the hearing examination (anamnesis and examination by authorized school doctor, selected doctor and ORL specialist) at those pupils whose audiometric report was not well.

RESULTS: Hearing damage was suspected in 5.12% of pupils and after conducting the examination; the hearing damage was confirmed in 1.62% of examined pupils. In 57.74% of pupils with hearing damage suspicion, the school doctor conducted the examination and in 14.08% the selected doctor did it. 28.14% pupils were not included at the examination. Among the pupils examined by the school doctor, the newly discovered hearing damage was confirmed in 89.02% of pupils.

CONCLUSION: These examination results are showing that audiometric screening conducting among 1st grade primary school pupils is justifiable, with the aim of preserving and improving their health. To reach that aim as effective as possible, school doctors should strive for better communication with both, the parents and the selected doctors.

Key words: audiometric screening

BEDWETTING IN PRE-SCHOOL CHILDREN OF THE OSJEČKO-BARANJSKA COUNTY OBLIGED TO ATTEND THE MEDICAL EXAM BEFORE ELEMENTARY SCHOOL ADMISSION (101)

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INTRODUCTION: Bedwetting (nocturnal enuresis) is a common problem among school children and can lead to important social and psychological disturbances. The aim of the present study was to estimate the frequency of primary nocturnal enuresis (PNE) in pre-school children of the Osječko-Baranjska County obliged to attend the medical exam before elementary school admission at the Department of School Medicine in the Public Health Institute of the Osječko-Baranjska County. **SUBJECTS:** The parents of all 3,011 pre-school children aged between 6 and 7 years who were obliged to attend medical exam before elementary school admission in Osječko-Baranjska County during the year 2004, were asked to complete an anonymous questionnaire.

METHODS: The questionnaire included items about gender and age of the child, symptoms associated with bed wetting, duration of the bedwetting, frequency of daytime wetting and nocturnal enuresis, family history, urinary tract infection, parents and child's own concern about this problem and acquisition of treatments. Descriptive statistics and Chi-square test were used for data analysis. **RESULTS:** The response rate was 100%. Mean age of the study group was $6,5 \pm 0,4$ years. The overall prevalence of reported enuresis was 1,4% (41/3011). There were 30 (73,2%) enuretic boys and 11 (26,8%) enuretic girls, gender differences being statistically significant ($p=0,01$; Chi-square=6,591). Family history of enuresis was present in 73,2% (30/41) enuretic children. Of the bed wetters, 24,4% (10/41) were wet once a week and 75,6% (31/41) of them were wet two or more nights a week. Of all enuretic children, 17,1% (7/41) had also daytime bedwetting. The common self-help strategy was the combination of waking the child at night to void and restriction of water intake (31,7%). Only 4,9% (2/41) parents noticed that bedwetting had effected their child social activities and had influenced their behaviour.

DISCUSSION: The overall prevalence of reported enuresis in Osječko-Baranjska County is lower than those reported from surveys conducted elsewhere in the world but the gender differences and self-help strategies are the same. The prevalence of concerned parents is also lower than those reported from other surveys.

CONCLUSION: The frequency of enuresis among the study group is much lower than those reported in other European countries. The reason for that is yet not known; although the parents' perception of this problem is certainly significant factor. Further investigations are needed.

Key words: bedwetting, enuresis, primary nocturnal enuresis, pre-school children, Croatia

HYPERTENSION IN ADOLESCENCE - PREVENTION AND EXPERIENCES (102)

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In the age of 10, 12, 14 and 17 years obligatory screening tests are performed by school doctors and school health visitors in every school in Hungary. During the physical examination the blood pressure is measured which results are evaluated in the aspect of gender, body weight, body height and age. In case of border-line and abnormal increased systolic/diastolic values, 2-3 control blood pressure measurements are performed in the schools. When the results of repeated measurements are also abnormal, further medical examinations are necessary. That is the reason why the school doctor sends the screened pupil to the adolescence outpatient clinic.

I. Aims in the schools

1. to screen and observe pupils with risk factors, lifestyle advisements
2. to find cases suspect of hypertension: sending them to special examinations as soon as possible
3. to follow the pupils with hypertension after the examinations: control blood pressure measurements in school environment, observations of possible medication, decision in the questions of physical exercises.

II. Tasks of adolescence outpatient department

1. to set 24 hours ABPM as soon as possible in the daily routine with school attendance and evaluating the results
2. in case of cardiology consultation: ECG, echocardiography and cycle-ergometric examination to estimate physical condition
3. blood and urine tests, ophthalmological examination, abdominal sonography, etc, in order to exclude renal, endocrine and other diseases
4. in case verified hypertension:-suggestions to possible elimination of risk factors
-starting and following of antihypertensive therapy, blood pressure control, repeated ABPM
5. to hospitalise the patient if necessary

Our experiences:

1. The results of blood pressure measurements in school are often not real due to the environmental stress factors.
2. The adolescent lifestyle and habits contain more and more blood pressure risk factors to which we should pay increased attention (smoking, coffee, cola, energy drinks, body building)
3. The number of overweighted adolescents is also increasing in Hungary, so we find more and more hypertension associated with obesity.
4. One of the special problems of adolescence the hyperkinetic circulation (increased blood pressure and heart rate) should be paid great attention and treated with cardioprotective aims.
5. We have more and more primary essential juvenile hypertension cases "if you look for, you will find"

Key words: hypertension, screentests, ABPM control

OXYGÈNE! A FRENCH HEALTH PROMOTION BRIEFING ON TOBACCO FOR 7TH GRADE STUDENTS BASED ON DATA FROM THE INTERNATIONAL HBSC SURVEY - EVALUATION BY TEACHERS AND STUDENTS (128)

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INTRODUCTION: Oxygène! is a 6 pages briefing on the topic of tobacco illustrated by students' drawings and texts, designed for high-school-students, to be used in class as part of curricular civil education activities. HBSC data is used as a way for students to understand the scope of the problem among young people and to compare themselves with others in France and other countries. It has been given to all 7th graders of Midi-Pyrénées (33 000) through teachers.

OBJECTIVES: To evaluate the relevance of this action among teachers and students. To compare these perceptions and provide guidelines for further projects.

METHODS: E-mail self questionnaire sent to all civil education teachers in charge of 7th grades. Self-questionnaire in class for 7th grades students (N=2100). Qualitative interviews with teachers and groups of students.

RESULTS: 614 teachers got the questionnaire, 25.7% sent it back (n=158). Respondent don't differ much from non-respondent on sociodemographics. Globally, teachers are quite positive about Oxygène! The content was given a global grade of 7.6/10 and the presentation 7.7/10. Among those who had previously worked on tobacco with students, (n=120; 78,5% of respondents), 82.5% declare that Oxygène! has changed the organisation of the lesson, 72.4% that it has made it easier, 57.8% that it has changed its content. 85.9% of respondents would want an other Oxygène! for the coming years, and 82.4% a document of the same kind. Among the topics given by respondents for future briefings, alcohol comes first, then drugs, then contraception and STI's. Ten teachers were interviewed by a researcher in health psychology for around 20 minutes: globally, they appreciate the initiative, are happy to have a non academic but scientifically validated document but think less information would be enough for students. They complain that the distribution of the document and its evaluation were not coordinated with their own schedule for programs.

DISCUSSION: Those rather positive results among teachers will be compared to those of students (data input in progress).

CONCLUSION: The results of this evaluation will be used to prepare new health promotion materials. The results of the full teachers' evaluation and the qualitative evaluation of students show that for both groups alcohol should be the next priority. In accordance with French academic programs, this could be done for 9th graders through biology teachers.

Key words: tobacco, health promotion, adolescents, briefing

YOUTH COUNSELLING SERVICE 2003-2004 (157)

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INTRODUCTION: According to a saying, adolescent is a passenger who has not yet reached his destination, and precisely this sentence was guiding idea of the paper "Youth Counselling Service".

METHODS: Conversation, communication and advice.

From 2003 to 2004, all users of the Counselling Service were analysed.

RESULTS AND ANALYSIS: During 2002 in Split, under the patronage of UNICEF, the project "Open Centres for Youth" was implemented. The activities of "Youth Counselling Service" started as part of this project. During the above mentioned period, out of 319 users seeking help in the Counselling Service, there were 300 girls (94%) and 19 boys (6%). Users of the Counselling Service were high-school and university students aged 14-20 years. According to the analysis of reasons for coming to the Counselling Service, it was reported that 31.9% of students were coming for counselling on reproductive health care, 27.5% for counselling on contraception, 15.6% for conversation and counselling on relationship between the sexes, 12.2% for counselling in relation to physiology and menstrual cycle disorder, 8.15% for counselling in relation to the existing gynaecological disturbances and 4.38% for counselling in relation to emotional disorders. Having discussed their problems and upon given advice, the students were referred for further medical treatment in accordance with their problems (gynaecologist, psychologist, physiotherapist).

Activity objectives of the specialised Counselling Service include:

improvement of youth reproductive health care

raising levels of adolescents in information skills

decrease of sexually transmitted diseases

birthrate increase

promotion of healthy lifestyles

CONCLUSION: Adolescents should learn that sexuality is an ability to give and take. The results of the activities in our Counselling Service are in accordance with our belief that in order to realise the objectives for the improvement of youth reproductive health care, it is necessary to carry on with the activities of "Youth Counselling Service", and if necessary include other health care professionals (gynaecologist, psychologist, psychiatrist etc.).

Key words: adolescents, counselling service, reproductive health

ACCOMPLISHMENT OF HEALTH PROMOTION PROGRAM AMONG PRESCHOOL CHILDREN HEALTHY KINDERGARTEN (161)

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INTRODUCTION: In Belgrade, capital of Serbia Montenegro, since 2000th year has been conducted Health promotion program for preschool children Healthy Kindergarten. All kindergartens in Belgrade have participated in this Program.

SUBJECTS: Preschool children and their total health awareness and accomplishment of set of health promotion measures.

METHODS: It is social medicine retrospective evaluation study based on statistical analysis of program documentation. Materials are all preschool children age 3-6 years from Public Sector kindergartens in Belgrade.

RESULTS: All targeted group: preschool children, parents and professionals, according to surveys, reported adopting healthy life style concepts for improving their quality of life. Professionals have been educated to continue their role after ending the program. Also important is high community mobilisation in all municipalities in Belgrade.

DISCUSSION: creating framework for next generation to take own responsibility for their health promotion is imperative of today.

CONCLUSION: Results of the program have shown that the program accomplishment is successful among preschool children in Belgrade.

Key words: preschool children, health promotion, kindergarten

COMMUNITY NURSES' READINESS TO ACT IN LITHUANIAN SECONDARY SCHOOLS (181)

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INTRODUCTION: Health promotion through schools is effective way to improve children health only then, when it's based on reciprocal understanding of educational and health sectors. It means that health professional working for and with school community must be able to apply Health Promoting School approach.

AIM: to assess community nurses' readiness to act for and with school community.

METHODS: 321 community nurses aged between 25 and 58 working in randomly selected Lithuanian secondary schools were interviewed by special anonymous questionnaire, which validity was proved in the pilot study. The study was conducted combining both qualitative and quantitative research methods.

RESULTS: This paper presents study results related to some elements of competencies (knowledge, skills, attitudes). Data analysis indicates that majority of respondents have enough theoretical knowledge in traditional work fields such as first aid (88,6 %), immunoprophylaxis (88.0 %), personal hygiene, transmitted diseases, however, there is a lack of knowledge and practical skills regarding nutrition, health risk factors, mental health, physical activity. Only 21.5 % of nurses are able to take part in programming. Around half of nurses reported being ready to counsel teachers and students on family planning, stress coping, physical education. Even 50.5 % of school community nurses stressed that some of their activities in schools are not meaningful. More positive findings from this study were that most of respondents find their job to be interesting (93.4 %) and enjoyable (67.2 %).

DISCUSSION: The development of effective initial as well as in-service training programmes is the key strategy seeking to re-orient school health service. These programmes should mainly address issues applying theory into practice. But we need more evidence based data about professional readiness of school community nurses.

CONCLUSION: The study shows that school nurses are not ready to act for and with school community because they need competencies in many areas.

Key words: community nurse, secondary school, readiness and training

SAFETY AND OCCUPATIONAL HEALTH FOR STUDENTS AT THE KATHOLIEKE UNIVERSITY OF LEUVEN (231)

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On 12 June 1989 the directive 89/319/EEG on Occupational Safety and Health was published. Belgium translated this directive into the law on Welfare of 4 August 1996. A specific Royal Decree on trainees was published (R.D. 21 September 2004). From 1996 on trainees were treated equally as employees. Problems arose with its implementation: labour is a federal matter; education a regional one. The employer is responsible for conducting risk analysis and health surveillance and therefore costs are connected. The legislator did not provide extra financial means in the orders in pursuance of the law. In order to avoid that traineeship would have to be eliminated, the General Manager and the internal prevention service of the Katholieke Universiteit Leuven decided to take care of the organisation as well as the financing of the legal obligation.

In short following items are discussed:

Which fields the law on Welfare includes

How this legislation at K.U.Leuven was implemented

Figures in general

High-risk groups

Goals and means

Work method

Strategy

Health surveillance on students exposed to risks

The practical interpretation of health surveillance in 3 fields of study: medicine, dentistry and chemistry.

1. Medicine: In their 7 years of basic training students are invited 3 times to have a medical examination. During their 1st year of bachelor, before their nursing internship; in their 5th year before starting their 12 month-internship and at the end of their study in the 7th year. Special attention is given to biological risks to among other things Hepatitis B vaccination, tests for tuberculosis, registration and follow-up of needle stick, cutting and spatter accidents.

2. Dentistry: Students are summoned in their 2nd bachelor year and in their 5th, final year. Special actions among other things regarding moistness and health in the preclinic, lectures and safety actions (glasses). Data on the 5-years of follow-up of first aid-data.

3. Department of chemistry, faculty of science: Medical examination on students in their 3rd bachelor year. Inquiry on risks, incidents and accidents. Here we work towards the whole group. By means of different approaches among other things thorough reading through all practical manuals, risk analysis during all practicals by the people involved. Every student of the 1st year receives a CD-ROM on Handling chemicals the safe way with respect for the environment.

Key words: occupational health, students, risks, Welfare -Being

PREVENTION ACTIVITY IN BUDAPEST'S 17TH DISTRICT (232)

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The unfavourable development of the Hungarian population's health condition requires effective measures at national, regional as well as local levels. The realisation necessitates a complex strategy including planning, organising, cooperating, acting, and coordinating. It is a task of paramount importance to spread an exigency for the positive mind, for the conservation of health, and for the quality of life. This work can be successful only in case it is not characterised by occasional actions, but by long-term, continuous, and determined work. That calls for development of organisational structures and functional models. In the 17th district (85,000 inhabitants) it is five years that a conceptionally built health promotion model is running whose subjects cover the fields that are important for health behaviour. Its purpose is the application at diverse fields of the components of healthy way of life such as health culture, mental health, nutritional science, diseases, prevention of addictions, sexual hygiene, role and importance of screening tests, etc.

METHODS: public health surveillance, health survey, data collection, monitoring, setting program

CONCLUSION: For the efficient and quality work, the instruction of health education specialists and the reassessment of the structural system are of prime importance, since this task can be successful only when assisted by continuous, targeted activity provided with persons in charge. This needs specialists in required number and a well-developed network of institutions. Only this ensures an evidence-based prevention including:

- good professional knowledge
- graduate and postgraduate education
- professional standard
- internationally legitimised protocols.

In this poster work, I present the participants of this activity, the processes, methods and results of execution.

Key words: prevention, effective strategy, setting program, health, health promotion, healthy way of life, health education

INFANTS AND PRESCHOOL CHILDREN

A REFERENCE CURVE FOR RELATIVE WEIGHT LOSS FOR BREAST-FED INFANTS TO DETECT HYPERNATRAEMIC DEHYDRATION (12)

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INTRODUCTION: To construct a reference growth chart for breast-fed infants between postnatal day 2 and 11 and to assess its validity in detecting infants with hypernatraemic dehydration. The participants are 1,544 healthy (exclusively) breast-fed infants with 3,075 measurements born during 2002 in three primary care midwife practices in the Netherlands and 83 cases of breast-fed infants with hypernatraemic dehydration obtained by a search of the literature.

METHODS: Outcome measure was relative weight loss (weight loss compared to birth weight in %). A reference chart for relative weight loss was obtained by the LMS method, in which centiles are estimated by the Box-Cox power (L-curve), the median (M-curve) and the coefficient of variation (S-curve).

RESULTS: The 0.6 centile (= -2.5 SDS) is -11.1% (2 days), -11.9% (3 days), -11.8% (4 days), -11.3% (5 days), -11.0% (6 days), -10.6% (7 days), -10.2% (8 days), -9.8% (9 days), -9.6% (10 days) and -9.5% (11 days). This centile is used as a test to detect children at risk of hypernatraemic dehydration. The test is considered positive if a breast-fed child's relative weight loss decreases below -2.5 SDS and negative if it stays above. Sensitivity (percentage of infants with hypernatraemic dehydration with a positive test) is 86%. Specificity is by definition 99.4%. Positive predictive value is 9.3%, assuming a prevalence of 7.1 per 10,000 breast-fed infants. Cases with a negative test have a mean plasma sodium concentration of 153 mmol/l and cases with a positive test have a mean sodium concentration of 163 mmol/l.

CONCLUSIONS: A growth chart for relative weight loss for breast-fed infants in the first days after birth can be helpful to detect infants at risk of hypernatraemic dehydration.

Key words: breast feeding, growth, hypernatraemic dehydration, sensitivity, specificity

POST-NEONATAL ULTRASOUND SCREENING FOR DEVELOPMENTAL DYSPLASIA OF THE HIP (88)

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INTRODUCTION: In the Netherlands, screening for developmental dysplasia of the hip (DDH) is part of the program for child health surveillance, organized by the Child Health Care (CHC). The CHC-screening is based on identification of risk factors and repeated physical examination of the hip in children aged one to five months. As the validity of this screening program was not satisfactory, we studied whether post-neonatal ultrasound (US) screening yields better results.

SUBJECTS: Infants attending the CHC-centers.

METHODS: The intervention group (n=5170) was screened by US at the age of one, two and three months, the control group (n=2066) by routine physical examinations. Both the children in the intervention and control group received an US examination after the age of six months to detect any abnormality that might have been missed by the screening. Using a decision-tree analysis, the effectiveness of several US screening strategies was evaluated.

RESULTS: In the cohort study, the sensitivity of the US-screening was 88.5%, the referral rate 7.6%. As a result of the US-screening 4.6% of the children were treated. The sensitivity of the CHC-screening was 76.4%, with a referral rate of 19.2%. The treatment rate was 2.7%. Of the treated children in the US-screening group, 67% were referred before the age of 13 weeks, whereas in the CHC-screening group only 29% were referred before this age.

The decision-tree analysis showed that of the general US-screening strategies, screening at the age of three months had the lowest percentage of missed cases (0.6%), the lowest referral rate (4.5%) and the lowest treatment rate (3.2%). Screening of high-risk infants resulted in a low referral and treatment rate (1.9% and 1.4% respectively) but in a high percentage of missed cases (2.6%). The combined CHC and US-screening led to a percentage of missed cases of 1.3% and a treatment rate of 2.4%. The referral rate was estimated to lie between 2.4 and 3.7%.

DISCUSSION: This study shows that US-screening compared to CHC-screening detects more children with DDH and that more of them are detected at an earlier age. To accomplish this, fewer children have to be referred. However, even general US-screening does not eradicate late cases. The higher treatment rate in the population screened by US might be a result of overtreatment. Based on the decision tree analysis it was concluded that US-screening at the age of three months was the best performing US-screening strategy.

Key words: developmental dysplasia of the hip, mass screening, ultrasonography, infant, sensitivity and specificity, hip dislocation, congenital

REDUCING THE RISK OF SUDDEN INFANT DEATH IN FLANDERS: AN OVERVIEW (134)

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INTRODUCTION: Sudden Infant Death Syndrome (SIDS) or cot death is the sudden and unexpected death of an apparently healthy infant, which remains unexplained after performing a complete post-mortem investigation, including review of the clinical history of the child, examination of the death scene and a complete autopsy. It is the most common cause of death in infants between 1 month and 12 months of age. While the sudden unexpected death of an infant may be the result of a number of processes, the leading cause has not been elucidated.

SUBJECTS: Epidemiological studies have demonstrated strong associations between the prone sleep position, cigarette smoking during pregnancy, the environment of infants, high temperature in sleeping environment and the incidence of sudden death. Those mutable risk factors were the basis for the campaigns.

METHODS: The campaign conveyed four health education messages: 1) put the baby to sleep on the back; 2) keep the baby in a smoke-free environment; 3) do not let the baby get too hot; 4) do not leave the baby alone when asleep.

RESULTS: Since the introduction of the risk-reducing programme in 1993 by private initiatives and, later by Child and Family in Flanders and ONE in the Walloon region, there has been a dramatic reduction of sixty percent in the rate of sudden infant death in Belgium.

Similar health education campaigns were conducted in other countries.

DISCUSSION: In order to be able to classify every unexpected death as 'cot death', a complete autopsy must be performed. Since March 2003 a legislation concerning systematic autopsy in case of death of children younger than eighteen months has been in place, but results are not yet known. To investigate and to monitor the role of sleeping arrangements as risk factors for sudden infant death as well as accidents such as suffocation, discussions were started with producers to establish a survey of safe and unsafe products. The object is to give parents the right information when buying bedding materials. At the end of the year a customer based registration will be started to report safety problems or incidents with the use of child products.

CONCLUSION: Health professionals, parents and providers should be aware of the current guidelines against SIDS.

Key words: child and family, sudden infant death syndrome, cot death, unexpected death, autopsy

THE DEVELOPMENT OF A CHILD AND YOUTH HEALTH CARE GUIDELINE 'DETECTION OF CONGENITAL HEART DISEASES' IN THE NETHERLANDS (80)

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INTRODUCTION: Yearly about 0.8% of neonates are born with congenital heart diseases (CHD, in the Netherlands 1200-1600 newborns). About 50% of these malformations are obvious immediately after birth. Others give problems weeks/ months later. In an effect-evaluation it was proven that systematic screening for CHD in Child Health Centres if carried out in a standardized manner, contributes to timely detection and treatment of CHD. This will also reduce irreversible damage to the child. Guidelines for the detection of CHD as early as possible were developed with standardised procedures for the screening and referral.

METHOD: A working group of expert doctors and nurses from the Child and Youth Health Care was put together, also including a member of the patient foundation. Literature was collected from different databases, by snowball method and by experts. By analysing the literature and discuss subject in the group the first version of the guidelines was developed. This version was published on the internet and open for comments of all who were interested. Also, paediatric cardiologists, paediatricians, midwife and general practitioners were asked to criticize the text. A next version was formulated. This version was tested by doctors and nurses in practice in one Child Health Centre. Their comments were incorporated in the final version of the guidelines.

RESULTS: It is necessary that nurses from the Child Health Centres perform a standardized examination during the house-visit in the second week after birth of the baby. In the family history and medical information of the mother important risk factors can be discovered. During inspection, tiredness or cyanosis during exertion (such as crying or feeding) or failure to thrive could give more important clues.

At the Child Health Centre the baby will be examined by the physician at the age of one month. Strict criteria for screening and referral are given.

It was recommended to continue the screening by doctors and nurses until the age of four years. After that age, the routine examination is only recommended on indication.

Different suggestions for update training and research were done.

DISCUSSION: Although the examination does not fully meet the criteria of Wilson and Junger it is the best available instrument.

CONCLUSION: Guidelines on early detection of CHD for the Child and Youth Health Care were developed to promote a higher quality of preventive healthcare based on evidence-based research.

Key words: prevention, early detection, congenital heart disease, standardization, child health care

ADJUSTMENT OF RECOMMENDATIONS IN FEEDING INFANTS AND TODDLERS AS A RESULT OF A QUESTIONNAIRE STUDY IN FLANDERS BELGIUM (216)

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INTRODUCTION: Developing a nutrition policy for infants and toddlers was the main goal for Kind en Gezin in the period 2001-2004. From January–October 2002 factors related to initiation, duration and early cessation of breastfeeding as well as the dietary intake and feeding practices of young children in Flanders Belgium were examined. The results led to adjustment of the recommendations of feeding infants and toddlers.

METHODS AND SUBJECTS: Data were collected by questioning nurses in maternity wards and baby- welfare- clinic nurses. For the second part of the study 2925 households with children of 3, 6, 12, 24 months old completed questionnaires about food consumption and feeding and care practices.

RESULTS: Strong motivation, family and friends, training level and job situation influence the choice for breastfeeding of the (future) mother. The decision breastfeeding or formula is made prenatally in 70% of the cases. Breastfeeding was given in 59 % of the children on the sixth day after delivery, 25 % at 3 months and drops to 10 % at 6 months. The way breastfeeding is experienced by the mother and the amount of information given in the maternity ward influence the duration of breastfeeding. Physical problems of the mother, sucking problems of the child and returning to work are associated with premature cessation of breastfeeding. At the age of 3 months 20,3 % of the children drinks regularly tea and water. Solid foods were introduced by 10, 8 % of the mothers. At 6 months fat supply to solid food is insufficient (30%). Protein intake exceeds the recommended dose (10 %- 28,5 % at 1y). By the age of 1 year a lot of children drink an inadequate milk formula (15 %- 23,5 % at 2 y). Mothers give more often soft drinks to their toddlers (33 % at 2 y). Vitamin D supplementation for breastfed infants was insufficient.

DISCUSSION: Adequate information on breastfeeding issues should be given to future mothers in secondary schools, during pregnancy by gynecologists, while they are in hospital and when the baby is 3 months old. New objectives in the pediatric nutrition policy are adequate vitamin supplementation, protein and sugar intake during infancy, adequate milk formula for toddlers and reducing bottle use at sleeping time.

Key words: paediatric nutrition policy, breastfeeding, infants, toddlers

THE MOST OFTEN CHRONICAL DISORDERS OF PRESCHOOLERS IN THE VINKOVCI REGION (89)

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INTRODUCTION: Chronical disorders were registered by examination for inscription into the first grammar school class. Those disorders were detected by paediatrician services of preschoolers.

AIM: to show the most often chronical disorders of preschoolers who live in the Vinkovci region, with city-country and male-female comparison.

SUBJECTS & METHODS: Study included 1426 children, who were examined for inscription into the first grammar school class for school year 2004/2005 in the Vinkovci region. 742 of them were boys and 684 were girls. City zone included 473 children, and country areas 953 children. Data were assigned anamnestic from parents and from yellow patient's records, which are necessary on the examination.

DISCUSSION: all results about the percentage of chronical disorders don't deviate from Croatian mean, and are smaller then those in war years (for example, percentage of the night urination has fallen from 3,7 % to 1,5 %).

CONCLUSION: the most often chronical disorders, mentioned in this study, show increase of allergic children. All mentioned chronical disorders are more often among boys then girls. Except allergies and visual disorders, other disorders are more often among country children.

Key words: chronical disorders, preschoolers

AFTER-CARE FOR NEONATES-AT-RISK: A REASON FOR CONCERN FOR PAEDIATRICIANS AND CHILD HEALTH CARE? (62)

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INTRODUCTION: Problems during or after pregnancy or delivery occur in about 5% of the newborns, resulting in admission to a hospital. After coming home these infants and their parents need extra attention. Therefore transfer of information and communication between hospital and child health care is essential. In 1997 a guideline "Aftercare of premature, dysmature and other neonates with a potential health risk" was published with the intention of improving the care of these newborns. The guideline was disseminated to the paediatric wards of the hospitals and to child health care centres with the advice to make arrangements locally. As there were signals that communication and cooperation were still inadequate this was investigated.

OBJECTIVE: Inventarisation of the use of guidelines, the manner and degree of exchange of information, the availability of extra care projects and the cooperation of paediatricians and physicians working in child health centres providing care for newborns-at-risk.

DESIGN: inventory questionnaire study

METHODS: A questionnaire was sent to the paediatric wards of all 104 hospitals and the 62 centres for child health care in the Netherlands. The questions concerned the use of guidelines, the transfer of information, the presence of extra measures of care, the concerted actions of paediatricians and physicians working in child health centres and possible problems in cooperation.

RESULTS: 46% of the child health centres and 74% of the paediatric wards use guidelines in the transfer of information about newborns-at-risk. In about half of the cases nurses send their information at the moment of discharge from the paediatric ward, whereas the exchange of medical information takes place in only 10-20%. Often extra care projects and consulting-hours were not known to the professionals of the other institution. Problems in cooperation are of a practical nature; unfamiliarity with the expertise of each other and concerns about the privacy of information.

CONCLUSION: Improvement on communication between paediatric wards and child health centres is desirable especially to improve the after-care of the newborn-at-risk. Recently in some locations in the Netherlands working agreements have been made. These projects will be evaluated next year. The conclusions will be used to update the existing guideline.

Key word: aftercare newborns, cooperation, paediatricians, child health care

PHYSICAL ACTIVITY, GROWTH AND DEVELOPMENT

DETERMINANTS OF GROWTH IN CHILDHOOD AND ADOLESCENCE (122)

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Research into growth and development of children has generally a double use: (i) it provides health professionals with the necessary tools for accurate monitoring of growth of individual children, and (ii) the population growth curve is an indicator of affluence and living standards (e.g. Quetelet's "Physique Sociale", 1835; and J.M. Tanner's "Growth is a mirror of conditions in Society", 1986). At present day the study of growth on both the individual and population level can be refined through the study of its determinants. At the individual level this can lead to an improvement of the monitoring instruments (e.g. the use of midparent height, ethnic specific growth charts), at the population level they allow to detect sustained inequalities in health and living standards within the population. In this paper we will examine a number of these determinants of growth in the population of children and youngsters in Flanders.

In the Flemish Growth Survey (2001-2006), a cross sectional sample of 18000 subjects were measured and questioned on a single occasion, of whom 6000 subjects were re-measured once to obtain yearly increments in growth, and 900 subjects were measured monthly from birth to 12 months of age, and further every three months from 1 to 3 years of age. The primary aims of this study are the construction of new growth reference curves for Flemish children, and the study of determinants of growth. For each subject we obtained detailed information about a number of demographic, environmental, health and lifestyle indicators (origin, social status, parental height, gestation and birth outcome, diet, physical activity, smoking, alcohol use). Cross-sectional growth curves were fitted with the semi-parametric LMS method (Cole and Green, 1992). Normal equivalent deviates (z-scores) from the curve fitting process are compared across strata of different potential determinants.

Preliminary analysis showed persistence of differences in growth at present day, and in this presentation we will analyse and discuss a number of these differences in the length/height, weight, and BMI (Body Mass Index) for age curves.

Key words: auxology, growth curve, determinants

THE DEVELOPMENT OF AN EVIDENCE-BASED GUIDELINE FOR THE MONITORING OF GROWTH AND PUBERTY IN SCHOOL-AGED CHILDREN IN FLANDERS (178)

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INTRODUCTION: Most countries in Europe have a preventive health care programme aimed at evaluating, protecting and promoting the health, growth and development of children and adolescents. School Health Care programmes are almost completely financed by public funding, which increasingly has led to questions about the cost-benefit and the degree of scientific evidence on which they are based. On the authority of the Ministry of Health, the Flemish Scientific Society for Youth Health Care has been engaged in the development of evidence-based guidelines for School Health Care. By September 2005 a guideline for the monitoring of "growth and puberty" in school-aged children (3-18 years) will be completed. After acceptance by the Flemish Health Administration and the Department of Education, this guideline will be the standard for good growth monitoring practice in School Health Care.

METHODS: This guideline has been developed following a methodology, taking into account the expertise of workers in School Health Care, general practice and specialised care.

The presentation will not only elaborate on the methodology used but also on the content of the guideline itself.

RESULTS: The guideline comprises two sections: (1) A theoretical part, based on national and international literature, summarising all relevant information about normal and abnormal growth and puberal development; (2) A practical guideline for the monitoring of growth and puberty in school health care, aiming at the early detection, diagnosis and treatment of pathology in this area.

This practical guideline focuses on six key questions relevant in School Health Care, i.e. (a) Is this child too small?; (b) Is this child too tall?; (c) Did puberty start too early?; (d) Did puberty start too late?; (e) Is this child growing too slow?; and (f) Is this child growing too fast?

The decision-making process for any of these questions is designed as user-friendly flowcharts from which a selection will be highlighted in the presentation. The underlying rationale will be explained.

CONCLUSION: As far as we know this is the first comprehensive evidence-based guideline for the monitoring of growth and puberty in children, in the framework of School Health Care.

Key words: growth monitoring, puberty, school health care, guideline, school-aged child

THE INFLUENCE OF CORRECTIVE GYMNASTIC FOR PREVENTION OF DEFORMITIES OF MUSCULAR-SKELETON (61)

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INTRODUCTION: Biological development of children is followed up by numerous varieties of whole morphological structure. These varieties are result of activities of indoor and outdoor factors. Physical activity is powerful issue for harmonious development and consolidation of health of children and adolescents. The teacher has to know the problems connected with spinal column disorders and with special training removing bad corporal pose, growing strong and ton using of some group of muscles which keep up the correct corporal pose. For this, it is necessary a professional improving of the teacher and collaboration with school doctor who with regular and continuous realization of systematic examination reveal bad corporal pose and spinal column deformities.

AIM: Prevention of spinal column deformities with regular, planed and correctly training of corrective gymnastic.

MATERIAL AND METHODS: Were observed 9525 students (4418 female and 5106 male) at 7-25 year old in the period of 3 years. Used data are of systematic examination of students, and periodical check ups for students-sportiest. Corrective gymnastic is presented of systematic examination. It is recommended a regular, planned and corrective training of corrective gymnastic at first 15 minutes of the physical class like daily physical activity of 15 minutes at home.

RESULTS: The high percentage of 96,5% of bad corporal pose is resulted in the number of students with spinal column deformities, scoliosis at 6.4% and kyphosis at 8.2% of students. Inadequately and incorrectly representation of corrective gymnastic contributes for aggravation of position. With regular, planned and corrective training of corrective gymnastic of physical class spinal column deformities are decreased at less of 35%, scoliosis at 4.1% and kyphosis at 5.4%.

CONCLUSION: Regular, planed, corrective and daily training of corrective gymnastic under control of professional trainer have significant influence for prevention of spinal column deformities. It is recommended increasing number of physical lessons, regular training of corrective gymnastic and introduction of teachers of physical education for students in lower class in elementary schools.

Key words: corrective gymnastic, spinal column deformities, prevention

DEVELOPMENT OF CHILDREN FROM BIRTH TO 18 YEARS OF AGE (201)

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INTRODUCTION: In this paper we publish the reference data calculated from data from the Hungarian Nation-wide Representative Longitudinal Growth Study, from the reference data used by doctors most frequently with regard to the measurements of the body from birth to the age of eighteen. These are the most generally used measurements of the body: height, body mass and BMI, as well as the circumference of the head and that of the chest in infancy (from birth to the age of two).

SUBJECT AND METHOD: The re-measurement of children examined in 1980, 1981, 1982, and 1983 at the time of the infancy on the national representative sample-area took place every 30 days until the age of 6 months, every 60 days until the age of 1, then every 3 months until the age of 2. Afterwards children were re-measured and re-examined at each of their birthday until the age of 10, and every 6 months between the age of 10 and 18.

RESULTS AND CONCLUSION: The reference percentiles calculated for the period between birth and the age of 2 and from the age of 2 and 18. It can be perceived in the medical practice that a child's height and body mass are usually in parallel with the reference percentiles of the given size. If substantial and permanent divergence can be detected regarding the reference percentiles trend lines then the potential problems and consequences in the growth of the child can be found out in time.

In most countries in the world body mass index is used for the assessment of adults' nourishment in accordance with the recommendation of the WHO. In developed countries the rate of the obese is growing every year. The health risk of people is growing in parallel with obesity, which means a larger burden not only for individuals but also for the country.

We have worked out the reference percentiles of BMI based on the Hungarian Longitudinal Growth Study for practising pediatricians and nurses. Reference percentiles of the BMI serving for the approximate assessment of a child's nourishment have been depicted from birth to the age of 18.

It is important to pay attention to head and chest circumferences during infancy and the first life-year of children.

The diversion of head circumference, more precisely, any significant diversion of the trend line of the measured data from the trend line of the reference data of the given age, or the trend line of the percentiles either in a negative or a positive direction merits a thorough examination.

Key words: longitudinal growth study

ANTHROPOMETRIC VALUES OF CHILDREN FROM ŠIBENIK AND KNIN (207)

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This research shows the results of anthropometric values of children from Šibenik and Knin after a medical examination meant for their enrolment at primary school for school-year 2004. The goal of this research is to establish if there is a statistically considerable difference of anthropometric values between children in Šibenik and Knin upon their enrolment at primary school. 601 children were included: out of which 301 from Šibenik and 300 from Knin. All children were aged 6,55. Since the girls and the boys were not considerably different in statistics according to height, weight or how much they were well-fed, we analysed them together.

For the results evaluation we have used the curves of centile distribution for height, weight and the proportion of weight according to the height for school children and the youth of Croatia (Prebeg Ž., 1988.). The children from Šibenik are statistically considerably taller. In the group from 75 to 97 centil there are 1,5 times as many as in Knin.

The children from Šibenik are even statistically considerably weighing more. In the group from 75 to 97 centil there are 1,3 times as many as in Knin. The children from Knin weigh less. In the group from 10 to 25 centil there are

1,4 time as many as in Šibenik. The state of how well-fed the children were (proportion of weight and height) between the children from Šibenik and Knin didn't show any statistically considerable difference.

Key words: antropometric values, weight, height

INFLUENCE OF THE EXTRASCOLAR SPORT ACTIVITIES ON THE BMI OF THE ELEMENTARY SCHOOL PUPILS – GRADE 8 (139)

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Sport activity is an important factor in the body mass regulation. We assumed that the children who practice an extrascolar sport activity, have normal body mass index.

Measurements were done during systematic examination of the 8th grade pupils of elementary school. Pupils who came to the examination were submitted to measurements of body weight and height, and an inquiry was done to find out if they practised an extrascolar sport activity.

Total number of examined pupils is $N=227$, that is 111 girls, and 106 boys. Out of a total of 111 girls, 48 (43.2%) of them practice extrascolar sport activities, whereas 37 (34.9%) boys out of a total of 106 practice extrascolar sport activities.

The results of the study show that the children who practice an extrascolar activity have normal body mass index (BMI 18.5 kg/m² – 25 kg/m²).

Therefore we think that it is important to include and systematically motivate pupils to practice extrascolar sport activities.

Key words: extrascolar sport activities, BMI

CORRELATION BETWEEN CHILDREN'S WEIGHT AND HEIGHT AT SYSTEMATIC MEDICAL EXAMINATION BY ENROLLING IN 1st CLASS OF PRIMARY SCHOOL AND BIRTH GROWTH PARAMETERS WITH PARENTAL HEIGHTS (9)

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INTRODUCTION: Physical growth is permanently influenced by genetic and environmental factors. Their impacts are overlapping, and therefore it is difficult to separate the contribution particularly ascribable to one or another kind of the factors.

SUBJECTS AND METHODS: The study investigated the relation between body weight and height in 397 children (195 girls and 202 boys) enrolling primary school and their birth growth features on the one side and their parents' heights on the other. The correlations between children's weight and height by enrolling primary school and their birth growth features were also studied. The aim was to examine proportion of genetic determinacy of children's growth.

RESULTS: Mean birth weight and length were 3440 ± 413 g and 50.50 ± 2.00 cm, respectively, and mean head circumference was 34.50 ± 1.20 cm. By entering the primary school, the children were 6.70 ± 0.30 years of age in average, and had mean body weight and height of 24.60 ± 5.00 kg and 122.70 ± 6.15 cm, respectively.

Children's height by enrolling the school was in significant positive correlation with birth weight, length and head circumference, and with parents' heights. The correlation coefficient was the highest with father's height ($r=0.473$, $p<0.01$), and the lowest with birth weight ($r=0.158$, $p<0.05$). Children's weight by enrolling the school significantly positively correlated with the three birth growth features and with father's height, but not with mother's height ($r=0.091$, $p>0.05$). The correlation coefficient was the highest for father's height ($r=0.288$, $p<0.01$) again. All the birth parameters correlated stronger with mother's than with father's height.

In the subgroup of children whose mothers were of equal or greater height than fathers ($n=28$), correlation coefficient between children's and fathers' heights ($r=0.295$, $p<0.01$) were lower than between children's and mothers' heights ($r=0.474$, $p<0.01$).

In conclusion, children's weight and height at the time of enrolling primary school significantly positively correlates with their parents' heights. The correlations are stronger with father's height. Though, it is not the matter of gender, but of the higher parent. The birth growth parameters are only in part related to parents' heights (all the three with mother's and only one with father's height). It is obvious that mothers' influence is dominant for children's growth at that time.

Key words: children's weight, children's height, birth weight, birth length, head circumference, parents' heights

PROMOTING PHYSICAL ACTIVITY FOR HEALTH PROTECTION (230)

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INTRODUCTION: Results of previous studies point to the beneficial effects of physical activity in adults. Adequate physical activity significantly reduces the risk of obesity, hyperlipidemia, cardiovascular diseases, osteoporosis, non-insulin dependent diabetes mellitus (type 2), and contributes to good control of insulin dependent diabetes mellitus (type 1). Two thirds of children worldwide are estimated to practice inadequate physical activity. Screening studies conducted in Croatian schools have also revealed low level of physical activity in schoolchildren, with further physical activity decline with time. Children spend ever more time sitting at PCs and watching TV.

AIM: Evaluation of the action entitled Promoting Physical Activity for Health Protection, and stimulating schoolchildren for physical activity at leisure. Assessment of the schoolchildren's satisfaction with physical and health culture (PHC) classes, to identify the respective needs and shortcomings. Identification of problems related to physical activity of schoolchildren at leisure.

SUBJECTS AND METHODS: The program of prevention included 406 schoolchildren, 188 boys and 218 girls, of the total of 453 six-graders from five elementary schools in Zagreb. The children attended lectures and participated in a workshop entitled Me and My Body, followed by a questionnaire.

RESULTS: As many as 85.8% of study children consider PHC classes necessary; 82.1% think that PHC classes should also include theoretical information on health issues; 61.3% believe that handicapped children are paid inadequate attention; 71.2% think that individual exercise programs should be available at school; 48.1% believe that sports activities do not interfere with learning; 81.0% agree that organised sports clubs should exist at schools; 89.6% think that exercise is important for health rather than physical appearance.

CONCLUSION: PHC classes should help the schoolchildren acquire a healthy habit of regular physical activity in order to protect health and to improve their physical appearance and their self-image. One of the tasks of school medicine, in collaboration with schools, is to promote exercise, to develop positive attitude towards physical activity, regular exercise and movement. An active child is likely to grow into an active adult. The children's opinion should also be taken in consideration, i.e. offer them health topics in the frame of PHC classes and establishment of sports clubs at schools.

Key words: prevention, physical activity

VACCINATION AND INFECTIOUS DISEASES

VACCINATION OF ADOLESCENTS AND STUDENTS: NEW DEVELOPMENTS AND CHALLENGES FOR THE FUTURE

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In view of the dynamics of infectious diseases, the adolescent cohort represents a substantial population able to spread or to block infectious diseases, especially the ones with primary transmission modes at that age, e.g. STI (sexually transmitted infections).

