

12TH CONGRESS OF EUROPEAN UNION FOR SCHOOL AND UNIVERSITY HEALTH AND MEDICINE

3 - 5 SEPTEMBER 2003, LJUBLJANA SLOVENIA 2003

ABSTRACTS



EUROPEAN UNION FOR SCHOOL
AND UNIVERSITY HEALTH
AND MEDICINE



UNION EUROPÉENNE D'HYGIÈNE
ET DE MÉDECINE SCOLAIRE
ET UNIVERSITAIRE

SLOVENIAN SOCIETY OF SCHOOL AND UNIVERSITY DOCTORS

UNIVERSITY OF LJUBLJANA FACULTY OF MEDICINE

CARING OF EUROPE'S YOUNG GENERATION



ORGANISED BY:

**SLOVENIAN SOCIETY OF SCHOOL
AND UNIVERSITY DOCTORS**



**SEKCIJA ZA ŠOLSKO IN
VISOKOŠOLSKO MEDICINO**

**EUROPEAN UNION FOR SCHOOL
AND UNIVERSITY HEALTH
AND MEDICINE**



**UNION EUROPÉENNE D'HYGIENE
ET DE MÉDECINE SCOLAIRE
ET UNIVERSITAIRE**

**UNIVERSITY OF LJUBLJANA
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**UNIVERZA V LJUBLJANI
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**UNDER THE HIGH PATRONAGE
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**12th BIENNIAL CONGRESS
OF THE EUROPEAN UNION FOR SCHOOL
AND UNIVERSITY HEALTH AND MEDICINE**

CARING OF EUROPE'S YOUNG GENERATION

3-5 SEPTEMBER 2003

**VENUE: FACULTY OF LAW,
POLJANSKI NASIP 2, LJUBLJANA, SLOVENIA**





EUSUHM

EUSUHM was founded in 1981. It is an independent, apolitical body of medical doctors which encourages evidence-based approaches to medical care and health promotion for children and young people in Europe.

EUSUHM CONGRESSES:

1981	Amsterdam
1983	Dubrovnik
1985	Budapest
1987	Prague
1989	Paris
1991	Turku/Åbo
1993	Leipzig
1995	York
1997	Leven/Louvain
1999	Trondheim
2001	Budapest
2003	Ljubljana

EUSUHM PRESIDENTS:

1979 – 1983	S.I. Rollof, MD, Sweden
1983 – 1987	J. Brande-Knops, MD, Belgium
1987 – 1991	A. Gunn, MD, UK
1991 – 1995	J. Peräsalo, MD, Finland
1995 –	J. Meulmeester, MD, The Netherlands

HONORARY MEMBERS OF EUSUHM

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SLOVENIAN SOCIETY OF SCHOOL AND UNIVERSITY DOCTORS was founded in 1981.

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Caring for Europe's Young Generation

School health systems, university health and preventive child health programmes may differ widely within Europe. Discussions on the ownership of these programmes or which professional is in the lead might also raise many arguments within and between countries. However, whatever policy may divide us, it is the coming generation which unites us. To improve the health of children, of youngsters who have not come to an age where they can care for themselves, and of students in an educational environment is the aim of the European Union for School and University Health and Medicine. Our biennial meetings give ample opportunities to share experiences from practice, scientific research and discuss health policy. The programme of the Slovenian School and University Doctors Society and of the Faculty of Medicine of the University of Ljubljana promises a wide variety of topics for meeting and discussion. We all strive for evidence based prevention programmes and the research endeavours in this field are worth discussing. Vaccination programmes, in most countries the core of preventive services for youngsters, vary widely between countries and the need for harmonisation is obvious. The physical or social environment in which children and youngsters are growing up, is of paramount importance to their health and development. Adolescence is the phase in life with many physical and emotional changes, with the growing demand of society to stand on one's own feet and resist unhealthy temptations, needs special attention. So from EUSUHM we are sure that we will be able to learn a lot from each other. So the EUSUHM Scientific Committee hopes to welcome you in Ljubljana!

Joke F. Meulmeester,
President of the EUSUHM

Dear guests, dear colleagues,

It is a great pleasure to invite you to the 12th Biennial Congress of the European Union for School and University Medicine, which will be held in Ljubljana, the capital and university city of Slovenia.

We are looking forward to greeting you among our guests – invited speakers, EUSUHM members and other interested professionals – and to sharing your knowledge, views, experience and ideas. All this is of the utmost importance to keep our professional field alive in the tune with contemporary trends and to achieve a synthesis of the field for the benefit of future young generations.

Ljubljana, the hosting city, has also a long social and cultural tradition, offering a variety of events and activities. We hope that experiencing some of them will make your stay with us even more enjoyable and memorable.

Yours sincerely,
Mojca Juričič
for the Slovenian Organising Committee



PROGRAMME

WEDNESDAY, September 3

VENUE: Slovenian Philharmonic

16.30 - 17.00 **OPENING CEREMONY**

17.00 - 18.30 EUSUHM Invited speakers

17.00 - 17.30 Pierre-André Michaud
THE EVIDENCES IN THE FIELD OF ADOLESCENT HEALTH PREVENTION
AND PROMOTION, INCLUDING SCHOOL HEALTH

17.30 - 18.00 Leena Klockars
FATHER AND SON - DEVELOPMENT OF A MALE

18.00 - 18.30 Pierre Van Damme
NEED FOR HARMONISATION OF CHILDREN'S VACCINATION
SCHEDULE IN EUROPE

19.00 **WELCOME PARTY**





THE EVIDENCES IN THE FIELD OF ADOLESCENT HEALTH PREVENTION AND PROMOTION, INCLUDING SCHOOL HEALTH

Prof. Pierre-André Michaud

Multidisciplinary Unit for Adolescent, Health, University Hospital, Lausanne, Switzerland

Although somehow different in scales and scopes, the main public health problems which adolescents currently face around Europe are quite similar in nature, which makes international comparisons in the field of health prevention and school health particularly attractive. With the shift from traditional health problems such as infectious disease to the so-called new morbidities (chronic conditions, substance use, HIV-related issues, etc.), health promotion and school health interventions have evolved both in content as well as in processes and strategies used. The conference outlines some basic concepts used in the field of adolescent health promotion, with an emphasis on methodological issues and evaluation. Evidence-based health promotion involves explicit application of research evidence when making decisions and implies the assessment of both processes and outcomes. Using examples in the area of school health, of substance use and of adolescent sexuality, this presentation highlights the usefulness of evaluation methods which go beyond the traditional quantitative measures of efficiency and effectiveness (prospective and case control studies). It emphasizes the importance of the participation of representatives of target population, as well as the utility of trend analyses and of qualitative methods such as the use of diaries, focus group or individual interviews. The paper also stresses the impact of values in affecting adolescent health behaviour, which would suggest a shift to strategies which include community interventions

FATHER AND SON- THE DEVELOPMENT OF THE MALE

Leena Klockars

In our mental images father is the symbol and ideal of safety and protection. Fatherhood is above all a social and psychic thing, but it is also strongly experienced as something bodily and inherited. As the child grows, the father's significance changes. At first, the father protects the presence of the mother – baby dyad, and after that gradually builds his own dyadic contact with the baby, although different from mother's. Later, the father breaks the tightly linked mother – baby dyad and changes the relationship into one between three parties. The father introduces difference, distinction, separation and externity into the child's world. Acting as a symbol of difference and separation, the father accepts the task of setting limits for the child. However, the father also provides the son an experience of sameness, which is why the father has a great significance to the son as a model of identification and help in developing a masculine identity. The parents' mental images of the son as a future man are mediated to the son by the way they look at him and behave towards him. This also has a decisive influence in the son's growth and his possibilities of separating himself from the mother and becoming part of the masculine world and fatherhood. It is difficult to know when a man's or boy's mental image of fatherhood begins, as the roots of fatherhood go back several generations. A man may have many different reasons for wishing to become a father and many different fears about becoming one. At the psychic level, however, what may be the most frightening phase is when the wife turns into a mother, towards the baby and away from the man. Different developmental challenges and stages are repeated in the son's life, which is why he needs fatherly protection, limit setting and an identification model throughout his life. The lack of a father may bring difficulties in the son's life.



NEED FOR HARMONIZATION OF CHILDREN'S VACCINATION SCHEDULE IN EUROPE

Pierre Van Damme, H Theeten

University of Antwerp, Centre for the Evaluation of Vaccination, Antwerp, Belgium

The introduction of immunization programmes in Europe has resulted in a major decrease in the incidence of several infectious diseases. To control infections at a European population level, vaccines should be offered in a structured way to reach target age cohorts swiftly and comprehensively, and across national borders.

The wide variety of immunization schedules across Europe reflects the different national or regional approaches of the Member States; historically, nations have had limited consultation and harmonization on public health matters. Vaccination programmes have evolved in different countries in function of the perceived disease burden inflicted on their populations by an infectious disease and the availability of an effective vaccine against it. Besides epidemiological factors, traditional organisational, emotional and socio-economic factors may have had led to variations in immunization schedules. The ones adopted were those found convenient and efficacious. As a result, in Europe, no two countries have exactly the same time-scheme of vaccine inoculations.

However, the diseases for which universal immunization is recommended are almost the same in most countries. These traditionally include diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps and rubella; and *Haemophilus influenzae* type b and hepatitis B becoming targeted diseases in an increasing number of countries. In some countries vaccination against some diseases is mandatory, but, in most, it is only recommended and acceptance mostly depends on education and information of health care providers and of the general population.

The increased use of multi-antigen combined vaccines will simplify the vaccination schedule, and form a potential step in the direction of harmonization. But, what harmonization do we need? Defining minimum age levels by which certain recommended vaccines should have been given, represents a constructive achievement over the countries in Europe.

Finally, each schedule should allow enough flexibility to rapidly and efficiently incorporate additional vaccines in the calendar, where these become available, or allow extension of universal immunization programmes to other age cohorts. This will contribute to the tremendous potential that vaccines offer for health.

8.45 - 9.15

R

PLENARY SESSION 1

Chris Brown

FOCUSING ON THE DETERMINANTS OF HEALTH: A CHALLENGE AND OPPORTUNITY FOR THE MEDICAL/HEALTH PROFESSION

9.15 - 10.30

R

Prevention: Programmes and Evidence

Chair: Karel Hoppenbrouwers, Pierre-André Michaud

1. SCHOOL HEALTH SYSTEMS IN EUROPE
M. P. Habibuw et al (The Netherlands)
2. SCHOOL HEALTH SERVICES IN CROATIA: WHAT DO WE REALLY NEED?
M. Kuzman (Croatia)
3. A METHOD FOR EVIDENCE BASED GUIDELINES FOR YOUTH HEALTH CARE - *M. M. Wagenaar et al (The Netherlands)*
4. A PREVENTIVE HEALTH CARE PROGRAMME FOR YOUNG CHILDREN IN FLANDERS: A SEARCH FOR EVIDENCE - *M. Debyser (Belgium)*
5. DENTAL CONCERNS AND ORAL HEALTH OF CHILDREN AND ADOLESCENTS IN SLOVENIA: PRESENT STATE AND FUTURE PERSPECTIVES
B. Artnik et al (Slovenia)

10.30-11.00

COFFEE BREAK



SOCIO ECONOMIC DETERMINANTS OF YOUNG PEOPLES HEALTH - CHALLENGES AND OPPORTUNITIES IN EUROPE.