With a prevalence of high risk type human papillomavirus (HPV) infections of 10 to 15% in adolescent girls, and an annual incidence of 12 to 26%, targeting girls at age 10-12 with a future HPV vaccine could for instance have a major importance in protecting individuals as well as blocking transmission.

Indeed, in view of this individual and collective dimension of infectious disease control, adolescents as well as students have been and will continue to be the target for vaccination programmes: depending on the epidemiology of the infectious disease to be controlled, they represent the ideal age group to start up a vaccination programme (e.g. HPV), to implement booster programmes (e.g. diphtheria, tetanus and pertussis), or to set up catch up programmes (e.g. meningococcal C, hepatitis B, MMR, varicella).

Often it is the last opportunity in a country to reach such a large part of the population in an organized universal way. In countries with school health or university health systems this population is rather easily reachable, whereas in other countries GPs or paediatricians have to be involved broadly in order to guarantee a sufficient coverage of such preventative programme.

But with the venue of new vaccines, new issues will arise: are data available on the safety and immunogenicity of co-administration of vaccines, on the long term efficacy when vaccinating adolescents, on the added value to immunize boys against HPV, on the acceptance of large adolescent vaccination programmes against STI, just to name a few.

The decision to implement such new vaccination programmes will need to take into consideration the public health impact of this intervention and the cost-effectiveness compared to other health interventions. Furthermore the optimum age for vaccination, the duration of protection as well as to which extent society is aware and prepared for such a vaccination program has to be determined.

Decision makers need to keep that in mind.

Key words: vaccination programmes, cost-effectiveness

MASS VACCINATION PROGRAMME ACHIEVEMENTS IN CROATIA (156)

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INTRODUCTION: Besides individual protection mass vaccination programme modifies diseases burden and protects those unvaccinated. The epidemiological methods provide the foundation for developing and evaluating the vaccination programme.

SUBJECTS: Overage diseases morbidity targeted with the Croatian vaccination programme before vaccination introduction and in the 1999-2004 periods were compared together with mass vaccination coverage and adverse reactions after vaccination in 2004.

METHODS: The evaluation was based on Croatian National Institute for Public Health's Epidemiology of Infectious Diseases Service data. Data are collected in three operative information systems for monitoring the Mass vaccination programme i.e. coverage surveillance, vaccine targeted diseases surveillance and adverse reactions following vaccination monitoring.

RESULTS AND DISCUSSION: Mass vaccination coverage for primary immunisation for all vaccines is >95% except newly introduced Hib and tetanus vaccination of the elderly population (93% and 72%, respectively). The epidemiologic approach used for the Programme design resulted in target diseases morbidity reduction of 93%-99% and diphtheria and polio eradication in Croatia. Adverse reactions rates following vaccination in 2004 are low, with the highest rate being for MMR (5.8/10000 doses distributed), All other rates are within the range of 0.6-1.6/10000. Most adverse reactions were mild and without sequelae demonstrating low reactogenicity of vaccines used for mass vaccination.

CONCLUSION: The above results are making the Croatian mass vaccination programme the most successful medical intervention in the country.

Key words: mass vaccination, vaccination programme, morbidity reduction, infectious diseases

'SAFE VACCINATION OF CHILDREN IN YOUTH HEALTH CARE: A NEW BELGIAN GUIDELINE FOR THE PREVENTION AND MANAGEMENT OF ANAPHYLACTIC SHOCK' INSTEAD OF 'RECOMMENDATION FOR GOOD MEDICAL PRACTICE FOR THE PREVENTION AND OUT-OF-HOSPITAL MANAGEMENT OF ANAPHYLACTIC SHOCK AFTER VACCINATION OF CHILDREN' (168)

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INTRODUCTION: In almost all European countries preventive health services are key players in the implementation of national vaccination programs. Collective vaccination of children and youngsters in the framework of well-baby clinics, school and student health services has ended in very high vaccination rates. Most vaccine-preventable infectious diseases being no longer endemic, public awareness about the safety of vaccination was exponentially growing during the last decade. Due to the very small, but real risk of anaphylactic shock after vaccination, questions arise whether safe vaccination of children in preventive (out-of-hospital) settings could be warranted.

METHODS: On the authority of the Ministry of Health, the Flemish Scientific Society for Youth Health Care has been engaged in the development of an evidence-based guideline for the prevention and first-aid management of anaphylactic shock related to vaccination of children and youngsters in preventive settings. This guideline was approved by the Belgian Health Council, and will be adopted by the Minister of Health as the standard for safe vaccination practice in out-of-hospital settings.

RESULTS: According to actual Belgian recommendations for 0 to 18 years olds, almost 2 million vaccine doses were administered in the year 2004. Based on available U.S. post-marketing data annually no more than 1 probably and 1 possibly vaccine-related anaphylactic incident might be expected in Belgium in this age group.

The guideline consist of two sections:

- (1) A literature overview with information about: (a) definition, pathophysiology and epidemiology of anaphylactic shock, (b) the allergens present in the vaccines used in the Belgium program, and (c) existing international guidelines regarding this topic;
- (2) The guideline itself includes recommendations about: (a) pre-vaccination risk assessment for known allergies, (b) differential diagnosis between anaphylactic shock and other post-vaccination incidents, (c) management of anaphylactic shock, (d) continuous training of cardiopulmonary resuscitation (CPR) techniques, and (e) measures to be taken after vaccination.

CONCLUSION: The background of the guideline and the decision process (presented as a flowchart) for the prevention and management of a post-vaccination anaphylactic incident will be highlighted in the presentation. (Study supported by the Flemish Government)

Key words: vaccination, anaphylaxis, prevention, management, guideline

INSIGHT INTO THE VACCINATION STATUS OF FUTURE FIRST GRADE PUPILS (112)

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AIM: The aim of study is to analyse the vaccination status of the children at the examination before the entrance into the elementary school for school years 00/01 and 03/04. Vaccines analysed are DiTePer + Polio and MPR. Results are relevant for vaccination planning of school children.

MATERIAL AND METHODS: All vaccine statuses were collected from the children of pre-school age by help of children's' health files. Data were collected from school-medicine doctors from 15 different locations.

RESULTS: Total number of children with inadequately done vaccination DiTePer + Polio (<5 applications) is 22.40% for school year 00/01 and 17.77% for school year 03/04.

Total number of children vaccinated properly with MPR is 87.02% for school year 00/01.

CONCLUSION: All research have confirmed high level of vaccination with DTP + Polio and MPR.

DISCUSSION: Before entering elementary education all children are well protected for DiTePer + Polio, and the next vaccination is in the eight grade so some countries (like Slovenia), transferred this vaccine into the third grade. Do we need to think about that too?

Key words: vaccination, DiTePer + Polio, MPR, vaccination level, school children

RESULTS OF VOLUNTARY AND ANONYMOUS ANTI-HBC, ANTI-HCV AND ANTI-HIV TESTING, ZADAR 2002-2004 (222)

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INTRODUCTION: Croatia is considered as a low endemic area for hepatitis B, C and HIV infections with overall prevalence < 1%. However, the official statistic based on notification data (all the three diseases are mandatory notifiable diseases) have proved to be of limited value in definition of people at increased risk of infection. Zadar has been known for a long time as one of the cities with the highest prevalence of injecting drug users (IDU) in Croatia.

AIM: To examine hepatitis B, C and HIV prevalence among persons with risk history of acquiring infection.

SUBJECTS AND METHODS: Persons tested on voluntarily basis, coming after the information of anonymous screening test was distributed through various campaigns and media, were taken as "risk population". Randomly selected persons undergoing "routine" medical check-up in laboratory represent "general population".

RESULTS: 2/3 of persons with risk histories were between 15 and 40 years; about 50% of "risk population" were unemployed or students. Anti-HBc prevalence was 5%, anti-HCV 9% and anti-HIV 0% in "risk population" vs 15% anti-HBc, 1% anti-HCV and 0% anti-HIV in "general population". The dominant reason for testing was risk sexual contacts 62%, piercing, tattooing and needle sticks 34% and drug addiction 23%.

DISCUSSION AND CONCLUSION: The high prevalence of anti-HCV antibodies in 9% of "risk" younger population is in correlation primary with high prevalence of IDUs (1065 registered in 2004) in Zadar. Decreasing prevalence of HBV infections during recent years correlated with HBV vaccination programme introduced in Croatia in 1999. The higher distribution of HBV infections in female correlated with history of risk sexual contacts, the higher distribution of HCV infection in male with drug abuse. Voluntary and anonymous testing showed to be a significant contribution in preventive programmes of HBV, HCV and HIV infections, particularly in areas with high IDUs prevalence.

Key words: voluntary anonymous testing, anti-HBC, anti-HCV, anti-HIV

REORGANISATION OF THE VACCINE STORAGE AND THE COLD CHAIN PROCEDURES IN ACCORDANCE WITH INTERNATIONAL GUIDELINES AND GENERAL QUALITY RECOMMENDATIONS (163)

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INTRODUCTION: Vaccines have a national impact on public health. All vaccines are thermo-sensitive and must be stored and transported within an efficient cold chain. Although this is common knowledge, a better registration shows that even today a lot of preventable problems show up. The vaccine storage and the cold chain procedures within our organisation: "K&G (Child and Family)" has been completely reorganised in 2004, using the international guidelines and the Deming cycle (PDCA) for quality improvement.

METHODS: The responsibilities of everyone involved had to be precisely recorded. Therefore a flowchart entitled 'who is doing what in case of vaccine troubles' was put in all refrigerators. It contains written duties in case of manipulation problems, quality problems, cold chain problems, vaccination errors, serious reactions and expired vaccines.

A sticker, showing the FIFO (first in first out) principle, was put on all refrigerators. This sticker bears also a message to consider the refrigerator as a critical control point (HACCP). Continuous temperature monitoring with a minimum/maximum thermometer and an audible alarm has also been ordered. A very fast warning procedure, in case of problems identified within a certain batch of vaccines, using fax or pop-up screens on the PC's, is still pending. All offices received a poster for the doctor with practical information concerning vaccination and its possible pitfalls (schedule, measures in case of anaphylactic reaction, important telephone numbers, other points of issue). The medical files were adapted in order to make it possible to stick the batch number of the vaccines beneath the registration date. Probably the most effective measure taken was the order to count all vaccines before and after the consultation. Every vaccine problem or error with a possible repercussion to a child has to be registered. The data are centrally pooled in order to close the PDCA circle, and make well-documented new actions possible. In this way a number of mistakes were identified and afterwards corrected.

CONCLUSION: A much better awareness and follow-up of problems was achieved. And this was true both for the fieldworkers and the general management.

Key words: vaccines, storage, cold chain, implementation, flow chart

EPIDEMIC OF VIRAL HEPATITIS A (44)

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AIM: The aim of this examination is to show epidemic of viral hepatitis A in village Marvinci-Valandovo.

MATERIALS AND METHOD: The reported cards for infectious diseases and computer information were used. The descriptive and statistic methods of working were used.

RESULTS: Epidemical occurrence of viral hepatitis A starts from 23.10.2002 with 3 reported cases. Epidemic reaches its peak on 31.12.2002, when 7 patients were reported and it finishes with the last patient on 28.01.2003. The biggest number was registered on 28.10.2002. In the epidemic 46 patients were taken ill: 24 female and 22 male. By the age: the biggest number is group from 7-9 year with 16 patients, then aged group from 10-14 year with 14 patients. By profession: 30 pupils, 15 pre-school children and 1 unemployed. By way of cure: 43 are cured in hospital, 3 in domestic conditions. Most of the patients are uncovered with active epidemiological survey, without some of diseases symptoms, with colaboratin of teacher.

CONCLUSION: After serological examination, they are confirmed viral hepatitis A. All off patients are relatives, friends or neighbours. One of more important reason, why has the viral hepatitis A appeared is low social-economic condition for living and low healthy education. Morbidity is 8, 86% of all number of populations.

Key words: epidemic of viral hepatitis A

OVERSENSITIVENESS ON THE TUBERCULIN PPD TEST IN ALLERGIC CHILDREN (90)

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INTRODUCTION: PPD testing is carried out by regular vaccination calendar in second and seventh grade of the grammar school, before anti-TBC vaccination.

AIM: to show the correlation of intensified tuberculin reaction, examined with the Mantoux's intracutaneous tuberculin test, in the children who have had proven allergies on some inhalation and nutritive allergens, drugs and some vaccination.

SUBJECTS & METHODS: this study included 1257 seventh grade pupils. Testing was performed with intracutaneous tuberculin test, by intracutaneous injection of tuberculin on the middle third of the inner part of the forearm, with 0, 1 ml preparation PPD (protein purified derivate) in which were 2 i.j. Reaction was interpreted 72 hours after tuberculin injection. Induration was measured, not the redness. If diameter was larger than 6 mm, test was positive. Infiltration larger than 15 mm was considered to be tuberculin oversensitiveness, pertaining to healthy children who already had anti-TBC vaccination.

RESULTS: from 1257 pupils included in this study, 32 of them (2%), had intensified tuberculin reaction (PPD larger than 15 mm). 6 pupils (18 %) were oversensitive with no allergies ascertained. 26 pupils (82%) were oversensitive with already known allergy.

DISCUSSION: PPD test has shown oversensitiveness in major percentage of the children who were allergic on drug – penicillin.

CONCLUSION: from these results we can conclude that intensified tuberculin reaction is characteristic for pupils who already have proven allergy on drugs, inhalation and nutritive allergens or vaccination.

Key words: PPD test, oversensitiveness, allergies

ACUTE OTITIS MEDIA (45)

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INTRODUCTION: Acute otitis media is not so rare disease in school age.

PURPOSE: The characteristics and the frequency of acute otitis media at our patients.

MATERIAL AND METHODS: The study was conducted in a tree year period (2002-2004) and it comprised 561 patients, 317 male and 244 female. Patients were in age from 7 – 20. We used the analytic and descriptive method. Diagnosis was based on standard clinical, biochemical and microbiological findings.

RESULTS: The incidence of acute otitis media was higher in males-57%. It also increased in winter and early spring and is the most frequent in age from 10-14 with 50%. Viral and bacterial infections were the most common cause for the otitis, so the adenoidal vegetations, bad hygiene and life conditions as the predisposed factors. Streptococcus pneumonia was the most common causative agent of acute otitis media caused by the bacterial infection (30%) then was H. Influence and a low percent was on S. Pyogenes, M. Catarrhalis, S. Aureus and others.

CONCLUSION: Acute otitis media is the most prevalent disease of childhood, after respiratory tract infections. The incidence of the disease tends to decrease after the age of 6 years, but it also tends to increase in age of 10-14. Diagnosis and therapy on time is necessary for avoiding complications and sequels of acute otitis media witch may seriously disturbed the health of the young population.

Key words: health needs (chronic non-communicable diseases)

A CASE OF OSTEOMYELITIS IN TEENAGE BOY (63)

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OBJECTIVE: Presentation of a case of osteomyelitis in teenage boy.

Definition and brief review of the osteomyelitis as a disease.

PRESENTATION OF THE CASE: The patient is an 18 year old boy who came to the school ambulance due to the pain in the lumbosacral region. Also, he had difficulties at every movement of the legs. The patient's anamnesis has showed that he had been exercising hard body work (lifting weight) in the gym for over a month. Also, the patient said that he felt severe pain when he had jumped down the stairs a week before. His medical record showed that he has grown up over 25 cm during the last three years.

The X – ray radiography has shown a protrusio disci intervertebrales L5 / S1. A recommendation was given to the patient to stay in bed. The treatment included nonsteroid anti-inflammatory medicaments. However, this treatment did not result in improvement of the patient's health; on the contrary his condition has worsened due to increased pain, inability to move and raised body temperature. The further treatment included laboratory tests (blood analysis, sedimentation, rheumatic factors, Wright's test), Mantoux test, as well as CT.

The results have shown high sedimentation, the leukocytosis and the CT result that showed lysis of S1 and S2 . Therefore the patient was sent to an orthopaedic clinic for further treatment and tests. There he was treated with antibiotics. The trepanation of the vertebrae, and the histopathologic, cytologic and microbiologic findings helped to establish the final diagnosis: osteomyelitis S1 / S2.

The patient has been cured and he is in good condition now.

CONCLUSION: The analysis of this case has shown that the fast growth of the bone tissue at this age, uncontrolled body work at gym and the microtrauma of the osseous tissue in the sacral region of the vertebrae, resulted in "locus minoris" for appearance of a hematogenic bone infection in this patient.

Key word: osteomyelitis

URINARY TRACT INFECTIONS CAUSED BY E. COLI AT SCHOOL CHILDREN IN SLAVONSKI BROD DURING THE 2003 YEAR (75)

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INTRODUCTION: During the 2003 year microbiological laboratory of Public Health Institute of the Brod-Posavina County analyzed total 40237 samples. Urine samples were 31.8%. From total amount of analyzed samples of urine positive were 27.6%, from which 201 samples was positive at school children age.

SUBJECT: Purpose of this research was to examine frequency of urinal infections caused by E. coli at school children during 2003 year. Beside that we want to determine sensitivity on antimicrobial medicaments, find out connection between number of leukocytes in sediment and presence of urinal infection. Also we made agglutination test for detection of percentage of uropathogenic strains of E. coli.

METHODS: Samples of urine collected by obtaining the midstream flow by the clean-catch technique, were inoculated with calibrated loop on standard blood agar plates, while sediment was coloured in methylene blue for the purpose of presentation possible leukocyte presence. After incubation on 37 C thru 24 hours suspected colonies are identified by specific bio-chemical tests as well as determination of the urinal pathogenic with aglutunatin test.

Test of sensibility on antibiotics was performed with disk-diffusion method on Muller-Hinton agar plate.

RESULTS: In 2003 there were from total of 643 taken samples 31.2% of positive urine results at school children. From that were 53.7% urine samples where presence of E. coli was founded. Rest of positive results were caused by ENTEROCOCCUS SPP., STREPTOCOCCUS SPP., PROTEUS MIRABILIS, KLEBSIELLA PNEUMONIAE and other in very low percentage.

DISCUSSION: Tests of sensibility show us very good sensibilities (more than 60 %) on all tested antibiotics, excluding Amoxicilin (41.7%) and Ampicilin+Sulbactam (59.3 %).

In sediments of urine are found leukocytes in 77.8% cases of urinal infections caused by E. coli. Uropathogenic E.coli was 23.1%. In this groups were not ESBL strains.

CONCLUSION: Samples of urine are the biggest part in total number of samples for microbiological tests in 2003 year. In that period we have analyzed 643 urine samples of school children. From that amount just around one third of urine samples were positive, and most isolated cause was E. coli. Percentage of the positive leukocytes in urine sediment is in correlation whit present urinal infection.

Key words: urinary tract infections, school children, E. coli

VACCINATION AGAINST INFLUENZA (228)

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Sponsored by MEDOKA

Influenza is the classic emerging infection. Despite the availability of relatively inexpensive vaccines, influenza is the least controlled vaccine-preventable disease in industrialised countries. Vaccination coverage of high-risk patients has improved in most European countries, but all-cause mortality attributable to influenza continues to increase. A supplemental strategy is to vaccinate the principal disseminators of influenza in community; schoolchildren in the first place. Schoolchildren have the highest influenza attack rates, especially on the beginning of an epidemics, thus representing the main reservoir of infection. The vaccination of schoolchildren in Japan against influenza prevented about one death for every 420 children vaccinated. The most significant reduction in mortality occurred among elderly people.

Currently there is no universal strategy on immunisation against influenza among children. The economic data do not conclusively support universal vaccination. Increased efforts are needed to identify and recall high-risk children which are target population for influenza immunisation. Children with recurrent acute otitis media as well as healthy children attending day-care centres and elementary schools should be included among the paediatric groups requiring vaccination. Schoolchildren vaccination may reduce the socio-economic burden of influenza on the community. Live attenuated vaccine against influenza may become an important adjunct to control influenza among schoolchildren. Effectiveness of a single dose, ease of administration and ready acceptance by children are major advantages of this new vaccine.

Key words: schoolchildren, influenza, vaccination

PRIORIX: LIVE ATTENUATED MMR VACCINE WITH HIGH SAFETY PROFILE (246)

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Sponsored by GlaxoSmithKline

Croatia has a long history of vaccination against viral diseases. Since 1978 the combined MMR vaccine, manufactured by Imunološki zavod, is included in the Croatian vaccination schedule. Croatian MMR vaccine is composed of Wistar RA 27/3 rubela strain, Edmonston-Zagreb measles and L-Zagreb mumps strain. Since 2002 PRIORIX, MMR vaccine manufactured by GlaxoSmithKline, is available in Croatia. Similar to Croatian MMR, PRIORIX is composed of Wistar RA 27/3 rubela strain, but other two antigens are very different. In addition to rubela, PRIORIX has Schwarz measles strain and RIT 4385 mumps strain. PRIORIX production is in accordance to WHO guidelines for MMR vaccine production. PRIORIX is highly immunogenic and protective with high safety profile. Vaccine mumps strain RIT4385, although derived from Jeryl Lynn strain, has a even better safety profile with comparable immunogenicity and long-term protection. RIT4385 has low neuroreactivity with incidence of 0-1/750 000 post-vaccine aseptic meningitis^{1,2,3} and low incidence of other systemic or local side effects.

Key words: MMR vaccine

SERVICES, ORGANIZATION AND EDUCATION

YOUTH HEALTH CARE IN EUROPE OF THE 21TH CENTURY: AN ADDED VALUE FOR THE HEALTH OF CHILDREN AND YOUNGSTERS

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It is the main objective of Youth Health Care to promote, protect and evaluate the health, growth and development of children and youngsters.

The strengths of Youth Health Care are the periodic health checks of children, the very high coverage, the longitudinal care, delivered within a multidisciplinary context, free of charge, independent and easy accessible.

By means of this actively offered programme Youth Health Care contributes to the reduction of social-economic inequalities in the health of children.

To achieve these goals it is of great importance that the Youth Health Care programmes are evidence based. This is already the case for a number of the actual Youth Health Care programmes, of which vaccinations and the screening for phenylketonuria, congenital hypothyroidie, hip dysplasia, congenital cardiac problems, neonatal hearing problems, are well-known examples.

Already based on these programmes alone Youth Health Care can be considered as cost-effective.

In order to preserve a well-established Youth Health Care in the future, we all should take care of the existing programmes, and try to increase their efficiency.

In addition, to maintain the high coverage of the target group of children and adolescents which is actually reached in most of the European countries, Youth Health Care professionals should be open for questions of parents and children, and be as available as possible for their problems.

On a population level the health threats and societal developments, as far as regarding children, must be intensively monitored by Youth Health Care services. These data contribute to a clear picture of the health of the young population in a country, which should drive the local health policy.

An important health threat for the near future will be the increased prevalence of psychosocial problems during childhood in almost all the European countries. Last but not least, the prevention and early detection of overweight and obesity during childhood is without any doubt one of the top priorities for which effective preventive programmes should be designed. To face these problems we should combine all forces.

Keywords: youth health care, evidence-based, psychosocial health, obesity

UNIFORM DEFINITION OF THE ACTIVITIES OF THE YOUTH HEALTH CARE (YHC) IN THE NETHERLANDS (79)

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In the fall of 2003 the platform Youth Health Care was funded by the ministry of health for the development of uniform definitions for youth health care. The purpose of this project was to ensure that all YHC workers would use the same definitions for their activities and that they should register their activities in a uniform way. These definitions are necessary for the future development of an electronic medical file. The definitions are also needed for nationwide monitoring of specific diseases or behaviour. The development of the definitions has taken place in a typical Dutch way, the so called Polder model. The polder model means lengthy discussions that will only end when there is consensus about the discussed subject.

First the outline of the definitions was described. Generally these definitions consist of three parts. First the definition proper was described. For example: what is the definition of the nationality of a child? Is it the place where it is born, the passport it has or the place where the parents of the child are born or the passport they have or is it the nationality of only one parent and which parent or nationality is decisive?. Secondly the purpose of the activity was described. For example: why do we need to know the nationality? Thirdly: The registration in the medical file: Was the growth examined, was there some aberration? Was there an intervention, what kind of intervention? Was there a follow-up? The outline will be shown in the presentation.

Secondly seventy-one definitions are formulated, 18 by the platform itself, 37 by a group of professionals and 16 by TNO. The group of professionals had to apply for the job. Every professional got one or two subjects. All professionals had the digital support of wide group of professionals. The TNO professional had also support of a group of professionals.

Finally the concepts of the definitions were commented on by a panel of .experts. After their approval the concepts were handed over to the representatives of the societies of the workers in the YHC, the doctors, nurses, speech therapists and medical assistants and also to the organisations of the employers and to the ministry of health. In February 2005 general approval of the definitions had taken place. Nationwide training meetings have started. The aspect of the digital support has proven to be very effective for the general acceptance of the definitions.

Key words: definitions, activities, youth health care

HEALTH SERVICES AND PREVENTIVE INTERVENTIONS FOR ADOLESCENTS IN SCHOOL SETTINGS-AN INTERACTIVE WORKSHOP (131)

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OBJECTIVE OF THE WORKSHOP: To learn to know, exchange and discuss models of health care, health promotion and prevention for adolescents in schools from various countries.

CONTENT: While some of the classical tasks of health care and prevention in schools have to be maintained, school health services are challenged in addressing new morbidities of the adolescent age group, such as eating disorders and obesity, smoking and other drug use, stress and depression, accidents and violence and sexually transmitted infections.

How can health education be linked to the school curriculum? How can a healthy lifestyle be propagated not only at the individual behavioural level but also be influenced with the development of healthy environments? Examples from Zürich in addressing the above challenges will be provided and are intended to start a discussion on different models and experiences from the participants.

CAPACITY: 30 people, multidisciplinary. Suggested time frame 90 minutes.

Key words: adolescents, school health service, health promotion, new morbidity

HOW TO MAKE HEALTH CARE FOR SCHOOL CHILDREN AND YOUTH MORE EFFICIENT (262)

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Existing health care models for school children and youth can best be analyzed through two extreme models of this health care. The first model is characterized with integrated school children health care which is offered by a single doctor who conducts both curative and preventive health care measures for each child. The second model is characterized by a “rough” division of curative and preventive health care, so that one doctor (usually a family doctor or a paediatrician) cures a child, and another doctor does preventive health care. Inadequacy of the first model is impossibility of adequate intervention in school setting or peer group level. The second model has a consequence of uncoordinated procedures and interventions on individual level.

Analyzing the work of school health care services, one can remark reasons for their insufficiency: division of preventive and curative procedures has consequences of repeating procedures, limited possibilities of intervention in preventive health care, not coordination between doctors, uncoordinated individual and group procedures in health care.

The existing health care models do not give the answers to the leading health problems of youth, such as risk behaviour and habits (smoking, alcohol drinking, and using psychoactive drugs), mental health problems, sexually transmitted diseases, obesity, school problems and so on.

One should seriously consider possibility of organizing services for school and university medicine which will be closer to school and enable integrated form of youth health care, services which will be more prone to changes in regard to population demands and more ready to better communication with the youth. One of the possible solutions are counselling services within school medicine services which will enable the youth, individuals and groups to simultaneously resolve more problems at one place.

Key words: school health service, integrated health care, curative and preventive health care

HEALTH CARE SERVICES FOR YOUNG PEOPLE IN THE MACEDONIA (7)

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Particular attention in public health policies in the Macedonia is being given to promote the health of children and young people.

SUBJECT: The purpose of this paper is to present the organization of health care services and to recognize is there need for improvement and changes.

METHODS: Descriptive and statistical methods are used for analyzing the data.

RESULTS: Young people from 10 to 24 years are 24, 6% of total population. Health care can be delivered through primary, secondary and tertiary health services, with each level including certain prevention activities. There are outpatient services in health centers (30) which include special services for school children and youth, than services of GPs and polyclinics on the primary level. The secondary health care system comprises of specialist and consultative care and hospital care - general (16) and specialised for vulnerable groups or diseases (mental health, STIs). Tertiary health care is the highest level and is provided through specialised services offered by clinics and special institutes of Clinical Center -Skopje and rehabilitation facilities. Republic Institute for Health Protection and 10 regional institutes are responsible for planning, monitoring and evaluation of services. There are also services provided by private sector. All these services are on a static facility basis except patronage services on out reach or mobile basis. But, providers are also from sector for education, labour and social policy, NGO and many international organizations (UNICEF, WHO, USAID, UNDP...).

DISCUSSION: Problems come from changes in health behaviour of young people (smoking, unsafe sex, abuse of drugs and alcohol, unhealthy diet, violence), than social problems (trafficking, economic and sexual exploitation) and low level of cooperation among partners in delivering health care services.

CONCLUSION: There is urgent need to take steps to improve this situation. Information on health issues needs to be widely available and accessible for young people. Services must be specifically geared towards their needs. The Ministry of Health started with new approach: Youth Friendly Services because they are important resource for the future-they are not the sources of problems.

Key words: health care services, health organisations

EDUCATION OF EDUCATORS (206)

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Sheer expertise and know-how are not sufficient if one is to be a successful educator. Emotional maturity of a teacher is the imperative of any efficient work with schoolchildren. Psychodynamic psychotherapy has a long-lasting experience in the education of psychotherapists, always led by the premise: It's the therapist who cures, not the method. A similar slogan may be applied to pedagogy: It's not the pedagogy, it's the pedagogue who influences children.

For more than 15 years, the authors have been leading educative groups, working with primary and secondary school teachers, each educative group comprising 8-20 members. These groups are closed, and as the work with them lasts for 3 years, the number of members may in time decline. The groups meet once a week, for two school periods. At the beginning of the work (for some 15 minutes), the leader informs the members on some topics related to schoolchildren psychopathology. After that, the members of the group talk about their own problems related to their relationship with pupils. In this respect these groups, at least at the beginning, resemble Balint's groups. In time, after a year, when the group becomes homogeneous, the members open themselves and start sharing their own personal problems and the group thus becomes a psychotherapeutic group. After three years, due to this type of group work, the teachers' emotional experiences become an important instrument not only in their relationship towards pupils and their parents, but to their colleagues as well. Joining the group is the result of teachers' personal motivation, and there are members who keep coming to group supervision for another year. At the end of the work the participants are given certificates.

We would like to say that in the treatment of school failure there are 6-month educative groups for parents. There are also 1-year educative groups for kindergarten teachers. Our experience shows that the given period is long enough for the group members to experience an efficient emotional change. Group members have access to the books we have written: Psychotherapeutic pedagogy, Child, school, family and Education of educators.

Key words: education of educators, emotional experience, group

USE OF eHEALTH SERVICES AMONG FINNISH UNIVERSITY STUDENTS (21)

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INTRODUCTION AND SUBJECTS: Among Finnish people in working age young adults are most active users of email and Internet. University students use these electronic net services even more actively than the whole young adult population. Internet has also shown to be an important source of health information. Our study was made, as a part of national student health study to estimate students' use of and their attitudes to eHealth services (Definition by EU: Application of information and communications technologies (ITC) across the whole range of functions which one way or another, affect the health of citizens and patients) as part of student health care.

METHODS: This study was made as a part of "Student Health Survey 2004", a national survey among Finnish undergraduate students aged 19-35 years. The population size was 5030 and the response rate 62, 7 % (N=3153).

RESULTS: The main part of respondents had a positive attitude to eHealth services; about 80 % of them they were willing to substitute some of traditional forms of health services by eHealth. Electronic scheduling or cancelling appointments were the most eHealth services in demand. Half of respondents wished to get the results of laboratory tests or their prescriptions renewed by using eHealth services. Half of students had used FSHS's websites, 16 % had communicated with doctor, nurse or psychologist by email, and 12% had used health counselling service in Internet. Most active students to use eHealth services were found in the capital city region.

DISCUSSION AND CONCLUSIONS: Even if university students do not represent the whole population, they can act as "pilot population" representing adults of working age of a future information society. The students are active user of ITC and therefore require also adequate eHealth services.

Key words: eHealth, university student

SCIENTIFIC CHALLENGES FOR SCHOOL HEALTH AT THE BEGINNING OF THE THIRD MILLENNIUM (239)

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School medicine is considered to be a young scientific discipline. However we can trace the first signs of the emerging discipline as early as mid nineteenth century in different parts of Europe. In Croatia, the first school doctors were nominated in the last decade of the nineteenth century.

In the presentation a short historical survey of the development of this very active field is given.. Special attention is devoted to the changes of the focus of interest in this field due to the changing environmental and social conditions in which the young people were growing during the last century.

Even the age limits of the population included in the regular school system drastically changed: from the compulsory education embracing the ages from 7 to 15 in the mid XX century to the present span of school years starting from the age of six continuing up to nineteen.

Such a situation lends itself to a wide range of challenges for joint efforts of the school medical staff, teachers, social workers and psychologists to improve different aspects of life and work of this age group, including their active participation.

Key words: school medicine, school doctors

A SURVEY ON SOURCES OF INFORMATION ON MENTAL DISEASES WITH 1ST AND 4TH GRADE STUDENTS IN LJUBLJANA (96)

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A survey on sources of information on mental diseases with 1st and 4th grade students in Ljubljana. At our Department for Student Health of the University of Ljubljana, Slovenia, systematic check-ups are performed for all students in the first and fourth year of study.

The routine questionnaire contains some questions on family anamnesis. One of them is a question about mental diseases. When students reporting on such anamnesis are asked in detail about it, they frequently show lack of knowledge, despair, sadness, or even burst into tears. Afterwards, they often discuss their feelings and difficulties in relation to the problem for the first time in their life.

Hence, we decided to introduce an additional questionnaire to all students who have positive family anamnesis of mental diseases. The questionnaire contains questions on the students' knowledge about their relatives' disease, the sources of information on the disease that they had, as well as on their attitudes towards getting more information on the issue. The results will be statistically analyzed and graphically presented.

In Slovenia, an initiative is currently under way to move from GPs for adults to family doctors. Perhaps our survey could use this opportunity to improve the present practice, since better knowledge about family members' mental diseases can make the life of everyone involved at least a little easier.

Key words: mental disease, knowledge, family members

IMPROVE YOUR HEALTH INTERVENTION: THREE QUESTIONNAIRES TO DETECT CHILDREN WITH PSYCHOSOCIAL PROBLEMS COMPARED (176)

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INTRODUCTION: The Dutch Preventive Child Healthcare Services have an important task where detection of psychosocial problems is concerned. Valid and concise questionnaires can improve the detection of these problems. In the age group of 7-12 year olds such questionnaires lacked in the Netherlands.

Three questionnaires were assessed in terms of suitability for Dutch Preventive Child Healthcare Services: Strength and Difficulties Questionnaire (SDQ), Paediatric Symptom Checklist (PSC) and a newly developed questionnaire, the PSYBOBA.

METHODS: 750 parents with a child aged 7-12 years received a questionnaire with the Child Behaviour Checklist (CBCL) and either the PSC, the SDQ or the Psyboba. During a routine preventive health check, Preventive Child Healthcare Services recorded more data on psychosocial problems. Scale structure of the questionnaires was evaluated. Sensitivity and specificity were calculated using the CBCL total problem score as criterion. Added value of questionnaires for Preventive Child Healthcare Services was evaluated.

RESULTS: Structural equation modelling showed a poor fit of the scales of the three questionnaires. Cronbach's alphas were high. Sensitivity and or specificity were poor for all three questionnaires. Better cut-offs could be obtained resulting in a specificity of about 0.90 and a sensitivity of at least 0.78. PSC showed the poorest values. Added value of all three questionnaires was substantial, although PSC performed somewhat poorer than SDQ and PSYBOBA detecting a clinical CBCL score.

CONCLUSIONS: Dutch Preventive Child Healthcare Services are strongly recommended to implement the PSYBOBA or the SDQ with adapted cut-offs in their preventive health checks as the PSC performs somewhat poorer in the detection of psychosocial problems. This would improve the health interventions regarding the detection of psychosocial problems in children. This in turn might contribute also to the efficiency of referrals from Preventive Child Healthcare Services to Mental Health Services.

Key words: detection of psychosocial problems, questionnaires

HOW SCHOOL HEALTH SERVICES MEET THE CHILDREN AND ADOLESCENTS' NEEDS – CASE STUDY CROATIA (243)

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The health of the children and youth is the investment in the country development. The burden of their ill health and impaired development may have enormous consequences and direct or indirect effects. Efforts to meet children and adolescents' needs reflect through the sustained action to improve the health and to reduce the inequalities.

The organization of health care and the national program for school children and youth in Croatia is described. The advantages and disadvantages of that organization are discussed.

In Croatia, preventive health care measures for the school children, youth and university students are provided by the school health services, while for the child or young person while being ill, general practitioner takes care. School health services are organized in the public health institutes, school medical specialists and nurses responsible for the program implementation. Each service unit (a medical doctor and a nurse) takes care for 5000 school children, youth and university students. The annual program is developed at the national level and embraces regular checking of the health status through systematic examinations, check-ups and screenings, than vaccination, health education and health promotion, counseling (guidance services), including care for chronically ill children and children with the special needs. In addition, school doctors are often involved in the multidisciplinary projects at the national or local level. There are more than 160.000 counseling annually and for all primary school students and for the one third of the secondary school students health education has been delivered.

The most important emerging threats during childhood and adolescence are obesity, psychosocial and mental health problems, injuries and reproductive health. The separate service for children and youth has definite advantages as permits preventive and specific approach to this population, but the possibilities for the intervention are felt to be too limited.

Key words: school health services, school medical specialists

BEST PRACTISES OF CO-OPERATION OF HEALTH CARE ORGANISATIONS AND UNIVERSITIES IN FINLAND (198)

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Different student organizations' co-operation with health care organisations and universities is in good level in Finland. However connection between the health care organisation and universities should be improved.

MAIN GOALS:

To develop studies and study environment to support more welfare of students

To get University staff and personnel in health care recognise health risks involved in school and university environment

SUBJECT: Main problem is that distance between health care organisation and university hampers health care staff's ability to recognise factors in study environment that could harm student's physical and mental health.

METHODS: (we'll give one example of each topic)

Co-operation with student organisation

Student organisation's participation in governance and planning of health care system strengthens the link between students and health care system. As students are able to influence the practises of their everyday health care, they feel the system much more as their own.

Attending to activities

As student health care staff attends to different kind of student activities, for example sporting events, the health care personifies and gets closer to student.

Increasing the knowledge of study system of health care staff

Continuous information on the changes in study systems to health care staff is necessary for their ability to understand the student welfare as a whole.

RESULTS: Current results in co-operation are promising. The presentation also centralises in future hopes.

Key words: student healthcare, university healthcare, co-operation

**SPECIAL PUBLIC SERVICE PROVIDED BY THE PUBLIC HEALTH DEPARTMENT
OF FRANKFURT/M FOR RISK FAMILIES WITH PRESCHOOL CHILDREN
PRESENTING BEHAVIOURAL AND/OR DEVELOPMENTAL DISORDERS (50)**

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OBJECTIVE: Since 2002 we offer our public consultation service to families with school beginners, who show behavioural and/or developmental problems (e.g. inattentiveness, impulsivity, hyperactivity) in our examination. Those families also have supplementary psychosocial risk factors (e.g. migration, lower social class, single parent). They seldom find their way to the established institutions like out-patient departments of paediatricians, psychiatrists for child and adolescent or social youth services.

Therefore we set up a supplementary consultation service offering low-threshold and quickly obtainable appointments. Our aim is to diagnose and to introduce therapy before school starts. We present aims, structure and methods of our special diagnostic service.

METHODS: In preparation to our public consultation service parents and kindergarten teachers were requested to fill in a standard evaluated questionnaire about the behaviour of the child in the kindergarten and at home (Optimind® checklist, VBV 3-6 ER Döpfner et al.1993). Then each child is carefully examined by a paediatrician in cooperation with a psychologist or psychiatrist for child and adolescent (medical history, milestones of the development, neuro-paediatric examination, Kaufman- Assessment battery for children). A debriefing session follows to discuss the necessary treatment and /or special social help instruments.

RESULTS: Case descriptions of all children including diagnoses, therapeutic and psychosocial recommendations and parental interviews will be presented.

Our results until now show: sex ratio boys/girls is 5:1; 85% of the families have psychosocial problems; 40% are diagnosed with ADHD (Attention deficit hyperactivity disorder); 60% have a combination of psycho-mental retardation and severe family disorders without any educational support.

CONCLUSION: The assessment of our cooperative special service shows that there is a need for such a supplementary public health service. Families with a socially risky background receive early support by ways of parental counselling, therapy and social support.

Key words: public special service, preschool children, behavioural and/or developmental disorders

SPECIAL COMPETENCE IN CHILD AND SCHOOL HEALTH CARE (76)

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Finnish Medical Association has recently (1993) introduced a new system of special competences, supplementary to the official system of specialization. Special competences can relate to specific areas of specialization. Special competences can relate to specific areas of specialities in which particular skills of demanding natures are required. Suggestion for the establishment of new areas of special competence usually stem from the specialist association in question.

Special competence in Child and School Health Care was established in 2002.

Six associations take part to establish this special competence. These were Finnish Association of School and Adolescent Medicine, General Practitioners in Finland, Finnish Association of Paediatricians, Association of Paediatric Neurology and Finnish Association for General Practice.

In Finland we have the system called small area population responsibility. Family doctors together with public health nurses of health centres take care of the health services of the whole area.

The problems of children and youth have become more complicated. The doctor who is working in the children health care centre and in school health care needs special skills. Special competence in child and school health care can respond to these requirements.

A doctor who wants to get this special competence must be specialist in general practice or in paediatrics, or in paediatric neurology or in paediatric psychiatry. In addition he or she has to work at least two years in health care centre as a school doctor and also in children health care centre. In special clinics he or she has to work six months. He or she needs 80 hours theoretical education. After the education there is a national examination.

Committee members of these five associations handle the applications. The committee makes its suggestions to Finnish Medical Association for approval. At the moment 37 doctors have special competence in Child and School Health Care.

Key words: school health, adolescent, special competence

SCHOOL HEALTH IN LITHUANIA: CHALLENGES AND FUTURE AGENDA (107)

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The Lithuanian National Public Health Care Strategy, approved by the Republic of Lithuania Government in 2001, establishes the main guidelines for the public health care reform directed to greater attention to disease prevention, health promotion, reduction of health risk factors. One of the parts was given to the needs of the most sensitive part of the community– children. According this document school health care system has been reorganised. Earlier, trained nurses looked after children's health in schools and the main task was primary health care. The new in 2003 adopted Republic of Lithuania Law on Education provides for employment of public health specialists with higher education in school who should help young people not only retain good health but also improve it. A young man shall be assisted in comprehending that his or her lifestyle bears the greatest influence over health, while the task and duty of public institutions is to give help to a child through creation of conditions for realisation of his or her positive choice.

Objective of this study is to review Lithuanian school- based health care legislation, to evaluate existing situation and foresee future agenda.

METHODS: The existing Lithuanian school-based health care legislation were reviewed and data from municipalities were analyzed.

RESULTS: Municipalities in Lithuania are responsible for school health. Budget has two sources: national and local. There are 60 municipalities in Lithuania, and experience and situation in every of them is different. Every year financing of school health is rising, more specialists with higher education have begun to work in schools. Competency of specialists according special training courses, organised by the Minister of Health, is advanced.

CONCLUSION: The development of national School health program, as one of future strategies, in which is necessary to clarify responsibilities of national and local authorities, foresee supporting financing mechanism of municipalities, future qualification of specialists, sharing a good practice between municipalities, health teaching of local politicians and decision makers.

Key words: school health, children's health, public health specialists

THE CHARACTERISTICS OF AMBULANCE CALLS DUE TO ACCIDENTS IN 0-24 YEARS OLD POPULATION OF BUDAPEST, HUNGARY, 1998-2004 (116)

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SUBJECTS: We studied the characteristics of accidents in childhood and young people in Budapest on the basis of the ambulance calls in 1998-2004 for the age groups of 0-4, 5-9, 10-14, 15-19, 20-24 years. Daily emergency ambulance calls with the following diagnoses were studied: fractures, distortion, commotion, contusion, open lesions.

METHODS: In the evaluation descriptive and comparative statistical methods and trend analysis were applied.

RESULTS: During the studied period there were 474507 emergency calls registered, out of them 66905 calls concerned children under 25 years. There was a significant increasing tendency in the number of calls in case of 0-4 and 5-9 years old children. 54.9% of all emergency calls were due to accidents in the children population. The rate of torsions was the lowest, (3.9%) and the rate of open lesions was the highest (17.8%). In the age groups of 0-4 years and 5-9 years the most frequent reasons were commotion and contusion. From the age group of 10-14 years on fractures were the most common causes. Calls due to open lesions showed an increasing tendency, while those due to contusions decreased. Number of calls due to other types did not show significant changes. Calls due to open lesions were most frequent during May-June, contusion in June-August, fractures as well as torsions showed two peaks in May and in September-October. Cases of commotion showed less seasonal variation. There was also a weekly variation in the types of accidents: fractures happened mostly on Wednesday-Friday, contusions on Friday, Saturday, open lesions were least frequent on Sunday and they started to increase during the week. A diurnal variation was also observable: torsions were most frequent between 10-12 hours fractures 11-18, contusions: 14-19, open lesions between 16-18 hours. Calls due to commotion were evenly distributed between 8-20 hours.

CONCLUSION: The analysis reflects the risks of different age groups, accidents are connected to different activities at home, at school and in afternoon leisure time. The study can effectively be used in planning prevention programs.

Key words: childhood accident, trend analysis, ambulance call

AN ACCOUNT OF SCHOOL HEALTH-FAMILY MEDICINE COOPERATION IN CROATIA (144)

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Presented is an overview of the actual status of school health in Croatia.

INTRODUCTION: An integrated health service for school children and adolescents, as available in this country up to 1998, was offering a nearly comprehensive health protection, performed by a single physician, the school health doctor. Then a bill has split these activities in two, dividing them between the school health specialist (>preventive aspects) and the selected family doctor (>curative aspects).

AIM: To discuss critically the merits and (particularly) the demerits of this swift change from the standpoint of a school health specialist actually working as a family physician.

DISCUSSION: A well-functioning, disintegrated school health service in some countries should not have been hastily, in a revolutionary way, translated into a small transitional country with well developed and well operating integrated system, without due analysis of the status quo, of the available socioeconomic resources, and of the possible consequences. Indeed, at that time the vaccination rate was exemplary, the systematic check-ups were performed according to declared programs, and the curative activities were adequate; only the health education activities and contacts with the educational institutions were not elaborated enough. According to the prevalent opinion, these shortcomings could be resolved decreasing the pupils' quantitative standards (health norms), leaving enough time and space for the mentioned goals.

CONCLUSION: Instead of concluding remarks, here are some pertinent questions:

What is the actual role of school physician between two vaccinations or check-ups?

Are the school doctors duly informed about the current epidemiological situation in a particular school setting?

Is the family doctor the only person in charge of (solving) family problems? If not, what kind of cooperation with a number of school health professionals is conceived?

Within a legion of selected doctors, who is entitled to accept/overrule the health notes of excuse, sick leaves and other forms of school absenteeism?

What parents and pupils may expect from a school health specialist in their own class/school?

Besides the free choice of family physicians why there is no an analogous free choice of school physicians?

Key words: school health specialist, family physician

PRIMARY HEALTH CARE FOR SCHOOL CHILDREN IN BELGRADE (167)

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INTRODUCTION: Primary health care for school children in Belgrade is provided in 16 Health Centres. Children age 7-19 years are covered also with 20% of health education.

SUBJECT: Rising up awareness of health importance and establishing long healthy life habits and school children total health status and set of measures for improving their health.

METHOD: It is social medicine retrospective evaluation study based on routine statistical reports in Institute of Public Health in Belgrade. Materials are all school children in Belgrade elementary and high schools (210 979).

RESULTS: School children have adopted healthy life concepts for improving health. Professionals were educated to continue their educational role. Mobilisation of communities by rising up their awareness of healthy life styles.

DISCUSSION: Program of health education through primary health care is still conducting in Belgrade. Innovation in partnership for health is open. **Conclusion:** Level of awareness of health is risen up among scholars in Belgrade.

Key words: primary health care, school children, life style

LACK OF COMMUNICATION BETWEEN SCHOOL DOCTOR AND GENERAL PRACTITIONER PRESENTED BY ANALYSIS OF RECORDED DIAGNOSIS (218)

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INTRODUCTION: Since 1998 integrated health care of school children has been divided into preventive care provided by school doctors and curative care in domain of general practitioners (GP).

The aim of this study is to present how medical charts of school doctor and GP vary for the same population of children.

SUBJECTS AND METHODS: Descriptive survey was conducted by 2 GP-s who compared own diagnosis with school doctor's charts for their current school aged (7-18 years) patients. Randomised sampling by choosing every 5th chart among 800 children in Đakovo and 3rd chart among 300 children in Samobor formed sample of 260 children. According to predefined questionnaire information about school success, socio-economic status and diagnosis of scoliotic posture, ophthalmologic disorders nocturnal enuresis, epilepsy, learning disorders, cardiac malformation, anaemia and "other chronic diseases" were recorded.

RESULTS: Similar results were gathered on both locations. GP-s are informed just as school doctors about lower level of school success of students, but for 24% haven't got any information. Diagnosis of specific learning disorders varies. Of 15 children that have adjusted or specific curriculum, GP-s have evidence for 5. Both doctors are well informed on marital status of parents. For 64% of patients in Samobor school doctor has no information on socio-economic status. Largest difference is in recorded nocturnal enuresis – 6% in school doctor's chart and none in GPs. Anaemia is diagnosed in 8% of patients in GP's compared to none in school doctor's office.

Ophthalmologic disorders and scoliotic posture are more diagnosed by school doctors, but allergies and "other chronic diseases" are more recorded by GP-s.

DISCUSSION: School doctors are better informed on school success and curriculum of patients, as well as disorders detected through systematic check up's and screening as scoliotic posture and ophthalmologic disorders. GP-s have better knowledge about socio-economic status and chronic diseases. Results are expected regarding field of work of GP and school doctor, but also present how medical charts can vary for the same population. In order to provide best health care for children certain level of communication between doctors is required.

This pilot-survey shows lack of communication between school doctor and general practitioner but small sample demands wider survey before final evaluation.

Key words: general practitioner, school doctor, communication

ADVANTAGES AND SHORTCOMINGS OF THE NEW SCHOOL MEDICINE STRUCTURE (238)

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BACKGROUND: In Croatia, the development of school medicine as a separate specialty began in the second half of the 19th century, abreast with Europe. Integrated health care has been traditionally developed. Upon launching health care reform, however, integrated health care at the school level was in contrast with the patient right of free choice of primary care provider. Therefore, since 1998 school medicine as a preventive and specific specialty has been organized at public health institutes.

AIM: Experience based analysis and assessment of the present structure.

SUBJECTS AND METHODS: Anonymous questionnaire was distributed to 119 specialists in school medicine providing therapeutic service, 119 educationists with experience in integrated care until 1998, and 125 specialists in school medicine engaged in preventive activities and experienced in integrated care.

RESULTS: The questionnaire was filled-out by 39 (32.77%) specialists engaged in therapeutic activities and 37 (29.60%) specialists engaged in preventive activities. The physicians working on preventive activities could only partially monitor school children's health state (76.92%) due to a too large catchment population (71.79%), too extensive program of activities (53.85%), unsatisfactory collaboration with the primary care physician (61.54%), and lack of computer equipment (48.72%). Data on freely chosen primary care physicians were available to only 38.46% of preventive physicians; therefore, only 66.67% of the physicians engaged in preventive activities occasionally informed the primary care physicians on health problems recorded in school children on preventive examinations, whereas 15.38% did not do it at all. In addition to the above mentioned reasons, 5% of preventive physicians reported on scattered field work and poor collaboration with parents. Given the existing standards and extent of work, 51.28% of preventive physicians depicted health education as the most deficient field, followed by counseling (20.51%). Specialists engaged in therapeutic activities established cooperation with preventive specialists primarily for vaccination contraindications (64.86%), chronic diseases (54.05%), mental health and learning (48.65%), and gym classes (40.54%). After preventive examinations, 67.58% of these physicians received no further information on their patients, and 98.89% of them believed the present structure could not provide efficient health care to school children and students. The majority of educationists (93.28%) evaluated the current collaboration with school medicine teams as satisfactory, 52.94% considered the integrated care concept more successful for making cooperation with one school physician easier and providing a thorough insight into the school children's health state (32.77%).

CONCLUSION: The current structure of this health care segment, separating preventive and therapeutic activities to different institutions (health care institutes and health centers, respectively) does not allow for integrated follow-up and surveillance of school children and epidemiologic situation at school due to a too large catchment population, inadequate computerization of primary health care, and unsatisfactory collaboration with primary care practitioners, thus hampering continuous intervention programs and solving of major public health issues in this population group.

Key words: school children, students, health care, school medicine

HEALTH CARE SURVEILLANCE FOR ADOLESCENT IN SLOVENIJA (242)

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The schedule of health care for adolescent widely differ in European countries. Slovenia is a small country of 2 million people and having 270.000 children attending school from age 6 to 19 years. The Slovenian school doctors find a great advantage of having: 30% of our work time preventive health care (systematic examinations, check-ups, screening, vaccinations and health education and promotion programs and 70 % of our work time is curing - outpatient treatment. Most of medical school doctors work on the primary health care level in Health Community Centers (HCC). HCC are outpatient clinics where medical doctors of different cross-section work. The biggest HCC is in Ljubljana with 6 independent units. I describe one of the units where I work as a school doctor. In this unit we are 4 medical school doctors and we take care of 7 primary schools, two secondary schools and 3 grammar schools (7800pupils) and we have 7500 adolescent for outpatient treatment. These types of medical services for adolescent have existed in Slovenia for more than 60 years. The »double« medical care gives us high percentage of immunization and well communication with adolescent.

Key word: school doctors, primary preventive care, health education

TEACHING TEENS - INFLUENCE OF HEALTH EDUCATORS ON THE KNOWLEDGE LEVEL AMONG YOUNG PEOPLE – GERMAN SUCCESS STORY (251)

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Sponsored by Johnson & Johnson

INTRODUCTION: Group of health educators from Germany - Die Ärztliche Gesellschaft zur Gesundheitsförderung der Frau e.V. (ÄGGF) is organization of female gynecologists with primary focus on prevention and education of school children, in order to help them to understand and anticipate the inner and outer influences of this turbulent lifetime.

The Robert Koch - Institut in Berlin evaluated the work of this organization in 2002. The knowledge increase among young girls after having attended a lesson given by a trained health educator was significant – proving how much influence health educators have on the young people.

METHODOLOGY: Organization of health educators was conducting lectures all around Germany, with more than 50 000 young people attending the lectures. Topics of the lectures were various: growing up and puberty, physical changes in puberty, menstruation and menstrual hygiene, sexually transmitted diseases and protection from sexually transmitted diseases, pregnancy and contraception, and further.

Lectures were conducted by 80 doctors in several different schools. There was a standard test given to a group of girls before the lesson and 2 weeks after the lesson, in order to evaluate influence of lectures on the knowledge level among young girls.

There were 2 groups of respondents: girls of primary school age, 6th grade – average age of 11,7 (further in the text Group 1) and Group 2: 9th and 10th grade (equivalent to our 1st and 2nd grade of secondary school), with average age of 15,0 and consisted of both, boys and girls.

RESULTS: Test results before the lesson, for both groups together, showed 39% of correct answers. Test conducted 2 weeks after the lesson showed knowledge increase of 32% among Group 2, and knowledge increase of high 82% in the Group 1.

Moreover, before the lesson, only 6% of the students believed that they could learn „a lot“ or „very much“ on the lesson itself. After the lesson, however, 95% of the girls in the Group 1 and 82% in the Group 2 marked the lesson they attended with „Good“ or „Very good“.

DISCUSSION AND CONCLUSION: Health educators have significant influence on young people: their lessons are not only well accepted and liked among young students, but also build long lasting knowledge and represent a base for healthy development in the future.

Programs similar to this are done in cooperation with Johnson&Johnson Company in many other countries in the world and Europe, with health educators and/or school teachers (Australia, Austria, France...).

This program, with its remarkable results has potential to be incorporated within health education programs in many European countries. Professionals of different profiles could be included in providing this preventive program like school doctors, gynecologists, teachers etc.

Educational materials (macromedia flash animations, 3D models, brochures) need to be modified according to each cultural demands and needs.

Key words: health educations, puberty, STI, teenagers

CHRONIC NON-COMMUNICABLE DISEASES

“OMICS” REVOLUTION IN MEDICINE: THE SECOND GENERATION WILL BENEFIT FROM BREAKTHROUGH IN SCIENCE (229)

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“Omics” represents common term for a global, systematic and comprehensive approach to identification and description of the processes and pathways involved in cell functioning. “Omics” techniques include and structural and functional genomics, proteomics, glicolipidomics, metabolomics. As the comprehensive approach, “omics” is characterised by high-throughput or large-scale experimental methodologies combined with statistical and computational analyses of the results. The fundamental strategy of functional genomics and proteomics, as a major “omics” methods, is to expand the scope of biological investigation from studying a single gene or protein to studying all genes or proteins collectively in a coordinated and systematic fashion. It is estimated that approximately 30% of the open reading frames in a fully sequenced organism have unknown function at the biochemical level and are unrelated to any known gene. This is the reason for an increased interest of researchers who have recently started to shift from genome mapping and sequencing to determination of genome function using the functional genomics toys. This approach is very promising as it rapidly narrows the gap between the sequence and its function and yields new insights into the functioning of the biological systems. “Omics” approaches are the beginning in providing new and profound insights into human biology which opens the potential for developing new effective interventions in both prevention and treatment of human diseases. The recent advances in array technologies accelerates the translation of “omics” methods to clinical applications. For example, some expression “signatures” of genes were shown to be excellent predictors for development of metastatic disease, as shown in many studies across different array platforms and are now being validated in large prospective studies. These, as well as other microarray-based studies offer enormous potential for improved health care in cancer patients and, generally, for a variety of human diseases. Finally, “omics” provides powerful tools for studying the samples of the greatest clinical relevance. In general, these studies have emphasised the potential of technology for biomarker discovery, as well as for addressing the issues of cancer heterogeneity, new classification, early diagnosis and new therapeutical targets. New generation will certainly benefit from these new and powerful technologies.

Key words: functional genomics, presymptomatic diagnostic, new therapeutical approaches

YOUNG ADULTS WITH SERIOUS CONGENITAL HEART DISEASE: HOW DO THEY EXPERIENCE THEIR LIVES? (81)

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INTRODUCTION: Nowadays many patients with serious congenital heart disease (CHD) survive beyond childhood. It is known, that medical complications will arise. Health-related quality of life (HRQoL) and subjective health status (HS) in these patients and the correlation between HRQoL and HS with medical status is unknown. When knowing these data, counselling of the individual can be optimised.

SUBJECTS: Eighty-one young adults (aged 18-32) with serious CHD were randomly selected from our database.

METHODS: The objectives were: to evaluate HRQoL and HS in adults with not-anatomically corrected CHD and to determine the correlation between these parameters and medical status. HRQoL was determined with a dedicated questionnaire (TAAQOL*) and HS with the SF-36. Medical status was measured with the objective medical index (cyanosis, cardiac failure arrhythmia), the Somerville index (social/ work scale) and the NYHA class (physical complaints scale).

RESULTS: HRQoL in serious CHD patients was significantly worse ($p < 0.01$) compared to that of the general population on the dimensions: Gross Motor Functioning and Vitality. Correlations between HRQoL and medical status were poor. Patients had significantly worse ($p < 0.01$) HS than the general population on the dimensions: Physical Functioning, Role Functioning Physical, Vitality and General Health Perceptions. Again the correlations between HS and medical indices were weak, but more significant than with HRQoL.

CONCLUSION: Patients with serious CHD experience limitations only on physical dimensions of HRQoL and HS.

Objectively measured variables are only weakly related to HRQoL. This stresses the need for using dedicated questionnaires for this group of patients as a medical routine.

Key words: health related quality of life, congenital heart disease, young adults (18-32 years)

LEARNING WITH IT: HOW PUPILS IN MUNICIPALITY SCHOOLS WITH INTELLECTUAL DISABILITIES LEARN (142)

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The purpose of this paper was to analyse intellectual disabled pupils' experiences from learning with IT and their perceived benefits from participating in an intensive IT learning programme during a period of eighteen-month.

An intervention study was carried out using pre, middle and post questionnaire. Three municipality schools and a sample of 41 intellectual disabled pupils from special classes participated in the pre investigation and 25 intellectual disabled pupils in the post investigation. Pupils with special needs who did not attend special classes did not participate. The questionnaires were handed out to the teachers who answered on behalf of the children.

The results were categorised into three themes: basic skills, practical skills and learning and communication skills. The overall results showed that the pupils had increased their skills in all the categories including those, which seemed to be too complicated to use within the scheduled time.

Key words: schoolchildren, disabled, IT, communication, learning, intervention

HEADACHE - ONE OF THE MOST COMMON SYMPTOMS IN THE SCHOOL AGED POPULATION (19)

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PURPOSE: We want to present the headache as a most common symptom in a school aged patients, the reasons for the appearing and its characteristics.

MATERIALS AND METHODS: Patients were followed in a three years period (2001-2004). They were in age from 7 - 26. We use the anamnesis, physical, laboratory, microbiological, x – ray, neurological, ophthalmologic and other findings.

RESULTS: Classification was made by the age, season and between male and female. 361 cases with headache were discussed. We noticed 122 cases in 2002, 138 cases in 2003 and 101 cases in 2004. 40 % (143) were male and 60 % (218) female. From 7-9 were 6%(22), 10-14 were 42%(150), 15-19 were 44%(160) and 20-26 were 8%(29).In the first trimester with 26%(94), second trimester with 22%(80), third trimester with 18%(65) and fourth trimester with 34%(122).

CONCLUSION: The headache incidence was higher at females, in age from 10-19 and in the fourth trimester of the year. The most common causes of headache (70%) were: migraine and migraine variants and psychogenic or stress headaches. Less common causes (28%) were: refractive errors, sinusitis, otitis, anaemia, teeth problems, traumatic injuries, postural, menstrual disorders and diets. Very less common causes were: hypertension (5 cases), ophthalmic herpes zoster (2 cases), cerebral AV malformation (1case) and cerebral tumors (2 cases). Our intention was preventing the headache - systematical examinations, hygienic measurements, like sleeping hygiene, spending time on fresh air, sport recreation, physical treatment, and psychologist consultations. The patients were treated etiologically and symptomatically. Removing the headache reasons and successful headache treatment, is necessary for the normal growth and development, normal psychophysical activity and normal live.

Key words: headache

DEVELOPMENT OF GUIDELINES IN SCHOOL HEALTH CARE: WASTED EFFORT WITHOUT IMPLEMENTATION PLAN? THE FLEMISH EXPERIENCE WITH THE EARLY DETECTION OF VISUAL IMPAIRMENTS IN SCHOOLCHILDREN (174)

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INTRODUCTION: Since 2000, and on the authority of the Ministry of Health, the Flemish Scientific Society for Youth Health Care has been engaged in the development of evidence-based guidelines for school health care. In the year 2003 the first completed guideline, which is related to the early detection of visual impairments in schoolchildren (3-18 years), was endorsed by the Flemish Health Administration and the Department of Education. Since then it is accepted as the standard for good visual screening practice in School Health Care. To achieve the goals of this guideline a well-established strategy of implementation was considered of great importance.

METHODS: In preparation of this process of implementation a detailed strategy has been outlined, derived from a Dutch concept. The Flemish implementation strategy consists of a five-step-plan in which the specific contribution of the collaborating partners, i.e. Health Administration/Department of Education, management and professionals of the Pupil Guidance Centers, and the Flemish Scientific Society for Youth Health Care, was clearly defined. These steps, each comprising several items, are the following: 1/ Publication and spreading of the guideline; 2/ Formal adoption of the guideline by the Pupil Guidance Centres; 3/ Training of professionals and the organisation of a supportive service for group-purchasing of test materials; 4/ Implementation of the recommendation in daily school health care practice; and 5/ Long term application of the guideline.

RESULTS: In September 2004, the implementation process of this first guideline started in all Flemish Pupil Guidance Centres. By the end of June 2005 the targets of step 1 and 2 of the process were attained, and by means of a Flanders-wide “train-the-trainer” program important progress was made in the achievement of step 3 and 4. Aims and detailed outline of this program will be presented. Furthermore, we will show the available evaluation results and clarify the strengths and weaknesses of the full implementation path.

CONCLUSION: Improving the quality of “school health care”-practice by the development of evidence-based guidelines is of great importance. However, this appears to be a waste of time and effort when not followed by a well-established strategy for the implementation of these guidelines. School Health Services in other European countries might take advantage of the Flemish experience. (Study supported by the Flemish Government)

Key words: vision screening, prevention, guideline, implementation

ALARM TREATMENT IN CHILDREN WITH DAY- AND NIGHT-TIME INCONTINENCE IS SUCCESSFUL (64)

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INTRODUCTION: The aim was to assess effect of alarm treatment in children with day- and night-time incontinence for urine.

SUBJECTS AND METHODS: 37 consecutive children (25 boys and 12 girls) of parents who rented an Elther© enuresis alarm, all of whom suffered from both day- and night-time incontinence, were compared to 21 boys and 16 girls with only night-time incontinence. In both groups, age ranged from 5 to 13 years. Inclusion criteria: at least two wet nights a week in the past 4 weeks. The alarm was used until dryness was reached or the parents finished the treatment. Parents completed a diary. Results were analysed using SPSS 10.0.

RESULTS: Sixty-five percent of children with day- and night-time incontinence became dry at night (average time needed 49 days, range 22-134 days). Seventy-six percent of children in the group with only night-time incontinence became dry at night (average time needed 52 days, range 22-121 days). No significant differences were found between success percentages for the two groups or between different ages in the two groups.

Of children with day- and night-time incontinence who became dry at night after alarm treatment, 42% also became dry during daytime.

Two years after alarm treatment 15 of 16 traced children who became dry at night-time are still dry at night and all 10 traced children who became dry at daytime are still dry during daytime.

DISCUSSION: The prevailing opinion that children with day- and night-time incontinence should be referred to a hospital to cure the daytime incontinence before the night-time incontinence. Contrary to this opinion, children with day- and night-time incontinence can be cured of bedwetting with normal alarm treatment, just like children with night-time incontinence. Even more surprisingly, some of them also became dry during daytime. Consequently, children with day- and night-time incontinence can be first-line treated with an enuresis alarm for bedwetting. This can be advised in Youth Health Care.

CONCLUSIONS: Like children with night-time incontinence, the majority of children with day- and night-time incontinence become dry at night with an enuresis alarm and often also become dry at daytime. The results are good compared to the spontaneous cure rate of 15-18% each year. On the basis of these results professionals of Youth Health Care can advise children with day- and night-time incontinence to use alarm treatment first.

Key words: bedwetting, day-time incontinence, night-time incontinence, enuresis, alarm treatment

THE IMPORTANCE OF EARLY INTERVENTION IN CHILDREN WHO STUTTER (224)

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Stuttering is a developmental speech disorder. According to DSM-IV approximately 95% of stuttering occurs by the age of seven. The incidence of stuttering is generally believed to approximate 4 to 5% of the general population, whereas its prevalence at any given time is substantially lower, ranging from 0.5 to 1%. This discrepancy indicates that stuttering persists in fewer than half of those ever affected. The definition of stuttering that physicians refer to most often is the one in DSM IV. It concentrates on disturbance in the normal fluency and time patterning of speech. This is a useful starting point, but it tends to ignore the psychological factors such as frustration, anxiety, fear, etc., which in adolescence and adulthood may lead to a lifestyle where speaking can often be avoided. There are several critical periods for its onset. One of the most referred to is when a child enters kindergarten and more especially when entering school because inadequate readiness and differences between children's abilities and adults' aspirations might lead to stuttering. The physician is often the first professional to whom parents turn for help when their child's speech becomes dysfluent. Because about half of all cases of stuttering begin gradually and early stuttering may come and go in cycles, an appreciation of the differences between normal developmental speech disfluency and potentially chronic stuttering enables the physician to refer to speech therapists in a timely manner. Insufficient knowledge of the problem results in the famous sentence that the child will «grow out» of it, which is true for up to 80% of cases. For the 20% left untreated, dysfluencies may develop into a chronic stuttering. According to the literature, improvements in the fluency of young children who stutter during treatment last longer, require fewer hours of treatment and more often result in permanent remissions of stuttering than do those reported for older children and adults. Furthermore, more children (86%) were reported to have “recovered” when their treatment was initiated within 15 months of onset than were those whose treatment began some time later (73%), so it is possible that the delay in initiating a treatment might be related to its outcome. By early identification and intervention we can do a lot to prevent stuttering being a life-long burden for all those who experienced dysfluent speech in childhood. By providing proper help we can ensure better quality of communication and life for all those who stutter.

Key words: stuttering, prevention, early intervention, children, wellbeing

SUDDEN CARDIAC DEATH DUE TO PHYSICAL EXERCISE IN MALE ADOLESCENTS (17)

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INTRODUCTION: Health-related incidents during or immediately after physical exercise are very scarce in healthy individuals. The most common reasons in young individuals are various cardiac diseases. The aim of this retrospective study was to analyze causes and characteristics of sudden cardiac deaths that occurred in adolescents during or after physical exercise in a five-year period in Croatia.

CASE REPORTS: Six sudden cardiac deaths in male adolescent boys (age 14-18 years) were detected in a 5-year period. Three of the boys had been engaged in physical exercise at school, one as a professional soccer player, one in swimming recreationally, and the sixth had just finished secondary school and was working at the site. Five of them were autopsied and four have had congenital cardiovascular diseases. Two had hypoplastic coronary arteries; one of them had in addition acute bacterial inflammation of tonsils, narrowed aorta and subacute myocarditis. The third had hypertrophic cardiomyopathy with interventricular wall of 40 mm. The fourth had normal heart findings including coronaries, bilateral pneumonia with a possible altitude (non-cardiogenic) pulmonary oedema. The fifth had congenital aneurysm of the left ventricle. The sixth, who had not been autopsied, had a suspicion on congenital pulmonary valvular stenosis and an ostium primum atrial septal defect with mitral valve insufficiency. None of the six had reported definite symptoms at exertion.

DISCUSSION: According to this data, the death rate in boys and adolescent males in Croatia in secondary schools during or after recreational physical exercise was 1.2/100 000 per year or 6/500 000 in five years. Thorough preparticipation medical examination including indicated laboratory tests and avoidance of heavy exertion at the time of respiratory infection might have helped to avoid some of the lethal events.

CONCLUSION: These findings support the notion that adequate medical control is an essential safety measure for athletes.

Key words: sudden cardiac death, adolescents, physical exercise, congenital heart diseases

ALLERGIC STUDENTS AND VOCAL SYMPTOMS (51)

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INTRODUCTION: About 20% of Finnish students have allergic rhinitis and 5% have asthma. Severe allergic rhinitis is treated with immunotherapy. Most common allergens in this treatment are pollen from trees (birch/ alder) and grass. Our previous studies showed that about 20% of teacher students have voice disorders. The purpose of this study was to explore the prevalence of voice disorders among students who have severe allergic rhinitis and who are treated with immunotherapy.

SUBJECTS: Allergy group consisted of 39 students who get immunotherapy treatment against pollen from trees. Control group consisted of 54 students visiting dental care. All students were studying various subjects at the University of Turku. As to age and gender there was no significant difference between the two groups.

METHODS: All students answered to a questionnaire concerning vocal symptoms. There were questions about prevalence of vocal symptoms, quality and character of symptoms. The subjects in allergy group also answered to questions about their allergy.

RESULTS: The results of this study showed that subjects in the allergy group reported significantly more vocal symptoms than the subjects in the control group. In the allergy group 33% of students reported two or more symptoms weekly or more often while only 11% of students in the control group reported that. One interesting result of this study was that immunotherapy for allergy might reduce vocal symptoms

DISCUSSION: Allergy is commonly considered to be a risk factor for voice disorders.

Nowadays is taught, that rhinitis and asthma represent components of a single inflammatory airways disease “one-airway-one disease hypothesis” so there might be inflammation in larynx too. Allergy should be properly diagnosed and treated.

CONCLUSION: Students with severe allergy have more vocal symptoms than students in a control group. We suggest that persons with severe allergy should be examined for possible voice disorders at least if they study for vocally demanding occupation.

Key words: allergic student, voice disorder, immunotherapy

PROJECT MANAGEMENT PLANE ON DECREASING THE SPINAL DEFORMATION AT SCHOOL-CHILDREN POPULATION (68)

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INTRODUCTION: from our ten years following and recording data base of the ordinary systematic examination on the school-children population as a target group, we detected and evaluated the problems which perform to increasing the percent of the spinal deformation (scoliosis and kyphosis) at school-children population.

SUBJECTS: decreasing the percent of the scoliosis and kyphosis at school-children population by 50% from 27% (2002 y.) to 14% by next 5 years.

METHODS: those problems became the objectives, which pass through the method of the Project Cycle Management and Logframe Matrix now are priority.

RESULTS: the spinal deformation high percent (27%) is result of the problems from the natural, subjective and objective factors: idiopathic (genetic), faulty posture and malnutrition, uncomfortable school furniture, not enough physical activity and sporting, low level of knowledge about scoliosis and kyphosis and corrective gymnastic by medical staff and school-gymnastic teachers, failure coordination between medical staff and school-gymnastic teachers for improving corrective gymnastic exercises, improperly screening by the medical staff, weak feed-back information between the doctor from preventive health care - orthopaedic doctor - family doctor, parent's failure knowledge for their children's disorder and understanding the important of in time detecting and implementation the corrective gymnastic exercises.

DISCUSSION: this project management plane shows us the successful of this offer strategy to reach the main objective. This feasibility study is appraisal of relevance, feasibility, efficiency and sustainability and lead to cost benefit of the target group. It has the objective of giving stakeholders the opportunity to share in the process on decreasing the burden of the spinal deformation, and lays out the approaches and activities to be undertaken.

CONCLUSION: decreasing the percent of the spinal deformation at school-children population becomes priority to getting healthy youth population. This project management plane is start point to making a main Management project for further activities on national level to organize a National Center for spinal deformation.

Key words: scoliosis and kyphosis, Logframe Matrix, corrective gymnastic, P.C.M.

DERMATOMYOSITIS WITH PULMONARY FIBROSIS – A CASE REPORT (71)

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The aim of study is to present rarely case with dermatomyositis at 10 years old school –girl and its diagnostic difficulties.

In the start of disease occurrence hummer-scapular and Para vertebral pains with muscle weakness, later following up with dysphagia and dyspnea a cause of affection of esophagus and intercostals muscles and occasional abdomen pains. Dermal changes are manifested with erythematic plaque localized on extensor side of hand and fingers. We also could remark spindle –shaped oedema with alabaster exfoliation at interphalanx joints. At face and nose is appeared violet-livid eczema with butterfly frame and occasionally persisted slightly oedema at upper eyelid. Calcinosis cutis is manifested by firm yellow or flesh-colored nodules, localized often over bony prominences. The main condition of child after four month of beginning of disease is aggravated with progressive muscle weakness at muscles of hands and arms and progression to paralytic steep. At sixth month is developed interstitial pneumonitis, which late progrediate in pulmonary. Enclosing diagnosis of disease were markedly elevated sedimentation, progressive elevation of value of serum transaminases ,lower values of functional lung analysis, typical .EMG and muscles biopsy with typical and specific findings confirmed the diagnosis of disease. After providing the diagnoses were conducted high doses of corticosteroids unfortunately without clinical response. At progression of disease to interstitial pneumonitis, pulmonary fibrosis and lung hypertension was conducted cytostatic and immunosuppressive treatment with methotrexat when were observed remission of disease with periodical not lasting recidives.

At our study is presented a case report with rare sub acute form of dermatomyositis with partially attendance of main criteria for diagnostic providing. Complication of disease with persisted interstitial pneumonitis and developing of pulmonary fibrosis and cardiac involvement are worse prognostic signs.

Key words: dermatomyositis, children, pulmonary fibrosis

WOLFF - PARKINSON - WHITE SYNDROME AS A FACTOR FOR OFTEN SUPRAVENTRICULAR PAROXYSMAL TACHYCARDIA WITH HAEMODINAMIC INSTABILITY (72)

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Presentation of case report of 7 years old boy with often supraventricular paroxysmal tachycardia resistant of drugs therapy.

WPW syndrome is accidentally detected with electrocardiography at the time of evaluation of systolic murmur, heard during systematic examination. On auscultation was heard systolic murmur at II grade by Levine located over pulmonary valve and at the upper left sternal border at second or third intercostal space. The patient was hospitalized for investigation at cardiological clinic in Skopje where the diagnosis was confirmed. Echocardiography discovered attendance of atrial septum defect. At 10 years age, patient obtained first attack of supraventricular paroxysmal tachycardia following with palpitation, chest pain, vomiting, dizziness, dyspnea, and cyanosis and fainting. The child many time obtained severe attack of supraventricular paroxysmal tachycardia at beginning treated with amiodaron and later conducted propafenon with less or more efficiency. Two time cause of effect less treatment must applied synchronies DC cardioversion. Very often attack of supraventricular paroxysmal tachycardia contributed for electro-physiological study. Were put electrode catheters in coronar sinus and in high right atrium, Hiss, right ventricle and ablation .Clinical tachycardia inducted spontaneous and with programmatic and continuous stimulation. Attempt for RF catheter ablation of Kent fiber was not performed cause of technical default and young age of patient and its is recommended later. To the present time patient is taken treatment of propafenon and metoprolol. The patient still get attacks of supraventricular paroxysmal tachycardia sometimes.

Many cases of WPW Syndrome with or without supraventricular paroxysmal tachycardia have good prognosis. Very rarely attack of supraventricular paroxysmal tachycardia are long-lasting and decompensatory, have not expected treatment replying like was in presented case.

Key words: WPW syndrome, supraventricular paroxysmal tachycardia

CRYPTORCHIDISM AND DYSLALIA - ASSOCIATION OR COINCIDENCE (91)

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INTRODUCTION: Cryptorchidism is a frequent congenital anomaly easily detected by routine systematic examination of children. Dyslalia is a pronunciation disorder. Incidence of cryptorchidism in population is 2, 29% among boys and incidence of dyslalia is 5, 9-6, 1% among boys, and 2, 9-3, 2% among girls. The cause is attributed to numerous etiological factors. It is commonly found associated with different genetic diseases.

SUBJECTS: The aim of this study is to show the association between cryptorchidism and dyslalia.

METHODS: A group of 2,630 boys, who live in the Vinkovci region and attend elementary school (seven years old boys), was examined.

RESULTS: The prevalence of cryptorchidism and association with dyslalia were observed. Cryptorchidism was found in 4.45% of the boys. It was mostly an isolated finding (59.83%), whereas dyslalia was found in 28.21% of the boys with cryptorchidism ($p < 0.05$). Anomalies of refraction and innocent heart murmur were associated with cryptorchidism ($p < 0.05$).

DISCUSSION: The aim of this study is to show the association between cryptorchidism and dyslalia. During the follow up it has demonstrated statistical significance.

CONCLUSION: Boys with impaired speech should undergo careful genitalia examination, looking for cryptorchidism. The ultimate goal is early revelation and treatment of this anomaly.

Key words: cryptorchidism, dyslalia

PROGNOSIS OF ATOPIC DERMATITIS IN YOUNG ADULTS (130)

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INTRODUCTION: Atopic dermatitis (AD) is a common skin disease usually starting in childhood and often persisting in adulthood. The chronic relapsing and pruritic symptoms cause both psychosocial and economic burden. Several studies have investigated the prognosis of AD among children and teenagers, but there are not many long term follow up reports covering these questions among adults.

We investigated the factors which could predict the outcome of AD in a young adult population which was followed for 17 years.

SUBJECTS AND METHODS: In 1984 860 patients were clinically examined and prick and patch tested at the Department of Dermatology. 7 and 17 years later a questionnaire covering the development, localisation and severity of dermatitis and other atopic symptoms was sent. 710 patients (mean age 44.5 years) answered and were accepted for analysis. At the start of the study 455 of these patients had AD and 255 had allergic rhinitis, conjunctivitis or asthma without dermatitis.

RESULTS: After follow up 63% from 455 dermatitis patients still had dermatitis at both follow up occasions. From other atopics who initially had no skin symptoms 37% had developed dermatitis during the follow up. The predictive factors for dermatitis were early age at onset, positive SPT to pollens, animal epithelia and molds.

CONCLUSION: Constitutional factors are important in the long term prognosis of AD. Also early age at onset and the head and neck distribution of AD is a prognostic factor for persistent dermatitis. The high incidence of atopy and chronic course of dermatitis will in the future lead to greater need for healthcare services.

Key words: atopic dermatitis, prognosis, prognostic factors, young adults

THE MORBIDITY OF SCHOOL CHILDREN ON PRIMARY LEVEL IN MACEDONIA AND MONTENEGRO (155)

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Healthy young generation is one of the most important issues of every country in the world. They are the future of the population.

The purpose of the paper is to present the health status of school children registered in out-patient health care services.

MATERIALS AND METHOD: The statistical data are obtained from the observation of annual reports published in the publications after the processing of the data. The data on smoking were obtained from the study on smoking conducted in 2002 (Macedonia), 2003 and 2004 (Montenegro) in the primary and secondary school children. The statistical method is used for data analysing.

RESULTS AND DISCUSSION: Schoolchildren (7-19) are 20-21% from the total population. The specific rate of morbidity is 7966 per 10000 school children in Macedonia and 14300 promilles in Montenegro. The respiratory diseases are approximately 60% of total diseases (2003).

	Macedonia		Montenegro	
	Number/10000	Rang	Number/10000	Rang
Diseases of the respirator system	4595.9	I	9409.8	I
Factors contacts with health services	705.9	II	1616.5	II
Dis.skin subcutaneous tissue	403.6	III	636.8	III
Communicable	391.8	IV		
Dis. eye/adnexa	311.3	IV		
Diseases of the digestive system	279.8	V	382.1	V

There is a trend of increasing smoking - 8,2% prevalence (13-15 years) in Macedonia. In Montenegro results of GYTS show that there are about 5% of smokers in primary school and about 20% in secondary school. Also, there is increasing trend in alcohol consumption, drug abuse, STD among school children, but also obesity, anaemia and other diseases related to nutrition.

Conclusion: There are differences in total numbers and morbidity rates of diseases between Macedonia and Montenegro, but the health problems of school children are almost the same. So, there is a need of cooperation and common activities for problem solving at regional level.

Key words: morbidity, respiratory diseases, smoking, drug abuse

OUR EXPERIENCES WITH THE EVALUATION OF SCHOOLBAG WEIGHT (158)

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INTRODUCTION: The frequency of neglected postures, any vertebral disturbances among schoolchildren in our Country are high. One possible cause of the above high frequencies is the heavy schoolbags.

SUBJECTS AND METHODS: The members of our departments four times evaluated the weight of schoolbags in our territory. In 1976, 1980 and 1998 we could measure the schoolbags in different schools countryside, and in 2000 we made a survey in one school, we evaluated the weight of schoolbags at every schoolchildren in a whole week.

There are not available an official norm for the ideal weight of schoolbags in Hungary, we could use the known German offers: the optimal weight of schoolbag is maximum the 1/10 of the body weight of the schoolchildren.

RESULTS: We estimate at evaluation the results of all the 4 surveys, the overweight of the schoolbags was frequent and it was in general 1/5 of the schoolchildren's bodyweight sometimes about 1/4!

DISCUSSION: In 1984 the official Hungarian schoolbag standard based on our results, but unfortunately this standard is repeal at the end of 1990'.

On the base of our results some civil and grassroots organisation could propose for the Ministry of Education to create a ministerial order in the topic of schoolbag weight.

CONCLUSION: Fortunately our proposal was effective, from the 2006/2007 school-year a new ministerial order can allow to introduce only below 3 kilogram for full schoolbag weight all over the country and the parent organisation have the right for evaluation the results of this order regularly.

Key words: schoolbag weight, neglected postures, vertebral disturbances, optimal weight of schoolbag, official schoolbag-weight standard

ANAEMIA WITHIN SCHOOL CHILDREN IN COMMUNITY RADOVIS (212)

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INTRODUCTION: The deficit of ferum is the commonest nutrition deficit and the commonest reason for anaemia everywhere in the world. Anaemia is frequent within school children, especially female population.

PURPOSE: The purpose of this paper is to show the movement of the percentage of the Hb within school children in the community Radovis in the period 1995-99.

MATERIAL AND METHOD: Data from the health files were used from the school outpatient departments for children from 7 to 14 years of age. The values of Hb made by the laboratory research done during the systematic check-ups from 1995-99, were followed. Standard statistic method was used during the work.

RESULTS: The data were grouped in years, in grades and according to the sex. Data were processed about values of the Hb under 10gr.% and from 10-13gr.% total number of the followed school children was 8979 out of which 51,7% males and 48,3% females. The lowest Hb under 10gr.% was in 1995, males 3,8% and females 4,2% . In this year the lowest Hb was in the first grade 7,6%. In the following years the Hb moves from 1,6% in 1998 and 0,8/5 in 1999.

CONCLUSION: In the largest number of cases it is quantitative and qualitative deficit in the nutrition, deficit of ferum, vitamins, albumens and minerals, necessary for proper growing and progress. With the systematic check-ups it is necessary to follow continuously, to discover and to treat the anaemias. The deficit of ferum still exists besides the better methods of its prevention, discovering and treatment.

Key words: nutrition deficit, ferum, systematic check-ups

INPATIENT MORBIDITY IN SCHOOL CHILDREN AND STUDENTS AT ZAGREB HOSPITALS 1996-2004 (220)

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INTRODUCTION: School children and adolescents are the healthiest population groups, in which injuries due to specific behavioural patterns are the most common cause of morbidity. Traffic accidents are the leading mechanism of injury infliction, mostly due to reckless driving, lack of attention, or disregard of traffic risks.

SUBJECTS: Health statistics data on inpatiently treated individuals during a 9-year period (1996-2004) were analysed. Study population were divided into three groups: elementary school children aged 6-14; secondary school children aged 15-19; and subjects aged 20-27, including a high proportion of college/university students.