Chris Brown, Technical Officer for Health Promotion

WHO European Office for Investment for Health and Development Venice, Italy.

This conference represents a propitious time to reflect on the challenges and build on the achievements for the promotion of the health and well being of young people in Europe. During the past two decades, major cultural, social, political and economic changes have taken place within Europe. These have dramatically affected the conditions and context of people lives.

It is therefore vital that we examine these new circumstances and assess how they are affecting health and well being of Young People.

The presentation will highlight the interplay of social and economic forces upon health and development of young people in the region and stress the need for integrated policy responses. The presentation hypothesises that there is an urgent need to rethink the way in which the health of young people is articulated and viewed and will draw out the implications for practice for those with an interest or responsibility for the health and well being of young people at Regional, National and Sub National Level.

In conclusion the presentation will pose a number of areas where action is required in order to create the conditions that will be most effective and sustainable in securing the health and well being of Europe's young people, both now and in the future.



SCHOOL HEALTH SYSTEMS IN EUROPE

M. P. Habibuw, T. de Man-van Veen, J. F. Meulmeester,
Netherlands School of Public and Occupational Health, Amsterdam.

In many European countries a school health system exists. These systems have similar goals and objectives but the implementation, the components and performance of various health programmes varies in different European countries. In 2001 during the EUSUHM congress the study design and questionnaire have been presented.

The study compares of health indicators, health care systems (preventive and /or curative) and the social and physical environment. Ten European countries responded. The results of the comparison of school health systems in Europe will be presented and compared with the data of the previous study.

SCHOOL HEALTH SERVICES IN CROATIA: WHAT DO WE REALLY NEED?

M. Kuzman, Pr, MD, MSc
Croatian National Institute of Public Health, Zagreb, Croatia

Health is an essential dimension of the quality of life and yet it means something different for different groups, individuals and communities. Especially for health professionals dealing with young people is important to accept the concept of measuring health not only in terms of morbidity and mortality, but to define it in a more positive ways. These professionals should make an effort and to encourage young people to take an action, not only to accept and adopt the healthier lifestyle, but to be able to increase their own control on their health.

In this paper the organization of health care and the national programme for school children and youth in Croatia is described. The advantages and disadvantages of this organization are discussed.

In Croatia the school health services are organized in the public health institutes. Each team, consisting of the school health doctor (specialist in school medicine) and a nurse is responsible for 5000 school children, youth and university students. The annual programme covers comprehensive systematic examinations (three in primary school, one in secondary school and one at the university), other check-ups, screenings, vaccination, health education and health promotion, counselling (guidance services), regular meetings with teachers, school counsellors and parents, care for chronically ill children and children with the special needs. The general outline of the programme could be amended to meet the specific local needs (i.e. more sexual education). In addition, school doctors are often involved in the multidisciplinary projects at the national or local level (Health Promoting Schools, Primary Drug Prevention, Youth Friendly Services etc). The school doctor's role is viewed as not only being the expert and enabler, but to advocate for health in a broader term and to facilitate changes in the organizational structure and in community. As the organization of school health services in Croatia has been changed five years ago in favor of the preventive health care exclusively, there is still feeling that comprehensive approach had its advantages. The possibilities for the interventions are felt to be too limited. The collaboration with the family doctors still has to be improved.



A METHOD FOR EVIDENCE BASED GUIDELINES FOR YOUTH HEALTH CARE

M.M. Wagenaar-Fischer, F.J.M. van Leerdam.

Netherlands Organization for Applied Scientific Research (TNO), Prevention and Health Leiden, The Netherlands.

In the Dutch health system care and cure are strictly separated. General practitioners and clinical specialists examine and treat individual children. Surveillance and prevention programs are under the control of the youth health care system. This means that youth health care specialists in the Netherlands examine children and refer them for elaborate examination and treatment.

Within the youth health care system it was generally felt that the quality of the work needed to be improved. Nation-wide conferences were held in 1995. It was concluded that guidelines were urgently needed. The Ministry of Health supplied a grant for the development of a method for the design of guidelines. A guideline is an evidence-based direction for a systematic program of prevention developed for and by the professionals in the youth health care. In the Netherlands it concerns methods for the examination of children and criteria for control and referral. The guideline describes also what has to be done after the referral. The method was defined in 1998. Since that moment three guidelines were developed: early detection of perception deafness, early detection of visual defects and early detection of adolescent scoliosis. More guidelines are 'under construction': congenital defects of the heart and secondary prevention of child abuse. The Ministry promised funds for the development of 20 different guidelines.

Why is the use of guidelines so important? A guideline is an important tool not only for the government used for their surveillance of the quality of the care, but also for the individual professionals in the youth health care system. It is primarily a practical and evidence based guide for the daily work. Efficacy and efficiency will improve. Up to date evidence-based knowledge becomes available for practical use in shorter time for all professionals in youth health care. Organisations and professionals can make clear and better argued decisions about their responsibilities and their respective tasks.

The method consists of the following stages:

1. A committee is formed with members of all important institutions involved, like the Ministry of health, the National Inspection of Health, societies of professionals and of employers.
2. The committee selects the topics for new guidelines.
3. The committee appoints the members of the expert group for each guideline.
4. TNO Prevention and Health supports the expert group.
5. The committee publishes the guideline after its approval. A guideline consists of three parts: a book with a detailed evidence-based description of the subject, a leaflet with a short description of the method, a one-page plastified summary of the guideline.
6. All institutes of youth health care (about 300) receive the three parts. Every doctor and nurse receives the leaflet and the one-page scheme. All three parts will be available on Internet.
7. An article about the guideline will be published in one of the relevant Dutch scientific journals, so that general practitioners and clinical specialists are informed of the existing guideline.
8. After the guideline has been published, it has to be implemented. This is achieved amongst other methods by 'a train the trainer' system and by making the guideline subject of an internal audit system.
9. Finally the guideline is evaluated: does it work in daily practice? Are there unforeseen problems? All the complaints are investigated on a continuous and cyclic basis.
10. Guidelines are revised every three to five years. New techniques or new evidence will be incorporated. For example the guideline on detection of perception deafness will be revised because of the new method of the neonatal screening of hearing loss that is recently implemented in the Netherlands.



This program for youth health care guidelines is now on its way in the Netherlands but the start has been difficult. Since the government was forced to economise, the funding of every health project had to be renegotiated. The committee spent much time on careful analyses of the meaning and use of guidelines at the various levels of the health care system. Criteria that guarantee the scientific quality of guidelines had to be defined. Examples of the various problems and their solutions will be presented

A PREVENTIVE HEALTH CARE PROGRAMME FOR YOUNG CHILDREN IN FLANDERS: A SEARCH FOR EVIDENCE

M. Debyser

Child & Family, Brussel, Belgium

In Flanders (the northern part of Belgium) 61697 children were born in 2001. The organisation „Child and Family“ provides a community-wide preventive health care programme consisting of at least ten preventive consultations, in which 84% of the target group (0-3 years olds) participated. About 45,7% of the children born in 2000 had at least 6-7 well-child visits during their first year of life. These free visits take place in an ambulatory setting in which parents first have contact with a nurse, followed by a visit to a paediatrician or a general practitioner with a special qualification in preventive child health.

Several programmes are being offered to a child and his parents. Before the age of six weeks a test for screening of congenital hearing impairment is done (Algo-test). Several health-promoting initiatives, including some related to feeding and safe sleeping, are taken. During a ten-minute doctor's consultation immunisations are given as required by the WHO, and screening of the neuromotoric development (by means of the Van Wiechen examination) is organised.

As time and finances are limited, it is a challenge to restrict the contents of a well-child visit in a way that is evidence-based. Over the last few years several improvements in the programme have been implemented. Some other topics (mostly medical) are still in discussion.

During the presentation several aspects of this search for evidence will be discussed.

DENTAL CONCERNS AND ORAL HEALTH OF CHILDREN AND ADOLESCENTS IN SLOVENIA: PRESENT STATE AND FUTURE PERSPECTIVES

Barbara Artnik, DMD, MSc, Marjan Premik, DMD, PhD

Department of Public Health, Faculty of Medicine, University of Ljubljana, Slovenia

Since mid 80`s, oral health in children and adolescents in Slovenia has improved considerably. The reasons for declining prevalence of dental caries in the last two decades can be attributed to the well organised school dental care system, dental education, and combined effects of the increased use of fluoride dentifrices and of slight reduction in overall sugar consumption. The prevalence of dental caries in different age groups in Slovenia is, in spite of some favourable epidemiological trends, still under the average if compared with that of the developed European countries. However, the situation is expected to change in the future unless renewed national goals for good oral health in the next decade are set up. A new preventive dental care program with well-defined responsibilities of all parties concerned should be adopted and should comprise the content, volume, quality, time, monitoring, and financial sources allocated for these purposes. Such a program could improve the situation, reduce the differences between the regions, and improve dental health education. A special attention should be given to the promotion of healthy living and lifestyles. Individuals should be motivated to take care of their health and the health of others actively, whereas the society should enabled them to do so.