METHODS: The methods of descriptive statistics were used. Data on patients admitted to and discharged from the hospital for the diagnoses of injuries, poisoning, and other extrinsic causes were analysed according to years (1996-2004), age, and sex.

RESULTS: During the study period (1996-2004), 36563 individuals, age range 6-27, were hospitalised for the above mentioned reasons, yielding an incidence of 4062.6 individuals per year (Table 1). Sex distribution revealed a twofold male predominance (Fig. 1): 26233 male and 10330 female, i.e. 2.5 male subjects per one female subject, were hospitalised for injuries. The most unfavourable sex ratio was recorded in the 20-27 age group (M/F 72%:28%), followed by the 15-19 age group (M/F 68%:32%), whereas the lowest ratio was observed in the group of elementary school children (M/F 63%:37%) (Figs. 2-4). According to years (1996-2004), relatively parallel curves showing a slightly declining tendency were observed (Fig. 5).

DISCUSSION: The issue definitely offers a great potential for reducing the rate of injuring and thus of inpatient treatment. Considering the Zagreb area, a slowly declining tendency was observed during the 9-year study period, probably resulting from the numerous target activities performed by respective schools in collaboration with health care professionals.

CONCLUSION: Considering behavioural patterns of the study population, preventive activities should be launched through the family, school, mass media and other services, stimulating them to pay due attention to this particular population group, to protect them, to make them aware of the traffic associated risks, and to increase the level of self-protection.

Key words: injury, inpatient morbidity, school children, students

**ANALYSIS OF MEDICAL EXAMINATIONS IN FIFTH AND EIGHTH GRADES OF
PRIMARY SCHOOL THROUGH THE PERIOD OF 1991/01 AND THROUGH THE
PERIOD OF 2003/05 (249)**

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Medical examinations within the program of protection measures for school children and youth are a significant part of the prevention work. The first exemption is carried out when children enter the primary school system, second in the puberty - fifth grade and final examination in the eighth grade of primary school.

Pupils in the first grade of secondary school and students enrolled at the universities undergo one medical examination at each stage.

This work analyzes medical examination results of fifth and eighth grades through four generations: two from 1999 to 2001 and two from 2003 to 2005. The first group of examined pupils includes 924 fifth-graders and 923 eighth-graders. There are 918 fifth-graders and 946 eighth-graders examined in the second group.

The result analysis shows a significant increase in refractive anomalies of vision and thyroid diseases in fifth and eighth grades of recent generations 2003/2004 and 2004/2005 while the other results are within the frame of generation variability.

Medical examinations of school children and youth give us an insight in children's health at certain moment but real values can be seen in longitudinal health monitoring of examined children and possibilities of prevention before health has been seriously undermined.

Key words: medical examination, children's health, longitudinal health monitoring

EPIDEMIOLOGICAL CHARACTERISTICS OF CHILDHOOD AND ADOLESCENCE EPILEPSY IN LABIN AREA, CROATIA (227)

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OBJECTIVE: To estimate the incidence and prevalence of epilepsy during childhood and early adult life in the Labin area, eastern Istria, Croatia. **DESIGN:** Retrospective epidemiologic study of children with epilepsy born in Labin area, eastern Istria, Croatia. **SUBJECTS:** People with epilepsy developing at or before age 19, whose first seizure happened between January 1986 and January 2005. **MAIN OUTCOME MEASURES:** The age at onset, incidence, and prevalence of childhood and adolescence epilepsy. **RESULTS:** 54 young people had a confirmed diagnosis of epilepsy during their first 19 years (27 girls and 27 boys, sex ratio F/M 1.00). For both sexes the mean onset age was 7.6 ± 7.4 years: 7.3 ± 6.1 among girls and 7.8 ± 8.4 among boys. The mean annual incidence during the period 1986-2005 was 47.56 per 100.000 children (95% confidence interval 35.72 to 62.05). Girls were more frequently affected than do males: 48.52 per 100.000 (95% confidence interval 31.97 to 70,59) vs. 46.64 per 100.000 (95% confidence interval 30.73 to 67.85). In both sexes the incidence was the highest in the age group 0-4 (78.62 per 100.000, 95% confidence interval 46.60 to 124.25), and the lowest in the age group 10-14 (22.84 per 100.000, 95% confidence interval 9.18 to 47.06). The prevalence of active epilepsy at age 0-19 at March 31st, 2005 was 4.56 per 1000 (2.86 to 6.89) in both sexes: 5.03 per 1000 (2.60 to 8.76) in girls and 4.10 per 1000 (1.97 to 7.53) in boys. **CONCLUSIONS:** Epilepsy is perceived as a social stigma and children (as well their parents) fool it when they sign up for school. It is necessary to review all medical records/histories because a correct evidence. This research found a high percentage of West syndrome (7.4%). We were not able to explain the reason for this evidence.

Key words: adolescence, epilepsy

ENURESIS – HOW PARENTS SEE THE PROBLEM (256)

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Enuresis is a problem that troubles both children and their parents. It limits child's every day activities, social integration and effects child's self-esteem.

GOAL: To investigate whether the parents of children enrolling and attending 1st grade primary school are familiar with nocturnal enuresis problem and if they are what is their point of view.

PARTICIPANTS: In the random stratificated sample there are children enrolling or attending 1st grade primary school in four large cities (Zagreb, Split, Osijek, Rijeka).

METHOD: The questionnaire with presented answer choices was given to parents of children enrolling or attending 1st grade primary school. The questionnaire had 12 questions regarding the problem in children, their families and coping with eventual problem.

RESULTS: In the random stratificated sample there are 1213 children, 42,1% from Zagreb, 26,6% from Split, 18,5% from Osijek and 12,7% from Rijeka. There was 1,3% invalid questionnaires.

Of all participants there are 36,2% 6-year-old children and 63,9% 7-8-year-old children, 51,5% are boys and 48,5% are girls.

To question: „Does your child still have nocturnal enuresis problem?“, 7,7% of parents answered yes and 4,3% of parents did not answer the question. Nocturnal enuresis frequency in boys is 10,1% and in girls is 6,1%. Of all children with enuresis problem 40,0% wet their bed once a week and 40,1% three or more times a week. 20,1% bed-wetter have positive family history: 18,9% have a brother, 17,6% a sister, 20,0% a mother, 16,4% a father, 3,7% a grandmother, 4,5% a grandfather, 18,9% a close relative who had nocturnal enuresis problem. Positive family history have 10,6% boys and 9,2% girls. Enuresis is not considered a problem for 78,8% parents of enuretic children. 10 children (3,1% children) who are enuretic use drugs, 6 (66,7% children) use desmopressin. Parents consider that it is important for their child to overcome the nocturnal enuresis problem foremost due to low self-esteem (87,9%) and insecurity (88,5%).

CONCLUSION: In tested population 7,7% of children of age 6-8 have nocturnal enuresis problem, more often in boys (10:6). 60,1% of children with this problem wet their bed two or more times a week. Family history is positive in 20,1% of enuretic children, more often in boys. For most parents enuresis is not a problem, according to that, only 3,1% of children use drugs, at the same time parents consider enuresis effects child's self-esteem.

Key words: nocturnal enuresis, children, parents' wiew

BEDWETTING (NOCTURNAL ENURESIS) AMONG ELEMENTARY SCHOOL FIRST GRADE STUDENTS (205)

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INTRODUCTION: Nocturnal enuresis (bedwetting) is a very stressful, emotionally and socially disruptive condition that affects many children. It is important to examine which factors play a role in their bedwetting and what treatment and interventions parents use.

AIM: The aim of the study was to examine the prevalence of bedwetting among 6-7 year old children and parents attitude towards it.

Subjects and methods: 380 children (179 males and 201 females) enrolling the elementary school (aged 6, 5 to 7, 5), sample from eight elementary schools from Bjelovarska-bilogorska county.

Data were collected from anonymous questionnaires completed by the parents and face-to-face interviews with children's parents focused on habits, parents' attitudes and socio-demographic issues.

RESULTS: The prevalence of bedwetters was 9,2% (8,9% in boys and 9,4% in girls). Family history has been found to be a strong predictor of childhood nocturnal enuresis: 31,4% of bedwetting children have a sibling with enuresis, and 68,6% of bedwetting children have a parent who had enuresis.

We found it more common in larger families and those with lower education, but found no statistically significant difference in parents' marital status, place of living (urban or rural) or order of birth.

37% of bedwetting children had urinary infections at some point. Additional day-time wetting has been reported in 66% of children with nocturnal enuresis.

Furthermore, the relationship between urinary tract infections, nocturnal enuresis and day-time wetting was investigated. There was no association between previous urinary infection and bedwetting ($p=0.2$), and no association was found between urinary infections and frequency of day-time wetting ($p=0.73$).

Parents listed a number of ways to treat bedwetting; the most frequently mentioned ways were punishment of the child (60%) and reducing fluid intake (34%).

77% of the parents of the bedwetting children think it has no effect on normal psychophysical development. The main reason (48,6%) why they are treating bedwetting is equality with other children.

CONCLUSION: Bedwetting is a common, but still neglected and unknown problem and very few parents consult a doctor. At the same time they tend to use inappropriate methods of treating it. It may be in part influenced by genetic sources, but also by many psychological, developmental and social factors.

Key words: nocturnal enuresis, risk factors, treatment

ORAL HEALTH

ORAL HEALTH AND ORTHODONTIC TREATMENT NEED PRE- AND SCHOOL CHILDREN IN ZAGREB (210)

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Orthodontic treatment need can be defined from a dental professional's viewpoint through various occlusal indexes (normative need) that attempt to evaluate malocclusion according to severity. One widely used Occlusal anomalies are considered to be deviations from the norm rather than a disease. Index is the index of orthodontic treatment need (IOTN), which incorporates ranking of various occlusal traits in terms of their significance for a patient's dental health (DHC) and aesthetic impairment (AC). The objective assessment of malocclusion is important when documenting the prevalence and severity of malocclusion in population group. Such data are essential for epidemiologists, health administrators planning the costs of health treatment, and training programs for specialists. The effective organisation and planning of orthodontic services within a public health system requires accurate data on the orthodontic treatment needs of the child population. Such data are not available for the Republic of Croatia. Therefore Department of Orthodontics, School of Dental Medicine, University of Zagreb started a project, which is supported by local government to evaluate oral health and orthodontic treatment need in Zagreb for population aged 5 to 18 years. The examination will be held in kindergartens and schools. Subjects will be randomly selected, and the plan is to examine cca. 10 000 pupils. The collected data will be statistically evaluated and will be essential for planning the training programs for specialists and reorganisation of orthodontic service in the city of Zagreb.

Key words: oral health, orthodontic treatment need, Zagreb

INCREASE OF IMPACTED WISDOM TEETH IN 20 YEARS (83)

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INTRODUCTION: Among 20-year-old students in Finland, the percentage of students with at least one unerupted or partially erupted wisdom teeth is 84%. This is a high number. This figure can be compared to the 81% of the same students with at least one tooth damaged by caries. The main problem with wisdom teeth is the imperfect eruption which will conclude with caries, infection of the surrounding soft tissue, damage of the neighbouring tooth, cysts, and even carcinoma. Up to the age of 32-years, so many as 67% of students have had at least one wisdom tooth extracted. The aim of this study was to examine the change in the clinical and radiographic status of wisdom teeth among successive generations of 20-year-old university students in the years 1982 and 2002.

SUBJECTS: The subjects were first-year university students at the University of Helsinki in 1982 and in 2002. The first group (N =179; 58 men and 121 women) was born in Helsinki in 1961 or 1962 and lived in Helsinki in 1982. The second group (N = 232: 50 men and 182 women) was born in Helsinki in 1981 or 1982 and lived in Helsinki in 2002. Mean age of the students was 20, 2 and 20, 7 years (SD ± 0, 6 years for both).

METHODS: All patients were clinically examined and panoramic radiographs were taken. Differences between groups were tested with chi-squared test.

RESULTS: The number of unerupted wisdom teeth in the lower jaw had increased from 26% to 41% in men (P<0.05). The number of erupted wisdom teeth had decreased both in the upper and the lower jaw in women (39% vs 29%; P<0.01 in upper jaw, and 16% vs. 10%; P<0.05 in lower jaw). Related to inclinations of wisdom teeth in men, the number of vertical inclinations in lower jaw had decreased (53% vs. 28%, P<0.01) and mesioangular inclinations had increased (33% vs. 56%, P<0.01).

DISCUSSION: The results indicated that along with the generations, the number of imperfectly erupted wisdom teeth has increased. Secondly, the results indicated that the position of the wisdom teeth in bone has become more difficult. These changes were especially evident among male students.

CONCLUSION: Difficulty of eruption of wisdom teeth has increased during the 20 years. This means that more and more wisdom teeth need to be treated which challenges the dentists and oral surgeons.

Key words: dentistry, wisdom teeth, students, development

TRAUMATIC INJURIES TO THE TEETH AT STUDENTS OF THE UNIVERSITY OF LJUBLJANA (85)

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Traumatic injuries to the teeth are mostly results of road accidents, sport injuries (boxing, judo, basketball, handball, skiing, etc.) and street violence.

Injuries are recognized as contusion of the tooth, subluxation of the tooth, luxation of the tooth and extrusion of the tooth.

Diagnostic process includes: anamnesis, checking of soft and hard tissues in oral region, checking the looseness of a tooth, checking the sensitivity to percussion, to cold and to electrometric test. We always use an X-ray diagnostics.

My experience, most of the injuries suffered by students of the University of Ljubljana are fractured crowns of maxillar incisors. These injuries have to be treated with composite tooth fillings. I often observe that after some time (months or even several years) the nerve of the tooth necroses. It is caused by interruption of the nerve during the contusion. Such a tooth requires immediate endodontic therapy and in a few years consequensed bleaching of the tooth or even treatment with fixed prostodontic restorations (veneer or pin and crown).

To protect the teeth and other oral structures we manufacture the individual mouthguards for sportsmen. Our patients should be also acquainted to the fact, that those who have protrusion of maxillar incisors and bad mouth barrage, those will be more frequently exposed to the traumatic injuries to the teeth. These malocclusions should be orthodonticly treated.

On one hand the number of sport related injuries is not increasing anymore, while on the other hand the street violence as a cause of the injuries is in increase.

Key words: traumatic injuries to the teeth, students, mouthguard, orthodontic treatment

THE EMERGENCE OF PERMANENT TEETH IN FLEMISH CHILDREN AND THE IMPACT OF CARIES EXPERIENCE IN PRIMARY MOLARS ON THE EMERGENCE OF THEIR SUCCESSORS (99)

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INTRODUCTION: Review of the literature on permanent tooth emergence revealed several methodological problems (small sample size, uncertain representativeness, inappropriate statistical analysis, ...). The aim of the present study was twofold: 1) to establish actual and reliable emergence ages of permanent teeth in Flemish children and 2) to analyze whether the emergence of the successors of deciduous molars with a history of caries was delayed or advanced.

SUBJECTS: For this purpose data available from the Signal Tandmobiel® project were used. In this longitudinal epidemiological survey data were collected from a representative sample of 4468 children (born in 1989), examined yearly (between 7 and 12 years of age) by trained dentist-examiners.

METHODS: Caries experience and tooth emergence were recorded by direct inspection. Log-logistic survival analyses were performed to calculate median emergence ages.

RESULTS: The analysis indicated significantly earlier emergence ages in girls than in boys. The emergence pattern turned out to be symmetric in both sexes; most mandibular teeth emerged significantly before their antagonists, in boys as well as in girls. The emergence of the maxillary and mandibular premolars was accelerated by 2 to 8 months when its predecessor had been decayed and or restored but had not been extracted. Premature loss of maxillary primary molars resulted in a significant acceleration of the emergence of the premolars; this was not observed in the mandible. **CONCLUSION:** Actual data on permanent tooth emergence in Flemish children are now available. When considering permanent tooth emergence ages, caries experience in the primary dentition should be taken into account. (Supported by Unilever, Belgium – Research Grant OT/00/35, Catholic University Leuven.)

Key words: permanent tooth emergence, dental caries, primary molars, permanent first molars

CARNIVAL OF SMILES ORAL HEALTH PROMOTION PROGRAM/CAMPAIGN (162)

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INTRODUCTION: For over more than 15 years oral health services in Health Centres in Serbia, Institute for Public health of Serbia and Institute of Public Health Belgrade have been organised traditionally Oral health week, usually by the end of MAY. In 2004, for the first time in Belgrade we organised central city manifestation Carnival of smiles.

SUBJECTS: All preschool and school children, their parents and peers and professionals in schools and health sector.

METHOD: It is social medicine descriptive study base on campaign reports. of participation the program and Campaign.

RESULTS: More than 300 preschool/school children and more than 50 teachers and health staff from Belgrade private and public oral Health Care Sector Have participated. Also over than 1000 citizens have paid their attention on CARNIVAL OF SMILES.

DISCUSSION: High motivation of all participants is sign to continue all efforts to erase inequality of oral health toward integral health.

CONCLUSION: Well-created program such as this gave results or rise up awareness of oral health importance among preschool/school children and their families.

Key words: oral health promotion campaign, preschoolchildren, scholars

THE ASSOCIATION OF PARENTAL SMOKING AND CARIES EXPERIENCE IN PRE-SCHOOL CHILDREN (98)

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INTRODUCTION: The study aimed to explore the association between parental smoking habits and caries experience in young children.

SUBJECTS: Cross-sectional data from 1250 3-year old and 1283 5-year old children from 4 geographical areas in Flanders (Belgium) were analysed.

METHODS: Children were examined at school by 8 trained dentist-examiners, using standard criteria and calibrated examination methodology. Data on oral hygiene and dietary habits, oral health behaviour, socio-demographic variables and parental smoking habits were obtained through structured questionnaires, completed by the parents.

RESULTS: Roughly, 7% of 3-year-olds and 31% of 5-year-olds presented with visible caries experience (i.e. $d3mft > 0$). In both age groups, about one third of the parents reported a smoking habit. With caries prevalence as the dependent variable, simple logistic regression analysis - with correction for examiner misclassification - revealed that parental smoking was a significant independent variable. In 3-year old children, the effect of family smoking status was not longer significant after controlling for age, gender, socio-demographic characteristics, oral hygiene and dietary habits. In the oldest age group the significant relationship between parental smoking habits and caries experience persisted after adjusting for the other evaluated variables (OR= 3.36; 95% CI: 1.49-7.58).

CONCLUSION: This study confirms the important impact of parental smoking habits on children's oral health.

This study was supported by GABA International and GABA Benelux.

Key words: parental smoking, dental caries, pre-school children

STRESS WEARS DOWN YOUR TEETH (34)

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The worsening of oral health caused by mental health problems is seen and cared for daily in the students' dental care office. Students are generally unaware of the connection between stress and oral health, as are some health care professionals. The name of the guide written for students, "Stress wears down your teeth", is very true. The cause-consequence effects of stress are often seen in teeth and the teeth can actually wear or shorten.

When stressed, a person can start grinding his or her teeth unconsciously especially at night, sometimes also during the day. You do not necessarily know about your nightly grinding until somebody tells you about it. Grinding can cause all kinds of ailments.

Teeth grinding wears down and shortens the teeth. The teeth rub against each other and the occlusal surfaces become smooth. As an end result, you lose irreplaceable tooth tissue and the change is always irreversible.

The temporomandibular dysfunctions and pain caused by teeth grinding heal by themselves most of the time when the stress eases off. Teeth grinding is a general consequence of stress, not an independent illness. Treating teeth grinding is symptom-related treatment, which does not remove its cause, stress.

Inclination to teeth grinding perseveres and with time teeth grinding comes and goes together with stress. Awareness of your own ailments and their reasons teaches you how to live with them.

Temporary teeth grinding or biting the teeth together is a common ailment with students.

The guide tells about the connections between oral health and stress. The information aims at increasing the self-knowledge of the oral symptoms, taking care of yourself, as well as the need to seek for dental examination and treatment.

Key words: stress, bruxism

HOME ORAL CARE OF THE UNIVERSITY STUDENTS IN TAMPERE (39)

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INTRODUCTION: Finnish Student Health Service by Tampere University was founded in 1960. In Tampere are two universities and about 20 000 students. From the beginning the dental care has been a part of student health service.

SUBJECTS: The aim of this study was to find out oral habits of the students and their oral health related knowledge.

METHODS: A questionnaire was distributed to first and second year students who had their first dental check up in our clinic. Questionnaires consisted of multiple choice questions concerning dental hygiene, eating habits and oral health related knowledge.

RESULTS: We got 437 answers during October 2004 and March 2005. There were 64.4 % female students. 73.7 % brush their teeth twice or three times a day and 13% of them use electric toothbrushes, 97.3 % use toothpaste with fluoride but 42.7 % don't use dental floss at all. 86.8 % knows that careful oral hygiene can prevent calculus, but connection with bleeding gums and periodontal diseases are not well known.

DISCUSSION: Motivation for effective plaque control is one of the most critical and most difficult elements of long-term success of maintaining oral health. Most of the students already have the information needed, but the theory doesn't reflect in practice.

CONCLUSION: The frequency of tooth brushing is good among the students but the frequency of interdental cleaning is not good enough. The students want and need more personal advice for oral hygiene.

Key words: oral home care, tooth brushing, use of dental floss

HOW UNIVERSITY STUDENTS FEEL ABOUT THEIR ORAL HEALTH (40)

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INTRODUCTION: Finnish Student Health Service is a foundation set up 1954 by National Union of Students, financed by Social Insurance, the students and student union, the university cities and Ministry of Education. It covers all university students in 16 health centres providing preventing health care, medical care, mental health care and dental health care.

OBJECTIVE: To ascertain how often the students experience pain in their mouth and how soon a student seeks an appointment, when she/he feels pain or other symptoms in her/his mouth and do the symptoms influence their studies or lifestyle.

METHODS: A questionnaire was distributed to students who visited dental clinic in September to December 2003. Completed questionnaires were returned by 360 students. Questions included how healthy they felt their mouth, students' view of the reason for a dental appointment, how soon they contact the clinic and their dental history.

RESULTS: It was no differences between male and female. We divided the patients into two groups, students who had acute symptoms and those who came to dental check up. The students who visited the acute clinic had experienced significantly more toothache and had more difficulties eating than the ordinary patients. 33% of the acute patients delayed 14 days or more before they contacted the dental clinic.

DISCUSSION: In general the students have seldom pain or other symptoms. They are well aware of their oral health status and what kind of treatment they need. Even when the patient feels toothache, she/he delays to make contact with the dental clinic.

CONCLUSION: University students are mostly young and they have had before possibility to free public dental care they don't have heavy oral symptoms during their studies.

Key words: toothache

DROP OUT OF DENTAL TREATMENT AMONG FINISH STUDENTS (A FOLLOW UP OF A 2004 STUDY) (43)

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YTHS- Finland

INTRODUCTION: In 2004 we designed a study to identify the cause of drop out from dental treatment among Finnish students and raise the awareness of dental care.

SUBJECTS: Between 01.09.2001 and 31.12.2002 our organization provided check –up and treatment plan for 3408 students. 16, 8% didn't complete their prescribed treatment, with 45, 05% out of them dropping out before extractions (mainly wisdom teeth). This follow up is meant to analyze this category in respect to D and DMF indexes and the reasons for treatment quitting.

METHODS: A questionnaire regarding cause of drop-out and awareness of it has been sent to 165 students and 71 have answered. We asked if they knew that their treatment should continue and when that was the case, if they know what therapeutic steps remained unfulfilled. We were interested in finding out the reasons for dropping out in order to help future patients to stay on treatment as needed.

RESULTS: There were no significant differences between men and women that dropped out. The dropped out D index is often null or very small (70, 87% vs. 90% of those who dropped out before extractions), so they usually have little or no dental problems. The most frequent cause for disruptions of treatment is lack of symptoms (consistent with previous comment) followed by appreciation of time between appointments as unreasonable and negligence. Fear of dental treatment motivates drop-out in only 8, 79% vs. 13, 88% for those who drop out before extractions (among them this being the 3rd cause as frequency).

DISCUSSIONS: 75, 5% of the drop-outs knew that their treatment should continue, with only 55, 71% being aware of unfulfilled therapeutic steps. Out of those who dropped out before extractions, 76, 66% were aware that their treatment is incomplete and 46, 66% knew exactly what their remaining treatment should comprise. Cause of drop out varies widely. 37, 80% of those who dropped out before extractions came back in treatment (mostly with emergencies) within 6 months after first study.

CONCLUSIONS: Among students with little dental problems it may be helpful to reinforce the importance of treatment, regardless of symptomatology.

Key words: drop-out, D-index, fear of dental treatment

ORAL HEALTH CARE FOR SCHOLARS IN BELGRADE (159)

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INTRODUCTION: In previous century oral health care for school age population in Belgrade was neglected. All potential of society was directed to other vital health problems.

SUBJECTS: Scholars oral health status and oral health care provided by public health care system in Belgrade.

METHODS: It is social medicine retrospective evaluation study based on routine statistical reports analysed by statistical methods in SpSS package. Indicator for measuring quality of oral health care for scholars is average DMFT at 12 years old scholars in Belgrade for five years period.

RESULTS: At start of evaluation period average DMFT among 12 years ols scholars was 2,68 and by the end of five years period average DMFT was 3,13.

DISCUSSION: Oral health care in Belgrade had not been well organised for targeted population, although man staff number in oral health care were better than in other European countries. Ratio dentist: children was 1:900.

CONCLUSION: Old dental office equipment, lack of dental materials and lack of professionals motivation were reasons of decreasing oral health status for scholars.

Key words: oral health car, scholars, oral health status

TOBACCO USE AND PERIODONTAL DISEASES AMONG HIGH SCHOOL PUPILS (180)

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INTRODUCTION: Tobacco use is one of the most importunate risk factor not only for total health, even more for oral health. High prevalence of tobacco use among high school pupils is predominant factor for periodontal diseases.

SUBJECT: High school pupils, oral diseases, tobacco use.

METHOD: It is retrospective, descriptive evaluation study based on statistical analysis of routine stomatological documentation. Materials are all pupils in high schools in Belgrade municipality Zvezdara. Indicator for measuring periodontal health status is CPITN.

RESULTS: CPITN=6,63/3 sextants among schoolchildren age 15-19 years. Recommendation of WHO is CPITN=0/3 sextants for high school children .38%off allhigh school pupils population both gender are permanent tobacco use.

CONCLUSION: High prevalence of tobacco use among youth is in high correlation with periodontal diseases.

Key words: tobacco use, periodontal diseases, oral health

TEMPOROMANDIBULAR DISORDER AMONG ADOLESCENTS (199)

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INTRODUCTION: The aim of this study was to analyse the frequency of temporomandibular disorders and to identify the most frequent causes of temporomandibular disorders among adolescents.

SUBJECTS AND METHODS: A random sample was selected of 60 adolescents, aged 14 years, 29 girls and 31 boys. All adolescents were patients of our Department of Pedodontics. The clinical examination was conducted by one examiner and the child was seated upright during the examination. The examination included the following aspects: temporomandibular joint sound, opening deviation, associated muscle disorder and jaw postures. Data comparisons were carried out with Student's t-test.

RESULTS: Thirteen (21.6%) of subjects had one or more signs of TMDs with no significant difference between males and females. The most frequent dysfunctions were TMJ sounds (clicking and crepitus) and associated muscle disorders (TMJ tenderness and muscle tenderness). The most frequent jaw posture among subjects with TMJ disorders was class II (61.5%).

CONCLUSION: Since the temporomandibular disorder signs and symptoms are presented at the adolescent age, it would be important to identify subjects at high risk of having temporomandibular disorders and to intervene at appropriate time.

Key words: TMJ, TMD, adolescent

MORPHOLOGICAL FEATURES OF PERMANENT MOLARS IN MENTALLY RETARDED CHILDREN (200)

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INTRODUCTION: The aim of this study was to evaluate the prevalence of morphological anomalies in number of cusps among the second lower permanent molars with mental retardation comparing the healthy one.

SUBJECTS AND METHODS: The sample consisted of 100 patients (47 girls and 53 boys) who are mentally retarded and live in the Institution for Children with Developmental Disturbances, Zagreb. The control group consisted of 100 healthy children (50 girls and 50 boys) from our Department of Pedodontics. All patients were clinically examined with dental mirror and probe.

RESULTS: Statistical analysis (Student's t-test) showed a significantly high difference ($p < 0.001$) in number of cusps between two investigated groups. However, second lower permanent molars in mentally retarded children mostly have five cusps (three buccally and two lingually) so those teeth look like the first lower permanent molars.

CONCLUSION: The most of mentally retarded children have some diagnosed chromosomal aberration; it could be supposed that the chromosomal damages or changes in chromosomal chart take part in specific occlusal morphology of genetically unstable lower permanent molars.

Key words: morphology, molar, retardation

TRUSTING RELATIONSHIP BETWEEN DENTIST AND CHILDREN (203)

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Behaviour management is only in part a science and must be recognised as an art form to health care delivery. The goals of behaviour management are to achieve good dental health in the child patient and to help develop of child positive attitude toward dental health. The objectives of behaviour management are to establish communication and to foster education, thereby alleviating fear and anxiety and building a trusting relationship between dentist and children. All decisions regarding behaviour must be based on a benefit versus risk evaluation.

A fear is the main reason of noncooperative behaviour in dental treatment. Communication is important to the management of child behaviour by the dentist. Enhanced communication and partnership building improves comprehension and compliance with dental treatment. Effective verbal communication is essential for successful dental treatment. Improving verbal conversational skills, emphasising certain strategies and improving linguistic abilities will contribute to better communication between child and paediatric dentist and to better cooperation and success in treatment.

Disruptive behaviours particularly from those lacking in cooperative ability often are prompted by the need to protest an unpleasant situation and the impulse to protect oneself from perceived danger. Such behaviours, depending on the patients' age and cognitive ability should be seen as an attempt of the child to cope with a frightening situation. The inherent challenge for both clinician and parent is to avoid unpleasant and unproductive confrontations from the outset, and to create an environment to facilitate the child's ability to accept care, protect the child's self-esteem, foster a positive outlook toward care, and enhance the work quality of dental personnel.

There are many techniques a dentist can use to aid in delivering care to young patients. Since sedation polices are becoming more complex, enhancing the skills of all dentists and staff members in the best methods of nonpharmacological child management will be essential. Biobehavioral methods will gain prominence, along with better communication skills of the dental team.

Key words: children, behaviour, dental health

THE NEED FOR ORTHODONTIC TREATMENT IN THE ADOLESCENT POPULATION OF SPLIT (208)

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Measuring and recording the prevalence of malocclusion and treatment need in a population is useful for the planning of orthodontic services. This study was designed to investigate the need for orthodontic treatment in the adolescent population of Split. The data were collected from a clinical inspection, with randomly selected 425 pupils (232 girls and 193 boys) from V. Gymnasium, Split, Croatia participating. The mean age of the subjects was 16.1 years (14-19). Need for orthodontic treatment was assessed using the Index of Orthodontic Treatment Need (IOTN) described by Brook and Show (1989) and modified by Richmond (1990). The index has two parts, the Aesthetic (AC) and Dental Health (DHC) components. The worse occlusal feature was recorded only. The examinations were carried out at school in natural daylight with a mouth mirror and the subject seated in an ordinary chair. Children who were receiving orthodontic treatment at the time of the examination were excluded from the survey. The overall prevalence of individuals needing orthodontic treatment in examined population was 76.5%. Grades 4 and 5 DHC were found in 19.5%, DHC 3 in 16.4% and DHC 2 in 40.5% of subjects. No need for orthodontic treatment according to DHC was found in 23.5% of the subjects. In 52.5% pupils scoring AC 1, 40% scoring AC 2, 7.5% scoring AC 3 and only 0.5% scoring AC 4 was found. The need for orthodontic treatment assessed by AC and DHC correlates in 44.9%.

Key words: IOTN, adolescents

ASSOCIATION BETWEEN PROFESSIONAL AND SELF-PERCEIVED ORTHODONTIC TREATMENT NEED AMONG THE CROATIAN HIGH SCHOOL STUDENTS (209)

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The knowledge concerning the attitudes of patients to malocclusion is becoming increasingly important in orthodontics. The aim of this study was to investigate whether there was an association between professional and self-perceived orthodontic treatment need. The data were collected from a clinical inspection, with randomly selected 425 pupils (232 girls and 193 boys) from V. Gymnasium, Split, Croatia participating. The mean age of the subjects was 16.1 years (14-19). Need for orthodontic treatment was assessed using the Index of Orthodontic Treatment Need (IOTN) described by Brook and Show (1989) and modified by Richmond (1990). The index has two parts, the Aesthetic (AC) and Dental Health (DHC) components, but in this study only the AC was used. The children were invited to complete a questionnaire about treatment need and their appearance. The results suggest agreement between the professional and self-perceived orthodontic treatment needs. 57.4% were consistent when considering the category criterion. 64.7% of the subjects placed themselves in the category no treatment need (grade 1). Pupils dissatisfied with their dental appearance selected grades 3 and 4 more frequently than satisfied individuals.

Key words: IOTN, aesthetic component, self perception

EATING HABITS AND BODY WEIGHT

IDENTIFYING BEHAVIOURAL RISK FACTORS FOR THE DEVELOPMENT OF OVERWEIGHT AND OBESITY IN PRESCHOOLERS; A LITERATURE REVIEW AND PRACTICAL IMPLICATIONS FOR INTERVENTION (133)

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There are few studies in which behavioural determinants have been identified for overweight and obesity in preschoolers. The significance of these determinants has not as yet been studied extensively. In this literature review the predictive value of risk factors for overweight and obesity in children with emphasis on behavioural factors, are bundled and offer the opportunity to tailor preventive approaches and can also serve as a source of information for the much needed preventive campaigns in the Netherlands.

In this literature review studies are included with children from birth to four years of age. Behavioural factors presumed to predict healthy relatively normal weight as well as those presumed to predict childhood overweight and obesity are included.

Included factors are: parental weight, early weight gain of the mother during pregnancy, child's birth weight and weight chart measures. Behavioural factors potentially influencing the later development of overweight are: stress during pregnancy, parent's body perception of the child, maternal feeding style, low parental concern about their child's thinness, persistent child tantrums over food and less sleep time during the day in childhood. Furthermore, parental knowledge, feeding habits and child rearing practices will be reflected on. Other factors will be: demographic factors, prematurity and growth in the first 6 months, physical activity, sedentary behaviour and dietary factors. The mechanisms by which behaviour might disturb energy balance might get clearer.

Because many of these risk factors might be related, and may operate on the same causal pathways, it can be difficult to disentangle relationships. The approach of focussing on behavioural factors which are amenable to intervention however, can facilitate prevention.

Results of the literature review as well as suggestions for prevention, based on the study: "Primary prevention of being overweight and becoming obese in preschool children: a study on behavioural determinants will be presented.

Key words: obesity

EATING DISORDERS AMONG FEMALE STUDENTS OF UNIVERSITY OF NOVI SAD - DIRECTIONS FOR PREVENTION (27)

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INTRODUCTION: University of Novi Sad (Vojvodina) has 30, 000 student and about 7,000 new ones every school year. Institute for Students Health Protection offers medical services to all of them. Counselling service for mental health is a part of it. As eating disorders become more frequent in our every day practice we made a research which for the main purpose had to identify frequency of eating disorders in the population of female students in the Novi Sad University and to identify specific eating behaviours which can indicate the existence of eating disorders.

Practical aim was to identify parameters which can be helpful in creating effective preventive strategies and activities in this field.

SUBJECTS: The sample was made of 188 female students of the first and the third academic year of different faculties of the University.

METHODOLOGY: A clinical questionnaire for diagnosing eating disorders (Garner/ Garfinkel, 1979) was used as well as few questions about eating habits in their families and to whom they will first refer for help. The questionnaire consists of 38 items and can be answered on Likerts scale (always, frequently, sometimes and never).

RESULTS: Main result is that 7% of female students can be diagnosed as having eating disorders. In our sample 3 of the students show that their eating habits indicate anorexia and 11 of them can be ranked as bulimia.

Half of the students will ask for a help of a doctor (general practice) which indicates the necessity for extended education and forming a teams for treating this disorder.

DISCUSSION AND CONCLUSION: All results indicate that female students are under a high risk for developing eating disorders and that the students way of life and problems they deal with during these years can lead to different modes of non healthy eating behaviours.(Especially in the first academic year and if they have separation problems and problems with self confidence).

Key words: eating disorders, students

EATING DISORDER FREQUENCY AMONG UNIVERSITY STUDENTS IN 2000 AND 2004 (49)

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Finnish Student Health Service, Finland

In Finland there has been made a health survey by questionnaire method among university students in 2000 and 2004. The number of those who answered to the survey were 3174 (1224 men and 1959 women) and 3153 (1132 men and 2021 women); the reply percentages were 63.1 and 62.7. The frequency of eating disorders was questioned by asking, had a doctor or psychologist diagnosed an eating disorder with symptoms during the last year. There were further questions about the students' attitude to eating, dieting that had turned uncontrollable and own estimate of weight.

In 2000 an eating disorder had been diagnosed in 1.14 % of women and 0.43 % of men; in 2004 the same figures were 1.5 % and 0.1 %. In 2000 attitude to eating was not normal among 9.2 % of women and 2.5 % of men; in 2004 the same figures were 10.2 % and 3.5 %. In 2000 dieting had turned uncontrollable in 7.5 % of women and 0.83 % of men and in 2004 9.3 % of women and 1.2 % of men.

During the four years the number of diagnosed eating disorders had risen as well as behaviour indicating it. The number of diagnosed eating disorders is remarkably smaller than that of indicating behaviour, so it can be assumed that a great deal of eating disorders stays undiagnosed.

A nurse or a general practitioner is in the key position in the early diagnosing of eating disorders.

Key words: eating disorder, university student

FOOD MARKETING TO CHILDREN (35)

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Thinking about the obesity epidemic has switched from a focus on the individual to a focus on the “obesogenic” environment. One of the apparently important elements in this environment is, at least for children, television viewing. Several studies found a relationship between amount of TV viewing and weight in children. While the role of physical inactivity while watching is debated, there is growing evidence for the role of exposure to food advertisement via TV to explain this effect. In this presentation (1) results from a European comparative study on food advertisement to children, initiated by the European Health Network, will be summarised and (2) results will be presented of our own study in which we are currently collecting data on Flemish children’s exposure to food marketing via TV. Specifically we will examine the amount of exposure to advertisement in general; the amount of exposure to advertisement for food in comparison with advertisement for other goods; the proportion of advertisement for “healthy” versus “unhealthy” foods; and characteristics of marketing strategies used in advertisement for food.

Key words: nutrition, obesity, TV, children

THE BODY AND THE AESTHETIC CONFLICT IN EATING DISORDERS (24)

Engblom P.

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A psychodynamic developmental object-relation approach is suggested by the author as an attempt to link clinical risk factors of stressful life events, low tolerance of conflicts and anxiety as predisposing factors in eating disorders (ED) in adolescents. According to the approach the developmental tasks in adolescence are seen to trigger an overwhelming anxiety in individuals already vulnerable to conflicting experiences in their early important relationships.

Fantasy in its earliest level of organization seems to be associated with early mental experiences of the body (Gaddini 1982). The sensuous gratifications ones experienced of needs of nutrition and closeness can be expressed by bodily means or "imitative fusion" reactions– the baby sucking its thumb. It is this imitative fusion fantasy the infant restores to when its need has arisen and before it is met by the real feed. Gaddini observed that an infant could develop "mericism" and "rumination" when its relation to its caretaker had been disturbed. In eating disorders the adolescent can be seen to protect a sense of "going on being" with the help of "imitative fusion" fantasies or eating, vomiting and excessive exercising, and at the same time defending against anxieties and conflicting desires. The use of the earliest mode of symbol process expresses a disturbance in symbol functioning and the capacity to integrate, which develop only in a secure frame of object relating.

The struggle for "having" or "controlling" an idealized body or object-relations, the flight from pain inherent in the conflicting adolescent development to gradual apprehension of the complexities of the beauty of the adolescent's own body and self and her object-relations is presented for discussion.

Key words: eating disorders, stressful life events, anxiety, symbol function, body-image, beauty

INDIVIDUAL AND GROUP TREATMENT FOR STUDENTS WITH EATING DISORDERS, A MULTIDISCIPLINARY APPROACH (59)

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Eating disorders are a serious cause of morbidity and mortality in adolescents and young adults. We will present our clinical experience in organizing multidisciplinary individual and group treatments for students with eating disorders, in the Medical and Psychotherapeutic centre for students, embedded in K.U.Leuven Student Services.

We will address the following issues : cooperation between physician and psychotherapist, physical examination, physical follow-up, weight monitoring, psychodiagnosis, motivation for behavioural change, co-morbidity of eating disorders with other psychosocial problems, drop out, stepped care, theoretical background, role of parents and partners, limits in therapy,...

Not all students with an eating disorder are aware of their problem or want to be helped. Motivating students with eating disorders to change their destructive behaviour is a slow process and in every stage of treatment there can occur a problem of drop-out. However, we are convinced that due to the impact on physical, psychological and social wellbeing of students, treatment is necessary and useful. The nature of the eating disorder (anorexia nervosa or bulimia nervosa) isn't relevant in treatment because of common underlying psychopathological mechanisms and persisting processes. Nevertheless the treatments we offer, have to be individualized. An intensive cooperation between physician and psychotherapist is a necessity to insure a high standard, relevant treatment. Eating disorders and 'guilt and shame' seem to be a package deal.... We are serious advocates for group treatment.

Organising structures to reach more students with eating disorders and to organize low threshold group treatment remain challenges for the future.

Key words: eating disorder, multidisciplinary approach

DIETING AMONG ADOLESCENTS-RELATION BETWEEN MEASURED WEIGHT AND BODY IMAGE (233)

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INTRODUCTION: Dieting has been identified as a risk factor for eating disorders and the trend toward adolescents dieting at a younger age is found. Dieting to lose weight among adolescents of normal weight is a big concern.

OBJECTIVES: We examined the prevalence of dieting and negative eating attitudes among adolescents. Weight loss behaviours among students with different BMI (Body mass index) are compared. **METHODS:** Eight grade elementary school students from Bjelovarsko-bilogorska County, Croatia participated in the study. The sample consisted of 571 adolescents, 274 females and 297 males, aged 14-15 years. Participants completed anonymous questionnaires assessing eating attitudes, eating behaviour, dieting practices and body image. Anthropometric data (weight and height) were collected on each of these adolescents during regular physical examination by their school doctors.

RESULTS: In our study, after calculating for BMI, 22,1% of adolescents (23% females and 21,2% males) are overweight or obese and 19,3% are underweight. We found that 17,9% of female students and 13,1% of male students perceived themselves as more overweight than their peers. At the same time 28,8% of the females and 18,9% of the males stated they are currently trying to lose weight.

21,2% of students of normal weight and 21,5% of teens who considered themselves to be appropriate weight, still were dieting. 22,7% of underweight and 18,3% of those who considered themselves as more thin than peers were on diet. 30,1% of overweight and obese and 39,7% of those who considered themselves as more overweight than peers were on diet.

Most of the students (68,6%) think diets are not healthy.