11.00 - 12.45

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PARALLEL SESSION 1

Prevention: Programmes and Evidence

Chair: Karel Hoppenbrouwers, Pierre-André Michaud

1. COOPERATION BETWEEN A RESEARCH INSTITUTE AND PUBLIC HEALTH DEPARTMENTS IN A NATIONWIDE PILOT IN THE NETHERLANDS ON EVALUATION OF A NEW METHOD OF SCREENING PSYCHOSOCIAL PROBLEMS IN 5-6 YEARS OLDS: PROMOTING AND OBSTRUCTING FACTORS
M.B. Swagerman-van Hees (The Netherlands)
2. THE ROLE OF SCHOOL DISPENSARY AND SCHOOL PHYSICIAN IN PREVENTIVE HEALTH CARE OF YOUNG POPULATION
M. Karovska et al (Macedonia)
3. THE ROTTERDAM YOUTH MONITOR: AN INTEGRATED APPROACH
E. de Wilde et al (The Netherlands)
4. PREVENTIVE HEALTH CARE FOR UNIVERSITY STUDENTS IN LEUVEN
M. Sisk et al (Belgium)
5. ASK DOCTOR BY E-MAIL; HEALTH COUNSELING FOR UNIVERSITY STUDENTS IN FINLAND - *J. Castrén (Finland)*
6. THE HEALTH OF YOUTH IS A FUNDAMENTAL OF THE NATION
T. Simon (Hungary)
7. PREVENTIVE HEALTH PROGRAMMS OF STUDENT ORGANIZATION OF UNIVERSITY OF LJUBLJANA - *A. Hojski (Slovenia)*



COOPERATION BETWEEN A RESEARCH INSTITUTE AND PUBLIC HEALTH DEPARTMENTS IN A NATIONWIDE PILOT IN THE NETHERLANDS ON EVALUATION OF A NEW METHOD OF SCREENING PSYCHOSOCIAL PROBLEMS IN 5-6 YEAR OLDS: PROMOTING AND OBSTRUCTING FACTORS

M.B. Swagerman-van Hees, MPH

TNO Prevention and Health, Leiden The Netherlands

An important task of the Child Public Health Care Services in the Netherlands is the tracing and identification of psychosocial problems in youth. Until now it has lacked effective procedures for fulfilling this task.

In January 2003 all public health departments in the Netherlands are required to implement the basic child public health care package (Basisatakenpakket); in due time this basic child public health care package will be evaluated in terms of outcome. In order to increase effectiveness of the package, there is a strong need for standardization .

The prevention of psychosocial problems among children is an important theme for research and development at TNO Prevention and Health (TNO PG). Research focuses particularly on the improvement of an early detection and treatment, and thereby on the effectiveness of preventive child health care. With respect to the research theme, TNO PG already collaborated with the National Association for Municipal Health Services, the Dutch Association for Child Public Health Care and the National Association for Social Nurses in Municipal Health Services. In the presentation exemplary projects will be mentioned, since these projects finally resulted in the project „Evaluation. of a new method of screening psychosocial problems in 5-6 year olds by child public health specialists in the Netherlands“.

In this project child public health specialists were trained in the new method to observe and evaluate in a structured manner both the child's behaviour and the parent-child interaction. Identification of psychosocial problems was measured in an experimental and control group before and after training of the child public health specialists in the new method.. Nationwide child public health specialists were recruited. Originally, the goal was to train 110 public health specialists. In the presentation promoting and obstructing factors in the cooperation of the research institute with the public health specialists in this nationwide project will be presented. Furthermore recommendations will be made to minimize obstructing factors. As there will be a tendency in other countries to do research on effectiveness , others might benefit from the recommendations. The reason why behind the specific project will be addressed in the presentation as well as why this might be a good example of how to attain evidence based practice. Shortly the content of the project will be addressed as well as implementation aspects.

THE ROLE OF SCHOOL DISPENSARY AND SCHOOL PHYSICIAN PREVENTIVE HEALTH CARE OF YOUNG POPULATION

*M.Karovska,G.Karovski,V.Poposka,**

School Dispensary Kavadarci,School Dispensary Struga, Republic of Macedonia

Aim: The importance of school dispensaries organization and school doctor activities for preventive health care in young population.

Material: Specialities for school and university medicine deal not only with studying of pathology, prevention of diseases, health education, but hygiene-supervision of school environment, and treatment of diseases. This service has existed in Macedonia for more than 50 years and its basic aim is not only diagnostic and treatment of diseases but its priority is preventive health care with planned, organised and continuous introducing of periodical medical check ups and immune-prophylaxis



Results: With the high realized percentage of 99,8 carrying out immunisation there were created conditions for eradication of some specific diseases (diphtheria, poliomyelitis and tetanus) as well as significant decreasing and putting under control of the other diseases (mumps, rubeolla, morbilli) which are subject to obligatory immunisation. Periodical medical check ups include following of the growth and development of pupils, systems examination, attendance of mental development and mental health, early diagnosis of pathology and prevent development of disease. The periodical check up is significant screening method for discovering of disorders, early detecting of diseases, preventing its development and chronicity. The high realized percentage of 95,2 gives opportunity for production of physical and mental healthy young individuals with correct opinion and obligation to community and proper orientation concerning healthy life. Health education with holistic admittance of health, action directed, and oriented for solving the actual health problems, on democratic principle supporting consideration process and forming individual and environment life style. The basic aim of hygiene-supervision is to minimize the negative influence of the school environment of the physical and psychical health of the children.

Conclusion: The results of schools dispensaries activities and schools' specialists and university medicine are important to keep the values for improving the health of young population whose pathology and problems are well known and encountered everyday.

THE ROTTERDAM YOUTH MONITOR: AN INTEGRATED APPROACH

E.J. de Wilde, D. Bentvelsen and A. Vlaanderen

Rotterdam Municipal Health Service

The municipality of Rotterdam started the Rotterdam Youth Monitor (RYM) about 5 years ago as a pilot. It is now almost completely functionally integrated into the school health care system. In the RYM, every new born Rotterdam baby (about 7000 each year) is assessed on seven times during his or her child and adolescent development. School physicians and school nurses collect data among parents, teachers and pupils, depending on the moment of assessment. The content of the monitor consists predominantly of the mental health of the children and adolescents and its (social) correlates. A key element of the RYM is the active feedback: besides the individual care which is organised in a more standardized manner than before, school nurses and school physicians use reports from data aggregated on different levels (school, municipality, district, etc.) to invoke and/or control collective preventive efforts. Therefore, the RYM is also a youth policy instrument and an intervention as such.

PREVENTIVE HEALTH CARE FOR UNIVERSITY STUDENTS IN LEUVEN.

M. Sisk (1), R. De Roy (1), K. Hoppenbrouwers (2) and J. De Vuyst (1)

Student Services, Preventive Health Centre, Katholieke Universiteit Leuven, Leuven, Belgium
Youth Health Care, Katholieke Universiteit Leuven, Leuven, Belgium

It is a priority for the Katholieke Universiteit Leuven (K.U.Leuven) to create an educational platform for young people, in an intellectually stimulating, socially supportive and student-centred environment.

As a part of Student Services of the K.U.Leuven, the Preventive Health Centre offers all freshmen (on average about 4000 students participate yearly) a free and individual contact with a nurse and a physician.

In the presentation first a description will be given of the working strategy, the most

important goals and the co-operation with other Student Services such as Medical Centre for Students and Psychotherapeutic Centre for Students.

Secondly results will be presented, gathered from registration of health related issues over the last 10 years, like vaccination status, BMI, smoking habits, use of oral contraceptives, psychosocial well-being, ...

Based on this registration, health promotion initiatives towards individual students or specific risk groups are being developed. This consists of info-sessions concerning sleeping disorders and a program for overweighted students. In addition a "health matters"-web site was developed. These initiatives will briefly be discussed. In conclusion, by means of the here described preventive health policy the university of Leuven provides an integrated student health care, in which students are supported in their growth to independence and in taking responsibility for their own health.

ASK DOCTOR BY EMAIL; HEALTH COUNSELLING FOR UNIVERSITY STUDENTS IN FINLAND

J. Castrén

Finnish Student Health Service, Helsinki, Finland

Background: Finnish Student Health Service (FSHS) provides university students preventive health care, medical care, mental health care, and dental health care services at 16 health centers. Since 1993 FSHS has produced health services also per email; at University of Tampere started then an email service for health counselling. This study covers the action of a nationwide e-health service, located at Helsinki health center, carried out by two General Practitioners. "Ask Doctor per email" -service functioned at the period of time 1.9.2001 – 31.5.2002 as an open and unprotected email-service. GPs gave instructions and advice on health and illnesses and answered students questions in 1-3 (week) days to senders personal email address. Objective: To explore the question-answer material to characterize a modern eHealth service, the main topics of the questions and answers, and its users. Methods: Statistical analysis (Microsoft Excel) of a random sample (n=812) of all questions send to the service (N=2437).

THE HEALTH OF YOUTH IS FUNDAMENTAL IN THE HEALTH OF THE NATION

T. Simon, J. Kaposvári

Semmelweis University Dept. of Public Health and Josef Fodor School Health Society Hungary

Those physicians, nurses, public health providers, teachers and school psychologists who take part in formation of health knowledge of teenagers have big responsibility for healthy and wealthy life of further generation. The first task in this – field: to teach all teenagers to estimate the value of their own health.

In Hungary the government introduced a ten year long health promotion program. The main aim of this program is to help everybody in elevation of the present low average tenth of life in Hungary. In this program, together with the official bodies, voluntary non governmental organizations can find their role and responsibility too. The Josef Fodor School Health Society in Hungary have good programs for preparing health promotion knowledge all participants who have any role in saving and healing the health of Hungarian youth. The teaching the twelve rules of healthy life is the first step all in this like programs. We want to achieve at the end of following two year: every 14-15 year old schoolchildren in our country



should have to know and accept the below rules: Good personal hygiene, healthy nourishment, more moving, coping with stresses, moderate sexual activity, no smoking, less alcohol consumption, drug-negation, avoidance from accidents, have to go in time to see the doctor, compliance, and personal respect of environment. We want hope reaching with the above mentioned, our young generation will be more healthy and more longevity in the future.

PREVENTIVE HEALTH PROGRAMMES OF STUDENT ORGANISATION OF UNIVERSITY IN LJUBLJANA, DEPARTMENT OF SOCIAL AND HEALTH CARE

A. Hojski

Student organisation of University of Ljubljana in cooperation with other associations, that provide needed professional basics and volunteers, is working on this programs the third year now.

Spheres of activities

Activities are mostly of preventive nature. Yet this does not limit us. It can even be an advantage since it is in accordance with the working method of our organisation. Being the most critical part of the society, students can mostly warn their counterparts so our activities are oriented towards this.

Our most important campaigns are organised on the World AIDS Day and World No Smoking Day. We also carry out activities in association with the Student Health Centre (SHC) and others.

Our primary guidance is ingenuity with finding the most appropriate approach in becoming more aware of various ways of healthy living. We try to educate students and youngsters about these ways of living and achieve that they assume them.

Outside cooperators

Our ideas and investments can be enriched through cooperation with similar organization in this field.

Promotion of activities

There are numerous activities in the field of health, but are insufficiently promoted. This becomes a key problem when we become aware of the fact that informing and education is our strongest weapon.



11.00 - 12.45

G

PARALLEL SESSION 2

Nutrition and Eating Disorders

Chair: Roger Harrington, Andreja Lakner

1. NUTRITIONAL STATUS OF SECONDARY SCHOOL YOUTH IN THE CELJE REGION - *D. Podkrajšek et al (Slovenia)*
2. ANAEMIA IN SCHOOL CHILDREN IN COMMUNITY RADOVIŠ
S. Kamčeva et al (Macedonia)
3. USE OF DIETARY SUPPLEMENTS AND HERBAL PRODUCTS AMONG FINNISH UNIVERSITY STUDENTS - *A. Virtala et al (Finland)*
4. BODY IMAGES OF SLOVENIAN YOUTH - *M. Kuhar (Slovenia)*
5. UNIVERSITY STUDENTS' ATTITUDE TO EATING AND TO THEIR OWN WEIGHT - *R. Peltonen et al (Finland)*
6. EVALUATION OF THE NUTRITIONAL STATUS OF A SAMPLE SCHOOL CHILDREN GENERATION IN THE LJUBLJANA REGION WITH REGARD TO BODY MASS INDEX - *B. Suhadolnik (Slovenia)*
7. NUTRITIONAL STATUS AND DIETARY HABITS OF SLOVENIAN 13-YEAR OLD SCHOOLCHILDREN - *J. Mugoša et al (Slovenia)*

12.45 -14.00

LUNCH / POSTER SESSION

NUTRITIONAL STATUS OF SECONDARY SCHOOL YOUTH IN THE CELJE REGION

*D. Podkrajšek**, MD MSc, Spec. in School Medicine, *S. Uršič**, MD, Spec. in Hygiene, *E. Štante**, univ. dipl. soc.kult., *K. Goste***, MD, Spec. in School Medicine, *B. Crnič***, Senior Nurse

*Institute of Public Health Celje, Ipavčeva 18, 3000 Celje

**Health Centre Celje, School Clinic, Gregorčičeva 5, 3000 Celje

Inadequate nutrition is considered one of the most important and eliminable risk factors for chronic non-contagious diseases, being the most frequent cause of death in adult population in Slovenia. Due to the fact that nutritional habits are being formed already in one's youth, the adolescent population is regarded as an important target group for promoting healthy nutritional habits. In Slovenia, nutrition of secondary school youth has so far not been systematically regulated. According to the routine health statistics, the percentage of improperly nourished (overweight and undernourished) among them is on the increase.

In the school year 2001/2003, the authors conducted a cross-sectional study of nutritional habits and nutritional status in 3899 pupils of the 1st and 3rd secondary school year in the Celje region. During the systematic medical examination they conducted a written survey among the secondary school youth on their nutritional habits as well as anthropometric measurements with calculation of body mass index. The questionnaire included 37 questions of closed, semi-open and open type on the subject of nutritional habits, self-estimation of nutritional habits, contentment with one's own body mass and body appearance. For every surveyed person the data on anthropometric measurements were also entered into the questionnaire by a medical technician: body height and mass, caliper-measured thickness of subscapular skin fold as well as skin fold above triceps. On the basis of information on body height and mass the body mass index was calculated for each individual adolescent surveyed.

Results: Self-estimation of one's own nutritional habits (3831 correctly completed questionnaires): very good and good in 59.1%, more or less unhealthy in 33%, unhealthy in 7.8% of pupils. Contentment with one's own body mass: contented 57.8% of the surveyed, not really contented 27.0%, very discontented 14.8% of pupils, among them characteristically more female (21.6%) than male (5.2%) pupils. Self-estimation of body appearance: properly nourished 57.6% of the surveyed (70.3% males and 48.8% females), 29.7% of pupils (41.2% of females and 13.3% of males) claiming to be overweight, and finally, 8.8% of the 15 to 17 year olds in Celje (5.3% females and 13.8% males) considering themselves too thin.

The body mass index as a calculated objective indicator of nutritional status shows the following: 67.4% of the surveyed (no differences between sexes) fall within the range from 18.9 inclusive to 24.9, 12.4% of the surveyed (14.1% males and 11.6% females) have a body mass index of 25.0 or more, whereas a body mass index of 18.9 or less was observed in 20.1%, which means 763 pupils of the 1st and 3rd secondary school year in Celje (in 18.0% males and 21.5% females). There were as many as 0.9% of the 1st year pupils (i.e. 19 pupils) found with a body mass index 15.9 or less. The lowest body mass index was 13.1 (one 1st year female pupil) and the highest 58.5 (overweight caused by hormones).

In the secondary school youth of the Celje region it will be necessary to exert systematic influence upon their nutritional habits as well as on the offer of food both in schools and in their vicinity. The health promotion campaigns should be focused on changing the attitude of youth towards nutritional habits, whereas both medical as well as educational staff will have to deal with early detection and treatment, in particular, of anorexia and bulimia in adolescents.



ANAEMIA WITHIN SCHOOL CHILDREN IN COMMUNITY RADOVIŠ

S. Kamčeva, V. Kelkoceva, K. Mnceva, M. Karovska, M. Cilakova

Out-patient department Radovis, R. Macedonia

Introduction: The deficit of ferum is the commonest nutrition deficit and the commonest reason for anaemia everywhere in the world. Anaemia is greqent 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 out-patient departments for children from 7 to 14 years of age. The values od 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 processes 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 stil exist besides the better methods of its prevention, discovering and treatment.

THE USE OF DIETARY SUPPLEMENTS AND HERBAL PRODUCTS AMONG FINNISH UNIVERSITY STUDENTS

A. Virtala^{}, K. Kunttu^{**}*

Finnish Student Health Service, Tampere^{*} and Turku^{**}, Finland

Herbal products for preventive and therapeutic purposes are being used increasingly in the countries with high standard of living. Finnish university students' use of herbal remedies and dietary supplements were asked by a postal questionnaire as a part of Student Health Survey 2000. 46 % of men and 67% of women used these products regularly or occasionally. The female students, who used often herbal products, had more often asthma, allergy or eating disorder. Fatigue was clearly connected with regular use of herbal products. The regular use of herbal products was also connected with high level of psychic or somatic symptoms, with frequent consultations with health providers and with healthy eating and physical exercise habits. Those, who often used herbal products, used often also conventional prescription or over-the-counter drugs. Self-treatment and conventional drugs and health services were used side by side.

Herbal products and dietary supplements are not regulated and controlled for purity or potency.

They may have adverse effects and interactions with drugs. Because those who consultate often health providers, use often herbal products, physicians and nurses need to be aware of the effects of these products. They should also ask questions about the use of herbal products as part of self care history.

BODY IMAGES OF SLOVENIAN YOUTH

M. Kuhar

Faculty of Social Sciences, University of Ljubljana, Ljubljana, Slovenia

I investigate the body images of youth in Slovenia on a non-clinical sample of 307 males and females, aged 15-18, and in seven focus groups with 41 young subjects. In the quantitative study (questionnaire with verbal and visual measures), two variables – discrepancy between self-perceived actual figure and internalized socio-cultural ideal and discrepancy between self-perceived actual figure and own body ideal – have an effect on body satisfaction and body shape-regulating behaviour. The survey has documented considerable body image concerns of young females, and the associated body change strategies. Most young males have not indicated such body image concerns. However, boys are becoming more active in their own appearance management. Results of the qualitative study (focus groups) are used to suggest disadvantages of quantitative inquiry and for a more appropriate explanation of the analysed quantitative data. Some theoretical constructs and especially scientific and social implications of findings will be discussed. The article will suggest strategies on how school counselors could promote a balance view of eating behaviour and weight concerns and how they can help curb disordered eating and the preoccupation with body among their students; thereby also preventing the development of eating disorders.

UNIVERSITY STUDENTS' ATTITUDE TO EATING AND TO THEIR OWN WEIGHT

R. Peltonen, P. Engblom, K. Kunttu, T. Huttunen

Finnish Student Health Service, Turku, Finland

In the health survey among university students in Finland year 2000 1,14% of women and 0,14% of men acknowledged that they had been diagnosed to have an eating disorder. In the survey it was also asked about students' attitude to eating and dieting. 86% of the women with an eating disorder did not have a normal attitude to eating and more than half of them had lost control of dieting. In the survey almost every tenth woman and 2,5% of men had an abnormal attitude to eating. Dieting had turned uncontrollable in 7,5% of the women who answered to the survey. There were more overweight persons among those who did not have a normal attitude to eating than among those who had a normal attitude. Estimating their own weight women thought more often themselves being overweight and men underweight than what the situation was according to weight index. There was more difference between the estimated and the real weight when the person answering had a diagnosed eating disorder or her/his attitude to eating was not normal or her/his dieting had turned uncontrollable. A problematic attitude to eating and once own weight and dieting were found being the basic factors of eating disorder. Finding out these factors during the practice would be of great importance and help the early diagnose of an eating disorder.



LONG TERM EVALUATION OF NUTRITION STATUS OF LJUBLJANA REGION GENERATION SAMPLE WITH THE AIM OF BODY MASS INDEX

B. Suhadolnik, MD, MSc, Ljubljana

Introduction: Childhood obesity may result in numerous diseases, which occur as early consequences of obesity and increased risk of development of diseases and consequential deaths in adult age.

Intent and objective: With the intent to contribute to the formation of the National strategy and expert propositions for introduction of primary and secondary prevention of overweight and obesity in Slovenia we set our objective to evaluate nutritional status, determine the structure and distribution into different categories of nutrition on a generational sample of children in Ljubljana and to establish whether with the bout of growth the overweight transfer into normally nourished and the obese into overweight according to the relative change of the BMI centile class. To get to know the dynamics of nutrition for the age interval of 6 to 18 years. To evaluate the results of systematic examinations according to the British BMI standard and in regards to the possibilities of preventive measures from the viewpoint of prevention and elimination of overweight and obesity and public health measures in this area.

Examinees and methods: On a random generation sample of 245 healthy children in Ljubljana, born in the year of 1982, we evaluated in time intervals the prevalence of overweight and obesity on the basis of body mass index (BMI) by the British standards. The selected sample of children was followed up in the long term from the age of 6 to 18 within the scope of regular systematic examinations every two years. We evaluated the nutritional status in the time intervals - with the aid of anthropological measurements, calculated the body mass index and determined its value within the British standards centile curve. We studied the effect of physical activity of children on the classification of the subjects into the group of overweight and obese.

Results: We determined, that overweight and obesity in Slovenian children are considerable public health issues. The prevalence of overweight boys within the age interval of 6 to 18 years fluctuates between 2,1 and 14,7 % and of overweight girls between 5,4 and 9,5 %, obese are between 2,1 and 6,4 % boys and between 1,8 and 3,5 % girls. In the fifth grade of primary school cumulatively and in the third year of the secondary school cumulatively and especially with boys we can argue, that the overweight and obese subjects are less physically active in comparison with subjects, who actively engage in sports. Overweight and obese subjects remain in the classes of overweight and obese even after the bout of growth.