Among those feeling "just about right" 11,3% is underweight. Among adolescents feeling "too thin" 40% is normal weight.

Majority of the students (56,2%) is informed on dieting from magazines.

DISCUSSION/CONCLUSION: Adolescents' report of whether they considered themselves overweight or normal correlated poorly with medical definition of overweight. Therefore many adolescents of normal weight are unhealthy dieting.

Our study reports that unhealthy dieting behaviour is reported in early adolescent age, among boys and girls. It stresses the need for primary prevention efforts to begin at the elementary school level.

Key words: dieting, body image, BMI, eating disorders

EUROPEAN GUIDELINES FOR SCHOOL HEALTH CARE: A CO-OPERATION PROJECT FOR THE PREVENTION AND EARLY DETECTION OF OVERWEIGHT AND OBESITY DURING CHILDHOOD (252)

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The presence of overweight and obesity among children appears to be rising rapidly in many countries around the world including countries in Europe.

Obesity is linked to serious complications in childhood and an obese child is at risk of becoming an obese adult with an associated raised likelihood of ill health and premature death.

In order to combat this emerging epidemic the indicators for overweight and obesity need to be monitored systematically during childhood and adolescence. In many European countries a network of school health services is in place, in which the health of nearly all children is regularly checked at school age. Therefore, these services are not only key-players in the primary prevention but also in the early detection of ill health and developmental problems in general, and of overweight and obesity during childhood in particular.

Such monitoring, in turn, needs to be conducted on the basis of agreed standardized definitions of terms such as obese, overweight and normal weight for specified genders and ages. In addition, in order to elaborate an effective and efficacious school-based programme for the prevention, early detection and guidance of overweight and obesity, one has to strive for scientific evidence for all the components of the programme. Amongst others, cost-effectiveness, applicability in daily practice, uniformity of screening- and follow-up procedures with respect for individual variety, are key issues to be taken into consideration when outlining a preventive programme.

The methodology for the development of guidelines for school health care which is actually being used in Flanders, was derived from the Dutch example, and might therefore be the best available approach for the development of European guidelines for school health care.

In the framework of a co-operation programme between Flanders and a number of Central and Eastern European countries, the Flemish Government supported two co-operation projects aiming at the application of the Flemish methodology for guideline development to the school health care practice in Croatia and Slovenia respectively. Partners in the projects are the Croatian, Slovenian, and Flemish medical associations of School and Student Health Care, the Universities of Leuven, Zagreb and Ljubljana, the Croatian Institute of Public health, and EUSUHM.

Both projects started in January 2005, and should by the end of December 2006 result in an harmonized prevention and screening practice for overweight and obesity in children and youngsters in the three countries, which might in a later phase be used as a basis for a first European guideline for school health care regarding this important health problem.

The outline and first results of these projects, and the stepwise approach of the guideline development, will be highlighted during the presentation.

Keywords: guidelines, evidence-based, school health services, obesity

DIETARY HABITS OF UNIVERSITY STUDENTS IN TAMPERE/FINLAND (42)

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INTRODUCTION: The Finnish Student Health Service was founded in 1954. It covers all university students in 16 cities. Tampere FSHS health centre was established in 1960. There are two universities in Tampere and the number of students altogether is 20 000. During their first or second year in university the students get a free of charge dental check up performed by FSHS dentist.

The aim of the study was to reveal the dietary habits of the students, including the use of xylitol-products. The students were also asked about receiving information concerning oral health and diet issues.

SUBJECTS AND METHODS: During October 2004 and February 2005 a questionnaire was given to the students coming for their first dental check up at FSHS. Completed questionnaires were returned by 437 students (of which 64, 3% female and 35, 7% male). The questionnaire included questions concerning dietary habits of a student. Sum total of meals and snacks per day and also in detail the use of some particularly cariogenic products such as sweets and soft drinks.

After the check up the DMF- (decayed/missing/filled teeth) and D-index of each student were counted.

RESULTS: 80% of the students eat and/or drink 4-6 times per day. Only 5% of them eat 7 or more times per day. On the other hand the regular users of xylitol-products were surprisingly few in number. Not more than 20% of the students use xylitol products at least twice a day.

64% of the students told they have received personal information and instructions concerning oral health issues and 59% of the students thought they had received sufficient amount of information.

The average DMF-index was 4, 3. 17% of the students had DMF-index nil and in 22% of the cases this index was more than 7. The average D-index was 1, 6 and 43% of the students had D-index nil.

DISCUSSION: It has been shown that xylitol, when used at least 2-3 times per day, prevents tooth decay by increasing saliva secretion and reducing bacterial growth (str.mutans). This being the case, a clear dietary improvement would be increasing the use of xylitol-products (chewing gum, pastilles).

CONCLUSION: It appears that in general the students have quite healthy eating habits.

Key words: diet, DMF-index, xylitol

EVALUATION OF NUTRITIONAL STATUS AND ASSOCIATED RISK FACTORS OF ADOLESCENTS (70)

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INTRODUCTION: The aim of our study is prevention and manages overweight and adiposity in adolescence and identification of risk factors associated with chronic condition and diseases.

MATERIAL AND METHODS: Were used and analysed data of evident lists for nutritional status at 4968 adolescents filled up in the period of regular systematic examination during 5 years period Examinations based on 8 anthropometric parameters and 5 biometric indexes has been carried out in 565 overweight and adiposity adolescents. Anthropometric measuring were realized with standard anthropometric techniques.

RESULTS: In recent five years the prevalence of overweight among the adolescents has risen dramatically at 7.4% to 22.1%. BMI – based classification system for adolescents overweight (24.4%) and adiposity (13.3%) are highly specific but less sensitive for fatness (16.8%) as well for metabolic risk. Appearance of hypertension - 6.9%, hypothyroidism - 2.3%, polycystic ovary syndrome - 7.8%, hypercorticism - 1.6%, hepatic steatosis - 1.1%, flat feet – 30.4% are common in our obese adolescents.

CONCLUSION: Health care providers are focusing increased attention on preventing and managing overweight in adolescence. Optimal approaches to prevention need to combine dietary and physical activity interventions.

Key words: nutrition, adolescents, risk factors

NUTRITION AND FOOD HABITS AMONG SCHOOL CHILDREN IN BRODSKO- POSAVSKA COUNTY (95)

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Overweight and obesity are risk factors in development many chronicle diseases.

The purpose of this work is to present prevalence of overweight among schoolchildren from school year 1998/99 to 2003/04 in this part of Slavonia and to detect variations in food habits, physical activity and blood pressure between group of overweight children and control group (with normal weight).

Pupils of 5th and 8th grade in primary school were on systematic check up.

Body weight and height have been measured. Criteria for overweight were body weight /height over 90th centile curve for age and gender (Prebeg, 1988). BMI for age and gender were estimated (NHANES 2000) for both groups and they fulfilled the questionnaires about food habits and physical activity.

In year 2003/2004 were 12,09 % overweight children, (12,64 % in 1st grade of primary school, 12,63 % in 5th , 12,25 % in 8th ,10,69 % in 1st grade of high school and 11,25 % students). 303 pupils were questioned in 5th (161 overweight, 142 in control group) and 283 in 8th grade (157 overweight, 126 in control group). In 5th grade, in overweight group were 44,09 % over 85th c.c. for BMI, in 8th gr.50,31%, and 55,90% were over 95th c.c.in 5th gr, in 8th 49,68%. Mean blood pressure, in 5th grade were 120,12 /75,91 mmHg in overweight group, in control 113,91/71,05 mm Hg. More often were higher only systolic pressure. In 8th gr. mean blood pressure were 128,15 / 80,10 mmHg in overweight group, in control 118,62/76,10 mmHg. In 8th gr. 40,76 % overweight pupils had working mother and 28,5% in control (in 5th grade there was no difference). 78,26% overweight pupils were not satisfied with their body weight in 5th gr (17,55% control pupils), 82,16% in 8th (25,39% in control group). The best mark in 5th gr. gave themselves 16,77% overweight pupils, in 8th grade 9,55% .In control 25,24% pupils from 5th and 19,04% from 8th grade gave themselves the best mark. Active in sport were 27,32% overweight pupils in 5th gr. 22,92% in 8th gr. and in control 33,54% in 5th and 19,84% in 8th gr. On a diet were 31,05% overweight pupils in 5th grade, 26,11% in 8th gr. In control were 7,08% on a diet in 5th gr.,5,55% in 8th grade. Data about food habits will be presented on a poster.

Overweight and obesity are risk factors in development many chronicle diseases in adult. Preventive actions must include parents, teachers and children where School medicine have great role.

Key words: nutrition, school children

THE LEVEL OF NOURISHMENT AND EATING HABITS OF SCHOOLCHILDREN IN THE POŽEŠKO-SLAVONSKA COUNTY (109)

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Požeško-Slavonska County Public Health Institute, Croatia

INTRODUCTION: Improper nourishment, undernourishment and overnourishment are important but preventable risk factors for the development of the current health problems such as caries, anaemia, undergrowth, overweight and obesity, but also for the development of chronic diseases in cardiovascular, endocrinological, locomotor and gastrointestinal system as well as malignant diseases. The aim of this study was to determine eating habits and the level of nourishment of the fifth and the seventh-grade students of elementary schools and the first-grade students of secondary schools.

SUBJECTS: The survey encompassed 892 students (483 females and 402 males) at the age of 11, 13 and 15 from the area of the Požeško-slavonska County.

METHODS: Eating habits were surveyed by an anonymous questioner, with the questions made accordingly to survey Health Behaviour of School-aged Children (HBSC).

The level of nourishment was defined by a body mass index (BMI) depending on the age and sex according to the CDC reference value. Undernourishment was defined as BMI under 5 percentile and overnourishment above 85 percentile.

RESULTS AND DISCUSSION: According to the results, 12,7%M and 18,9%F never has breakfast at working days, and 5,9%M and 7,5%F not even at weekends. The majority of children who do not have breakfast at weekends are at the age of 15. 65,7%M and 54,1%F has breakfast five days a week. 82,3%M and 73,5%F has breakfast on Saturday and Sunday, but this number decreases with the age for both sexes. Fruit and vegetables are consumed the least at age of 15, while the consumption of sweets increases with the age for both sexes. Sweet drinks are drunk several times daily by 14,2%M and 13,1%F. An increase in the consumption of sweet drinks with the age has been noticed, especially with females (increase of 8,6% between the ages 11 and 13). At the age of 11, 20,1%M and 13,7%F is overweight, at the age of 13, 17,6%M and 11,3%F is overweight and at the age of 15, 17,9%M and 6,0%F is overweight.

CONCLUSION: Although the majority of children are well nourished, the results show that the frequency of irregular and unhealthy nourishment increases with the age.

On the basis of the obtained results, we are going to plan further health-educational activities for students.

Key word: undernourishment, overnourishment, eating habits, body mass index

PRIMARY PREVENTION OF BEING OVERWEIGHT AND BECOMING OBESE IN PRESCHOOL CHILDREN: A STUDY ON BEHAVIOURAL DETERMINANTS (129)

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INTRODUCTION: The prevalence of obesity in children is increasing in many countries. Dutch preschool children have gained a higher body mass index during the last decades. It is known that obesity in children persists into adulthood and increases the risk of obesity related morbidity in later life. Effective interventions for treatment of obese children are not available. Therefore, primary prevention is indicated.

OBJECTIVE: To gain insight into the determinants of behaviour, related to being overweight, in families with preschool children. The study was performed within the context of a project to develop an intervention program for the primary prevention of overweight and obesity.

METHODS: Seven focus group meetings with 2-11 parents of preschool children (Dutch, Turkish, Moroccan, Hindustani) and three meetings with professionals (from health care, day-care, and those working with ethnic minorities) were organised in youth health care or community centres. Subsequently, 390 parents answered a questionnaire on determinants of overweight extracted from both literature and the focus group results.

RESULTS: It was found that 15% of the children above the age of 2 years were overweight. Of the mothers and fathers respectively 37% and 53% were overweight. Independent risk factors for being overweight in a child were: having a mother who was overweight or on social security benefits, or having a father with a non-western background. Several behavioural variables showed a significant relation with the child being overweight. They appear to be related to: inappropriate handling of necessary amounts of food, not eating at the dinner table as a family, and compensating eating sweets with offering less food at meal time. Finally, the study provided data on the occurrence of behaviour related to being overweight as published in current literature.

CONCLUSION: Lack of knowledge (e.g. sweetened fruity milk drinks are healthy), inappropriate feeding habits (skipping breakfast, properly dealing with children with eating problems) and (too) permissive child rearing practices have to be taken into consideration in the development of an intervention to prevent overweight and obesity.

Key words: overweight, obesity, preschool children, determinants

INFLUENCE OF THE EXTRASCOLAR SPORT ACTIVITIES ON THE BMI OF THE ELEMENTARY SCHOOL PUPILS (190)

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Sport activity is an important factor in the body mass regulation. We assumed that the children who practice an extrascolar sport activity, have normal body mass index.

Measurements were done during systematic examination of the 8th grade pupils of elementary school (age 14-15). Pupils who came to the examination were submitted to measurements of body weight and height, and an inquiry was done to find out if they practised an extrascolar sport activity.

Total number of examined pupils is $N=227$, that is 111 girls, and 106 boys. Out of a total of 111 girls, 48 (43.2%) of them practice extrascolar sport activities, whereas 37 (34.9%) boys out of a total of 106 practice extrascolar sport activities.

The results of the study show that the children who practice an extrascolar activity have normal body mass index (BMI 18.5 kg/m² – 25 kg/m²).

Therefore we think that it is important to include and systematically motivate pupils to practice extrascolar sport activities.

Key words: sport activity, body mass regulation, elementary school pupils

CORRELATION BETWEEN ACTUAL BODY WEIGHT AND BODY PERCEPTION AMONG CROATIAN ADOLESCENTS (191)

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INTRODUCTION: Social and behavioural factors could moderate the relation between actual body weight (BW) and body perception among adolescents.

SUBJECT AND METHODS: The analysis of data obtained from adolescents from Trogir, Croatia (328 females and 137 males, average age 16.16±1.27 years) by a questionnaire and body measurements.

RESULTS: Among the females the mean body mass index (BMI) was 20.59± 2.26 kg/m², BW was 59.01± 7.49 kg and desired body weight (DBW) was 56.31± 5.75 kg. The mean BMI was 22.03± 2.32 kg/m², BW was 72.16± 8.99 kg, DBW was 73.57 ±7.96 kg among the males. We found 38.4% females and 60.1% males pleased with their BW (p<0.001) and 17.1% females and 4.6% males were on a diet (p<0.001). There were differences in BW, DBW, BMI values between dieting females/males and non-dieting ones (p<0.001). Females and males satisfied with their BW had lower BMI values than those who were dissatisfied. There were differences in BMI and BW values between female/males breakfast skippers and breakfast consumers (p<0.001). Female and male dinner consumers had lower BMI values than the subjects who were dinner skippers (p<0.001).

DISCUSSION: Our data demonstrate a general tendency among females to decrease and among males to increase their BW. Body dissatisfaction is more extreme in females but also occurs in males. The subjects with a higher BMI evidenced greater body dissatisfaction and more weight loss strategies.

CONCLUSION: Although Trogir is a part of Croatia with Mediterranean alimentary habits, only 38.4% adolescent females and 60.6% males are pleased with their BW. Furthermore, 17% females and 4.6% males are on diet. The habit of skipping daily meals had significant influence on BW and body perception.

Key words: adolescent, body mass index, body image, lifestyle

ESSENTIAL FATTY ACIDS AND COD LIVER OIL - CRITICAL NUTRIENTS FOR CHILDHOOD GROWTH, DEVELOPMENT AND NEURONAL FUNCTION (244)

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Sponsored by Twinlab

Historically, Cod Liver Oil is the world's original and most widely used "dietary supplement". More parents from more cultures and countries around the world have given their children Cod Liver Oil, than any other single nutritional supplement. This tradition was based on the observation and experience that children grew healthier and smarter when raised with Cod Liver Oil.

Today's medical research confirms precisely why this is true, by fully understanding the functions and critical requirements for the fatty acids contained in Cod Liver Oil, that the growing bodies and minds of children need. The childhood incidence of ADD, ADHD, Autism and other behavioural disorders have increased exponentially through-out the world over the past ten to fifteen years. The latest statistics from America, show an average of 300- 500% increase in these disorders over the past fifteen years (Clinical Pediatrics, 2000). This pattern of increase is occurring within all growing and industrialized cities of the world. As these disorders are affecting more children, parents are seeking for solutions that address and are able to correct the underlying and organic causes of these maladies. The practical application of the "essential fatty acids" found in Cod Liver Oil is an essential part of these solutions.

Key words: essential fatty acids

ENVIRONMENTAL ISSUES

HEALTH BENEFITS FROM RADON REMEDIATION PROGRAMME IN SLOVENIAN SCHOOLS (221)

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INTRODUCTION: Radon (²²²Rn) is a natural radioactive gas without odour, colour and taste occurring in the uranium decay chain. It is a known human carcinogen (classified by IARC as a Group 1 A) with a genotoxic action. When it was identified as a ubiquitous indoor air pollutant, it raised a widespread alarm for public health. The risk of lung cancer increases with increasing indoor concentration.

The data from 13 European case-control studies of residential radon and lung cancer show that residential radon, particularly for smokers and recent ex-smokers, is responsible for about 2 % of all deaths from lung cancer in Europe.

MATERIALS AND METHODS: Radon concentration in the air of 890 Slovenian schools was measured with alpha scintillation cells in the Slovene Radon Project in period 1990–1994. Subsequently, in 1997–2002 and in 2004, additional monitoring was performed in 78 schools with values exceeding 400 Bq m⁻³. At these schools also effective doses for the school personnel and children were estimated.

RESULTS: Radon concentration in Slovenian schools – mean values:

Slovenia (912 schools): 193 Bq m⁻³

East Slovenia (422 schools): 148 Bq m⁻³

West Slovenia (366 schools): 241 Bq m⁻³

Ljubljana (124 schools): 200 Bq m⁻³

Minimum radon concentration value: 10 Bq m⁻³ and maximum 5300 Bq m⁻³.

Maximal calculated annual effective dose (according to ICRP 65 methodology) for school personnel was 8.2 mSv and for children 6.8 mSv.

CONCLUSION: In this study, annual effective doses before and as a consequence of radon remediation, as obtained from the above mentioned survey, have been used and ERR (excessive relative Risk) for lung cancer will be calculated and reported.

Schools should be healthy places for schoolchildren and personnel.

Key word: health benefites, radon

CHEMICAL SAFETY KNOWLEDGE ASSESSMENT IN THE SCHOOLS OF BUDAPEST (92)

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Teaching chemical safety in younger ages was an innovative thought. Hungary was one of the firsts who accomplished to regulate the legal system of teaching chemical safety at schools (Chemical Safety Act made in 2000). The Act's 27th's section: education of the knowledge connected to hazardous substances and products should be constructed into the so-called National Basic Curriculum.

According to the previously mentioned Act, our (Chemical Safety Department's) aim was to supervise the process of carrying out the work of educational preventive chemical safety. We started to realize this project even in 2001.

To execute the plan we defined our aims, worked out a strategy how to complete the tests, how to check them and we created a schedule. We decided, that our survey spreads out for the whole capital city and, that questions would concentrate exclusively on the material which can be found in the course books. Examining's fundamental pedagogical requirement is, only that can be questioned, what is in the textbook.

We administrated, and stored the questionnaires in an appropriate, confidential way for VIIth and VIIIth classes. We made the keys for both tests, with a view to have an unified correction.

On the 15th of May in 2003 we checked 1758 student's chemical safety knowledge in an anonymous knowledge assessment.

The result of the survey called attention to the fact, that it is very important to continue cooperate with the educators. In order to improve the results we carried out a plan of action. We had held presentations at schools and scientific forums about the outcomes.

On the 11th of May in 2004 2145 student's knowledge was checked again. From 23 district 1-1 school and in 4 schools we made a so called „controll”survey. Our „PR”work between the two surveys had a quite significant result. The children's average learning at the primary school in both generations was higher with the second time, than at first. We experienced the same in the „controll” groups.

On the 12th of May in 2005 we are again going to make a chemical safety assessment again.

Our presentation will be about mentioned results.

Key words: chemical safety

HEALTH RISK ASSESSMENT OF COMMUNITY NOISE AT SCHOOLCHILDREN IN THE URBAN CENTER SKOPJE (23)

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INTRODUCTION: Community noise has been recognized as stress factor from the environment and it can cause cognitive-behavioural disorders in exposed population, especially children. Aim of the study is chronic noise exposure assessment of school children, who study and live in urban centre and health risk assessment of community noise in school children.

SUBJECTS: Study group is consisted of 266 school children from primary schools in urban centre and control group is consisted of 263 pupils, from schools in suburban area, middle age of 10 years.

METHODS: Noise measurement in residential area of urban centre Skopje, determining outdoor noise level for noise exposure assessment. We have used psychological tests (Anxiety test-GAS Sarason, questionnaire for attention deficit disorders according to Lynda Thompson) for identifying cognitive-behavioural disorders in exposed schoolchildren. Statistical analysis of data was performed with descriptive statistic, Mann-Whitney U Test, χ^2 test, Spearman Rank Order correlations.

RESULTS: Noise levels in urban centre were above the WHO guidelines and schoolchildren were exposed on elevated noise level in schools and in residential area. Psychological tests have shown decreased social adaptability (RR=1.39) and opposing behaviour (RR=1, 46) in exposed schoolchildren on elevated noise level. We have not found association between noise exposure and anxiety, decreased attention and hyperactivity in children exposed on increased noise level.

CONCLUSIONS: Schoolchildren who live and study in urban centre Skopje are exposed on elevated noise level. Chronic noise exposure is associated with behaviour disorders at exposed school children, decreased social adaptability and increased opposing behaviour in a dose-response function.

Key words: community noise, school children, risk assessment, psychological tests, behaviour disorders

YOUNG PEOPLE'S KNOWLEDGE AND ATTITUDE TOWARDS SMOKING (188)

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INTRODUCTION: The Global Youth Tobacco Survey (GYTS) aims to monitor tobacco use among young people and to enhance the capacity of countries to plan, implement and evaluate tobacco control and prevention programmes. The GYTS was carried out in Hungary in 2003. It provides data on prevalence of tobacco use among young people as well as several determinants of tobacco use. This presentation will describe Hungarian young people's tobacco-related knowledge and attitude in relation with gender, age, smoking behaviour, parental, teacher and student smoking as well as passive smoking at home and school.

SUBJECTS: The sample was nationally and regionally representative and included 4484 students aged 13-16 years.

METHODS: The GYTS is a school-based survey and it uses anonymous questionnaires for data collection. A two-stage cluster sample design was used to produce representative data. Statistical analysis included descriptive statistics, correlations, one- two- and three-way ANOVAs and PCA.

RESULTS: Significant but moderate negative correlation was found between knowledge and attitudes. Both of these smoking determinants were influenced by gender and age. Significant relationships were also found with smoking behaviour and the level of exposure to environmental smoking both at home and school.

DISCUSSION: Knowledge and attitudes have role in initiation of tobacco use and smoking behaviour among young people. Furthermore a smoking environment may have significant unfavourable influence on not only students' health but their attitudes and knowledge too.

CONCLUSION: Tobacco prevention and cessation programmes should not ignore the importance of attitude towards smoking. They also should be aware of the influence of environmental adult and peer smoking behavioural pattern on students' attitude.

Key words: young people, smoking, attitude, knowledge, parental smoking, smoking at school

UNIVERSITY AS A HARMFUL AND PROTECTIVE FACTOR OF STUDENTS' LIFE (14)

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University as an organization is a special field of the connection between the future professionals, and it has an outstanding role in learning different coping strategies. University sets the frames of mental health in coping with several stress situations.

University events are formed under tensions between centripetal and centrifugal forces. Centripetal forces are interpreted as protective factors of the students' mental health and centrifugal forces are interpreted as harmful factors. There are different institutional rules and filters for students to handle these forces and create appropriate coping strategies.

The presentation explains the results of an empirical research with qualitative methods among law students. The content analysis concerning students' perceptions on university is presented with interlinked themes: students' images of social support, the importance of profession, the complexities of patterns and the different contexts of coping strategies.

The conclusion is that several constructive strategies tend to be helpful and protective the majority of students. Even the best and most constructive strategies are not usually helpful, and strategies that are usually harmful are helpful some situations. Also, what is protective and harmful depends, at least partially, on the nature of the self-related stressful situation. These finding set the stage for additional research to help us better understand the joint effects of the organizational and individual conditions under which these strategies tend to be protective and harmful among students. University as an organization can give the students skills transmitted by higher education, which become devices and chance for handling of their mental health.

Key words: higher education, coping strategies, content analysis

EXPERIENCES FROM SIX YEARS OF SCREENING FOR VOICE DISORDERS AMONG TEACHER STUDENTS (28)

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The results of several studies show that occupational voice disorders are common among those who work in vocally demanding occupations. There are some epidemiological studies concerning voice disorders and vocal symptoms in students studying for such occupations and the results show that voice problems are common among them also. One of our earlier studies focused on students studying in order to become teachers and the results revealed that about 20% had an organic voice disorder. Such results prompted us to develop of a voice screening test that could be administered by nurses at the Student Health Center in Turku, Finland.

The screening test consists of a questionnaire concerning vocal symptoms and a perceptual assessment of voice quality performed by nurses who have received training in using the test. The students who report two or more vocal symptoms occurring weekly or more frequently and/or have deviant voice quality have been referred to a medical examination performed by a phoniatician.

The voice screening has now been carried out since 1999 and a total of 455 students have participated in the test. The results from six years of screening show that the most common symptoms reported by the students are throat clearing or coughing, the voice becomes strained or tires, and sensation of pain or lump in the throat. About 9% of the students who have participated in the test have a functional voice disorder. Additionally, about 9% have chronic laryngitis and 2% have vocal nodules or minor findings on their vocal folds.

The experiences from six years of voice screening suggest that first-year students have less severe voice disorders than those who have studied for several years. Students who have voice disorders should preferably be offered voice therapy at an early stage and these students have received voice therapy and/or medical care for their voice disorder. Based on our experience, we recommend that regular voice screening tests should be offered to students who study for vocally demanding occupations in order to prevent more serious voice disorders.

Key words: voice disorders, screening, prevention

THE TEACHER'S BURNOUT AS A STRESSOR POSSIBILITY FOR SCHOOLCHILDREN (213)

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INTRODUCTION: By the WHO European Bureau organised Health Promoting School Movement estimated:

The school, including the environment and the staff, have to be not hazardous for schoolchildren. The good mental state of the teachers is fundamental in the avoidance schoolchildren from high level stresses.

METHODS: In 1986 and 2004 we pleased 400-400 teachers in different schools in Hungary to fill out a „lifestyle questionnaire” – At the evaluation the data of the questionnaire we could estimate the teacher's health behaviour and on the base of the data we could try to recognise, how our teachers can work as a hazardous stressors in schools.

RESULTS: The gender distribution of the responders was in both year 87 % female and 13 % male

Facts 1986., 2004., Evaluation

Non smokers 65 % ,54 %, negative

Social drinkers 47 % , 57 %, negative

Abstinent 16 % , 10 %, negative

More espresso cafe in a day 38 % , 51 %, negative

Regular tranquillisers 30 % , 14 %, positive

Known high blood pressure 25 % , 24 %, -

Cured blood pressure 12 % , 6 %, negative

Overweight 33 % , 32 %, -

Daily physical activity 17 % , 30 %, positive

Tired frequently 7 % , 18 %, negative

Full with energy in the morning 21 % , 20 %, -

Enjoy their job 20 % , 14 %, negative

She/He is happy 19 % , 24 %, positive

Successful 13 % , 6 %, negative

Isolated in society 38 % , 4 %, positive

Failed life 10 % , 14 %, negative

CONCLUSION: There are more negative changes in 2004 than positive ones. Our teachers looks like frustrated, near to burnout and these like teachers could be and will be stressors for schoolchildren. The regular mental support for teachers is necessary if we want prevent the frustrated teachers produce frustrate schoolchildren in our country.

Key words: Promoting School Movement, lifestyle questionnaire

**DISABILITY TO STUDY AND THE NEED-SPECIFIC MENTAL HEALTH
TREATMENT; A FOLLOW-UP STUDY IN FINNISH STUDENT HEALTH SERVICE
(214)**

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The ability to study is a process that needs specific mental resources e.g. good enough capacity to concentrate and to use one's cognitive skills creatively. The more the mental problems bind these resources the worse is often the ability to study. The difficulties in solving age-specific developmental tasks may also obstruct the ability to study effectively.

Psychotherapy – with or without medication - is the most important means of treating and rehabilitating those student patients whose working capacity is impaired.

To have a better knowledge of the number of those university students whose capacity to study is impaired, and who need psychotherapy and other forms of rehabilitation, our team in Turku Student Mental Health Centre made a psychodynamic evaluation of 99 consecutive new patients. During this evaluation process we found that ca 50 % of these students had distinct problems in their ability to study. We made a special rehabilitation program for all of them and tried to find a suitable need-specific psychotherapeutic treatment to them.

After the follow-up period of one year we see how the need-specific treatment plans have fulfilled and if there is any improvement in the ability to study. The follow-up study will be finished by the end of June and the results are presented in the congress.

Key words: special rehabilitation program, age-specific developmental tasks

URGENT PROBLEMS OF HYGIENE OF CHILDREN'S EDUCATION AND TRAINING IN RUSSIA: STATE AND WAYS OF DECISION (215)

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At present stage of the development of society and modernisation of Russian education the hygienic problems of education and training take on a special actuality. It is stipulated by negative trends in health state of children and adolescents and by increase of the prevalence of harmful habits. The complex of unfavourable school factors during the education leads to increase of diseases of musculoskeletal system and visual organs. The rising educational loads, internet-technology, lowering the age of school admittance bring to stress states, sleep deficiency. It is also accompanied by increase of neuropsychopathy disorders and functional deviations of cardiovascular system. The deficiency of motor activity owing to the overload of school curriculums, the negative attitude to physical training, the absence of reliable sport clubs and sections promote the deterioration of functional state of the organism, physical state and health of children and adolescents.

The level of poor health of today's schoolchildren dictates the priority of health-protecting approaches in organisation of the educational process.

The most important condition of health promoting of children and adolescents is rational nutrition. However there are often revealed significant disorders in the structure of nutrition and in children's food status. The infrastructure and the material and the technical basis of school catering are weak.

One of the actual tasks of modern school education is forming the adequate attitude of child to his health. It must be the leading necessity for life.

It is actual the development of this scientific trend as a guarantee of safety of children's goods which is based on an integral evaluation of the influence of the complex factors allowing to estimate children's goods differentially.

Scientific-methodical bases of the plan of actions in the environment and children's health in Russia have been worked out.

The important direction of work in children's improving from health point of view is development of the health promoting schools network.

Key words: harmful habits, hygiene, education, health promotion

INFLUENCE OF THE WAR EVENTS ON BODY WEIGHT AND HEIGHT IN CHILDREN ENROLLING THE FIRST GRADE OF ELEMENTARY SCHOOL (8)

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Physical growth is usually estimated by body weight and height measurements. Both parameters are strongly influenced by genetic and environmental factors.

The study investigated the effect of war related psychological stress and socioeconomic deterioration on growth of children born and grew during the war-years. We compared body weight and height in 2 groups of preschool children at time of admission to the first grade of elementary school. In the first group of children school entry medical examination was performed in spring 1990 and 1991 (pre-war group), while the second group of children had school entry medical examination in spring 1998, 1999 and 2000 (war-group).

The mean body weight of children in pre-war group (n=200; 98 girls) was 24.52 ± 4.16 kg, height 122.50 ± 4.71 cm, and the average age was 6.67 ± 0.33 years. The war-group (n=214; 100 girls) were of the same mean age (6.67 ± 0.34 years), but they were lighter for 500 g and lower for 5 mm in average. However, the differences in body weight and height were not statistically significant (weight=1.21, $p > 0.05$; height=1.13, $p > 0.05$). The two groups matched in gender (chi-square test=0.13, $p > 0.05$). More educated parent of every child in pre-war group was employed, while 4 more educated parents (1.87%) in war-group were unemployed, but the difference was not statistically significant (chi-square test=2.07, $p > 0.05$).

We conclude that growth of preschool children was affected by stressful war events and war related socioeconomic situation, but statistical non significance. Therefore, one could expect that these influences would be maybe statistically significant if we could examine the effect of the secular growth trend.

Key words: war events, preschool children, body weight, body height

INFLUENCE OF WAR AND POST-WAR EVENTS ON HIGHSCHOOL STUDENTS' RISKY BEHAVIOURS (10)

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Risky behaviours of young people are related to their individual features as well as to the influence of parents, dominant friends and social circumstances.

This paper presents results of a survey on high school students' risky behaviours (smoking, alcohol and drug abuse, sexual activity) in respect with war events (loss of one or both parents, or of another close relative, moving) and post-war events (loss of job of one or both parents). Five years after war was ended, 1009 students of the last class of 5 gymnasiums and 4 trade schools were examined (girls 42.22%, boys 57.78%), aging from 15 to 19 years (17.50 ± 0.70 years).

The students who moved because of war events took alcohol more frequently than those who did not change the place of living (chi-square=5.34, $p < 0.01$). Those students who experienced a loss of a parent, or of both parents, or of another close relative for the war reasons, were not found to be have more risky in respect with smoking (chi-square=0,004, $p > 0,05$), alcohol (chi-square=0,04, $p > 0,05$) and drug abuse (chi-square=0,03, $p > 0,05$), nor sexual activity (chi-square=0,09, $p > 0,05$). Neither the loss of job of one or both parents had an influence on the risky behaviours (chi-square smoking=1, 26, $p > 0, 05$; (chi-square alcohol abuse=0, 01, $p > 0, 05$; (chi-square drug abuse=1, 26, $p > 0, 05$; (chi-square sexual activity=2, 97, $p > 0, 05$).

The results obtained indicate only a partial influence of the war and the post-war events on the risky behaviours in high school students. The reason for such a low influence could be founded perhaps on a relatively short duration of those events, or on the special motivations provoked by them.

Key words: health-risky behaviours, smoking, alcohol drinking, drug abuse, sexual activity, high school students, war

SOCIAL SUPPORT AND ADDITIVE BEHAVIORS IN PORTUGUESE COLLEGE STUDENTS (13)

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The reorganization of identity happens during adolescence involves important aspects of development and establishment of relationships. We choose the influence of the social network support (family, friendship and school) in addicted behaviour's of adolescence, as the goal of this study.

370 students, with an average of 17, 71 years old, enrolled in the 12th year, during the 2004/2005 school year, in two secondary schools was questioned by a direct application questionnaire including: ESPAD (European school Survey on alcohol and other drugs) adapted from the original scale and the ESSS (satisfaction scale with the social support). (Ribeiro, 1999), and 262 student's answered, being (45%; n=118) masculine and (55%; n=144) feminine.

Some characterization questions where introduced: Sex, Age, Residence place, Number of years enrolled in the 12th year of education, Current lecture and respective scientific area of study in which the student is enrolled.

Descriptive statistic and also the Spearman's correlation coefficient to verify the statistic significance of the relation between variables, was used for data treatment.

As well as been confirmed that the results of addiction to alcoholic drinks have increased when compare to similar investigations ("ESPAD" 1999 and "ESPAD" 2003). The results showed a bigger addiction of spirit/white drinks and beers. Bar's and pub's are the most chosen places for this kind of behaviours.

The obtained result about the Social Support suggests that teenagers are satisfact with their social support, feeling more satisfied with friendship and family.

About the relation between satisfaction with the social support and the adoption of addicted behaviours, the results of our study point's to a closer relation that can be considered statistical significant.

According with these values, we can assume that the addiction behaviour showed by the teenagers is in some way related with the satisfaction that any subject has with their social support.

Key words: social support, additive behaviours

STORY ABOUT DALEN - INTERGRATION BLIND BOY IN SCHOOL WITH HEALTHY CHILDREN (29)

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INTRODUCTION: Dalen is 16 years old blind boy. His story started when he was 17 months old and bilateral retinoblastoma was diagnosed. He was admitted to the Un.cen.Ljubljana when treatment was enucleation of his right eye and irradiation therapy for the left. Fortunately without distant metastases. Cariotyping of peripheral blood revealed abnormality of the 13th chromosome with a possibility of new location. Two years ago he has an epy atache. This year he was operated cataract on his left eye. All further controls were done at the clinics in Ljubljana, Essen and Zagreb.

OBJECTIVE: This study was designed to show the way how we could introduce the world to blind boy and integrate him in school with healthy children.

METHODS: Dalen is very emotional and social child and he was loved and protected by family but also prepared to be independent in kindergarten. In cooperation with principal of kindergarten, teachers, educational department and his mother all children and their parents were prepared for him to join the group. The room was prepared and adaptive to his needs. He was exposed to different life situations, he was taken out to notice sounds, smells, shapes and different objects. Fine motoric movement was encouraged. He learned use to the stick. At 6th he received the Braille tables and learned the Braille letter. Every day he was in contact with the pedagogue who followed his development. In 1996. he becomes a pupil in the first grade. With the help of the school that educated his teachers, professional institutions (V.Bek,Zg.), local community of Porec Dalen gets the necessary school equipment (audio-cassette, typing machine and books). In his environment he becomes unique in his openness gifted in music and languages. His mother being a member of the Assos.of handicaps an organised humanitarian actions to help buy computer for a blind child. Cooperation with emination experts have been important at all time. Dalen wants to continue further education in his city and be with family. On the basis of proffesinal opinion it is recommended that he enrolls in High School. His goal is met.

CONCLUSION: This example proves that even in small local community with cooperation of family, school, professional institutions and local government a program of integrating a blind child can be successful. Everyone involved gave 100% to show that there is chance for such individuals to become educated and equal members of our society. The city of Porec has shown that if given the chance such can succeed.

Key words: blind child, integration, support, cooperation, successful education

STRESS FACTOR IN SCHOOL ENVIRONMENT AS A PROVOCATIVE MOMENT (69)

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Clinical presentation of 12-year old child, directed in a psychiatric ambulance because of development of oro-facial hyperkinesia is treated ineffectively by neurologist, which pro gradate to acquired aphasia, decreased attention with hyperactivity, depressive expression and progressive development of school phobia. The situation is clinically provoked from stress event – change of school environment. Previously, the child was with normal psycho - motor development, maintained general intelligence, orderly restored speech ability and acquired school skills. Heteroanamnestically, the patient at six-month age, provoked by regular immunization had losing his conscience with generalized tonic-clonic seizures without febricity. General tonic-clonic seizures are repeated four to five times. Phenobarbital was prescribed and the patient had been treated until three years ages. Additionally, electroencephalographs directed to regular findings. Treatment with Phenobarbital was suspended and patient was without attacks. Aphasia is previously indicated with sensorial changes of hearing which prominate in verbal agnosia with normal sense of hearing and full losing of expressive verbal ability that was established orderly. Electroencephalography showed specific changed electrical activity with occasionally spike-and-wave complexes with duration of five minutes, localized in left temporal lobe with secondary bilateralisation. Sleep electroencephalography activation is common and very prominent in slow-wave sleep when the normal elements of sleep architecture disappear and spikes-wave complex may become continuous. Prescribed antiepileptic treatment reduced symptoms at acquired aphasia to dysarthric speech and speech with excessive paraphrases and verbal stereotypes. Putting to benzodiazepine has changed dramatically clinical picture with complete establishing of verbal expression and restore of the other symptoms.

Key words: Landau Kleffner, aquiered aphasia, epilepsy

BMI OF ELEMENTARY SCHOOL PUPILS IN RELATION TO THEIR SCHOOL ATTAINMENTS AND EXTRACURRICULAR ACTIVITIES (87)

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AIM: To determine if there is a difference between BMI of school pupils in relation to their extracurricular activities and school attainments.

EXAMINEES AND METHODS: Retrospective study included 286 school pupils. Medical examination data of the same pupils in fifth and eighth grade were used. Examinees were grouped according to their participation in extracurricular sport activities, other extracurricular activities (music, dancing, foreign languages etc.) and school attainments. BMI was calculated using the formula: weight (kg) divided by height squared (m²). Statistical analysis was performed using χ^2 test, Mann-Whitney test as well as Pearson and Spearman's correlation coefficient with the level of statistical significance $p < 0.05$.

RESULTS: No statistically significant correlation between BMI and extracurricular sport activities (for both sexes) was found in neither fifth nor eighth grade.

There was statistically significant correlation of BMI for both sexes in fifth and eighth grade (Pearson's correlation coefficient $r = 0.828$ $p < 0.0001$).

Correlation between attainments and BMI (for both sexes) in fifth and eighth grade was not statistically significant (fifth grade: $r = -0.088$; $p = 0.148$ eighth grade: $r = -0.087$; $p = 0.153$).

There was an inverse correlation between attainments of female pupils in fifth and eighth grade and their BMI (fifth grade: $r = -0.168$; $p = 0.044$ eighth grade: $r = -0.187$; $p = 0.025$).

There was no correlation between attainments of male pupils in fifth and eighth grade and their BMI (fifth grade: $r = 0.052$; $p = 0.561$ eighth grade: $r = 0.004$; $p = 0.963$).

No statistically significant correlation between BMI and extracurricular activities (for both sexes) was found in neither fifth nor eighth grade.

CONCLUSION: It was determined in the study of a representative sample that there was no significant correlation between BMI and extracurricular sport activities, other extracurricular activities and attainments in male pupils whereas an inverse correlation was found in female pupils. Further study needs to be carried out with a larger examinee sample and an increased number of parameters being monitored.

Key words: BMI, elementary school pupils, extracurricular activities

NOURISHMENT OF CHILDREN CHECKED UP PRIOR TO THEIR ENROLLING IN FIRST (136)

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Nourishment is an indicator of an individual's health condition, as well as a potential prognostic tool for determining a numbers of illnesses. It is necessary to understand nutrition while monitoring the growth and development of children.

The aim of this project is to estimate the nourishment of children at the time of their enrolling in first grade of primary school, and to determine differences between areas where this research was made.

The examinees were children checked up prior to their enrolling in the first grade of primary school, in academic year 2004/2005. 416 children from the North-West of Varaždin County were examined (208 girls and 208 boys), as well as 166 children from the island of Krk (75 girls and 91 boys).

It has been established by this research that 8,9 % (52) of the examined children were undernourished, whereas 13,5 % of them (89) were found to be overweight. There are significant differences between the areas where the research was made.

On the island of Krk, the number of undernourished children (14,3 %) is twice as big as compared to the other researched area (6,7 %). The difference was not so striking in case of overweight children (12,7 % vs. 15,7 %). Sex was not found to be determining in neither of the areas. Mean BMI values for boys and girls in the continental area (18,5 % for boys, 18,9 % for girls) were higher as compared with those related to children residing on the island of Krk (16,1 % for boys, 16,2 % for girls). There were significant differences in parents' education. Parents from Krk were better educated. No correlation between socio-demographic characteristics of a family and the nourishment of children was established.

The percentage of both undernourished and overweight children in the island of Krk was higher than in the continental area. Mean BMI values for boys and girls from the island of Krk were lower. Families on the island of Krk enjoyed better socio-demographic characteristics, which did not however yield better nourishment as compared to the continental area.