Conclusion: We determined, that the obese and overweight children even after completed adolescent bout of growth remain in the centile classes of overweight and obese children/adolescents and that less physically active children are more often classified among overweight and obese. We established, that the regular systematic examinations of children and adolescents should be doctrinally improved, the acknowledged population of overweight and obese children should be fully examined (in-depth personal and family history, social history, lifestyle, serum lipids, fasting blood glucose, measurements of blood pressure, ...), objective measures should be taken, the children should be directed into programs of secondary prevention, followed-up and evaluated.

NUTRITIONAL STATUS AND DIETARY HABITS OF SLOVENIAN 13-YEARS OLD SCHOOLCHILDREN

J. Mugoša, M. Mugoša

Regional Health Centre- School Dispensary, Sežana, Slovenija

Growth, development and overall health of Slovenian schoolchildren is being constantly monitored by school doctors at periodic (systematic) check-ups, mandatory for every child registered to enter the first grade of the elementary school. These check-ups are repeated every two years during the elementary school period. During this period, the nutrition of children and adolescents is very important for their growth, as these years are a period of intensive development.

Insufficient control over diet in this population on the part of responsible institutions together with parents' occupational tasks and working schedule as well as overburdening of children with school-related duties all lead to irregular and incorrect diet and dietary habits.

For a more detailed assessment of the situation in the Slovenian elementary schools a survey with a questionnaire has been conducted; the project included pupils in the 7th grade of elementary school (i. e. 13-years olds) in the school year 2002/2003. Responses of children have been analyzed along with BMI (body mass index), hemoglobin and blood pressure values obtained at the systematic check-up of the same children in this school year.

The results provide a basis for further analyses, improvement of health education programs and for guidance of competent authorities on requirements regarding the nutrition, which should fulfil all basic needs of school children and adolescents.





14.00 - 14.30.

R

EUSUHM PLENARY SESSION 2

Agnes Nemeth

BIOLOGICAL MATURATION AND SOCIAL RELATIONS

14.30 - 15.15

R

Growth and Development

Chair: Živka Prebeg, Mathieu Roelants

1. EPIDEMIOLOGICAL FEATURES IN GROWTH AND DEVELOPMENT OF CHILDREN AND ADOLESCENTS - A RESEARCH AREA OF SCHOOL HEALTH - *Z. Prebeg (Croatia)*
2. NEW CROSS-SECTIONAL GROWTH CHARTS FROM BIRTH TO MATURITY IN FLANDERS - *M. Roelants et al (Belgium)*
3. TOWARDS EVIDENCE BASED REFERRAL CRITERIA FOR GROWTH MONITORING - *P. Verkerk et al (The Netherlands)*



BIOLOGICAL MATURATION AND SOCIAL RELATIONS

Á. Németh

National Centre of Health Promotion and Development

Puberty as a biological process has substantial impact on adolescents' mental, emotional and social development. The timing of biological maturation also modulates this relationship.

Somatic changes influence considerably body image, self-esteem, mood, general feeling and well-being as well as besides and through all of these the relationships with parents, teachers and peers. In general adolescence is considered a period of life burdened with many conflicts.

Though the process during which child becomes adult biologically, psychologically and socially is normal and undisturbed in the most young people, nevertheless the number of problematic cases might increase because of the increasing time gap between biological and social development.

This study outlines the main gender similarities and differences in the change of social relations according to sexual maturation. The main issues are the relationships with parents, school and peers. Furthermore it tries to highlight the connection between timing of maturation and changes of these issues. There are typical gender differences in this area too. Finally it indicates some health outcomes of these developmental processes.

EPIDEMIOLOGICAL FEATURES IN GROWTH AND DEVELOPMENT OF CHILDREN AND ADOLESCENTS – A RESEARCH AREA OF SCHOOL HEALTH .

Živka. Prebeg

Andrija Štampar School of Public Health, Zagreb, Croatia

Growth and development in children and adolescents became the concern of scientific interest relatively late. First systematic epidemiological researches in this topic have been performed in school children..

Although all human beings follow the same basic growth patterns, dynamic of growth varies between and within populations and also changes over time.

As it is wellknown nowadays, children's rate of growth mirrors the state of their health.

This paper is an overview of growth variations and secular changes in Croatia based on the results of three research projects organized by the Andrija Štampar School of Public Health. The first refers to secular growth changes in Zagreb schoolchildren. It began in 1951, the surveys were repeated 5 time up to 2001.

In the second , starting in the late seventies, variations in menarcheal age throughout Croatia were investigated. In the third study, the focus was on the height and weight of schoolchildren living in various parts of the country. Data collection took place between 1980 and 1984. Children aged 7 to 18 were measured in 36 localities.

Both of the nation-wide surveys discovered marked differences in body size and maturational rate. Therefore repeated investigations in the same localities were undertaken 10 - 15 years later. The results showed that secular changes in mean height and menarcheal age varied between regions in the last decades. In some, positive changes in mean height kept associating with an earlier onset of menarche. In others a very steep trend of increasing body size had been accompanied by a halt or even reversal in menarcheal age, whereas in some changes in both features, growth in height and maturation, seemed to reach their end .

NEW CROSS-SECTIONAL GROWTH CHARTS FROM BIRTH TO MATURITY IN FLANDERS (BELGIUM)

M. Roelants(a), K. Hoppenbrouwers(b), J. Deschepper(c), L. Doooms(d), J. Pauwels (e), A. Moreels(f), G. Verleye(g), C. Susanne(a), R. Hauspie(a)

(a) Laboratory of Anthropogenetics Vrije Universiteit Brussel, Brussel, Belgium;

(b) Department of Youth Health Care Katholieke Universiteit Leuven, Leuven, Belgium; (c) Academic Hospital, Vrije Universiteit Brussel and European Childhood Obesity Group, Brussel, Belgium; (d) Belgian Study Group for Pediatric Endocrinology, Belgium; (e) Kind & Gezin, Brussel, Belgium; (f) Student Health Centre, Vrije Universiteit Brussel, Brussel, Belgium; (g) Ghent University, Gent, Belgium

In most West-European countries, adult stature is increasing and attained at younger ages. This phenomenon, known as "secular trend", is related to the rising level of affluence in society. An important side effect is the need for regular updates of reference material for growth monitoring (i.e. growth charts).

The current Flemish growth charts date from the early eighties and will be replaced by new cross-sectional growth standards from birth to maturity by the end of 2003. This is the result of a large scale growth survey in well-baby clinics, and school and university health centers, that was initiated in 2001 and will continue until 2006. It includes



the measurement of length/stature, weight, head, mid upper arm, and waist circumference, and pubertal development, which are registered along with a set of demographic, social and health-related indicators, in 20.000 children and young adults.

In September 2003 new reference centiles for stature, weight and body mass index will be available. These will be presented and compared to their predecessors from 20 years before. Data from a pilot study in university freshman from the Vrije Universiteit Brussel indicate that mean stature at 19 years of age increased by approximately 1.3 and 2.2 per decade for respectively girls and boys, but that – at least for girls – the secular trend in tempo might have come to an end. This study was financed by the Ministry of the Flemish Community (Brussels, Belgium).

TOWARDS EVIDENCE BASED REFERRAL CRITERIA FOR GROWTH MONITORING

S. van Buuren (1), P. van Dommelen (1), G.R.J. Zandwijken (2), F.K. Grote (3), J.M. Wit (3), P.H. Verkerk (1)*

(1) Dept. of Child Health, TNO Prevention and Health, Leiden, The Netherlands

(2) Dutch Growth Foundation, Rotterdam, The Netherlands

(3) Dept. Of Paediatrics, Leiden University Medical Center, Leiden, The Netherlands

* presenting author

Growth monitoring is a routine part of child health care, but its efficacy in detecting clinically relevant growth disorders (e.g. Turner syndrome (TS)), is unknown.

Objective of this study was to evaluate the diagnostic performance of growth monitoring in detecting diseases. Turner syndrome (TS) was taken as the target disease. Design: In a case-control simulation study three archetypal screening rules were applied to longitudinal growth data of cases and controls from birth up until the age of 10 years. Cases were a group of girls with untreated TS (n=777) and controls were a reference group (489 girls). The screening rules were based on absolute height (H) standard deviation score (SDS), a parental height corrected rule (HSDS – target height (TH) SDS at a certain HSDS), and a deflection rule (Δ HSDS/year). For each rule and combination of rules (scenarios) sensitivity, specificity and median referral age were computed. ROC (receiver-operating-characteristics) were constructed for all rules and scenarios. Clear differences in performance of the rules were found. The best single rule was the parental height corrected rule. Combining rules improved diagnostic accuracy.

Conclusion: Growth monitoring is useful to screen for TS. A combined rule that takes absolute height SDS, parental height and deflection into account had the highest diagnostic accuracy. Similar research is needed for other diseases, populations and ages. The best results should be synthesized into evidence based referral criteria.

15.45 - 17.15

R**PARALLEL SESSION 3**

Growth and Development

Chair: Živka Prebeg, Mathieu Roelants

1. INTENSITY OF SECULAR TREND IN PRESCHOOL CHILDREN IN SLOVENIA - *T. Tomazo-Ravnik et al (Slovenia)*
2. THE INFLUENCES OF SOCIO-ECONOMIC ENVIRONMENT ON THE MENARCHEAL AGE IN SLOVENIAN GIRLS
M. Štefančič (Slovenia)
3. IMPLEMENTATION OF DUTCH CONSENSUS GUIDELINES FOR SHORT STATURE WOULD LEAD TO LARGE NUMBERS OF REFERRALS
P. Verkerk et al (The Netherlands)
4. CHILD DEVELOPMENTAL EXAMINATIONS DURING WELL - CHILD VISIT - *V. A. A. Vekeman (Belgium)*
5. GUIDELINES FOR EARLY DETECTION OF EYE DEFECTS, ADOLESCENT SCOLIOSIS AND CONGENITAL MALFORMATIONS OF THE HEART - *M. M. Wagenaar Fischer et al (The Netherlands)*
6. GENETIC FACTORS PLAY AN IMPORTANT ROLE IN THE ETIOLOGY OF THE ESSENTIAL HYPERTENSION IN CHILDREN
M. Bidovec et al (Slovenia)





INTENSITY OF SECULAR TREND IN PRESCHOOL CHILDREN IN SLOVENIA

T. Tomazo-Ravnik, M. Štefančič

Department of Biology, Biotechnical Faculty, University of Ljubljana, Slovenia

Secular trend in child growth has been analysed in Slovenia in many papers. Mostly the analysis was done for the schoolchildren and students. The aim of this study is to show the dynamics and changes in the growth of five and six year old pre-school children during the last 35 years. This age period is of interest also, because of nine year duration of elementary school where children started with six year of age. Anthropometrical characteristics of five years old children from Ljubljana (generations 1966/67, 1984/85 and 1995), from Škofja Loka (generation 1999 in comparison with generation from Kranj 1966/77) and Domžale-Mengeš (generation 1998 in comparison with generation from Ljubljana 1966/67) were evaluated. Secular trend of six year old children were studied in Koper (generations 1966/67 and 1997) and Kranj (generation 1966/67 and 2001). We compare only those anthropometrical measurements which have been done by the same method, separated by sex and towns. In all the groups of girls we noticed positive trend. Girls show more statistically significant positive differences than boys. Boys shows negative secular trend. We analysed in detail the following measurements: stature, weight, head and upper arm circumference, biacromial, bitrochanteric and ankle diameters, triceps and subscapular skinfold.

THE INFLUENCES OF SOCIO-ECONOMIC ENVIRONMENT ON THE MENARCHEAL AGE IN SLOVENIAN GIRLS.

M. Štefančič

Department of Biology, Biotechnical Faculty, University of Ljubljana, Slovenia

The influences of socio-economic factors on the onset of menarche were investigated in the three samples of secondary schoolgirls: Velenje (1999), Postojna (2001), and Bela krajina (2002). Data on menarcheal age was obtained by retrospective method. The mean menarcheal age was compared regarding to the origin of parents, the father's and mother's educational level, the family size, the chosen schooling of girls and their extracurricular activities (sport, music etc.) Special attention was focused to the urban living condition or farming. The comparison between these three Slovenian regions as well as with Ljubljana study from the year 1980 were done to find the eventual developmental changes during the last 20 years.

IMPLEMENTATION OF DUTCH CONSENSUS GUIDELINES FOR SHORT STATURE WOULD LEAD TO LARGE NUMBERS OF REFERRALS

S. van Buuren (1), D.J.A. Bonnemaijer-Kerckhoffs (2), F.K. Grote (3), J.M. Wit (3),

P.H. Verkerk* (1)

(1) Dept. of Child Health, TNO Prevention and Health, Leiden, The Netherlands

(2) GGD Oostelijk Zuid-Limburg, Landgraaf, The Netherlands

(3) Dept. Of Paediatrics, Leiden University Medical Center, Leiden, The Netherlands

* presenting author

Monitoring infant and child growth is a routine part of child health care in many countries. A few years ago the Dutch Institute for Health Care Improvement published Consensus Guidelines for promoting early diagnosis and treatment of short stature. Six screening rules were proposed. We computed the number of referrals under each rule and the total number of referrals using data from cohort of 970 children followed over a period



of 10 years. Not all proposed rules were defined consistently. Even if an interpretation of the rules was used with the highest specificity, more than 38% of all children would have to be referred. Thus, strict application of the guidelines would lead to an overwhelmingly large number of false positives. This would seriously impair regular practice and create avoidable anxiety. We recommend a revision of the current Dutch guidelines. New guidelines should be based on adequate empirical evidence.

CHILD DEVELOPMENTAL EXAMINATIONS DURING THE WELL-CHILD VISIT.

V.A.A Vekeman

Kind en Gezin. Flanders. Belgium.

In European populations the prevalence of developmental impairment was estimated to mount from 2.4% in infants to 3.3% at the age of 5 years. Therefore, a program for the systematic and standardised assessment of the psychomotor development of young children (aged 0 to 15 months) has recently been implemented in the Flemish network of well-baby clinics (Kind en Gezin). For this purpose the Van Wiechen method was introduced. This standardised method, developed by the Dutch paediatrician Van Wiechen, is based on the observation of a set of well-defined developmental characteristics at the ages at which 90% of normal children are expected to attain the respective developmental stages. The outcome of these age-specific developmental evaluations are registered on a pre-printed form, containing a number of selected items concerning motor, speech and language development. This form is added to the regular medical record. Together with the medical history of the child, the clinical findings and the spontaneous behaviour, this standardised developmental examinations result in a careful surveillance of the child's development and support the parents in their educational task. Early detection of developmental retardation is of great importance because of the proven positive effect of a timely intervention. The duration of a well-baby doctor's visit is actually limited to ten minutes on average. It is a challenge to integrate these age-specific developmental checks within this short time period. Training of nurses in answering questions and examining specific items of the Van Wiechen program showed helpful to attain this goal. In addition, the use of questionnaires for parental reporting might be time saving. Continuous financial efforts are being made by „Kind en Gezin“ in the training of medical practitioners and in providing continuous supervision.

In the presentation, the Van Wiechen method and its implementation in the Flemish preventive well-baby consultations will briefly be explained, and the program will be illustrated by means of a video developed for the training of medical staff.

GUIDELINES FOR EARLY DETECTION OF EYE DEFECTS, OF ADOLESCENT SCOLIOSIS AND OF CONGENITAL MALFORMATIONS OF THE HEART.

M.M. Wagenaar-Fischer, H.W.M. van Velzen-Mol, M.N. Blankespoor, N. Heerdink-Oberhuysen, F.J.M. van Leerdam.

Netherlands Organization for Applied Scientific Research (TNO), Prevention and Health Leiden, The Netherlands.

The guideline for early detection of eye defects. The goal of this guideline is the prevention of amblyopia. Amblyopia has to be treated before the age of seven years. The literature is ambiguous about the best age for treatment. Some authors advocate detec-

tion of amblyopia and treatment as early as possible, other authors claim that later treatment (but before the age of seven) has the same results. In the Netherlands between birth and the age of six years the vision of the child will be examined seven times. The examination is according to the age of the child and the age-related capabilities of the child. From the age of three year and nine months on, the vision will be examined with the Landolt - C test (a visual acuity test conform the Snellen-principle). Till the appearance of the guideline children under five years were examined with a test consisting of recognisable pictures for young children. This test is easy to perform for children but the results are unreliable. There is still discussion about the abilities of young children to perform the Landolt-C test. The guideline abolished the use of the stereometric random dot test as a screening instrument to detect vision defects. The decision not to screen for colour-blindness caused discussion. Examination for colour-blindness if indicated is always possible. The guideline advises no general population screening for visual defects from the age of six years on. Criteria for control and referral will be discussed. Comments of eye-surgeons and optometrists were taken into account.

The guideline for detection of idiopathic adolescent scoliosis. Severe scoliosis can cause heart- and pulmonary complaints and psychological problems. The goal of this guideline is to detect scoliosis in an early stage. Treatment with a brace does not correct the deviation of the spine, but the brace may stabilise the deviation. Operation of the spine may be prevented by brace-treatment. If the results of the treatment with a brace are not sufficient, operation will be necessary but may be less elaborate. There is much discussion about the efficacy of brace therapy. The believers are strong advocates and the non-believers deny their results. More research is needed. The United States Preventive Task Force concludes: there is insufficient evidence to recommend for or against routine screening of asymptomatic adolescents for idiopathic scoliosis. Hence we decided to restrict the guideline to how the examinations to be performed. The screening itself is not urgently prescribed. If an organisation is not screening for scoliosis, it is advised not to start the screening. If an organisation is screening for scoliosis, it is advised to continue the screening. Criteria for control and referral will be discussed. Comments of orthopaedists, physiotherapists and general practitioners were taken into account.

The guideline for detection of congenital malformations of the heart. Some malformations are obvious immediately after birth, others give hardly any symptoms or only in later years and a third group causes problems some weeks after birth. The guideline focuses on the third group. The malformations of this group have to be corrected by an operation in most cases. Symptoms of this group are murmurs but also tiredness during feeding or failure to thrive. Criteria for control and referral will be discussed. Comments of heart-surgeons, paediatricians and general practitioners are taken into account. There will be a CD with murmurs available for the professionals in youth health care.

GENETIC FACTORS PLAY AN IMPORTANT ROLE IN THE ETIOLOGY OF THE ESSENTIAL HYPERTENSION IN CHILDREN

M. Bidovec, D. Petrovič, M. Hribar, J. Drobež, Z. Bratanič, J. Mugoša, M. Kavčič-Obreza, U. Omejc, Š. Križnar, J. Lušin, B. Krajinik, M. Lipovšek, B. Štefančič, I. Kauzlarič, B. Peterlin.*

*Clinical centrum dep. of Pediatric Nephrology

Essential arterial hypertension (EAH) is a complex disease trait, which appears to be due to interaction of multiple genetic and environmental factors. Advances in molecular genetics and development of new techniques have led to identification of numerous genetics polymorphisms in candidate genes for EAH.

The renin-angiotensin system and natriuretic factor plays an important role in the process of EAH. The genes of these systems are candidate genes for EAH. In our study we



analysed the influence of angiotensinogen (AG) genes, of angiotensin converting enzyme (ACE) genes, angiotensin II type-1 receptor (AT1R) and natriuretic factor (NAF) on development of arterial hypertension by children.

In our association study we included 57 children from age 8-19, with diagnosis EAH and they were compared to a control group with normal blood pressure. It has been confirmed that positive familiar history and overweight are higher risk factors for development of EAH.

We found a trend toward association between Scal NAF-A2A2 genotype and EAH in childhood (OR= 2; 95 % CI= 1-4.5; p-0.064), which means that A2A2 genotype may be a risk factor for EAH in childhood.

Combination of some genotypes were more often found in patients than in healthy subjects (control group): These combinations of genotypes were so-called risk genotypes. We speak about interaction of different risk genotypes, which may manifest in a disease (arterial hypertension). We found evidence of interactive effect on the risk for EAH in childhood between angiotensinogen-TT genotype and Scal NAF-A2A2 genotype (OR= 10.5; 95 % CI= 1.3-86; p-0.008) as well as between ACE-II genotype and Scal-NAF-A2A2 genotype (OR= 9; 95 % CI= 1.1-74.4; p-0.01). These combination of genotypes can be used as possible factors that predict higher risk for development of AH and help us to discover the mechanism development of EAH in childhood. The results of molecular genetics show that the gene variability of the renin-angiotensin system and NAF are an important genetic risk factor for EAH. We may conclude that the genetic factors are involved in the pathogenesis of EAH.