Key words: nourishment, anthropometry

IT'S IMPORTANT TO HAVE A POSSIBILITY FOR CHOICE (138)

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INTRODUCTION: One of the greatest problems of youth is how to spend their free time. They usually do it sitting by the computer, TV set or in barrooms. Is it their real choice or they haven't has another one?

SUBJECTS AND METHOD: We gave a questionnaire to 472 graduates of Slavonski Brod's secondary schools where they had to make a choice between 3 possible ways to spend their free time. One of them was their traditional way, but other two were connected with sports and travelling.

RESULTS: Only 28 (6,8%) of them chose the old way, 220 (46,6%) were interested to change it, and also 220 (46,6%) pupils chose a healthy way to spend a free time and discarded previous sitting habits.

DISCUSSION AND CONCLUSION: When they have a choice, young people will always choose a proper way to spend their free time. The mission of community is to make that choice possible.

Key words: the youth, free time, choice

FOOD POISONING OF STUDENTS IN PRIMARY SCHOOL MARSHAL TITO IN VILLAGE MONOSPITOVO-MUNICIPALITY STRUMICA (211)

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INTRODUCTION: Using fast food and irresponsibility of food producers contributes to appearance of food poisoning.

AIM: To show epidemic between students with food poisoning.

MATERIAL AND METHOD: Epidemiological inquiries were used. Sanitary control in fast food shops Donka and Beti was executed. The material was processed epidemiologically, microbiologically and statistically using descriptive and analytical methods.

RESULTS: In primary school Marshal Tito -Monospitovo_Strumica learn 275 students. Epidemic, which was provoked by the bacteria Salmonella Enteritidis, had two waves: the first was on 21st of March 2002, when children who ate sandwiches with salami and mayonnaise on 20th March 2002 were diseased. The sandwiches were bought in fast food Donka. The second wave was on 22nd March 2002, when children who ate sandwiches on 21st March 2002 at 09.00 o'clock and 15.00 o'clock were diseased. A total number of 40 diseased students were reported. Period of incubation was 12-14 hours. Ten from them were cured in hospital conditions, and 30 were cured in ambulance. The age group 10-14 years old had the largest number of patients (23). Twenty-three were male and seventeen were female. There were examined 23 coprocultures from which 12 were positive with Salmonella Enteritidis.

CONCLUSIONS: Food poisoning of students happened because of consuming sandwiches with added mayonnaise prepared in domestic conditions on 19 March 2002. Because of no minimum work conditions of fast food shop Donka, working prohibition was suggested. Fast food Donka was closed by sanitary health inspection.

Key words: food poisoning

REPRODUCTIVE HEALTH

STI'S IN TEENAGERS IN EUROPE

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Sexual transmitted infections (STI's) are a major public health problem in countries all over the world. Sexually active teenagers are at higher risk of acquiring these infections than any other age group. The potential sequelae include infertility, ectopic pregnancy, genital cancer, infection of the fetus and newborn, increased morbidity and even mortality. This will have implications for the reproductive health in general and is particularly devastating for young girls.

Today teenagers are becoming sexually active at younger ages, while women are older when they give birth to their first child. The interval in-between are a high risk period for acquiring sexually transmitted infections as well period for many unwanted pregnancies and abortions.

In Europe today Chlamydial infections are the most common threat to fertility of young women, while the frequency of human papilloma virus (HPV), genital herpes and bacterial vaginosis (BV) are increasing. In some countries STI's like gonorrhoea, syphilis, hepatitis B and HIV are rare, while in others these infections are of growing importance for the young generation.

It is imperative that screening, treatment and prevention of STI's in teenagers are given priority. Primary prevention, which involves health and sex education, should be encouraged. The focus should be upon sexual education in schools, strengthening of youth clinics and introduction of youth telephone lines. It is important that countries have screening programs targeted at sexually active young people, and that those infected are offered free antibiotics and partner tracing.

Key words: STI, teenagers

GENITAL CHLAMYDIAL AND HUMAN PAPILLOMAVIRUS INFECTIONS IN THE STUDENT HEALTH SERVICE POPULATION (22)

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INTRODUCTION: Chlamydia trachomatis (CT) is the most common bacterial sexually transmitted infection (STI), and Human Papillomavirus (HPV) is the most common viral STI. Both are associated with significant morbidity.

SUBJECTS AND METHODS: We studied the prevalence of CT and HPV in the student health clinic population during 2000-2003. The mean age of the students was 23 years (range 19-47). For CT, first void urine (FVU) or cervical sampling was used. For HPV, vaginal self sampling was used. Nucleic acid amplification tests (NAAT) were used for CT. Hybrid Capture II was used for HPV.

RESULTS: The overall prevalence of CT was 1.5% (46/3131). The prevalence was 1.3% (33/2479) among women, and 2.0% (13/652) among men. In women, the prevalence was 2.2% (20/951) among first year students undergoing general health examination, 0.7% (7/996) among those seen by gynecologists for contraception or cytological screening, and 1.1% (6/550) among those seen by general practitioners for contraception. The overall prevalence was 4.1% in 2000, 2.4% in 2001, 1.4% in 2002, and 1.1% in 2003. The overall prevalence of HPV among women was 33% (434/1307). Of all HPV DNA positive women, 85% were positive for the high risk HPV types.

CONCLUSIONS: The prevalence of CT was surprisingly low, and decreased over time suggesting that the sexual health program introduced in the student health clinic is effective. The prevalence of HPV was strikingly high suggesting that most sexually active individuals are exposed to HPV. More studies are needed of the natural history of HPV infection.

Key words: genital Chlamydia infection, HPV, prevalence in students

SEXUAL BEHAVIOUR AMONG HUNGARIAN ADOLESCENTS (41)

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INTRODUCTION: The sexual activity is growing among adolescents and the time of the first intercourse is shifting back to earlier age. This is a world-wide phenomenon. Early start of sexual life and unprotected sex can lead to ill health and can influence private life and can have further social consequences. For this reason it is considered to be risk behaviour. To learn more about the adolescents' sexuality, identifying factors that influence the safe sex is essential for the prevention.

SUBJECT: Analysis on sexual behaviour (rates of sexually active children, determinants of protected and unprotected sexual intercourse) was conducted among 15-17-year old Hungarian adolescents in the sample of the Health Behaviour of School-aged Children (HBSC) study.

METHODS: According to the international protocol anonymous, self-reported data collection was carried out. Data analysis was performed using SPSS-11 statistical software.

RESULTS: More than 2/3 of sexually active respondents can be characterised with protective sexual behaviour. Those who have good relationship with parents, are under reasonable parental control, have positive attitude towards school are more likely to behave safely. 3/4 of sexually active young people have already used condom, though more than 1/3 of them did not use any means of contraception during their last intercourse. Other health risk behaviours (smoking, alcohol consumption, cannabis use) are associated with risky sex as well.

Good body image, high self-esteem, good communication with friends of the other sex are associated with high prevalence of sexual activity.

CONCLUSIONS: As sexual activity is a two-faced, challenging phenomenon, on the one hand it is associated with the good self and social integration, on the other hand it can be harmful. Professionals who want to protect children from the harmful effects have to consider all above listed factors.

Key words: sexual behaviour, risk taking behaviour, unprotected sexual intercourse, contraceptive methods, HBSC

SEXUAL BEHAVIOUR OF SECONDARY-SCHOOL STUDENTS IN SLOVENIA, 2004 (183)

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INTRODUCTION: This present research was the second representative study on sexual behaviour of secondary-school students in Slovenia (the first was done in 1996). The aim of the study was to evaluate the sexual behaviour of secondary-school students in Slovenia in 2004.

SUBJECTS: The research was done on a representative sample of 2380 1st and 3rd grade secondary-school students of both genders in Slovenia.

METHODS: The data were obtained by self-administered questionnaire in April 2004. In the analysis a descriptive statistic was used.

RESULTS: The average age of the 1st grade students was 15.4 years, and 17.4 years of the 3rd graders. The students had experiences in being in love (88% of 1st graders, 92% of 3rd graders), dating (66%, 82%), kissing (77%, 87%), caressing (62%, 78%) and petting (37%, 61%). Sexual intercourse ever had 23% of the 1st grade students and 53% of the 3rd graders (no gender differences). The median age at first sexual intercourse was 17 years. The main reasons for the first sexual intercourse were love (40%, 44%), incident (30%, 27%) and curiosity (13%, 12%). Contraceptive methods used at first intercourse were condom (74%, 75%), pill (6%, 7%), pill and condom combined (4%, 2%), withdrawal (3%, 4%), other methods (4%, 5%) and no method (9%, 7%). Contraceptive methods currently used were condom (64%, 49%), pill (11%, 32%), pill and condom combined (6%, 4%), withdrawal (3%, 4%), other methods (3%, 4%) and no method (8%, 7%). Almost all (92%) students thought they were well or very well informed about safe sex. In their opinion, the most appropriate sources of information on sexuality were professionals (34%), different sources (25%), parents (14%) and friends (10%); less appropriate were books (6%), individual experience (5%), the Internet (3%), radio and TV (2%), and school (1%). Homosexual contacts ever had 2% of the boys and 10% of the girls.

DISCUSSION: The median age at first sexual intercourse in secondary-school students in Slovenia has decreased from 18.5 years in 1996 to 17 years in 2004. However, the effective contraceptive use has increased from 74% in 1996 to 85% in 2004.

CONCLUSION: By the age of 17 about one half of secondary-school students in Slovenia experience sexual intercourse. The majority of students use effective contraception, condom being the most popular. The students are willing to talk about sexuality with professionals and less with parents and friends.

Key words: sexual behaviour, intercourse, contraception, adolescents

HIV/AIDS MISCONCEPTIONS AND PREJUDICES AMONG HIGH SCHOOL STUDENTS

REFLECTION OF SCHOOL DOCTOR'S AND TEACHER'S KNOWLEDGE AND ATTITUDES? (234)

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INTRODUCTION: The HIV/AIDS is one of today's most important public health challenges. Lack of knowledge, misconceptions and risk-taking sexual activity result in adolescents being the epicentre of the pandemic. Almost half of all new HIV infections are among young people. Therefore education, being the basic of prevention, puts teachers and school doctors in the first line of defence.

The aim of this study was to compare knowledge and attitudes of students, teachers and school doctors, and to present sexual behaviour of secondary school students.

SUBJECTS AND METHODS: Study was conducted in secondary schools. Two stage sampling, stratified by type of school and by number of students in school, gave representative sample of twenty schools. Study was conducted among 1026 students in 1st and 3rd grade. All teachers in school boards were included, 411 of them responded (69%). All school doctors participated (144). The survey contained anonymous questionnaire regarding attitudes, behaviour and knowledge of HIV/AIDS adjusted for each group individually.

RESULTS: Thirty nine percent of male and 24% of female students had sexual intercourse, mostly at the age of 16 (19% male, 17% female). Thirty seven percent of female and 57% of male students always use condom with their regular partner in comparison to 30% of female and 60 % of male students with their occasional partners. Girls show better knowledge on HIV/AIDS in general. Twenty percent of male students think they could get infected by sharing a meal with HIV positive person. Only 67% of all students know they could be protected from HIV/AIDS by using condom. Less than 20% would see a HIV positive doctor or a dentist, but 75% of male and 89% of female students approve "HIV positive student attending school".

Thirteen percent of teachers think person could get infected by mosquito bite. Although 80% answers person can't get infected by sharing meal, only 50% would share it. About 42% would see a HIV positive doctor and 24% dentist.

School doctors show excellent knowledge about HIV/AIDS. However, 71% would take care of HIV positive relative in own home. Eighteen percent would not share meal with HIV positive person, 17% would not buy food from HIV infected salesman.

DISCUSSION: Knowledge is insufficient, especially in group of students, therefore prejudices and misconceptions are still present. School doctors must overcome fear and become role models while providing health education. School doctors and teachers need each others support in order to achieve mutual goal – improving HIV/AIDS related knowledge and changing sexual behaviour among students.

Key words: HIV/AIDS, adolescents, teachers, school doctors

CONTRACEPTION USE BY 15 YEAR OLD STUDENTS– RESULTS FROM 25 COUNTRIES FROM THE 2002 HBSC CROSS-NATIONAL STUDY (126)

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INTRODUCTION: Wide variations exist across western nations in early sexual behaviour. Great concern exists about whether early adolescents take appropriate precautions to protect against unintended pregnancy. The 2001/02 HBSC survey asked 15 year-olds standard questions about sexual health.

SUBJECTS: Subjects from 25 mainly European nations were asked whether they ever had sexual intercourse and if so, whether they (or their partner) wore a condom or used a means of contraception the last time they had sexual intercourse. Students were allowed to report more than one method (e.g., birth-control pill, condom, spray/foam, withdrawal); 13 nations offered a national choice option (natural methods or morning after pill).

METHODS: This paper examines cross-nations differences in contraceptives used by youth. Analyses by individual allow to identify redundant, complementary or contradictory use of methods. Analyses examine differences across countries and genders in the types of contraception used by individuals.

RESULTS: Boys are far more likely to report condom use (77.9% boys vs. 67.5% girls) and girls use of birth-control pills (resp. 19.95% vs. 29.0%), but likelihood of reporting use of both is equal (resp. 14.8% vs. 15.9%). Large differences exist across nations and within nations between boys and girls. Sprays/foams are reported by less than 2%, with nearly all already using condoms and/or birth-control pills. Only 7 nations asked about the morning after pill: it is used by 8.2% of their youths. Over three quarters of MAP users also report use of condoms and/or birth-control pills. All together, 11.5% report use of withdrawal. Only 16.8% of boys and 19.5% of girls are not effectively protected (e.g. by condoms and/or pills); only 13.3% use no method at all.

DISCUSSION: The vast majority of youth report use of a condom and/or birth control pills during their last intercourse. Many compromise condom use by also using withdrawal. Those who use the morning after pill generally do so as a backup and not a primary method.

CONCLUSION: To understand contraceptive methods used by youth, it is imperative to conduct analyses by individual to identify redundant, complementary, and contradictory methods. Further analysis is needed of multiple method use. Youth need additional information to help them avoid unnecessary redundancies and compromising effective methods, cease relying on ineffective methods, and adopt effective methods where none are now used.

Key words: contraception, adolescents' cross-country survey

**CONSULTATIONS CONCERNING CONTRACEPTION AND INDUCED ABORTIONS
AMONG UNIVERSITY STUDENTS - TRENDS IN FINLAND
1986 – 2003 (46)**

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INTRODUCTION: Modern contraceptive methods and legal induced abortions have made it possible for women in Western countries to control childbearing more effectively. The University Students' Survey revealed that 51% of female Finnish students currently used oral contraceptives in 2000. In case of failure of primary contraception, they are well aware of and can use emergency contraception. The revised abortion law is from 1970 and accepts social grounds as a sufficient reason for an abortion.

The Finnish Student Health Service (FSHS) provides primary health care services to university students in Finland. The aim of this study was to describe trends in consultations concerning contraception and induced abortions among Finnish university students in the period 1986 – 2003 and to compare induced abortion figures with figures among the Finnish population in general.

MATERIAL AND METHODS: The material for this study was drawn from the statistics of the FSHS from 1986 to 2003. The statistical methods used were frequencies and frequency ratios.

RESULTS: The number of students increased by 50%, while physician consultations did not. Contraception has been the most common single reason for physician consultation during all documented years, from 9.9% to 13.6% of all contacts. The numbers of family planning consultations fell from 358 to 217 per 1000 female students. The induced abortion rates were low compared with the population in general and decreased from four to three per 1000 female students.

DISCUSSION AND CONCLUSION: The long-term registration of coded data from the FSHS affords a good basis for evaluating the use of family planning contacts. Students have a strong motivation to practice contraception to postpone pregnancy until after studies. They are responsible and they take full advantage of the FSHS contraception services. The FSHS has succeeded guaranteeing contraception services and in preventing unwanted pregnancies and minimizing the need of induced abortions while at the same time decreasing physician consultations. This was possible by changing the distribution of tasks among physicians and nurses, and by adding telephone contacts instead of face to face consultations with physicians.

Key words: contraception, induced abortions, family planning, university students

HOW TO LIVE A HEALTHY LIFE WITH A HIV POSITIVE PERSON (217)

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The aim of this study was to determine the change in knowledge and attitudes of teachers and parents after educational sessions and workshops. The study covered 285 teachers and 384 parents of primary and secondary school students. All participants attended the lectures on the epidemiology of AIDS, and after four months they actively participated in the workshop sessions. The participants were divided into small groups and acted out scenarios, based on real life situations, in which they found out that a person they are closed to is HIV positive. Each participant was asked to provide a «decision tree» and explain in writing and orally how he/she would react to a given life situation of living together with a HIV positive person and what would be the consequences of such a decision. A questionnaire providing information on their knowledge and attitudes was anonymously completed by all participants on 3 separate occasions: before the lectures, three months after the lectures and three months after the workshop sessions.

RESULTS: The first questionnaire revealed that participants had a fear of HIV positive persons and insufficient knowledge of how the disease can be transmitted, with 33% believing the disease could be transmitted by hand shaking, 59% saying that it could be transmitted by a mosquito bite, and 35% believing that it can be transmitted if an infected person coughs in the face a healthy person. Only 25% of respondents said they would allow their child be in the same class with a HIV positive child or be taught by a HIV positive teacher. They insisted that the school doctor must disclose the names of HIV positive persons so that healthy people could be more effectively protected. Responses to the second questionnaire, given 3 months after the workshop sessions, showed a change in attitudes, with 83% of respondents accepting the possibility for HIV positive persons to attend and/or work at school.

CONCLUSION: The school doctor has an important role in informing and educating, and changing attitudes toward the acceptance of HIV positive persons at school. Simply informing is not enough. It is necessary to take parents and teachers through the experience of «living through» the situation and teach them how to protect themselves by responsible personal behaviour and not by isolating infected people.

Key words: AIDS, decision tree, attitudes

WHAT CAN SCHOOLS DO IN AIDS PREVENTION: RESULTS FROM PORTUGUESE SAMPLE OF HEALTH BEHAVIOUR SCHOOL AGED CHILDREN STUDY AND FOCUS GROUPS (58)

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INTRODUCTION: Schools offer an advantageous setting because they are the only venue where nearly all youth can be reached in a structured environment and because HIV prevention efforts and attitudes towards HIV infected people can potentially be integrated into the sexual health education and/or family life education programs in most schools. This study examines the impact upon sexual behaviour of school involvement and attachment, academic achievement, and sexual education programs in school.

METHODS: Data were collected from the Portuguese sample of the “Health Behaviour in School-Aged Children (HBSC) - a collaborative WHO study”. In addition, 12 focus groups discussions were conducted.

RESULTS: In general, adolescents have a good knowledge about the main HIV/AIDS transmission routes and how to protect themselves from becoming infected. It was noticeable in this study that the existence of misconceptions and gaps in knowledge regarding AIDS transmission has impact in adolescents’ sexual risk-behaviour and attitudes towards those infected with AIDS. A logistic regression model identifies several associations among school variables and sexual risk-taking (having sex and not using condom during last sexual intercourse). The results of focus groups showed that adolescents consider the role of schools in helping to increase adolescents’ attachment to school, to develop future aspirations and reduce school dropout, factors that can effectively delayed sex or reduced AIDS infection and pregnancy rate. They think that information regarding pubertal development, sex, relationships, protecting against AIDS and contraception should be provided to adolescents in an age-appropriate manner from schools. However, important topics are not covered in many schools. According to students there is no evidence for causing a higher risk by sex education, although adolescents who are already sexually active can be influenced to have fewer sexual partners and to increase safer sex methods.

CONCLUSIONS: Because most youth are enrolled in school for many years schools have the potential for reducing adolescent sexual risk-taking. An effort has to be made in order to improve the sense of affiliation and agency of adolescents in schools settings, as a way to increase their perceived positive school “ethos”, sense of belonging, perception of self –efficacy, plans to attend higher education, and consequently their choices of healthier life style, including sexual behaviour.

Key words: schools, AIDS prevention, adolescents

RETHINKING SEXUAL EDUCATION (123)

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In developing European countries especially in Central and Eastern Europe, there is a serious epidemiological situation regarding sexually transmitted diseases, especially chlamydia, human papilloma virus infection, AIDS etc. The risk for these diseases is increased due to poor economic conditions, high unemployment, migration and lack of proper sexual education. Adolescents are under great pressure from the media, movies, teen magazines that convey hedonistic and consumer attitude, promoting a lifestyle devoid of responsibility. There is a real need for holistic and accurate sexual education for adolescents.

One of the other important issues for the sexual education program is to recognise current epidemiological situation of the country/region. Programs that are usually dealing with only one STD, usually AIDS neglect other STDs and therefore are improper. Although risk reduction and treatment of existing infection is important, the promotion of optimal lifelong health can be achieved most effectively through delayed sexual debut, partner reduction, and the avoidance of risky sexual behaviours.

Recent findings showed that the consistent condom use doesn't protect from human papilloma virus infection and that the condom effectiveness is limited in preventing other STDs. Recently published studies showed that despite condom use during vaginal intercourse HPV DNA was detected in vaginal and cervical swabs.

There are many programs that are dealing with adolescent sexual health, some of them are focused on promoting condoms, and contraceptives, some of them promote only abstinence without informing adolescents about contraceptives and other methods.

There are only a few programs that were designed on current adolescent needs. One of them is TeenSTAR (Sexuality Teaching in the context of Adult Responsibility). TeenSTAR includes all aspects of person. The program is based on interactive approach, there are no lectures, it is designed as problem solving program. During the program attendants acquire skills and knowledge that help them to acquire responsible attitude to their own sexuality, to avoid risky sexual behaviour.

Increasing evidence appears to support the adoption of a health-oriented approach that addresses sexual attitudes and behaviours by both educating about STDs and consistently recommending delayed sexual debut and partner reduction.

Key words: sexual education, HPV, abstinence, contraception

PREVENTION OF SEXUALLY TRANSMITTED DISEASES IN ELEMENTARY SCHOOL STUDENTS (197)

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INTRODUCTION: Sexually transmitted diseases (STD) pose a public health problem due to their wide spread and serious sequels. Preventive programs focused on reproductive health promotion are needed to prevent the spread of STD in adolescent population.

AIM: To evaluate the program of STD prevention carried out by three school medicine teams at 15 elementary schools in Zagreb, academic year 2004-2005.

SUBJECTS AND METHODS: Preventive activities included 995 eighth-graders and 184 teachers. A lecture entitled STD and HIV/AIDS and a workshop Transmission of HIV Infection – Handshake were held for students, and respective lectures for teachers, followed by a questionnaire distributed to both audiences on the knowledge, attitudes and satisfaction with the program performed.

RESULTS: The lectures were attended by 93.8% of students. Only 11% of students had not previously listened to or read about STD and AIDS. School ranked first as the source of information. 82.1% of students considered that a HIV positive student should attend regular classes; 24.7% of students would keep normal relationship with a HIV positive student, 65.4% would do it with some caution, whereas 9.5% of students would avoid contact with such a school mate. Workshops were organised in 36 classes and included 90% of students. On the 1-5 scale, the students scored the workshop content with 3.9, their own contribution to the workshop with 3.6, and workshop conduct with 4. The students' knowledge about HIV/AIDS was assessed by use of a questionnaire containing 6 questions. The question: Could an individual that appears healthy be HIV positive? had the highest rate (94.5%), and the question: Can HIV infection be acquired by a mosquito bite? the lowest rate (67.7%) of correct answers. The content of lectures delivered to teachers was evaluated as very good or excellent by 95.7% of teachers, while 84.3% of teachers found them useful for their work at school. The teachers considered workshops to be the most appropriate method of work of school medicine practitioners in health education, to be followed by small group work, lectures, and target public sessions.

CONCLUSION: Results of the questionnaire and the interest shown by both the students and teachers indicate that programs to improve the knowledge, to acquire desirable attitudes, and to prevent risky behavioural patterns related to reproductive health should be implemented as early as possible, i.e. at elementary school.

Key words: STD, school children

TEACHERS TRAINING FOR REPRODUCTIVE HEALTH EDUCATION IN SCHOOL (261)

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Sponsored by Procter & Gamble

Health education in schools demands special education and training for teachers. In the study, the project is presented in which the educational model for health educational work with students is developed.

Aims of the programme: 1. to ensure educational materials for teachers (from the package "About you", pamphlets, and others, for work with students in puberty are, growth and development, 2. to prepare professional methodological guidance to teachers for conducting every method units and work with the students. 3. to enable the teachers for qualitative conducting of method units, 4. to distribute the pamphlets to teachers and the parents.

Program conducting: Teams of school medicine specialists and biology teachers or psychologists were involved in teachers education (mostly biology teachers) . On one day seminar, teachers were presented with educational package and its conducting in work with the students. Response rate on seminar for teachers was from 52% to 85% of planned one. Education was done through workshops in which teachers with team manager were practicing conducting each methodological unit using materials from educational package, in the way it should be done in the classroom with the students. Especially big attention was paid to teachers training in answering students' questions and communicational skills development. Education evaluation showed that teachers were almost unanimous in valuation of need for this kind of education. They consider educational materials very good quality, acceptable, and missed so far. They praised the way education was conducted for teachers, but pointed out that parts from human reproductive health and sexuality should be thought by school doctors. They suggested, for a good model of teamwork, that after covering certain unit , school doctor answers the students' questions.

36 000 pamphlets were distributed to the students as a part of the project (around 80% of one generation fifth grade students) and the same number to their parents. Parents graded, on their own the pamphlets that were distributed to them very positively.

Key words: teachers, sexual education

SEXUALITY AND SEXUAL EDUCATION - ATTITUDES OF THE STUDENTS AT THE UNIVERSITY OF SPLIT (115)

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AIM: To identify the adolescents' attitudes towards sexuality and sexual education.

EXAMINEES AND METHODS: The study was conducted in 2001, on the 30% sample of the first year students from the University of Split, (818 students; 415 boys and 403 girls) who answered on anonymous questionnaire. Attitudes, measured by the scale of summed-up estimations, were divided in those measuring sexual traditionalism, attitudes towards condoms and peer conformism.

RESULTS: Attitudes measuring gender and sexual traditionalism showed moderate untraditionalism expressed more among boys than among girls. Only 18.4% of surveyed boys and 11.8% of girls agreed that informing about sexuality encouraged promiscuity. Necessity of open conversation about sexuality is approved by 83.8% of boys and 95.5% of girls. Out of all surveyed respondents, 66.3% of boys and 75.9% of girl have religious allegiance; also in that group 84% of boys and 95% of girls want to discuss sexuality openly. Attitudes towards condom usage are positive among 78.5% of boys and 78.1% of girls. Religious allegiance, attitudes towards informing about sexuality as well as those about discussing sexuality openly do not influence significantly the positive trend of those attitudes. The attitude that one should not involve in sexual relations with new partner unless condom is used is supported by 60.4% of boys and 82.1% of girls .At the same time the attitude that condom usage is suggested only by those who often change partners deny 56.9% of boys and 68.2% of girls. Condom usage seen as a sign of distrust towards partner rejects 80% of boys and 86.9% of girls.

CONFORMISM: Majority esteems own opinion, but in same group 42.6% of boys and 31.4% of girls say that their friends' influence on their sexual behaviour is important. Implementation of sexual education at school is said to be desired by 84% of surveyed adolescents, 12% are undecided and 4% do not want that.

CONCLUSION: In spite all the adolescents' individual differences; there is a significant need for open discussion of sexuality. It is clear that there is need for systematic implementation of health-education programs for the young in schools, as well as for counselling and open door approach.

Key words: sexuality, students' attitudes, sexual education

THE CORRELATION OF KNOWLEDGE AND ATTITUDES WITH REPRODUCTIVE HEALTH AND SEXUAL BEHAVIOUR OF SECONDARY SCHOOL STUDENTS (137)

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INTRODUCTION: While educating secondary school children on their health we noticed their insufficient knowledge of reproductive health, sexually transmitted diseases, family planning and necessity of regular gynaecological examinations. The aim of this study was to investigate if there are any differences between knowledge and attitudes and reproductive health and sexual behaviour in relation to sex, school success and their school orientation.

SUBJECT: In our study we included 240 second and third-grade secondary school students of both sexes, 50 male and 190 female between the ages 16 and 18.

METHODS: The students completed an anonymous questionnaire.

RESULTS: It was noticed that the knowledge on reproductive health positively correlates with the general school success. Students gather the information on sexuality and reproductive health almost exclusively from their friends. Turning to their family members or health personnel for advice is almost non-existent. They have positive attitudes about the relationship between partners and sexes. The majority 65% feels the need to be more informed about reproductive health. The majority of students does not know enough about sexually transmitted diseases, 40.4% numbered only 2-3 diseases, mostly AIDS and syphilis, and very few of them 14.2% mentioned hepatitis.

DISCUSSION: Likewise, we noticed that a large part of students has not understood the difference between the protection from pregnancy and the protection from sexually transmitted diseases. Unfortunately, the female responders do not know the exact definition of menstrual cycle, there are only 16 correct answers or 8.6%! It is worth mentioning that they had a choice of three very similar answers. Nevertheless, 58.3% of the females stated that they know how to calculate fertile and infertile days, and a menstrual cycle calendar is kept by 58.3% of them. If they got pregnant at that age, 48.9% of the females do not know what they would do or would terminate pregnancy. 28 of 33 sexually active females have never visited a gynaecologist, which makes 84.8%!

CONCLUSION: The results of this support the idea that a further continuous education of secondary school students is necessary, perhaps starting even in the last grade of elementary school, because, at the age of 17, already 28% of male students and 17.4% of female students is sexually active. What is more, 21.6% of them have not used any form of protection every time.

Key words: reproductive health

SEXUAL BEHAVIORS, KNOWLEDGE AND ATTITUDES OF SECONDARY SCHOOL STUDENTS IN PRIMORSKO-GORANSKA COUNTY (140)

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INTRODUCTION: Sexually transmitted diseases (STD) and unwanted pregnancies are serious problem for our young population. Most of the research in this field shows high and rising number of youngsters engaging early in sexual relations with inadequate knowledge and use of protection. The aim of our study was to determine sexual behaviours of secondary school students in Primorsko-goranska County, their knowledge and attitudes toward sexuality and STD, and compare them with results of the study conducted in the 2000.

SUBJECTS AND METHOD: The study was carried on a 965 (randomly selected) secondary school students of Primorsko-goranska county (568 girls, 377 boys) who where, on average, 17 years old. The ammoniums questionnaire was developed by University of Zagreb, Department of sociology. The data were compared with earlier results (2000) with descriptive statistic program: Statistics for Windows.

RESULTS: We have found 48% sexually active students (465 students) with no greater gender differences. Most of the students (boys and girl) have had its first sexual intercourse between age of 14 and 16. Doing so, girls have had an older boy for a partner, while boys had a partner of the same age. These results match those from 2000. Furthermore, most of the students have very good and excellent knowledge on STD and birth control (91 %) as well as positive and very positive attitude toward use of condoms (82%). Compared with earlier studies the number of sexually active students doesn't using any sort of contraceptive protection declined significantly. The 2000 study showed 27% sexually active students who doesn't use protection and our study found only 9, 2%. It is interesting that 12% of students use combined method for birth control and STD (hormonal therapy and condoms).

CONCLUSION: Results from our study have clearly showed an increase of sexually active students. Furthermore we've found better knowledge on STD and birth control which resulted in increase of use of adequate protection. Entering age for sexual relations showed no difference. These results support our health education program which we're running in Primorsko-goranska County. The program consists of teaching and group work with school children conducted by school medicine teams and peer to peer education supervised by the same team. Need for this kind of work, as well as the results, is clear and we're hoping to boost them up with our new Youth friendly Service – Open door counselling!

Key words: youth, free time, choice

SEXUALITY AND SEXUAL EDUCATION-ATTITUDES OF THE STUDENTS AT THE UNIVERSITY OF SPLIT (160)

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AIM: To identify the adolescents' attitudes towards sexuality and sexual education.

SUBJECTS AND METHODS: The study was conducted in the 2001, on the 30% sample of the first year students from the University of Split. The sample, stratified according to sex and study type, included 818 students; 415 boys and 403 girls, who answered to anonymous questionnaire. Attitudes, measured by the scale of summed-up estimations, were divided in those measuring sexual traditionalism, attitudes towards condoms and peer conformism.

RESULTS: Attitudes measuring gender and sexual traditionalism showed moderate untraditionalism, expressed more among boys than among girls. Only 18.4% of surveyed boys and 11.8% of girls agreed that informing about sexuality encouraged promiscuity. Necessity of open conversation about sexuality is approved by 83.8% of boys and 95.5% of girls. Of all surveyed respondents, 66.3% of boys and 75.9% of girls are religious declared. In that group 84% of boys and 95% of girls also want to discuss sexuality openly. Attitudes towards condom usage are positive among 78.5% of boys and 78.1% of girls. Religious allegiance, attitudes towards informing about sexuality as well as those about discussing sexuality openly do not influence significantly the positive trend of those attitudes. The attitude that one should not involve in sexual relations with a new partner unless condom is used is supported by 60.4% of boys and 82.1% of girls. At the same time the attitude that condom usage is suggested only by those who often change partners deny 56.9% of boys and 68.2% of girls. Condom usage seen as a sign of distrust towards partner rejects 80% of boys and 86.9% of girls. Conformism: A majority appreciate most their own opinion, but in the same time 42.6% of these boys and 31.4% of girls say their friends influence on their sexual behaviour is important. Implementation of sexual education at school is said to be desired by 84% of surveyed adolescents, 12% are undecided and 4% are contrary.

CONCLUSION: Apart of all the adolescent individual differences there is a significant need for open discussion of sexuality and necessity of implementation of sexual education in schools.

Key words: sexuality, attitudes, education

EDUCATION ON SAFE AND RESPONSIBLE SEXUAL BEHAVIOUR PROVIDED BY SCHOOLS IN SLOVENIA (184)

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INTRODUCTION: The sex education is not obligatory nor in primary nor in secondary school curriculum in Slovenia. Instead, contents targeting sexual health are only partially included in some subjects in primary school and as a facultative subject in secondary school. In addition, there are no common criteria regarding the contents of neither sex education programmes nor sex education providers.

SUBJECTS: With no systemic sex education in schools the quality of information and the impact of sex education are limited. In addition, sexual behaviour and related topics are often not spoken themes in families. Facing increasing sexual activity among adolescents and increasing risks for unwanted consequences of sexual activity in adolescents, formal sex education is strongly needed in Slovenia.

METHODS: In the need to fill the gap in the school system and to motivate the teachers (mainly biology teachers and school advisers) to deal with sexual health topics in the school in 2001 the program "About you", didactical and methodical program, developed and sponsored by Procter & Gamble, was introduced into the primary school system. The idea was further developed and in 2004 the program "About you two" for secondary schools was developed by Slovenian professionals and sponsored by Schering AG Slovenia.

RESULTS: The program "About you" consists of handbook for teachers with six overhead transparencies and booklets for girls, boys and parents. The main topics are puberty and personal hygiene. The introduction of the program was supported by several seminars for teachers. By now more than 90% of primary schools in Slovenia are involved in the program. The program "About you two" consists of handbook for teachers with ten overhead transparencies and booklets for students. The main topics are sexual behaviour, contraception and sexually transmitted infections. In this first year of the program more than half of secondary schools in Slovenia have already been introduced with several seminars into the program.

DISCUSSION: Evaluation have shown extremely positive feedback of both programs and confirmed a strong need for this kind of support to the teachers and students.

CONCLUSION: The success of programs »About you« and »About you two« has shown a huge need for formal sex education in Slovenia. In the lack of official systemic support the help of industrial and pharmaceutical companies has proved to be very beneficial.

Key words: sex education, contraception, puberty, teachers, "About you"

DO WE PAY ENOUGH ATTENTION TO DETECTION OF VARICOCELE IN ADOLESCENTS? (193)

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INTRODUCTION: Varicocele refers to varicose enlargement and extension of the veins of the pampiniform plexus, usually in the left scrotum. It is a potentially reversible cause of infertility among men. According to investigations, it causes about 30% of male sterility.

THE AIM OF THE STUDY: To determine incidence of varicocele in adolescent population in Split schools, detected during compulsory medical examinations.

SUBJECTS AND METHODS: In a retrospective study including students from 10 high schools in Split (first and second grades, age 16-17, in the school year 2004/05), 1537 preventive medical records were processed. It was 41.43% out of the total 3710 students in Split high schools. It was also the age of making varicocele diagnosis that was concurrently noted (fifth or eighth grade of elementary school, age 12 or 15; or first grade of high school, age 16).

RESULTS: According to the results obtained, the diagnosis of varicocele was made in 142 students or 9.23% of the examined sample. The majority of these cases (88.8%) were referred to the additional specialist examination and treatment, whereas the others were followed up by the school doctor. Out of the total number of cases diagnosed so far (end of April 2005), 50% (71 student) of them were operated on.

DISCUSSION: The results of our study have shown that students with varicocele were well provided for, either having been operated on or under competent follow-up care. Lower incidence of varicocele in our population in relation to the results published in the literature was likely to be due to subdiagnosis of this condition. In other words, medical examinations of high-school students are most commonly performed at schools, under inappropriate conditions, so that complete examination and counselling of students fail to occur.

CONCLUSION: Given the significance and role varicocele plays in reproduction, both its early diagnostics and surgical care are extremely important.

Our results of 9.23% of varicocele incidence in adolescents are below the average in relation to the similar studies in the world (about 15%). Therefore, more complete medical examinations of students, under more appropriate conditions, as well as additional education and animation of school doctors need to be carried out.

Key words: adolescent, varicocele, medical examination, student

URINARY INFECTIONS REGISTERED IN SCHOOL DISPENSARY IN MUNICIPALITY STRUMICA, MACEDONIA IN THE PERIOD 2001-2004 (202)

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AIM: To show the significance and the number of urinary infections of totally registered diseases in school dispensary of Strumica Medical Centre in period (2001-2004).

MATERIAL AND METHOD: The annual summary report of the school dispensary was used, as well as the laboratory analyses and results from urinal-cultures, ultrasound, checking of abdomen and RTG survey. The descriptive-epidemiological and statistical methods of working were used.

RESULTS: In the analysed period, a total number of 49,913 medically surveyed patients were registered out of who 459 or 0, 92% had urinary infections. Female patients were registered in bigger number 333, or 72, 55%. There were 126 male patients or 27, 45%. By age, the most frequent was the group over 20 years old, with 128 patients. The next was the group from 15 to 19 years old, with 125 patients. The distribution in terms of time of appearance of the infection is with no significance. Diseased patients were registered in all months, but the biggest number was reported in February, with 47 cases. Cystitis (acute and chronic) was on the first place in this group of urinary infections with 76% or 349 diseased patients. Renaltubulointerstitial diseases covered 2, 34% of the patients or 11 cases. Further urolithiasis as one of risk factors for urinal infections covered 1, 96% or 9 of the cases and on the other non specific infections belong 19,70% or 90 cases. For 404 patients, urinal culture tests were carried out from which 30, 06% or 138 cases. From that number the most common bacteria, which were isolated were the following:

- Escherichia coli in 62 diseased patients or 44,93%
- Proteus vulgaris in 28 diseased patients or 20,29%,
- Pseudomonas aeruginosa in 18 diseased patients or 13,04%
- Staphylococcus aureus in 16 diseased patients or 11,60%
- Streptococcus faecalis in 14 diseased patients or 10,14%.

CONCLUSION: Lasting uncured infections of urinary system are usually followed by complications. Thus, preventions of the urinary infections with survey of asymptomatic bacteria on the school children are with special significance. Thus, necessity arises for pointing of our efforts towards prevention of infections and their progression towards the upper urinal ways.

Key words: urinary infections

SEX HEALTH COUNSELING FOR STUDENTS (240)

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BACKGROUND: Depopulation and aging of the population have been generally recorded in Croatia over the last four decades. The proportion of young population groups, school children and students that make the basis of reproduction has been on a steady decrease (reproductive depopulation). Sexual behavior of adolescents influences the population fertile potential and ability of reproduction. Besides school medicine specialist, a gynecologist has been included in the work of the student counseling clinic since the academic year 2004-2005. The Institute laboratory of microbiology and psychologist's consultation are used as necessary.

AIM: To analyze the state of reproductive health, sex and other risk behaviors in first-year students enrolled in the academic year 2003-2004; and to propose measures for sex health promotion and control.

SUBJECTS AND METHODS: Systematic examination included 3679 (22%) first-year students at the University of Zagreb, 1425 male and 2254 female. Data were obtained by retrospective analysis of the clinical examination findings and history data.

RESULTS AND DISCUSSION: In the study population, there were 67.1% of sexually active students, 74.0% male and 61.2% female, with the highest rate recorded at School of Transport Studies (80.0%) and lowest at School of Science (51.14%); 48.1% of sexually active female students did not present for gynecologic examination. Considering protection and contraception, regular or occasional use of condom was most commonly reported (65.83% and 16.66%, respectively), followed by coitus interruptus (16.16%), fertile-day based protection (15%) and hormonal contraception (3.33%). Menstruation cycle disturbances associated with hirsutism were processed as a separate entity. Varicocele was detected in 11% of male students. Pathologic Pap test with cervical intraepithelial neoplasia 1 (CIN 1) was recorded in 31%, CIN II in 1%, and HPV related lesions in 4% of female students that underwent gynecologic examination. Data were also collected on other risk behaviors that may influence sex behavior and health in general. Cigarette smoking was recorded in 41.5% (52.3% male and 37.9% female); alcohol intoxication on more than three occasions in life in 55.9% (72.5% male and 44.1% female); and marijuana experimentation in 16.9% (22.7% male and 14.4% female) of students included in the study.

CONCLUSION: The program of health measures for reproductive health control in adolescents implemented to date has proved inadequate. The program should cover both sexes and be conducted through multidisciplinary collaboration. The establishment of respective counseling centers is indispensable for successful program implementation. A protocol for the initial gynecologic examination, clinical examination of male students, and work with couples should be developed and adopted by consensus.

Key words: depopulation, sexual behaviour, education

PATHOLOGICAL FINDINGS OF FEMALE PATIENTS AGED 0 DO 26 YEARS OPERATED FOR SEX ORGANS TUMORS FROM 1978 TO 2003 (258)

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Aim of study was to analyze patohistological findings of female patients aged 0 to 26 years operated for sex organs tumors from 1978. to 2003. Study was conducted at Clinical gynaecological hospital Petrova Clinical Hospital Centre Zagreb. Medical records of age, clinical findings, surgical procedure and patohistological findings were analyzed. Total of 3391 women of that age group had surgical operation. Lowest number of patients 27 was in 1979, and highest number of patients was 425 in 1998. Uterine cervix surgery makes 73,6 % of all operations, followed by adnexal and uterine corpus operations. In uterine cervix surgery group most common are operations for cervical intraepithelial neoplasia (CIN) which makes 59,6 % of operations. number of uterine cervix surgery operations rise sin analyzed period from 10 in 1978. to 217 in the year 2003. Ratio was 35,7 % of all surgical operations in the year 1978 with rise to 45,2 % of operations in 1984. In the year 1985. surgical operations of uterine cervix for the first time make majority with 57,6 % of procedures to 89,6 % in the year 2003. In uterine cervix surgical operations group most common are those caused with high grade intraepithelial neoplasm CIN III 62,9 %, followed with CIN II 21,2 % and CIN I with 15,9 % of operations. Youngest patient in this group was 16 years old. This emphasize a change in female genital tract pathology and make a need for new diagnostic and prognostic protocols implementation.