16.00 - 17.15

G

PARALLEL SESSION 4 - WORKSHOP

European training programmes for school doctors

K. Hoppenbrouwers (Belgium), V. Jureša (Croatia), M. Juričič (Slovenia)

1. THE EUROPEAN BACHELOR-MASTER REGULATIONS CONCRETIZED IN A NEW MASTER PROGRAM IN YOUTH HEALTH CARE IN FLANDERS
K. Hoppenbrouwers et al (Belgium)
2. INNOVATIVE DISTANCE EDUCATION PROGRAM (ITOL): DEMONSTRATION AND ANALYSIS OF AN INTERACTIVE COMPUTER - AND WEB-AIDED TRAINING-COURSE IN YOUTH HEALTH CARE.
Cécile Guérin et al (Belgium)

20.30

BANQUET



THE EUROPEAN BACHELOR-MASTER REGULATIONS CONCRETIZED IN A NEW MASTER PROGRAM IN YOUTH HEALTH CARE IN FLANDERS

K. Hoppenbrouwers(1), P. Van Royen(2), R. Craen(3), A.M. Depoorter(4), P. De Cock(1), P. Van Damme(2), L. Maes(5), B. Hofman(4)

⁽¹⁾ Department of Youth Health Care, Catholic University Leuven, Belgium

⁽²⁾ Department of Epidemiology and Social Medicine, University of Antwerp, Belgium

⁽³⁾ Department of Pediatrics, University of Gent, Belgium

⁽⁴⁾ Department of Public Health, Free University Brussels, Belgium

⁽⁵⁾ Department of Public Health, University of Gent, Belgium

In line with recent Bachelor-Master regulations for higher education in Europe, four Flemish universities collaborated in view of formulating and implementing a new training curriculum for medical doctors working in preventive health care for youngsters. The program aims a broad, scientific education, following the concept of guided self-study and using electronic tools for distant learning, when appropriate. After an introductory, public health-oriented 6-weeks program, students actively pass through a number of age-specific and problem-oriented educational units (each lasting 5 weeks). The curriculum is completed with an in-service training, training of communicational skills and management techniques, and the presentation of a masterproof (another word for scientific thesis).

Aims and detailed outline of the program will be presented in a workshop and compared with other existing training programs in Europe.

INNOVATIVE DISTANCE EDUCATION PROGRAM (ITOL): DEMONSTRATION AND ANALYSIS OF AN INTERACTIVE COMPUTER- & WEB-AIDED TRAINING-COURSE IN YOUTH HEALTH CARE.

Cécile Guérin(1), Jan Degryse(2), Erwin Van Kerschaver(3), Karel Hoppenbrouwers(1)

⁽¹⁾ Department of Youth Health Care, Katholieke Universiteit Leuven, Belgium

⁽²⁾ Interuniversity Center for Training of General Practitioners, Leuven, Belgium

⁽³⁾ Child and Family, Brussels, Belgium

As a result of the collaboration between three Flemish organisations [the Interuniversity Center for Training of General Practitioners (ICHO), the Department of Youth Health Care (KULeuven) and Child & Family (Kind en Gezin)], an original education program was designed for professional distance learning in infant preventive health care. This experimental project aimed to make the access to postgraduate education easier and more attractive for general practitioners and schooldoctors. In order to illustrate the different didactical approaches, the presentation includes a live demonstration of one program-unit about vaccination. Furthermore, we will clarify the strengths and weaknesses of the full training path. The question also arises which place should be given to distance learning and other modern teaching methods in postgraduate education programs in youth health care. We will enlighten the several lessons we can draw from this innovative experience and we wish to start a debate about this question with the participants.





EUSUHM PLENARY SESSION 3

8.45 - 9.15

R

Andrej Marušič
SUICIDE AMONG THE YOUTH

9.15 - 9.45

R

GLOBAL YOUTH TOBACCO SURVEY

9.45 - 10.30

R

Mental Health of the Young Generation

Chair: Kari Pylkkanen, Mojca Miholič

1. THE HEALTH OF UNIVERSITY STUDENTS FROM THE VIEWPOINT OF SELF REGULATION - *M. Keinänen (Finland)*
2. HEALTH OF FIRST FORMERS OF LITHUANIA
A. Petrauskiene (Lithuania)
3. SCHOOL AS THE STUDENTS' WORKPLACE AND THE PSYCHOSOCIAL ENVIRONMENT - *A. Aszmann (Hungary)*



SUICIDE AMONG THE YOUTH

Andrej Marušič

Institute of Public Health of the Republic of Slovenia

The adolescent suicide represents a significant health concern and the third leading cause of death for this age group. Furthermore, there is evidence of a recent marked increase of suicide among adolescents and younger children.

In Slovenia - a high suicide rate country - we investigated trends, seasonality, weekly distribution and methods of suicide, and the interaction of these factors with age. A significant interaction was demonstrated between the long-term trend and age, but not with sex. As it is typical for the western world, suicide rates were estimated to decrease in adults but not in youth.

The method of suicide prevention found to be most effective is a systematic, direct screening procedure. Runeson reported that more than two thirds of youth suicide victims had a history of suicidal behaviour in close relationship taking into account suicide by a friend or first- and second-degree family member. Hence, having had a suicide in a close relationship could be an indicator for targeting suicide prevention. Other investigators have reported that a positive suicide history in the family is a risk factor for suicide behaviour. Our study has shown similar association in male adolescents.

In this study we explored relationships between suicidal thoughts, suicide plans and suicide attempts, and a history of suicide behaviour in the adolescent's family among the youth in the highest suicide rate region in Slovenia, namely the Celje region. The mean age of the studied sample (184 high school adolescents; of these 99 male) was 17.9 (SD 1.2). Altogether 37.5% adolescents had suicidal thoughts (statistically significant differences between sexes: 29.3% male and 47.1% female), 17.4% adolescents had a plan of suicidal act, and 4.9% attempted suicide. As far as the family history was concerned, 13.3% adolescents (15.2% male and 11.8% female) reported a suicide attempt in the family, and 9.2% adolescents (9.1% male and 9.4% female) lost a close relative due to suicide. The attempted suicide among relatives positively correlated with presence of suicidal plans among adolescents. This correlation proved to be even stronger and statistically more significant in male.

In conclusion, suicide in the youth is an important and growing public health concern, which is more obvious in the high suicide rate countries. Majority of youth suicide victims tend to have a history of suicidal behaviour in their close relationship. Hence, having had a suicide in a close relationship could be an important indicator for targeting suicide prevention in the youth.

THE HEALTH PROMOTION OF UNIVERSITY STUDENTS FROM THE VIEWPOINT OF SELF REGULATION

M.T. Keinänen

Finnish Student Health Service, Turku, Finland

Mental health disorders are the greatest problem when one considers the public health and health expenditure among young adults, also among university students. Earlier it has been shown in many studies that psychotherapeutic treatment is an effective treatment modality of young adults' mental health disorders. What then is effective in young adults' psychotherapy? The aim of this work is to study this issue from the viewpoint of self regulation of university students and of the promotion of self regulation in psychoanalytic psychotherapy process. The capacity to self regulation and to meaning formation is created by means of psychic binding which is based on symbolic function. Symbolic function means that one uses signs to represent internal and external observations in the mind. I illustrate by means of a qualitative psychotherapy case research the central role of the four - stage symbolization - reflectiveness capacity in the development of students' self regulation, meaning formation capacity and working ability. The generalization of the research results is realized so that one proceeds through the results of single case studies to a common principle. The psychoanalytic affective and cognitive information thus achieved may then be used as a preunderstanding when one examines and begins to treat a new patient. A therapist is in this approach an assistant of a student's developing self regulation and of meaning formation capacity. The psychoanalytic knowledge thus achieved may further be applied to examine indirect clinical processes, such as supervision of physicians and to training and education of psychotherapist trainees working with students.

HEALTH OF FIRST FORMERS OF LITHUANIA

Petrauskiene A., Zaborskis A. Kaunas

University of Medicine, Institute for Biomedical Research, Laboratory for Social Pediatrics, Kaunas, Lithuania

Introduction. The first year at school is a critical period for a child as one has to adopt to new activities, requirements of a teacher, a group of classmates. Some first formers adapt themselves easily and feel good at school but others have some problems. **Aim.** To analyze psychological and social health of first formers. **Material and methods.** The survey was carried out in 2000 and 2001. A random sample of 574 seven-eight year old children from 40 primary and secondary schools was interviewed. Teachers and parents were asked to fill the questionnaires also. **Results.** Boys (23,1%) more often than girls (16,0%) told that they don't like to go to school. The correlation between interesting activities at school and a wish to go to school was established. Girls more often than boys said that they like to learn (81,6%; 77,0%), to speak with their teachers (88,8%; 76,6%), to be with their classmates (90,8%; 84,7), to observe the rules of the school (91,3%; 81,4%). Most first formers made friends easily, girls (87,6%) better than boys (73,4%). Boys were disciplined by teachers more often. 12,8% of parents indicated more frequent ailments of children at school if compared with kindergarten. 24,1% of first formers felt tired right from the morning. 8,3% of children felt great weariness after school, especially boys. 86,6% of children thought that they were happy, but 15,5% of boys and 10,6% of girls felt unhappy. **Conclusions.** Good psychological and social health of first formers mainly was associated with the support and help of a teacher. Poor well-being of the first formers at school was associated with lack of teachers' help, difficulties in making contacts with others, frequent psychological and physical punishments of children by parents.-

SCHOOL AS THE STUDENTS' WORKPLACE AND THE PSYCHOSOCIAL ENVIRONMENT

*A.Aszmann, Gy.Kökönyei, I.Barna**

National Institute of Health Promotion and Development, Institute of Sociology, ELTE University*, Budapest, Hungary

School is the students' workplace. The supportive physical and psychosocial school environment can be considered as resource for the children's well-being and healthier life-style, while the non-supportive environment may increase the likelihood of dissatisfaction with life and of risk taking behaviour. In the frame of the Health Behaviour in School-aged Children (HBSC) WHO Cross-national study we have been studying the factors influencing reported health, life-satisfaction and life-style since 1986. During this period five consecutive national representative data collections were carried out according to the study protocol. The last was performed in 2002. The aim of our survey that examined the role of school was to identify the factors influencing students' attitude to school and to reveal the correlation between their mental health, health behaviour and experiences at school.

The variables qualifying the school were analysed and grouped by factor analysis, the predictive power of school related variables of well-being and behaviours were defined you feel would



11.00 - 12.45

R

PARALLEL SESSION 5**Mental Health of the Young Generation**

Chair: Marina Kuzman, Mojca Miholič

1. SUICIDAL IDEATION AND ATTITUDE TOWARDS SUICIDE OF LITHUANIAN SCHOOLCHILDREN - N. Zemaitiene (Lithuania)
2. REALITY THERAPY METHOD IN THE TREATMENT OF PTSD IN CHILDREN WHO SURVIVED AN EARTHQUAKE - A. Palinić et all (Croatia)
3. THE PECULIARITIES OF YOUNGER SCHOOLCHILDREN'S PSYCHOLOGICAL ADAPTATION - G. Pastavkaite (Lithuania)
4. SOCIAL AND MENTAL ASPECTS CONNECTED WITH SUCCESS OF STUDIES AMONG UNIVERSITY STUDENTS - M. R. Tuori (Finland)
5. BRUXSISM RECOGNIZED IN STUDENTS IN LJUBLJANA
M.Puklavec Ferjančič, Slovenia
6. BULLYING BEHAVIOUR, COMMON HEALTH SYMPTOMS AND PERCEIVED COMMUNICATION WITH PARENTS AND FRIENDS AMONG SCHOOL STUDENTS IN CROATIA - M. Kuzman (Croatia)
7. RELATIONSHIP BETWEEN HEALTH BEHAVIOUR AND MENTAL HEALTH AMONG FINNISH UNIVERSITY STUDENTS - I. Lahti (Finland)



SUICIDAL IDEATION AND ATTITUDE TOWARDS SUICIDE OF LITHUANIAN SCHOOLCHILDREN.