Key words: sex organs tumor, cervical intraepithelial neoplasia

HPV INFECTION: CLINICAL IMPORTANCE AND CURRENT DIAGNOSTICS (250)

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Sponsored by Adriamed-Roche Diagnostic

Cervical cancer is the second most common cancer among women worldwide with 440 000 new cases reported annually. Persistent infection with human papillomavirus (HPV) is the principal cause of cervical cancer and its precursor cervical intraepithelial neoplasia (CIN). The presence of HPV has been detected in greater than 99% of cervical cancers. There are more than 100 different genotypes of HPV, and approximately 40 different HPV genotypes that can infect the human genital mucosa. The high-risk HPV genotypes (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68) are associated with high-grade cervical dysplasia and cervical cancer, while the low-risk HPV genotypes (6, 11 etc.) are often associated with benign low-grade intraepithelial lesions or condylomas.

Sexually transmitted infection with HPV is extremely common, with up to 70% of all women experiencing exposure to HPV at some point. The majority of HPV infections clear spontaneously, but persistence of a high-risk HPV is a significant risk factor for the development of cervical cancer.

There is a general consensus that CIN 3 is a lesion at high risk of progressing to invasive cancer and requires treatment.

So the general purpose of cervical cancer screening programmes today is to detect the presence of high-risk HPV in CIN lesion.

Papillomavirus is extremely difficult to culture in vitro, therefore nucleic acid (DNA) testing by is the method of choice for determining the presence of an active cervical HPV infection.

Development of standardized molecular techniques has enabled detection of HPV DNA in cervical smears which resulted in the introduction of these methods in cancer screening programmes, either as primary or secondary screening in combination with Pap smear.

In 2000, Digene hybrid capture II HPV DNA@test (based on soluble DNK/RNK hybridization with high and low risk probe cocktails), has been FDA approved and since then many evaluations of the test have been published.

This method has very high negative predictive value but the crossreactivity between two risk groups has been found in up to 11% of cases. Therefore standardized PCR tests promise better sensitivity and specificity.

Recently Linear array HPV genotyping test has been developed which detects 37 anogenital HPV DNA genotypes. Application of an HPV typing test include the evaluation of acquisition and clearance of specific HPV types, monitoring persistence of specific high-risk types, monitoring incidence of reinfection, effectiveness of therapy, screening programmes in pre- and post-vaccine introduction as well as epidemiologic tracking of the natural history of HPV infections.

Key words: cervical cancer, human papillomavirus

CHLAMYDIA TRACHOMATIS INFECTION IN THE FEMALE REPRODUCTIVE TRACT

A MAJOR CONCERN FOR REPRODUCTIVE HEALTH (253)

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Sponsored by Pliva

Chlamydiae are small gram-negative obligate intracellular microorganisms that preferentially infect squamocolumnar epithelial cells. Chlamydiae have a unique biphasic life cycle that is adaptable to both intracellular (reticulate body) and extracellular (elementary body) environments.

Chlamydia trachomatis (CT) is one of four species who belong to genus Chlamydia, family Chlamydiaceae and order Chlamydiales.

CT is the most common sexually transmitted bacterium, one of the leading causes of pelvic inflammatory disease (PID) and infertility in women. CT infection is responsible for a wide spectrum of diseases that include cervicitis, salpingitis, endometritis, urethritis, epididymitis, preterm birth, intrauterine growth restriction, low birthweight, conjunctivitis and neonatal pneumonia. Untreated, CT infection can lead to serious complications. Ascending infection may include endometritis and salpingitis leading to PID. Salpingitis may lead to tubal scarring, infertility and ectopic pregnancy. About 50-80% of these women are asymptomatic. Chlamydial infections increase the risk for acquiring HIV infection by genital mucosal inflammation.

The rates of chlamydia are highest in adolescent women. Approximately 30% of women who are not treated will develop PID, and one-third of them will become infertile, have ectopic pregnancies or develop chronic pelvic pain. About 20% of all CT infected women suffer from partial or complete tubal occlusion. CT infection during pregnancy leads to infant conjunctivitis, pneumonia and maternal postpartum endometritis. In studies of infants born of mothers who have cultured positive to CT, approximately 25% of the infants have subsequently cultured positive to CT.

Clinical significance of persistence has been proved. Indirect indices of the existence of persistent CT infection are: duration over two months or undefined duration, previous episodes of urogenital chlamydial infection, inefficacy of previously applied antimicrobial therapy, use of antibiotics ineffective to chlamydia, absence of chlamydial infection in sexual partner and immune system insufficiency.

CT acute infections have been diagnosed by cell culture, direct immunofluorescence, enzyme immunoassay, direct DNA hybridization and more recently by nucleic acid amplification tests. In chronic or persistent chlamydial infections, conventional tests are negative.

Today, a single oral dose of 1 g azithromycin is the preferred treatment for acute infection. For the treatment of persistent types of chlamydial infections, the total dose of 3.0 g azithromycin is recommended, applied as single therapy 1x1.0 g on the first, seventh and fourteenth day from the treatment onset. As chlamydia is a sexually transmitted infection, her partner (or partners) will also need treatment. She and her partner must abstain from sex until they have completed treatment to avoid reinfection. A test of cure is then unnecessary.

The use of condoms provides the best protection. Prevention of these consequences is dependent upon screening to identify asymptomatic infection and effective partner management to decrease the risk of reinfection.

Key words: chlamydial infections, reproductive health

**EVRA: FIRST WEEKLY CONTRACEPTION
EFFICACY OF THE PILL
SIMPLICITY OF THE WEEKLY DOSING (255)**

Sponsored: Janssen-Cilag, div. of Johnson & Johnson S.E.d.o.o.

Evra is a first transdermal hormonal contraceptive method that enables efficacy of the pill combined with simplicity of the weekly dosing.

Oral hormonal contraception is a highly effective contraceptive method, if taken properly.

Yet, according to the USA national statistic data, more than 20% of unintended pregnancies happen due to irregular oral contraception usage. The problem of non-compliance with oral contraception is even higher among adolescent population and it is often a cause of unintended pregnancies in adolescents.

According to the marketing research data conducted in Croatia, year 2005, one of the main obstacles for women taking the oral contraception is necessity of pills usage every day in the same time. In the studies that have explored women opinions regarding the optimal usage schedule of contraception, women prefer the weekly administration.

Evra was first registered in USA in 2002 and represents a first throw innovation after the 40 years of the pill invention.

Evra contains 20 mcg of ethinyl estradiol and 150 mcg of norelgestromin, which is an active metabolite of norgestimate (highly prescribed gestagen with a very low androgenicity).

Efficacy and tolerability of Evra are comparable to the efficacy and tolerability of the pill.

Evra has no effect on body weight (same as placebo during 13 cycles), and has very low incidence of breakthrough bleeding, even from the first cycle of usage.

Evra offers stable serum concentration of hormones (estrogen and progestin) with only once a week application. Beyond simplicity of usage, additional advantage with Evra is 2 days "forgiveness" period (compared to only 12 hours with missed pill).

Preferable application sites are: upper outer arm, buttock, abdomen or upper torso (except breasts).

Evra patch is equally effective and adhesive no matter of climate or activity conditions.

Evra patch was tested under different conditions (swimming pool, sauna, treadmill, cool water).

Due to unique transdermal administration route, Evra avoids hepatic "first pass" effect.

In clinical trials Evra showed to have a superior compliance, compared to oral contraception. The additional compliance is the highest in the adolescent population.

In conclusion, Evra offers same efficacy and tolerability as a pill, with significantly more compliance, specifically in adolescent users. This can lead toward less contraceptive failure.

With oral contraception, each month, a woman has 21 chance to forget and only 12 hours to remember.

With Evra, a woman has only 3 chances to forget and 48 hours to remember.

Key words: Evra, contraception, transdermal administration, efficacy, simplicity, weekly dosage, 2 days "forgiveness" period, superior compliance, less contraceptive failure

STUDENTS & SEX & STD (259)

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Students & Sex & Std is a research among Dutch students about determinants of safe sex and testing on std. The main question of the research is: “*What determinants are of influence on ‘std-prevention behaviour’ of students?*”

The research contains three main subjects;

- primary prevention of std (sexually transmitted diseases) / safe sex,
- secondary prevention of std / testing on std and
- information methods.

The methodology used in this research is written questionnaires. These questionnaires have been distributed personally during several lectures of the courses ‘Commercial Economics’ and ‘Social Pedagogical Aid’ within University Windesheim in Zwolle. A total of 164 students completed the questionnaire.

Results - Primary prevention of std

Condom use and the intention to use a condom under young people is low. Many research participants are risking std because their reason for not using a condom does not exclude the danger of std. The participants have a negative attitude towards using a condom and also the knowledge concerning std is insufficient. It turned out that condom use is predicted by the subjective norm ‘partner’ for a large part. This means that the opinion of the partner is an important predictor of condom use.

Results - Secondary prevention of std

Only a few participants of the research ‘Students & Sex & Std’ have been tested for std in the past. The reasons the participants give for not being tested is that they have no symptoms or consider the chance on std small. The intention for testing on std without having symptoms is low. Std however can be present without symptoms, but apparently students are not really aware of this. Many participants did not know that the Regional Health Service (GGD) offers testing on std, so the Health Service can gain a lot here, also because shame is a bigger issue within testing on std at the general practitioner than it is within testing on std at the Health Service. Knowing someone who has been tested on std in the past appears to ensure people are more conscious in considering the possibility of testing themselves on std. It is interesting to know that the intention to test on std when there are no symptoms is partly predicted by the intention to use a condom with a new partner. This relation is positive; it means that when the intention to use a condom with a new partner decreases, the intention to test on std, when there are no symptoms, will also decrease. This is of course not favourable for std prevention.

Results - Information methods

Participants of the research say they have very little need for information, although it is also concluded that the knowledge regarding certain topics is not sufficient. Friends appeared to be the most important source of information. ‘Information by a nurse of the Health Service’ was for the participants the most suitable information method for information about both safe sex and testing on std.

Recommendations

The research has many interesting conclusions, but also a number of proposals for interesting follow-up studies. Besides this the next five recommendations have been developed:

- To raise the familiarity with testing on std at the Regional Health Service
- To make young people more conscious that std can be present without symptoms
- To stimulate save sex even with a steady partner
- To combine ‘fun’ and information
- To increase knowledge on std

Key words: STD / sexually transmitted diseases, STD-prevention, primary prevention, secondary prevention, information methods, determinants, students

VIOLENCE AND ABUSE

SURVEY ON AWARENESS OF VIOLENCE AGAINST CHILDREN AND THE USE OF THE GUIDE “VIOLENCE AGAINST CHILDREN AND YOUNG PEOPLE” BY PAEDIATRICIANS IN BRANDENBURG (55)

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INTRODUCTION: Brandenburg has developed a guide entitled “Violence Against Children and Young People” for use by paediatricians. This guide has two objectives: to help doctors detect the use of violence against children at an early stage, and to improve interdisciplinary case management. In order to assess whether the guide has proved its worth in practice, the Public Health Institute of Brandenburg conducted a survey among users.

METHOD: A structured questionnaire on the following topics was used: estimated incidence rate of acts of violence (proven and suspected cases), cooperation with other agencies, design of the guide, practical utility of the information provided and requirements in terms of support (response rate: 33.3% or 92 out of a total of 285).

RESULTS: 82 (89.1%) of the paediatricians questioned had dealt with at least one case of violence against children in 2003. A total of 904 proven and 945 suspected cases were registered. One striking result of the survey was the great variation in the number of cases registered by individual doctors: between 0 and 179 proven cases, and between 0 and 120 suspected cases. 12 doctors stated that they had treated proven or suspected cases in all four categories (physical abuse, physical neglect, emotional abuse, sexual abuse). Other doctors registered no proven, only suspected cases. Evaluation of the guide’s design and content produced an overall “good”. 38.8% of the doctors questioned stated that the guide had caused them to change their approach when treating cases of violence against children. 64.1% said there was a need for case-related support, particularly from the youth welfare offices.

CONCLUSION: Paediatricians in Brandenburg testify to cases of violence against children. The guide “Violence Against Children and Young People” offers them useful information on the practical handling of such cases. A support programme is being set up: training for paediatricians as well as cross-disciplinary training measures.

Key words: violence against children, estimated incidence rate, evaluation of guide, paediatricians’ need for support

SCHOOLCHILDREN WHO ARE VICTIMS OF BULLYING REPORT BENEFIT FROM HEALTH DIALOGUES WITH THE SCHOOL HEALTH NURSE (143)

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BACKGROUND: School health services are important tools for health promotion among schoolchildren, but little is known about their effects. This paper addresses the effects of dialogues with school health nurses among schoolchildren who were victims of bullying.

STUDY POPULATION AND METHODS: Cross-sectional and school-based survey, the Danish contribution to the international Health Behaviour in School-aged Children (HBSC) study. The study included all students in the fifth, seventh, and ninth grade (11-, 13-, and 15-year-olds) in a random sample of schools. The participation rate was 98% of the students present on the day of data collection and 88% of the enrolled students, n=5,205.

MEASUREMENTS: Bullying was measured as recommended by Olweus. Outcome of the dialogue with the school health nurse was measured as self-reports of five responses, 1) reflected on the dialogue, 2) discussed the content with parents, 3) followed the advice from the school health nurse, 4) did what he (she) himself (herself) thought was best, and 5) visited the school health nurse again.

RESULTS: All outcome measures were more prevalent among students who were victims of bullying. The most pronounced association was that the odds ratio for visiting the school health nurse again was 1.8 (95% CI 1.3-2.5) for students who were bullied at least weekly.

CONCLUSION: Schoolchildren who are victims of bullying benefit from health dialogues with the school health nurse.

Key words: adolescent, bullying, children, school health nurse, school-survey, HBSC

ANALYSIS OF OFFENSE LEVELS WITH RESPECT TO CHILD AGE AND TOWN SIZE (65)

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INTRODUCTION: Researches on bullying in schools in Croatia have just been started, so every study connected to school bullying represent great contribution to better understanding of bullying and its consequences on physical, psychological and social child development. Results of these researches could help creating bullying prevention programs.

The main goal of this research was to find differences in children's offence levels with respect to child age and size of town in which school was placed.

SUBJECTS: The research was conducted on sample of 4768 students old from 10 to 15, one class from every generation in one school (fourth to eighth grade). The research included 15 towns from every part of Croatia, and they are: Zagreb, Osijek, Vukovar, Varaždin, Dubrovnik, Split, Zadar, Šibenik, Knin, Dрниš, Rijeka, Poreč, Petrinja, Sisak and Bregana.

METHODS: Bullying Questionnaire (2003), constructed according to Bully/victim questionnaire (Dan Olweus, 1996), was used in the study. The offence level scale was consisted of 11 behavioural items that present different forms of bullying. Factor analysis was performed on all statements. One-factor solution was obtained by scree-plot analysis ($\lambda = 0.86$). The total score range was 11 to 33. Variable town size was divided in four groups: Zagreb, big town, middle size town and small town. One-way ANOVA was used to compare the average total score between groups and Scheffe test for post hoc analysis. Correlations between variables were also calculated. All statistical values were considered significant at the p level of 0.05. Statistical analysis of data was performed using SPSS version 11.01 (SPSS Inc., Chicago, IL, USA).

RESULTS: The results showed that there was significant difference among subjects in offence levels with respect to child age ($F=26.12$; $p<.01$) – older subjects were more violent than the younger ones.

With respect to the size of town where pupils lived, there was no statistically significant difference in offence levels ($F=.743$, $p>.05$).

DISCUSSION: Here we discussed possible reasons why older children were more violent and that bullying in schools is just as big problem in small towns as in the big ones. We compared our results with results of other researches.

CONCLUSION: Older respondents were more violent than the younger ones. Bullying in schools is equally presented in different sized towns.

Key words: bullying, school, age, town size

LIFE SATISFACTION AND ASSERTIVENESS IN ADOLESCENCE: DIMENSIONAL STRUCTURE AND DIFFERENCES ACROSS GENDER, AGE AND INVOLVEMENT IN BULLYING (119)

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OBJECTIVES: To investigate dimensional structure in life satisfaction and assertiveness in adolescents and to examine the variation across groups (gender, age and involvement in bullying).

METHODOLOGY: A sample of 6131 Portuguese students (aged 11, 13 and 15 years) completed anonymously the Health Behaviour in School-aged Children 2001/2002 questionnaire. Life satisfaction was measured by six items of the Huebner's students' life satisfaction scale. Assertiveness was measured by six items of the Portuguese HBSC assertiveness checklist. Involvement in bullying was measured by two items of the Olweus' questionnaire.

RESULTS: A confirmatory factor analysis revealed that a model of two correlated factors (life satisfaction and assertiveness) fitted the data very well (CFI=0.98). This model was also applied across sub-samples defined by gender, age and bullying (non-involved, victims, bullies, bully-victims).

CONCLUSION: Because girls report a worse perception of life satisfaction than boys, because the assertiveness of young people increase and the life satisfaction decrease over age, and because bullies report best assertiveness than the non-involved or the victim or the bully-victim group and the students involved in bullying behaviours as victims report worse perception of life satisfaction than the other groups, it is important addressed this issue in interventions in all schools.

Key words: bullying, life satisfaction, assertiveness, gender, age, adolescents

TITLE OF THE STUDY: LEVEL OF SATISFACTION OF PSYCHO-SOCIAL NEEDS OF THE ABUSED CHILDREN IN THE OUT-OF-INSTITUTION CARE (FAMILY TYPE) (175)

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The objective of this study is to demonstrate the results of the scientific research of the psychosocial needs of the „Nuevo Futuro“ residents (concepts of out-of-institution care: family type homes) and the evaluation of their level of satisfaction. The results portray the characteristics of the psycho-social functioning of the children residents of the „Nuevo Futuro“ homes (N=60) and their comparison with an adequate sample of children who live in state institutions (N=263), as well as with the children placed in foster care in families (N=112) and a control sample of children from functional biological families (N=200). In the study have been included children of both gender at the age rank from 10 – 18 years.

A multivariant analysis was performed comparing the results thus obtained with the results of the previous research by the same group of authors in comparative and control group. The results proved that the children in “Nuevo Futuro” were exposed to a greater number of traumatising experiences prior to their placement in “Nuevo Futuro” homes, which represented a risk factor for their mental health and further development. Those children more often origin from families with significant presence of alcoholism (77,6 %), violence among parents (36,2%), poverty (63,3%), abuse and maltreatment (21,7 %). Nevertheless, despite the risk factor, the comparison of the current psychosocial status measured by internationally accepted instrument - Youth Self Report, Achenbach, 1991. proved that they do not statistically significantly differ from the children from biological families, and moreover, that they show better psycho-social functioning than the children who live in state institutions according to almost all parameters studied, like somatic illnesses, anxiety, depression, aggressive behaviour, problems of attention etc. Also results have shown that Tutors / monitors or so-called educators in Nuevo futuro are the best estimators of internalised ($r=0,32$) and total child problems($r=0,40$). Therefore we can conclude that «Nuevo futuro» represents an out-of-institution concept of children’s foster care which fulfils in a highly satisfactory manner the intricate psycho-social children’s needs, and as such provides a successful alternative to the classic concept of state institutions and is therefore an irreplaceable form of alternative foster care for the children with high risk traumatic experiences, who, for their special status and needs, cannot be satisfied in the regular foster care system.

Key words: out-of-institution care, abused and neglected children

GUIDELINE FOR SECONDARY PREVENTION OF CHILD ABUSE (78)

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The purpose of this guideline is to detect child abuse or severe educational problems and to stop the abuse. A national guideline is needed to streamline the secondary prevention of child abuse.

In the Dutch youth healthcare (YHC) system 95% of the parents and the children visit the offices of the youth health care system. So the youth health care should be able to detect the cases of child abuse. The problems of detecting child abuse are well known: The symptoms of child abuse are not specific; the nurse or doctor may feel embarrassed to talk about the presumed abuse or neglect; it is feared that legal obstructions prevent actions to protect the child; the parent or the child can be angry or upset.

Parents who abuse their children do so most of the times not out of wickedness but because they are not able to handle their problems. Although some causes of the abuse may reside in the child such as disability or being a foster child, the child is never to blame. There are also some causal factors residing in the parents such as an unhappy childhood or in the environment such as poverty or bad housing. These and other risk factors need to be investigated by the YHC worker in every interview. The result must be registered in the child's medical file.

There is also one controversial topic. In Dutch law female genital mutilation (FGM) is considered child abuse, masculine genital mutilation, circumcision, is not considered abuse. The government wants to stop the FGM and so it proposes physical examination including inspection of the genitals for all girls and boys at the age of 5, 10 en 13 years. YHC doctors should report cases of FGM to a special office which will bring parents of a genital mutilated girl to court. In the view of YHC doctors' information to the parents about the medical consequences of FGM will be a better prevention than bringing people to court after the fact is done. In the spring of 2005 this discussion is still going on.

If child maltreatment is detected the following considerations are important:

What kind of maltreatment is it? Is the child in immediate danger? Is it possible to treat the abuser? Where to refer to for the best help for the child and for the family?

Even after referral the YHC stays in contact with the family and the child for support and to check if the help is sufficient.

Estimation of risk factors for child abuse and the best intervention for the YHC to stop child abuse will be discussed.

Key words: child abuse, secondary preventy, youth health care

BULLYING IN THE ELEMENTARY SCHOOLS IN THE AREA OF ZAGREB (235)

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The aim of this article is to investigate bullying among students in the elementary schools in the area of Zagreb County.

SUBJECTS: Students of fifths to eights classes in six elementary schools of Zagreb County. Numbers of examinees was 2094.

METHODS: Bully / Victim Questionnaire E01-Senior authored by Norwegian professor Dan Olweus

RESULTS: The results of examination are: 22 % victims and 20 % bullies.

Most frequently ways of victimization are: calling nasty names, ridicule on hurting way, bad comments about origin, neglect, gossip, social exclusion, physical abuse, taking money and threatening someone or forcing someone to do something he or she doesn't like to do. In the most cases victims are bullied by the one or 2-3 pupils from the same class or from higher classes. Many cases of bullying ends for 1-2 weeks, but 7% examinees were bullied longer than 6 months, even for several years. Most common places where bullying is happened is schoolyards, classroom (without teacher), school gallery, classroom (with presence of teacher), school dining room, toilets, school bus station, way to school or school bus. Victims mostly ask for help their friends, parents, brothers and sisters, and teachers. Examinees estimate that teachers intervene in the case of bullying more frequently (22% - 37%) than peers to stop the violence (2.8% - 7.4%). When the pupils testify some case of bullying the most of children will help the victim (35% - 38%). Small numbers of pupils do nothing but think they should help (27.6% - 35%). Although, there is the smallest group of children which think that victim deserve this torture (0.7% - 1.7%). Small part of children is frightened of being bullied in their schools (2.7% - 4.7%). Pupils estimate that their teachers intervene in 3/4 cases of bullying, and in 1/4 they don't intervene. All other numerical results will be presented at the Congress.

CONCLUSION: There is need for an education of pupils, parents, teachers and non teacher staff in the schools through the quality anti-bullying program. The aim of program should be reduction of violence in the schools and prevention bad consequences on the youngster's physical and mental health.

Key words: bullying school, children

INTEGRATION OF PUPILS WITH CEREBRAL PALSY IN PUBLIC EDUCATION SYSTEM (254)

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In elementary school "Horvati" in Zagreb in school year 2002/2003, 6 pupils with diagnosed cerebral palsy have been included in regular classes. This action, initiated by parents was supported by the school principal, Ministry of education and sport and City council for education and sport.

In September 2002, integration of pupils with cerebral palsy was a bold action. Until this time, most of the pupils with cerebral palsy have been educated in special institutions, or in isolated cases involved in regular schooling. For education of pupils with special needs regular schools are the most stimulating environment, and therefore this process has to be developed further. Positive effects of integration are obvious in development of social skills of all the participants of the educational process, in acceptance and respect of differences and personalities of others, in development of self esteem, stimulus of self-possession and development of positive self-image.

The surrounding of pupils with special needs decreases prejudices accepts differences and consequently develops numerous forms of support and consideration. Everybody around the pupil with special needs develops stimulative empathy and matures in emotional and social means.

Elementary school "Horvati" made adjustments essential for the beginning of process of integration. Severe spatial barriers have been removed and a part of furniture for the pupils with cerebral palsy has been acquired. Teachers have shown high professional level and sincere willingness to accept pupils with cerebral palsy. The pupils feel accepted and secure. Communication between school doctor, special teacher, regular teachers, school pedagogue and the parents are prompt and regular. Even though teachers mostly use classical, frontal teaching method, various forms of cooperation learning are commonly applied.

This learning method is most appropriate for pupils with special needs. It develops the capability of critical opinion, self-criticism, self-evaluation. The child takes responsibility for his actions, communication with other pupils is encouraged and self-confidence is strengthened. Teachers are taking care of specificities related to movement, verbal and written expression, adoption of knowledge, skills and habits, as well as learning of arithmetics of pupils with cerebral palsy.

After regular hours, professional care is provided, lead by the special teacher. Physical therapy, necessary for rehabilitation, can be also performed at school. Teachers are helped by soldiers on civil service, which help the pupils with cerebral palsy to walk, perform physical exercise, go to excursions etc.

Our experiences show that with a good organization, professional work, constant education and cooperation with expert institutions, NGOs and parents, very good results can be achieved in education, social integration, and rehabilitation of pupils with cerebral palsy.

Our main problem is lack of space. Construction of a new school building, which we have been promised a couple of years ago, will enable us to provide our pupils with the best possible education and rehabilitation and social integration of our pupils with cerebral palsy, and help us help them to become healthy, productive and content people.

Key words: elementary school, integration, pupils with cerebral palsy, acceptance, integration, empathy.

IMPACT OF UNICEF PROGRAM STOP VIOLENCE IN THE SCHOOL ON VIOLENCE REPORTING AND PROFESSIONAL'S CAPABILITY TO DEAL WITH VIOLENCE (192)

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INTRODUCTION: Outgrowths of school violence is better recognition of the problem of bullying in schools. Today necessity to making school safer places is higher than ever. Following recent research and national strategy, we implemented UNICEF program «Stop violence in the school» in the primary school Stjepan Radic in Metkovic.

SUBJECTS: We compare violence reporting and professionals' capability to deal with violence/bullying before and after the implementation of the Program.

METHODS: We used questionnaire for teachers that participated education in the Primary school in Metkovic, with questions about bullying report by children and teacher behaviour before and seven months after education. Questionnaire consists of questions: reporting violence in the classroom (never - few times a week); type of violence (verbal, emotional, physical, economical, sexual, cultural); teachers capability to independently solve the problem (always, often, sometimes, rare, never); how often ask for professional help by psychologist or other special educator in the school...(always, often, sometimes, rare, never).

RESULTS: Seven months after education, for violence reporting we found increased number of those who answered never, but also those with answer every week. The number of reported physical and verbal violence was decreased, but sexual and cultural was increased. Percentage of teachers who never or rare succeeded to solve violence problem in the classroom was decreased from 35% to 12%, while percentage of those who could independently solve problems increased from 65% to 88%. We found changes and in asking some other professional help.

DISCUSSION: Obtained results show presence of active teachers participation in bullying prevention and reduction. Changes in children and teachers behaviour after the implemented education suggests strong impact that education could have on bullying appearance and reduction in school. Such findings are same as results in some UK, US and Belgium studies where is found strong relation between special programs for teachers and their preparedness for bullying reduction. Some other researches present teachers demand for more education about bullying and better shaped educational programs for prevention and reduction.

CONCLUSION: Specially education for teachers and children is essential precondition for bullying prevention and reduction.

Key words: bullying reduction, teacher, education, impact

RISK BEHAVIOUR

ALCOHOL AND YOUNG PEOPLE

ISSUES, CHALLENGES AND DILEMMAS

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Young people are more vulnerable to the effects of the alcohol consumption and alcohol is the most important avoidable risk for the burden of disease in adolescents and young adults. Young people are important resources for changing existing harmful drinking cultures and patterns. They should be better mobilized and empowered to participate in shaping their own environments as well as in changing the harmful attitudes and practices of wider adult society.

Globally, alcohol is estimated to account for 1.8 million deaths and 4% of the burden of disease. However, in the WHO European Region, the figure in 2002 was more than twice as high at 10.8%, and it is estimated that 600 000 people died prematurely from alcohol-related causes that year. Alcohol was thus the third most important of 26 risk factors for burden of disease comparatively assessed in the European Region, only surpassed by hypertension (1) and tobacco (2). Alcohol is the leading risk factor among young people in Europe and it is estimated that more than 63 000 people in the 15-30 age group, died from alcohol related causes in 2002.

The WHO European Region is also the region with the highest alcohol intake in the world and per capita consumption twice as high as the world average. Alcohol consumption among young people has been of particular concern among European countries. There are two large-scale European-wide studies available to compare alcohol use among young people in the Region. In 1982, the Regional Office established the Health behavior in school-aged children (HSBC) study. The study is conducted every fourth year, and the most recent survey in 2001/2002 involved 11-to 15-year-olds in 35 countries in the Region. The second study is the European school survey project on alcohol and drugs (ESPAD), which examines drinking, smoking and illicit drug use among 15-to-16-year-old school students in Europe. The ESPAD study has been conducted in 1995, 1999 and 2003.

The WHO Regional Office has supported Member States through scientific publications, the regional action plans (EAAP), and two ministerial conferences resulting in the European Charter on Alcohol (1995) and the Declaration on Young People and Alcohol (2001). The annual meetings of the network of national counterparts for alcohol policy in the European Region, a valuable forum for exchanging information and best practice between nominated experts from all Member States, continue to discuss and support relevant developments in alcohol policy across the European Region. Recently a new Framework for alcohol policy has been proposed in the European region which aims to encourage and facilitate the development and implementation of global, regional, national and local community policies and actions to prevent or reduce the harm caused by alcohol.

Recent years have seen substantial steps forward in our knowledge about the effects of specific alcohol control measures – in terms not only of what works, but also of what does not work. Governments are thus in a much stronger position than they were 20 years ago to build their alcohol policies on an evidence base. But alcohol is a part of everyday life in many parts of the Region. Drinking is valued for many reasons: as a medium of sociability, as part of nutrition and as a symbolic break, bringing relaxation from everyday responsibilities. The symbolism attached to alcohol and drinking often gets in the way of rational policy-making.

The growth of trade agreements and common markets and, more generally, the processes of globalization have in addition substantially weakened the ability of governments to use some of the most effective tools to prevent and reduce alcohol-related problems as appropriate in their own cultures. The alcohol industry is an innovative industry able to use a wide variety of marketing tools to achieve success in the marketplace. It is important to recognize that the marketing activities of the industry are becoming increasingly transnational and that policy response has to be equally transnational. There is thus a need, from the perspective of public health, for concerted international action to clearly recognize that alcohol is a special commodity in terms of the very substantial harm associated with its use.

In the longer term, there is a need for sustainable alcohol policies and programmes that reduce both hazardous and harmful patterns of drinking, reduce the overall volume of drinking, separate drinking from certain activities and situations (like young peoples environments, driving or operating machinery,

the workplace, and during pregnancy), and provide adequate help to people with alcohol problems and their families.

Finally, any policies on alcohol concerning young people should contain the following main elements:

identification of alcohol as an important issue in young people's health;

opportunity to have young people themselves involved in the policy-making process;

need to determine, at national and local levels, targets to reduce the impact of alcohol on young people's health;

recognition that alcohol policies directed at young people should be part of a broader societal response, since drinking among young people to a large extent reflects the attitudes and practices of wider adult society.

Key words: alcohol , young people

SUBSTANCE USE IN ADOLESCENCE: AN EXPLANATORY MODEL

(106)

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INTRODUCTION: Adolescence is generally considered as a period of health, given the lesser vulnerability of young people to illness. However, adolescence is also a critical period in health chronology. Many of the choices with impact in health that last for long time are made in this period of life. Between these choices are the risk behaviours, as it is, for example, the case of the substance use. The risk behaviours are frequently associated to some symptoms of maladjustment. It becomes therefore important to know the determinant factors of this type of behaviours in the adolescence, in its different contexts of life. Only knowing the factors that place the young people in risk, as well the factors that protect them from potential problems, become possible to delineate preventive interventions.

METHODS AND SUBJECTS: In order to analyse the factors involved in the use of tobacco, alcohol and illicit drugs between adolescents, we develop an explanatory model using structural equations modelling. The data used in the model analysis are part of a cross-national research study conducted in collaboration with the WHO Regional Office for Europe, the Health Behaviours in School-aged Children, concretely the data collected in Portugal by the “Social Adventure” team from the Faculty of Human Kinetics (Lisbon). The samples of 1998 and 2002 studies were used, involving a total of 12881 adolescents with 11 to 18 years old.

RESULTS: The results showed that the model fits well in the data (CFI: .985; NNFI: .980; RMSEA: .018 (.017-.020); SRMR: .018). For each of the dependent factors in study, the levels of explained variance were 12% (for tobacco use) and 47% (for alcohol and illicit drugs use).

DISCUSSION AND CONCLUSIONS: The results showed that risk behaviours are determined by several factors, and the social factors seem to be mediated by personal factors. Among the factors analysed in the model, it was verified that the alcohol and tobacco use were the main determinants of the illicit drug use. The results had still shown that the risk behaviours tend co-occur with other symptoms of maladjustment, and that factors like gender and age constitute determinant factors of risk behaviours, as well as determinants of the allied relations to these same behaviours.

Key words: adolescence, health, risk, protection, substance use

PROTECTING YOUNG GENERATION FROM ALCOHOL (104)

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INTRODUCTION: The County of Međimurje is populated by approximately 130.000 with an average of 173 inhabitants per km². Čakovec is the cultural, administrative and educative centre of the County.

In the County there are 31 primary schools, 29 local schools and 6 secondary schools. They are attended by 11883 pupils in primary and 4631 in secondary schools. There are 480 students in the Teacher-training college (Department of pre-school and primary school education of Zagreb Philosophic College).

GOALS: To determinate the prevalence of alcohol drinking in Youth (Why Alcohol-because is traditionally widely used in our County). To investigate their life style and attitudes. To create and implement the appropriate prevention program. In Project definition the importance of sensibilisation and collaboration with representatives of local authority in town Čakovec, Schools and youth was recognised as necessary.

SUBJECTS AND METHODS: The Survey -The sample: 5847 school children, age 12-19 year, 51% female and 49% male.

RESULTS: Issues about alcohol: 90% think that alcohol will harm their Health, but much later when they get old, 70% drink to feel better (to forget problems with school, parents and self-problem). 40% think that alcohol is good for relaxation but problem is that other people-parents, relatives-will blame them, 60% think that prohibition has no effect (to Youth younger of age 18), 8% drink every day, 10% have alcoholic in family, 15% never drink. The Survey findings were the basis for action. Group established by volunteers from primary and secondary schools (5 Primary and 5 Secondary schools that are located in Čakovec, which is recognised as "City-friend of children and youth"). They were educated to act as peer-educators. The Project started in school year 2001/02 and last continually. Every year new teenagers wanted to be in Project.

DISCUSSION AND CONCLUSION: Volunteers-teenagers deliberately identify problems that bring alcohol. They want to pass their knowledge and understanding to the others in generation. Many teenagers have been told about alcohol and problems that may result from its abuse, but now they discuss it deeply with their generation. The action "OHNETANOL NIGHT" (Night without alcohol- opposite of bambus or vodka party) every school year finished their Project.

Teenagers want responsible community and express readiness to be involved. They act as role-models, and they will be adults soon...

Key words: alcohol, protection young generation, peer-based education

YOUNG PEOPLE'S KNOWLEDGE AND ATTITUDE TOWARDS SMOKING (188)

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INTRODUCTION: The Global Youth Tobacco Survey (GYTS) aims to monitor tobacco use among young people and to enhance the capacity of countries to plan, implement and evaluate tobacco control and prevention programmes. The GYTS was carried out in Hungary in 2003. It provides data on prevalence of tobacco use among young people as well as several determinants of tobacco use. This presentation will describe Hungarian young people's tobacco-related knowledge and attitude in relation with gender, age, smoking behaviour, parental, teacher and student smoking as well as passive smoking at home and school.

SUBJECTS: The sample was nationally and regionally representative and included 4484 students aged 13-16 years.

METHODS: The GYTS is a school-based survey and it uses anonymous questionnaires for data collection. A two-stage cluster sample design was used to produce representative data. Statistical analysis included descriptive statistics, correlations, one- two- and three-way ANOVAs and PCA.

RESULTS: Significant but moderate negative correlation was found between knowledge and attitudes. Both of these smoking determinants were influenced by gender and age. Significant relationships were also found with smoking behaviour and the level of exposure to environmental smoking both at home and school.

DISCUSSION: Knowledge and attitudes have role in initiation of tobacco use and smoking behaviour among young people. Furthermore a smoking environment may have significant unfavourable influence on not only students' health but their attitudes and knowledge too.

CONCLUSION: Tobacco prevention and cessation programmes should not ignore the importance of attitude towards smoking. They also should be aware of the influence of environmental adult and peer smoking behavioural pattern on students' attitude.

Key words: young people, smoking, attitude, knowledge, parental smoking, smoking at school

THE HEALTH BEHAVIOURS AMONG STUDENTS OF UNIVERSITY OF RIJEKA (141)

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BACKGROUND: Since young people are highly vulnerable to risk behaviours, such as drug taking, tobacco and alcohol use, risk sexual behaviour, we decided to explore these behaviours among young in detail. Our earlier studies have found great differences among students from different faculties. To help us plan future action in health education and prevention we decided to determine which faculties are at highest risk for which behaviours.

METHODS: The data were collected during medical examinations, obligatory for 1st year students. We acquired the data for 1620 students from six faculties of University of Rijeka, academic year 2004/05. The data were compared by odds-ratio using software package EpiInfo.

RESULTS: Cigarette smoking (OR=1,79, 95% CI=1,32-2,45) and alcohol drinking (OR=1,41, 95% CI=0,90-2,22) were more frequent among maritime students, as well as getting drunk (OR=1,83, 95% CI=1,07-3,14). This particularly goes for excessive drinking (getting drunk over 10 time in last month (OR=2,42, 95% CI=1,76-3,33)). Maritime students were also more sexually active than other students (OR=2,17, 95% CI=1,44-3,28), having more than one partner annually (OR=1,60 95% CI=1,11-2,60).

Skipping breakfast (OR=1,22, 95% CI=0,97-1,55) was more frequent among students of tourism and hospitality management and engaging in sport activities was the fewest on faculty of economics (OR=2,13, 95% CI=1,71-2,64). Drug abuse showed no statistically significant relation to any faculty.

Counted together, the biggest amount of risk behaviours was found among students of maritime study and fewest among students of medicine.

DISCUSSION AND CONCLUSION: Although we have found certain level of risk behaviours among all faculties, some of them appear to be at specially increased risk. Students of maritime studies appear to be more adventurous and are more likely to have an unhealthy life style. Although they have similar habits as their colleges, they appear to live much more hazardous and endorse these habits excessively (tobacco smoking, excessive drinking, higher sexual activity). Until further analyse we can conclude that maritime students are at highest health risk due to many unhealthy behaviours found there. To combat this, our future health prevention programs should be developed in close cooperation with Faculty and student organisations. These programs should be adjusted to their needs, knowledge, and interests.

Key words: risk behaviours, health prevention

THE INCIDENCE OF RISK BEHAVIORS IN HIGH SCHOOL STUDENTS (11)

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Health-risk behaviours in children, in its kind and frequency result from genetic and environmental factors.

This survey examined health-risk behaviours (smoking, alcohol drinking and drug abuse, sexual experience) in high school students, the relation of their health-risk behaviours with certain health-risk behaviours in their parents (smoking, alcohol abuse), and interrelations among the examined types of risky behaviours. The study included 1009 of 1144 inquired students (426 girls, 583 boys) of high schools (of 5 gymnasiums and 4 trade schools) aging 15-19 years (17.50 ± 0.70 years).

In the period of time preceding the inquiry (3 months) 55.80% of the students smoked, 74.13% of them drank alcohol, 18.43% took drugs, whereas 45.09% of them had sexual intercourse ever in life. Children of smokers ($n=563$) smoke more often (chi-square=17.06, $p<0.01$), drink alcohol more often (chi-square=16.58, $p<0.01$), and have sexual experience more often (chi-square=9.84, $p<0.01$) in comparison with children of non-smokers parents ($n=446$). Children of parents who drink alcohol ($n=240$) drink it themselves more often (chi-square=20.14, $p<0.01$), take drugs more often (chi-square=27.02, $p<0.01$), smoke more often (chi-square=5.99, $p<0.01$), and have sexual experience more often (chi-square=8.33, $p<0.01$) in comparison with children of non-drinking parents ($n=769$). Certain kinds of health-risk behaviours show a tendency to form clusters, i. e. among the examinees, there are 287 students (28.44%) smoking, drinking alcohol and with sex experience at the same time. Almost every tenth examinee has all the four health-risk behaviours (100 students, 9.91%). Only every seventh student has none of the health-risk behaviour (136 students, 13.48%), making 6 of 7 examinees positive in at least one of the risky behavioural types (873 students, 86.52%).

In conclusion, the paper confirms a strong influence of parental health-risk behaviours on their children's health-risk behaviours. Therefore, preventive measures should be at least bidirectional, addressed not only to students, but to their parents as well.

Key words: health-risk behaviour, smoking, alcohol drinking, drug abuse, sexual experience, high school students

RISK AND PROTECTIVE FACTORS FOR TOBACCO, ALCOHOL AND ILLICIT DRUGS USE: CONVERGENCES AND DIVERGENCES (108)

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INTRODUCTION: Risk behaviours are one of the main determinant factors of health and illness, impairment and death in adolescence. The research carried in this field, just the fact that different health related behaviours have common antecedents. As some authors refer, interventions in the prevention scope will be more advantageous at various levels if they have not only target behaviour, but a set of behaviours that share common antecedents. It becomes thus necessary to compass several behaviours in one same study, in order to verify the influences that these behaviours share, as well as the specific influences for each one of them. Beyond this, it is also important to perceive if the determinant factors of these behaviours act in an identical form in different groups of individuals. The literature shows that differences exist, for example, in function of gender, age and deviant trajectories. However, one more time it is importance to deepen this knowledge as well as getting it in an integrated form, that is, studying in simultaneous diverse behaviours in various groups of individuals.

METHODS AND SUBJECTS: The present study was developed using "focal groups" procedure ". It had been conducted 12 collective interviews, which had enclosed a total of 60 adolescents from 11 to 18 years old. Concretely it was looked to know enclosed to different groups of adolescents (organised in function of gender, age and deviant trajectory/school placement) which factors they consider as risk and protection, in different significant contexts of their lives, for the use of tobacco, alcohol, illicit drugs, and delinquency.

RESULTS: Several risk and protective factors were advanced to the discussion in the personal, family, peers, school and community contexts. In what concerns risk factors it was possible to verify that personal and peer factors were the principal focus of the discussion. For protective factors the main focus was situated on personal and family contexts. Convergences and divergences were found for the behaviours under study, as well for the different groups that had participated.

DISCUSSION AND CONCLUSIONS: The results had shown that adolescents have perception of a vast set of risk and protection factors allied to the behaviours in study. The results of this study had still presented an interesting particularity, that is, the existence of a greater similarity in protective factors for the diverse behaviours, comparatively to the risk factors.

Key word: adolescence, health, risk, protection, substance use, focal groups

ADDICTIVE BEHAVIOUR AMONG THE FIRST GRADE SECONDARY STUDENTS (113)

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The prevalence of cigarette smoking, alcohol drinking and drug use among the first grade secondary students under my medical care competence was presented. The analysis of addictive behaviour among students can help to determine priorities for primary prevention and health promotion. The questionnaire was conducted among 1208 students (445 boys and 763 girls) for the school years 2001/02, 2002/03 and 2004/05. The questionnaire was carried out in the surgery waiting room, before the medical examination. Out of 1516 students, 1208 (79.7%) completed the questionnaire. -It was reported that among 383 students in the school year 2001/02, there were 31.7 % in Touristic School (TS) and 17.3 % of students in Grammar School (GS) who smoked cigarettes. 44 % of students in both schools consumed alcohol occasionally; whereas 9.3 % of students in TS and 7 % in GS were regular consumers of alcohol. 3 % of students in TS and 3.2 % in GS used drugs several times. It was found that in 2002/03 among 501 students, there were 36.8 % of students in TS and 16.7 % in GS of those who smoked. There were 42.3 % of students in TS and 43.4 % in GS of those who consumed alcohol occasionally. Regular drinking was reported by 10.4 % of students in TS and 3.8 % in GS. Drug was used once by 3.6 % of students in TS and 2.5 % in GS, and more times by 4.6 % in TS and 3.6 % in GS. In 2004/05 among 324 students in GS, 24.7 % smoked cigarettes and 59.9 % consumed alcohol. 4.6 % of students tried drugs, and 5.6 % used drugs more times.

According to the results for the period from 2001/02 to 2004/05, cigarette smoking, alcohol drinking and drug use have increased among the first grade secondary students. The ESPAD99 study and National report of the health behaviour among the Croatian students show higher percentage of substance abuse. Given the circumstances that questionnaire took place in the surgery and not in the classroom, the part of students with risk behaviour did not fill the questionnaire. However, it is evident that risk behaviour among students has increased and thus, an intensive education in elementary and secondary school is needed.

Key words: students, cigarette smoking, alcohol, drugs

THE USE OF DRUGS AMONG ADOLESCENTS IN REGION OF GORENJSKA (179)

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INTRODUCTION: The purpose of the study was to assess the situation on use of tobacco, alcohol and other drugs among students in region of Gorenjska and their trend in the last four years. **SUBJECTS AND METHODS:** The target population were students in the 1st classes of secondary schools born in 1987. In April 2003 they anonymous answered on ESPAD questioner. The sample was representative for all types of secondary schools and for both sexes.

RESULTS: Alcohol and tobacco were the most frequent used drugs. 69% of students have already smoked tobacco, 92% of students had drunk alcohol beverages, 73% of students were drunk at least once. The most frequently used illicit drug was marijuana. The lifetime prevalence of any illicit drug use was 39% and 38% for marijuana. The prevalence of use of inhalants was 20%, of tranquillisers without a doctor's prescription 5%. In the last 30-days 33% of students had smoked tobacco regularly, 61% of students had drunk alcohol beverages, 39% were drunk. The 30 days prevalence rate of the use of marijuana was 20,5% and the 30 days prevalence rate of the use of inhalants was 5%.

DISCUSSION: In the last four years increased the use of drugs, the frequency and quantity of drugs use, but the students were younger at first use of drugs. In the same time increased the use of drugs among their friends. In the last four years decreased their self-perception and the average grade in school, but increased the missed schooldays and the number of evenings spent outside. The proportions of drug users in region of Gorenjska were higher for most of drugs than on average in Slovenia. Region of Gorenjska belonged to the parts of ESPAD countries with high percent of students reporting use of drugs.

CONCLUSION: Good information of large part of population about spread of drugs among adolescents and risk factors is important approach to help to combine with the situation.

Key words: adolescent, region of Gorenjska, drugs, alcohol, tobacco, marijuana, inhalants, tranquillisers

DOES THE USE OF MARIJUANA AFFECT SUCCESS AT SCHOOL?

(194)

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INTRODUCTION: Irresponsible behaviour and disregard of school tasks and duties are frequently related to the use of dependence substances. Some authors believe that adolescents who are poor scholars and are not accepted by their age-mates are more likely to start taking psychoactive substances, whereas others report that adolescents taking various psychoactive substances are less successful at school and less engaged in organised extracurricular activities.

SUBJECTS: The aim of the present study was to determine whether those taking marijuana are less successful at school than nonusers, and whether their success/failure at school is associated with the use of marijuana. Accordingly, two hypotheses were posed: 1) marijuana users are inferior scholars as compared with marijuana nonusers; 2) poor school results are associated with the use of marijuana.

METHODS: The questionnaire filled out by study subjects contained two groups of questions. One group of questions included the variables of success at school, and the other group of questions was related to the use of marijuana. The questionnaire was anonymous and voluntary. The sample included 232 subjects divided into experimental and control group. The use of marijuana was the discriminative factor for group allocation. Each group consisted of 116 subjects, mean age 20 years.

RESULTS: The analysis of variance for the variable of school success yielded a statistically significant difference between the experimental and control group. The higher mean value obtained in the control group pointed to their better success at school. The analysis of correlations showed no statistically significant correlation between school success and use of marijuana in experimental group.

DISCUSSION: Study results have supported connection between marijuana consumption and school success. That connection is very complex. It is necessary to consider those facts while planning different preventive intervention.

CONCLUSIONS: Study results have supported the hypothesis that marijuana users are poorer scholars than nonusers. The hypothesis on poorer school results to be consequential to the use of marijuana was not confirmed. Accordingly, it is concluded that experimental group subjects would be poorer scholars even if they had not been using marijuana.

Key words: substances abuse, adolescents, school success, marijuana

REPORT ON THE WORK OF ADVISORY CENTRE FOR SUBSTANCE ABUSE PREVENTION IN THE REGION OF SISAČKO-MOSLAVAČKA COUNTY IN 2003/2004 (226)

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In recent years we have been confronted with a dramatic rise of various problems and difficulties related to a constant increase in the consumption of psychoactive substances by young population. Advisory Centre for Substance Abuse Prevention in the region of Sisačko-Moslavačka County was established in the mid-2002.

OBJECTIVE: To report on the work of the Advisory Centre in 2003 and 2004 and to compare the results obtained in these two years.

RESPONDENTS AND METHODS: The data obtained from 210 clients who visited the Advisory Centre in 2003 and 2004 were statistically dealt with.

RESULTS: In 2003, the Advisory Centre was visited by 100 clients, while in 2004 the number of clients grew to 110. The number of female clients has increased in 2004 (40%) as opposed to 2003 (25%). As far as the age of the clients is concerned, in both years, the majority of clients were between 15 and 18. In both 2003 and 2004 the boys used to come because they had experimented with psychoactive substances, while the girls came because of the psychological problems they had. On average, each client would come four times a year in both 2003 and 2004. In majority of cases the clients were sent by the Social Care Centres.

CONCLUSION: In the last two years the structure of the clients coming to Advisory Centre for Substance Abuse Prevention has dramatically changed as far as their sex is regarded (an increase in the number of girls). The rest of the tested parameters were stable in both years.

Key words: adolescents, experimenting with psychoactive substances, advisory service

DRUG TESTING IN SCHOOL - A ROLE IN PRIMARY AND SECONDARY PREVENTION OF DRUG ABUSE (248)

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TIME: 1 hour 15 minutes.

MATERIALS: felt-tip-pen, transparencies, overhead-projector, questionnaire sheet

METHOD: Workshop is planned for 40 participants. It begins with introduction by talking about public pressing on drug testing in school as a preventive method for drug abuse. Group is divided in four parts. Each group gets a Questionnaire sheet. Ask each individual to think about the answers, then in small group discussion, give answers on each question. Write them on transparencies and prepare for overhead presentation. Choose one person who will make a presentation for other groups.

Group discussion and conclusion on four topics.

OBJECTIVES: To express and define professional attitude about student (school children) drug testing

To examine argument in favour of and against students drug testing

To consider and discuss consequences of a policy for or against student drug testing

To define professional expectation from drug testing

To define indications for student drug testing (for which drug, for whom and when)

To discuss ethical and practical issues associated with students drug testing

To define procedure when test is positive.

Group A have to write as many reasons in favour of students drug testing

They answer on questions:

1. Make a list of arguments in favour of students drug testing.
2. What are results or benefits, we are expecting from students (school children) drug testing?
3. What is the purpose of testing?

Group B has to write as many reasons or arguments against students drug testing.

They answer on questions:

1. Make a list of as many arguments against students drug testing (why is not good take students to drug testing).
2. Can harm be made, or what are negative consequences that can be made by testing?
3. What are benefits of not subjected students to drug testing?

Group C: Under the pressure, some schools already subject students to drug testing. Discuss in your group and answer the following questions:

1. Who should be a person who provides testing?
2. Where testing needs to be done?
3. Write procedure of testing. What are the things you need to think about before testing, so your testing will give to you the most reliable results?
4. Make a list of ethical and technical issues related to students drug testing.

Answer on questions:

1. Law implications or regulation on drug testing
2. The role of the school,
3. How approach to parents and children.
What they need to know,
What arguments and answers you need to discuss or give to them?
What principles should be respected?
4. What with results (refer to whom)? What about data collection?
5. What about kids whose test is positive? (What is intervention you propose?)
6. Who is a person or profession that needs to be included?)

After finishing their tasks, all groups come together. The representative from each group present conclusion of the group, subsequent discussion and conclusion of workshop.

Key words: drug testing

EVOLUTION OF HEALTH RISK BEHAVIOUR IN ADOLESCENTS (114)

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Introduction: In large scale self-report studies the large majority of adolescents describe their state of health as good or even excellent (cf. Scheidt et al., 2000) and in fact, there exists no other time of life in which the disease mortality risk is comparable low. Disease mortality rates are remarkably higher before the first and after the 19th birthday (Bundesamt für Statistik, 2001; Schmid et al., 2001). In adolescents, mortality rates are largely attributable to risk behaviour. Here we describe the evolution of health risk behaviour in Switzerland and we test the hypothesis that the gap between self-reported state of health and possible detrimental health risk behaviour increases over time (Sells & Blum, 1996).

Methods: Data were collected within the Health Behavior in School-Aged Children Study (HBSC) (cf. Currie et al., 2000); an international research study in collaboration with the World Health Organization Regional Office for Europe. In Switzerland, the Swiss Institute for the prevention of alcohol and drug problems (SIPA) conducted the study in 1986, 1990, 1994, 1998 and recently in 2002 with the financial support of the Federal Office of Public Health and a part of the Swiss cantons. All Swiss cantons as well as all grades from 5 to 9 are represented in the sample. Questionnaires were administered in school classrooms by teachers.

Results: In general, the prevalence of health risk behaviour has increased since 1986. Substance use such as drunkenness and cannabis use, sexual intercourse, unhealthy eating habits, accidents and injuries are more and more often in the age groups of 11, 13 and 15 year olds. The number of young people describing their health as good, however, is increasing during the same time period. In Europe, differences in health risk behaviours are considerable, however, common problems arise from smoking, drinking excessively, from bad nutrition, suicidal attempts as well as from injuries.

Discussion & Conclusion: The increased gap between self-reported state of health and detrimental health risk behaviour over time may - at least partly - be explained by lifestyle patterns that are pushed to the extremes. Images in the media, mainly the combination between television, music, video and publicity are valuating detrimental behaviour and are combining them with prestige - we propose to call this the MTV-effect.

Key words: *adolescence, risk behaviour, development, epidemiology,; social influence*

MENTAL HEALTH

SUICIDES ATTEMPTS AND SELF-HARM AMONG 15-YEAR OLD STUDENTS IN CROATIA (189)

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Suicide is one of the most common causes of death among young people, although the rates vary between countries. Due to the growing risk for suicide with the increasing age, prevention of suicides is important in adolescence, as well as recognition of the possible risk factors.

OBJECTIVES: To evaluate factors which might influence suicide attempts and self-harm among adolescents.

METHOD: 2884 adolescents aged 15-16 years filled in the anonymous questionnaire, within the frame of the ESPAD2003 project. Suicide attempts, self-harming, free time activities, school performance and truancy, personal and friends' substance abuse, parental monitoring, family structure, relationship and self-satisfaction, depression symptoms and delinquency behaviour were analysed. Logistic regression analyses were used to determine the characteristics of the adolescents more prone to suicides or self-harm.

RESULTS: That they thought of harming themselves at least once reported 19.4% of the boys and 37.1% of the girls respectively and 4.7% of the boys and 8.9% of the girls thought of that more than 5 times. 6.2% of the boys and 11.5% of the girls reported attempting suicide at least once. Suicide attempts in the boys were associated with the lifetime marijuana use, dissatisfaction with the family financial situation, delinquent behaviour and less cigarette smoking, and in the girls with lifetime ecstasy use, dissatisfaction with themselves, divorced or single parent family, symptoms of depression and delinquent behaviour, for both genders with suicide attempts. Self-harm was associated in the boys with daily smoking, poorer school performance, dissatisfaction with themselves and symptoms of depression, for the girls with lifetime marijuana use, symptoms of depression, dissatisfaction with themselves and with the relationship with mother and father, for both genders with self-harm. The gender differences and substance-abuse association were analysed.

CONCLUSION: The main target of the effective prevention of youth suicide is to reduce suicide risk factors. Therefore the effective measures regarding preventable influencing factors are discussed.

Key words: suicide attempts, self-harm, youth

LIFE SATISFACTION: DEVELOPMENTAL AND GENDER ISSUES IN ADOLESCENCE (111)

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INTRODUCTION: This research examined risk and protective factors for demographic, personal, family and school variables related to adolescents' perception of well being and life satisfaction.

SUBJECTS: Data was collected from the Portuguese sample of the "Health Behaviour in School-Aged Children -2002- (HBSC)" and included 6131 pupils both genders and attending 6th, 8th and 10th grade.

METHODS: Descriptive statistics analyses were conducted to examine behaviours related to risk and protection according to gender and grade. Multiple regression analyses were conducted considering the "life satisfaction and well being" as dependent variable and a set of demographic, personal, family and school variables used as independent variables.

An analysis of descriptive variables previously published identified 3 types of pathways through adolescence: for the majority, risk increased and protection decreased with age; for a few there is an increase at the age of 13 followed by a decrease by 15. A minority of risk behaviours /situations decreased with age. This previous analysis provided also evidence of gender and social class differences. Multiple regression models identify several associations among demographic, psychosocial and contextual variables with well being and life satisfaction. Gender and socio-economic status were not significant predictors in the younger adolescents (6th grade) but become significant in 8th and 10th grades.

DISCUSSION: Thus, being a male, younger, wealthier, satisfied with school, getting help from teachers, considering that teachers think they are "good" at school, being accepted by peers at school and not reporting psychological symptoms are significantly associated with life satisfaction and well being.

CONCLUSIONS: These findings have important implications to promote life satisfaction and well being in adolescents. It is likely that school has to be involved in order to create opportunities for a healthful development before and during adolescence, with special focus in reducing gender and socio-economic inequalities.

Processes and practises of adolescents active participation will be presented and discussed

Key words: adolescents, health, life satisfaction, school ambience, psychological symptoms

QUALITATIVE EVIDENCE BASED MEDICINE, CIRCULAR EPISTEMOLOGY AND PSYCHOANALYTIC PSYCHOTHERAPY WITH UNIVERSITY STUDENTS (5)

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The motto of Plutarchos (Moralia): the human mind is not a vase to be filled but a light to be lit.

The linear causality principle is the epistemological vantage point for the prevailing evidence based medicine (or EBM). In this consideration only knowledge obtained through senses is a reliable knowledge. The background philosophy is the logical empiricism and the basic scientific conception is physical. The research method is according to natural sciences quantitative, using quantitative statistical methods (the qualification preconceives a great amount of objects researched). The influence of the researcher is tried to be eliminated with all kind of possible methods in order to get reliable results with this kind of approach. Prospective randomised controlled double blind studies are carried out.

The result from these premises within narrow bounds is that only studies following the deductive research method of natural sciences can be qualified as reliable studies having the best category of confidence. Other studies are either of a smaller reliability or they are not qualified reliable. A world wide database is gathered for evidence based psychiatric care without calling into question the qualification of this approach to psychiatry/psychotherapy.

The empiric-experimental research method is qualified in psychiatry for the research made in biological psychiatry in which causality principle is linear: e.g. in medicine studies. In psychotherapy research it is not applicable.

In this work, by means of the psychotherapy study with university students, my aim is to show how psychotherapy belongs to a totally different epistemology than studies in basic natural sciences. The epistemology of psychotherapy belongs to the circular epistemology, having interactive, recursive and reflective nature: the basic scientific conception is hermeneutic-emancipative having the interest of knowledge and the research interest in human interpersonal communication and in intrapsychic experiential world. In order to discuss the qualitative case study method of psychoanalytic psychotherapy applied in this study I describe more closely the evaluation, diagnostics and treatment approach of borderline personality disorder (BPD).

Key words: university students, psychotherapy, evidence based medicine

DETECTION OF EARLY EMOTIONAL DISTURBANCES AMONG STUDENTS AT THE UNIVERSITY OF NOVI SAD (26)

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The main purpose of this paper is early detection of emotional disturbances(ED) among the students of the first and third academic year.

The sample was made of 3500 students of both sex, at the first and third year of studies of the 6 faculties at Novi Sad University, during the 2004-2005 school year (43% male students and 57 % female students).

Methodology: The Questionnaire for early detecting of emotional disturbances (ROEP, Jankulov, Marinkovic, Gavrilovic 2004) was used (anxiety, fobic disorders, agressivity, obsessive manifestations, depressive symptoms, social anxiety, psychosomatic symptoms, general self-confidence and sexual orientation). This questionnaire was designed according to the Questionnaire for early detection of emotional disturbances (Eric1974). Results: The research will be concluded in July 2005 year, and preliminary results show that 16% of students have risk for the development of some emotional disturbance. In comparison with the research on the same sample of the students at the same University (Jankulov 1979, the result was 13%students with neurotic disturbances), gives us the possibility to compare students' mental health, 25 years after.

Key words: emotional disturbance, students

DEPENDENCY AND INDIVIDUATION IN ADOLESCENCE (97)

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In the beginning of adolescence the young person has to begin loosening the ties to the family of origin in order to be able to go through the so-called second individuation process, which in my mind is a central task regarding the mental health of the future adult. In adolescence we live through the problems of our first years once more which gives us a second chance to solve the conflicts of human development and to fill in the gaps that were left there during the early childhood. The loosening of early dependencies leads first to regression, and only gradually to growing independence and the ability to form extrafamilial relationships in both love and hate. Leaving behind the image of early childhood's parents produces empty space in the mind of the adolescent, which makes it difficult to distinguish between depressive moods and real illness in adolescence.

The peer group is sometimes literally a substitute of the adolescent's family, and personal friendships are most important for both boys and girls. These friendships help the adolescent to give up childhood dependencies rather than mean yet any genuine or lasting relationships. Only when the dependencies would just repeat the old childhood patterns would the group lose its positive function.

Learning disorders, long-lasting moodiness and general negativism sometimes point out a crisis or even a failure in the process of individuation. The adolescent may simply try to detach himself and reject the real contemporary parents, but will end up in a state of permanent regression and depression which is one of the big diseases of our time.

Key words: adolescence, dependency, individuation, depressive moods, depression

THE ASSESSMENT OF RISK FACTORS IN ORDER TO ACT PREVENTIVELY IN THE FIELD OF PSYCHICAL HEALTH (219)

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This paper describes the result's analysis of structured questionnaire used to identify high school students with high risk potential for development of risky behaviour.

GOAL: The application of the instrument used to identify students with high risk potential for development of risky behaviour and problems in the field of psychical health.

Test subjects and methods: The Questionnaire was applied on High School first year students from four different High Schools in Sisacko-moslavcka County, as a part of regular medical examination. The students attend both three and four year High school programmes. The tested population comprised 453 students (39% girls and 61% boys), average years was 15.9.

RESULTS: The answers to the questionnaire questions, each carrying defined value measured in points, have been divided into four areas: school, family, friends and personal characteristics. In the area of behaviour assessment related to school, it was possible to score maximum of 7 negative points; 52 students (11.5%) scored 5 and more negative points.

The questions focused on family can score maximum of 15 negative points. The high score was 7 points; 67 students (14.8%) scored 3 and more negative points.

Relationships with friends bring the maximum of 9 negative points; 53 students (11.7%) scored 4 and more negative points

Personal characteristics comprised questions regarding consumption of various psychoactive substances, their perception of danger of such consumption, and depression and self-esteem scales.

CONCLUSION: Each of the four questionnaire areas indicates certain issues with the tested adolescents and enables experts to take appropriate preventive actions.

Key words: adolescents, psychical health, psychological symptoms, preventive actions

DIFFICULTIES IN THE TREATMENT OF EATING DISORDERS (247)

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What makes young, talented people, especially girls, treat themselves so badly and put their health at risk – as they do in anorectic and bulimic behaviour?

Anorectic or bulimic behaviour be triggered by very innocent remarks made by peers or relatives about the patient's appearance. These adolescents try to please everyone, including their parents, teachers, relatives and peers. They are often among the most intelligent pupils in their class, but they do not always manage so well as students. If they do not succeed, they easily feel deep humiliation and shame. They feel that their physiological and psychological needs are not legitimated, and that they have to set new "rules" for themselves. It often becomes more important to them to keep their own idea of their mind and body under control than to keep themselves alive and healthy.

These adolescents readily punish themselves. They have very strict superegos. They are not satisfied with ordinary behaviours: they have their own ways to do things, and their own targets for success – especially with regard to their weight and eating behaviour. They often know all about food, calories, nutrition and diets, but they uses this knowledge to keep themselves in a constantly undernourished state. Anorectics in particular set targets of their own invention for their weight. These weight levels may be so low that the patients` physiological and mental functions are impaired.

Such adolescents have not gained full possession of their own minds, and instead they try to gain this control by exercising extreme control over their own bodies. You have to use a lot of time to build up a working alliance: to get the young person to trust to you, while at the same time keeping the therapy strictly under control to keep them alive.

Treating such young people is very difficult, and requires extreme care. You need to work together with a partner such as a doctor or a nurse, who can take care of their physical health, which is beyond your scope a therapist.

Key words: eating disorder, treatment

ENCOPRESIS GUIDELINE FOR CHILDREN (30)

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Encopresis is defined as the involuntary loss of stools into underwear without any physical abnormality (>4 years of age), whereas the term faecal incontinence is used when there is an organic cause.

The number of children with encopresis is increasing globally.

In the majority of cases, encopresis is the result of constipation. Requests for help with the problem are often delayed. If these children do not receive counselling or treatment in good time, there is a risk of persistent constipation and associated psychological harm. A guideline is therefore needed to identify earlier, to counsel and to treat these children. This prevents secondary psychological damage.

Guideline - We set out a phased plan that is appropriate for use in the youth health care system, in general practice and by paediatricians. The procedure identifies encopresis from stool loss that needs referral in due time.

Phase 1 (3 weeks)

Diagnosis of encopresis on the basis of completion of medical history checklists and physical examination

Explanation and education

Introduction of bowel diary

Phase 2 (4 weeks)

Simple recommendations

Toilet trainingsitting on toilet at set times

More exercise every day

Recommendations about eating patterns

Use bowel diary and keep records about training

Child's drawing book/Activity book

Normal eating patterns

Phase 3 (1 year)

Laxatives: Cleaning phase/Maintenance phase/Run-down phase

Use bowel diary, keep records about training and use drawing book

Child goes to toilet itself

Prevention

Functional constipation starts in 50% of children as early as the first six months of life. Early treatment of the disorder improves the long-term prognosis. This means that the identification and treatment of constipation and encopresis in time by the youth health care system is important. During every consultation questions should be asked about toilet habits. If a child suffers from constipation, recommendations should be given about diet and exercise.

Children with encopresis are traced using a medical history checklist and physical examination. If the guideline is used, it will quickly become clear which children need extensive and ongoing treatment.

Research is required to determine whether the guideline helps to trace and treat children with encopresis earlier and to determine whether it prevents secondary psychological damage.

Key words: encopresis

GROUP PSYCHOTHERAPY FOR PARENTS OF CHILDREN WITH COCHLEAR IMPLANTS (36)

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During preoperative diagnostic evaluation, surgical procedure of cochlear implantation and following rehabilitation, the parents of the deaf children need to deal with lots of emotional difficulties. Our goal was to demonstrate and quantificate the difference between their quality of life in comparison to control group of parents of healthy children, and than to show how group psychotherapy can improve it.

We tested 60 subjects divided in two groups: 30 parents of cochlear implant users and 30 parents of healthy children. The groups were equalized in terms of sex, age, material status and employment. Semi structured interview method was used to exclude previous psychopathological symptoms.

Quality of life evaluation scale was used, consisting of 21 units, the subjects giving self evaluation of the satisfaction with their lives.

Results of descriptive statistics and analysis of variance showed significant differences in the test scores (quality of life evaluation scale) between the groups. Arithmetic midpoint of the test score in the group of parents of cochlear implant users was 2, 95 (SD 0, 13) and in the group of parents of healthy children it was 3, 71 (SD 0, 25).

In the following year supportive educational psychotherapy in the form of workshops in a middle sized group was organized for the parents of cochlear implant users. After 16 sessions the retesting of quality of life was done for that group and it showed the improvement of the score that became close to results of the group of parents of healthy children: after the treatment arithmetic midpoint of the test score was 3,4 (SD 0,4).

It is obvious that the parents of cochlear implant users feel less satisfied with the quality of their lives. There is a need for organized supportive educational work, that is probably most effective in a form of group therapy that can significantly improve their satisfaction with a quality of life.

Key words: psychotherapy, parents, cochlear implant users

PUBLIC PERFORMANCE ANXIETY AMONG FINNISH UNIVERSITY STUDENTS (86)

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INTRODUCTION: Of Finnish high school students, 28% often feel anxiety in public performance situations. Yet, they can cope with even the most demanding situations if they have a positive attitude toward the communication situation and to themselves as communicators. Some young people, however, experience excessive performance anxiety and avoid speaking in public. Problems vary from generalized fear of social situations which significantly limits one's life to a mild feeling of uneasiness in official public speaking situations. For this study, we analyzed the frequency of negative experiences reported in surveys among first-year university students and examined the stability of those experiences.

SUBJECTS AND METHODS: The material included five surveys performed among first-year university students in Finland in 1976/77 (n=10,126), 1979/80 (n=8,124), 1993/94 (n=1,301), 2000 (n=523) and 2004 (n=530) (n=number of respondents). The 1993/94 survey was carried out in Turku, while the other surveys were done on a national level. A sample of 567 students in Turku was followed up in 1993-98. The students were asked to evaluate how they experience performing in public (e.g. reading a paper). The 5-point scale ranged from -2 (truly problematic) to +2 (truly satisfying) and there was an additional option of '?' (hard to say). Students who experienced public performance as negative were examined for this study.

RESULTS: In the first survey, 29.3% of the students experienced public performance as negative; in the other surveys the proportions were 30.5%, 30.6%, 24.5% and 33.3%. In most of the surveys, performance anxiety was more common among female students. The follow-up study shows that these negative experiences have rather a permanent effect. Of those students who, in their first year of study, experienced public performance as negative, 65.9% had the same experience in their third year and 54.2% still in the fifth year. For 42.5%, the experience was negative in all of the surveys.

CONCLUSION: A negative reaction to public speaking reflects situational social fear and it appears that such experiences still are a general phenomenon despite changes in society and school. If the problem persists, it may cause individual suffering and difficulties in one's studies. The issue should be considered both within the universities and student health care environment to ensure that students receive the proper help.

Key words: public performance anxiety, university students

HOW DO LIFE PRIORITIES CHANGE AS YOUNG PEOPLE DEVELOP (103)

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Puberty and adolescence are periods of intensive development and maturation in lives of young people. This is an age in which children immerse into young adults.

The current study was conducted in Lucijan Vranjanin High School in Zagreb. Participants were 195 first grade students (112 girls and 83 boys) and 171 fourth grade students (97 girls and 74 boys). They filled out a questionnaire about their socio-mental priorities by ranking each priority on a scale of 1-10 ("1" meaning the highest and "10" meaning the lowest priority). The analyses included priorities ranked as first on the participants' lists.

First grade students (both girls and boys) ranked freedom, fun and games, and personal dignity as their highest priorities. Peer acceptance by peers was ranked higher by female than by male participants. Among the fourth grades freedom and personal dignity were ranked the highest. X2 test found a statistically significant difference between girls and boys regarding their needs for security and safety. Statistical analysis has also found that female students for both grades have significantly higher need to be accepted by their peers than male students do.

The results of the study have shown that young people of both sexes go through an intensive physical and socio-mental development between the ages of 15-19.

The hypothesis that life priorities change as people develop, and that there are differences in a way females and males rank their life priorities were confirmed partially by the study. Around the age of 25 young people reach their full physical, emotional and social development and maturity; they also develop moral consciousness and awareness of responsibility for their own lives. By this age they are ready to separate from parents and create and live their lives independently.

Key words: young people

SIFTING OUT ENDANGERED STUDENTS AND DRUG-PREVENTION AMONG STUDENTS AT SECONDARY SCHOOLS IN HODMEZOVASARHELY (105)

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INTRODUCTION: According to our experiences there are more and more endangered young people- not only in terms of somatic but mental diseases, too.

OUR AIM: We want to find and help the endangered students with the help of a survey, which is based on a questionnaire.

METHOD: We asked in six secondary schools the 15-16 years old students anonymously so that we could judge the possible mental problem (stresses, depression, aggression) or life-style and social endangerment of them.

RESULTS: We worked up 850 people's data. There are a lot of students who are anxious or inclined to depression. 18% of them behave aggressively when solving the problems. In the view of social life-style 35% have increased risk, 24% are in the marginal category.

DISCUSSION: It is important to know the students' problems, their answers given to the conflict case.

In the future we will make the survey with all of the nine-grade students. It gives us help with our drug prevention work.

Key words: drug prevention

THE INCIDENCE OF DEPRESSIVE SYMPTOMS AMONG HIGH-SCHOOL STUDENTS IN OMIŠ (110)

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OBJECTIVE: the frequency of depression signs among high-school students

RESPONDENTS: the survey examined 213 freshmen and high-school leavers

METHODS: The survey was conducted in April 2005. It covered students from the grammar school, vocational and trade schools. The survey was anonymous. It contained ten questions, which evaluated the feelings of depression. The students answered the questions during class.

RESULTS:

31.6 % of the students answered affirmatively when asked about having the depressive feelings.

22.17 % lost interest in the activities which made them happy and they do not enjoy them any more.

40.09 % feel tired and have the sense of energy loss.

15.57 % have troubles with sleeping.

16.51 % have a loss or grow of appetite.

34.43 % have difficulties with concentration and making decisions.

24.53 % of the adolescents have the feeling of self-pity and 21.70 % have low self-esteem.

19.81 % have pessimistic view about the future.

8.96 % think often about death or suicide.

There are 6.3 % of those who think of suicide and have four affirmatively answered questions.

CONCLUSION: Depression is a disease of today. Although depressive signs are the characteristics of adolescence development, the number of young depressed people who have more distinct symptoms is not irrelevant. Introduction of depression screening at medical examinations during schooling seems necessary.

Key words: depression screening

FAMILY RELATIONS, USE OF THE FREE TIME AND THE SPREAD OF THE TOBACCO, ALCOHOL AND OTHER DRUGS USE AMONG ADOLESCENTS IN HEALTH REGION OF KOPER (IN THE REPUBLIC OF SLOVENIA) (170)

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INTRODUCTION: Family is basic cell of our society, which attributes to a development of adolescent personality. Unsuitable family relations can result in disturbance of sentiment, negative self-image, violence to other persons and to himself (mental disorders, alcohol and other drugs abuse, suicidality). The aim is to show the state of family relations and use of the free time among adolescents the 1st class of secondary schools in health region of Koper as a risk determinates for legal and illegal drugs use, suicidality and violence. The objective of research is to use the results of this study as a starting point for planning of necessary measures.

SUBJECTS AND METHODS: The study included 1.699 adolescents from the 1st class of 13 secondary schools in the health region of Koper who participated in The European School Survey Project on Alcohol and other drugs (ESPAD 03) in the school year 2002/2003. For the purpose of study we chosen and elaborated from the questionnaire ESPAD 03 only those questions which were meaningfully connected with the subject of research. Statistically significance differences between observed events (the tobacco, alcohol, marijuana or hashish use, attempted suicide and violence) and influences on them (family relations, use of the free time and self-image) were evaluate with chi-square test ($p < 0,05$ or $p > 0,05$) in computer programme Statistical Package for Social Sciences (SPSS) for windows.

RESULTS AND DISCUSSION: We established that adolescents, which do not have emotional support and trust from their parents, smoke cigarettes, marijuana or hashish more frequently and consume alcohol drinks ($p < 0,0005$). We also established that these adolescents tried to suicide more frequently ($p < 0,0005$). Higher share of smokers (cigarettes, marijuana or hashish) was established at adolescents, which are not involved in sport activities and/or other hobbies during their free time ($p < 0,0005$). Those adolescents have frequent night outgoings and do play on slot machines for money ($p < 0,0005$). Adolescents with negative self-image have made suicide attempts ($p < 0,0005$) and were drunk or smoked more frequently ($p < 0,05$).

CONCLUSIONS: Children and their parents have to be included in specific preventive programmes to improve mental health and to achieve positive self-image, which is important factor of preventing suicides.

Key words: family relations, free time, tobacco, alcohol, other drugs use, adolescents

PARENT RATINGS OF ATTENTION-DEFICIT HYPERACTIVITY DISORDER SYMPTOMS IN COMPARISON TO DOCTOR DIAGNOSIS (204)

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INTRODUCTION: The prevalence of ADHD varies across the studies. When only the presence of the behaviour of hyperactivity is required from parent rating scales, prevalence rates are routinely higher. **AIM:** To examine the prevalence of children with a high risk for ADHD. To investigate whether their parents are aware of disorder, in comparison to control group parent reports.

Subjects and methods: 311 first grade elementary school children (aged 6,5-7,5 years), sample from eight elementary schools from Bjelovarska-bilogorska County and their parents were included in the study.

A screening for ADHD was assessed by school doctors. Parents completed questionnaires about 13 individual inattention and hyperactivity symptoms.

RESULTS: A screening identified 29 (9,3%) children at a high risk for ADHD. It was not related to marital status, parents education or number of children in the family. Follow up information from parents were collected on ADHD group and control group. There was statistically significant higher rate of the following 7 symptoms in ADHD group, rated by the parents: "Has difficulty sustaining attention" (p=0,043), "Is often less able than others to wait in line" (p=0,049), "Often answers shortly and quickly" (p=0,0004), "Does not follow through on instructions" (p=0,006), "Changes activities quickly" (p=0,0016), "Often has difficulty playing quietly" (p=0,0009), "Does not seem to listen when spoken to directly" (p=0,004). For other 6 symptoms, rated by the parents, we found no difference between control and ADHD group.

DISCUSSION AND CONCLUSION: Many children were described as inattentive or overactive by a parent, but it does not in and of itself constitute a clinical disorder in a child. This data suggest that the clinical diagnosis of ADHD based on parent report may be questionable, and they point what is common place for children may seem as behaviour problems for parents.

Key words: ADHD, parent report, screening

ATTITUDES OF ADOLESCENTS WITH REGARD TO THEIR PREDOMINANT INTERESTS, NEEDS AND BEHAVIOURS (225)

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Attitudes represent a neuropsychical state of physical and mental activity, and anticipate future behaviour. General attitudes also point to the level of the risk for the society or for particular groups of adolescents posed by the respective psychosocial phenomena.

AIMS: 1) To determine general attitudes of adolescents with regard to their predominant interests, needs and behaviours, and their longitudinal monitoring during high-school period. 2) To upgrade health education activities within the frame of systematic examinations and work at school clinic counselling. The study included 283 high-school first-graders from two high schools in Zagreb, in year 2005. A self-administered questionnaire listing 17 attitudes with which the subjects could agree, disagree, partially agree or partially disagree. Around one third (28.6-38.5%) of study subjects agreed, and more than a half (51.9-56.5%) partially agreed with the following attitudes about dependence related behaviours: it is a transient phase when most young persons use to experiment with some of illegal drugs; alcohol abuse among high-scholars has spread to a worrying extent; and the young tend to practice sex without protection and under the influence of alcohol. More than one third (38.9-41.3%) of study subjects agreed with the following attitudes about school curricula: the curricula are focused on intellectual development while neglecting their age-specific features.

The tolerant and neutral general attitudes point to the possible high level of risk behaviours, the lack of understanding, and inadequate knowledge and awareness of the potential consequences of such behaviours. The majority of the young are dissatisfied with the extent to which these issues are included in school curricula (85.5%), while 24.4% and 38.9% of the subjects did not or only partially did speak about the issues with their parents, respectively. Most of the study subjects considered it useful to talk about these topics, indicating they wanted to learn about them from adults.

Such general attitudes are the consequence of vague, confounding and inadequate messages the adolescents receive from the media, their peers, and even from their parents and some professionals. These attitudes point to the need of continuous health education activities throughout high-school age. Longitudinal monitoring of these general attitudes will show whether or not they are being modified.

Key words: adolescents, attitudes, health education, counselling

INTERNALIZING AND EXTERNALIZING PSYCHOLOGICAL HEALTH PROBLEMS OF YOUNGER SCHOOL AGE CHILDREN AND LINKS WITH FAMILY FACTORS (241)

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INTRODUCTION: Mental and behavioral disorders have substantial effect on family and on child's life, they change child's adaptation, psychological stability, reduce academic achievements. The aim of the study was to assess the behavioral and emotional problems as reported by parents and teachers of 3rd year pupils of Kaunas primary schools.

SUBJECTS AND METHODS: It's a long term epidemiological study. The target group children were in the 3rd school year. The research was performed at 40 schools of the city of Kaunas. 522 of 3rd year pupils were traced and surveyed: 298 boys and 224 girls. Simultaneously the parents of the 434 pupils were surveyed, the teachers completed the questionnaires for 509 3rd year pupil. The behavioral and emotional problems of the children were assessed with the application of the behavior checklists developed by T. M. Achenbach.

RESULTS AND CONCLUSIONS: The scope of problems was determined following the computation of the T-scores and score totals across the subscales. The comparison among the groups of girls and boys revealed the parents tendency to award more scores to boys when assessing their behavioral and emotional characteristics on the subscales of withdrawal/ depression, rule braking, aggressive behavior and attention problems. The mean total BEP score for boys, expressed in the subtotal of all subscale scores, was significantly higher than for the girls. The mean score on the externalizing problems of the boys was also higher as compared with the girls. Among the group of girls somatic complaints, anxiety/depression, social problems were the most prominent while among the group of boys rule braking, attention, aggression problems prevailed. Parental assessment demonstrated the dominance of internalizing problems among children. As reported by teachers boys had significantly more internalizing and externalizing problems than girls did. Girls living in a 1-parent household tended to have more frequent behavioral problems at school, while boys faced more frequent learning problems. The higher education of parents had a positive impact on the child's social adaptation at school. The parental unemployment had statistically significant correlation with the impaired school behavior of girls and lower academic achievements of boys; also it had a negative correlation with child's social adaptation at school.

Key words: primary school, children, psychological health, family

ADOLESCENTS BEHEVIOR IN ZADAR CITY AND COUNTY (245)

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INTRODUCTION: The aim of this study was to test the strength of the relationship between adolescent's free time activities, academic achievements, mental status and substance abuse, and the background of other factors important for this subject.

SUBJECTS: A survey of 849 adolescents (61,6% from Zadar city and 38,39% from Zadar county) between age of 14 and 18 was conducted in May 2005. 38,75% of them in 8th grade of primary and 61,25 % in high school (36,38% in the 1st grade and 24,85% in the final grade of high school).

METHODS: A special questionnaire was designed. It was divided into three sections: the first one with general data and substance abuse, the second concerning mental status (depression scale SDD prepared by prof. A. Prtorić) and the third about free time activities.

RESULTS AND DISCUSSION: The percentage of Zadar adolescents consuming alcohol, smoking cigarettes significantly increases with age (9,74 % in the 8th grade comparing to 29,44% in the final grade of high school). There is no significant difference between the city and the county. Generally speaking the places where most of the adolescents spend most time are: cafe bars (57,37% a few times a month and more), parks (51,93% a few times a month and more). Not many of them attending cinemas, discos, public libraries and literally no one goes to the theater and only a low number of them read books. Some forms of adolescents free time activities are directly significant for substance abuse, most of those who regularly smoke cigarettes and drink alcohol spend most of their free time in parks or cafe bars. The gender significantly influences the activities they are occupied with. Girls read books more often (64,52 % of girls comparing to 40,26 % of boys). Boys more often play sports (77,23 % a few times a month and more comparing to 42 % of girls), computer (9,72 % more than 4 hours a day comparing to 0,62 % of girls), gambling games (30,2 % a few times a week and more comparing to 6,12% of girls). Academic achievement is strongly related to nicotine abuse (16,75 % of those who regularly smoke are very good or excellent comparing to 42,85% of them who have lower academic achievement). Adolescents with higher academic achievement are generally less depressed (5,27% depressed among them comparing to 12,6 % of them who have lower academic achievement).

CONCLUSION: Adolescents in Zadar and the county do not have enough adequate and appropriate contents for their free time. Organizing multidisciplinary community youth centers would much improve the use of their free time.

Key words: adolescents behaviour

“THE CLEVER - BUT LONELY CHILD” OR “HOW TO GROW IN GROUPS” (237)

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Groups are uniquely important in modern society. Beginning with the family, the developing personality is affected by experiences within groups.

By its very structure, a group can provide community to those who need to learn how to deal with dysfunctional relationships or dissatisfying ways of living.

An especially challenge working with students in psychodynamic groups is that the long-term psychotherapy norm can be difficult to manage. They are in an age and a situation in life where things change quickly. Most of the Norwegian students are also studying in programs that allow changing university. Many also go abroad for several months or take a break in the studies. So every half year the group have to deal with the uncertainty of which group-members are coming back or not after the holiday. This means that working with the important phases of connecting and terminating demands flexibility without ruining the important frames that secure predictability.

I have found some answers to this challenge in the “conjoint” therapy, which means patients consulting the same therapist for both group and individual therapy.

To avoid the group-experience to be a new “lonely road” for those who need long time to open up for their inner feelings, I have found that conjoint therapy is a way to both take care of every student’s vulnerability and keep the focus in therapeutic goals.

The focus in this workshop will be demonstrating the group therapy setting, the structure, the rules, some techniques, the curative factors and experiences from ten years with students in therapy groups.

Key words: group-experience, psychodynamic groups, “conjoint” therapy