Zemaitiene Kaunas

University of Medicine, Institute for Biomedical Research, Kaunas, Lithuania

Suicide is the leading cause of death from external causes of adolescents and young adults in Lithuania. Approximately fifty Lithuanian schoolchildren are dying from suicide every year. Epidemiological mortality structure of young people is not changing in recent years. A stable decrease of youth suicides is not expected in the nearest future. The aim of this study was to estimate the prevalence of suicidal ideation and relationship between attitude towards suicide and suicidal threats among schoolchildren. The analysis was based on the data of two surveys conducted in 1998 and 2002 according to the methods of the WHO Cross - National study on Health Behaviour in School-aged Children (HBSC). The sample of 4513 schoolchildren aged 11, 13 and 15 was drawn from the national list of schools and surveyed in 1998. In 2002 the sample consisted of 5645 schoolchildren. In the period of four years suicidal tendencies among Lithuanian schoolchildren slightly decreased from 40,7% (38,9 - 41,8) to 32,5% (31,2 - 33,9). T

REALITY THERAPY METHOD IN THE TREATMENT OF PTSD IN CHILDREN WHO SURVIVED AN EARTHQUAKE

A.Palinić Cvitanović, J.Lopižić

Institut of Public Health Dubrovnik-Neretva County, Department of School Medicine Metković, Croatia

The purpose of this study was to determine the presence of PTSD in school children who survived an earthquake, and to present and evaluate the treatment based on the reality therapy method. After a devastating earthquake in the Dubrovnik region, 53 school children, ages 7 to 14, were accomodated with their families at the hotel complex near Metković. As revealed in interviews, children suffered the following symptoms: fear of darkness, fear of being in closed-in places, sleep disturbances, fights and arguments among children, headache, stomach pain, poor appetite, nail biting, stuttering, bed-wetting. A questionnaire designed to screen for PTSD in children (according to P.A. Saigh, 1991) was applied 15-20 days after the trauma. The results analysis showed the presence of PTSD in 36 children (67,9%). Having in mind the time span bewteen the traumatic experience and the application of the questionnaire, the results indicated the presence of acute PTSD symptomatology. The children were entered into the treatment program based on the reality therapy method. The aim of the treatment was to teach the children gain control over their lives and reduce the above symptoms by choosing responsible behaviours and making positive personal interactions in satisfying their basic psychological needs. The same questionnaire was applied after six-month treatment and the results indicated the presence of PTSD in 5 children (9,4%). As the survey was done more than six months after the trauma, here we can talk about chronic PTSD. As for other children, the negative signals that their bodies had been sending before the therapy were substituted by the postive signals of well-balanced and satisfied persons. On the basis of the results obtained in this study we can talk about the effectiveness of the reality therapy in the treatment of PTSD in school children.

THE PECULIARITIES OF YOUNGER SCHOOLCHILDREN'S PSYCHOLOGICAL ADAPTATION

G. Pastavkaite

Kaunas University of Medicine, Institute for Biomedical Research, Laboratory of Social Pediatrics, Kaunas, Lithuania

There is a world-wide increase in the scientific data showing that the disturbances in both the adults' and the children's behaviour are becoming a major concern for



public health. Compared to the number of studies of adults, there is a lack of studies, especially the epidemiological ones, in the field of children's behaviour and psychological adaptation in the primary grades. The situation in Lithuania is similar. This study is a continuous one, aiming at a more precise evaluation of the dynamics of some behavioural and emotional problems in primary schoolchildren, and the evaluation of the temporal changes in risk factors. The inquiry was performed using Child Behaviour Checklist 4/18 and Teacher Report Form 5/18, Sense of Coherence Scale by Antonovsky (1995), modified by Margalit (1995a) for children, and children's questionnaire prepared by the author. The inquiry included 526 schoolchildren in primary grades, their parents and teachers. The results show that more than one-fourth of children have problems of external behaviour, depressive mood, anxiety, tension, and social problems.

SOCIAL AND MENTAL ASPECTS CONNECTED WITH SUCCESS OF STUDENTS AMONG UNIVERSITY STUDENTS

Tuori Marja-Riitta

This presentation is part of a wider survey of Finnish university students conducted in 2000. A questionnaire was sent to 5030 students (under 35 years, 54 % women) registered at the Finnish Student Health Service. Answers were received from 3174 students (63%) of which 1950 (61%) from women and 1224 (39%) from men. The purpose of this survey is to analyse the group of students, who experienced their studies as a positive or very positive aspect in their life (= high academic self-esteem) and compare this group with the students who experience their studies as a problematic or very problematic aspect in their life (= low academic self-esteem). The group of students with high academic self-esteem forms 44-55% of all students and the group of students with low academic self-esteem forms 33%. There are no significant differences between men and women, nor between different types of universities.

The two groups differ from each other concerning experienced health, physical and psychological symptoms, social relationships, health behaviour, economical status, tutoring and counselling experiences in favour of the group of students with high academic self-esteem. On the one hand, it seems that a negative circle is easily created by one problem leading to another. On the other hand, counselling, student health care or tutoring in the universities could generate positive changes and thus give a start for a more positive overall development.

BRUXISM RECOGNIZED IN STUDENTS IN LJUBLJANA UNIVERSITY

M. Puklavec Ferjančič

Student Health Centre Ljubljana – Dental Department, Ljubljana, Slovenia

More and more students come for dental advice with signs of teeth grinding or clenching, rhythmic masticatory muscle activity called bruxism.

Some of them suffer from temporomandibular joint pain, muscle pain, teeth hypersensitivity and stiffness upon waking.

On the other hand, most of the patients between 20 and 26 years don't feel any pain and they don't have any problems because of parafunctional movements. Dentist can recognise the flattening of the cusp tips of the maxillary canines and smooth and shiny occlusal facets of premolars and molars. This is the right moment to start the treatment.

Most of young people do these parafunctional movements during the sleep. Sleep brux-



ism is probably related to stressful life events or periods in a patient's life that are physically or emotionally difficult. Some patients report making very loud noises with their teeth during the night.

To stop the sleep bruxism, dentist has to move the teeth out of contact with the individually protective night guard. Dentist takes an impression of upper and lower teeth with impression materials and also registrates relation between maxillar and mandibular teeth with special extra hard wax. Dental technician manufactures the protective nightguard out of hard acrylic resin. Patient applies protective night guard only during the sleep. It prevents patient to make parafunctional movements.

If we don't recognise and treat early signs of bruxism, it can cause teeth losing and breaking prosthodontic restorations in adults. It can also lead to an irreversible injury of temporomandibular joint.

Beside the dental treatment, some pharmacological and psychobehavioural alternatives of treatment are also available. They all together can overcome this problem without any traumatic consequences.

BULLYING BEHAVIOUR, COMMON HEALTH SYMPTOMS AND PERCEIVED COMMUNICATION WITH PARENTS AND FRIENDS AMONG SCHOOL STUDENTS IN CROATIA

Kuzman M, Franelić-Pejnović I, Pavić-Šimetin I.

Croatian National Institute of Public Health, Zagreb, Croatia

Bullying in schools is a growing problem that school professionals have to face these days. To be able to deal with this complex issue and to take proper action, recognizing bullying in school doctors' everyday activities became an important issue. The goal of this paper is to determine whether specific questions easily asked during routine systematic examination and checked with the class master, could be of importance in recognizing possible hidden bullying problems. The base for the research was HBSC survey, done in Croatia in 2002, embracing the representative sample of 5th and 7th grades in primary schools and 1st classes in secondary schools (4397 students in total). That they have been bullied at least once in the past couple of months claimed 29.8% of the students in the 5th grade, 26.6% in the 7th grade and 17.1% in the 1st grade of the secondary schools. That they have been bullied at least once a week in the past month claimed 6.9% students in total. That they at least once in the past couple of months have been bullied and have been involved in bullying someone else claimed 518 students (11.8%). Scale on symptoms reported in the past 6 months included 8 items: headache, abdominal pain, back-pain, being sad, in the blue mood and nervous, sleeping difficulties and vertigo. Scale on communication with the family and friends included possibilities of talk easily to father, mother, stepfather, stepmother, siblings and friends. Correlation analysis, using Spearman's correlation test showed significant correlation ($p < 0.01$) between all items on common symptoms scale and bullying (being bullied or bullied someone else) for all three grades. Children who could easily talk to father and mother were less bullied and bullied less someone else in 5th and 7th grade. For the 1st secondary school graders, those who were bullied more had poorer communication with father and mother ($p < 0.05$), and those who bullied more someone else had poorer communication with mother and older sister(s).

The results indicate that in children who reported specific symptoms, bullying problems should strongly be considered. The communication with parents of both genders proved to be important related to bullying. That suggests that parental involvement is of the crucial importance in dealing with bullying in schools.



RELATIONSHIP BETWEEN HEALTH BEHAVIOUR AND MENTAL HEALTH AMONG FINNISH UNIVERSITY STUDENTS.

Ilpo Lahti

Finnish Student Health Service, Turku, Finland

One of the challenges adolescents and young adults have to solve is to adapt oneself to the physical and sexual maturity. It means that they have to develop a good enough body-image and ability to take care of their bodily needs, too. Thus one of the indicators telling about the good enough psychic integrity is their health behaviour (e.g. eating habits, physical activity and use of alcohol and narcotics).

Many studies show that people suffering from psychotic disorders, eating disorders and those with addict problems have great difficulties in taking care of their somatic health. Their health behaviour is in many ways questionable. But we don't have much knowledge if the situation is similar among those with less severe mental problems.

In a study carried out among Finnish university students (N=5030) the students mental health (assessed by GHQ - General Health Questionnaire) and certain key aspects of health behaviour including smoking, use of alcohol and narcotics, eating habits and physical activity were studied among other things. The results are discussed in the presentation.

11.00 -12.30

G

PARALLEL SESSION 6**Prevention programmes: Tobacco and Alcohol**

Chair: Kari Pylkkanen, Ivan Kauzlarić

1. THE PREVENTION OF ALCOHOL ABUSE IN BOARDING SCHOOLS
J. Briscoe (United Kingdom)
2. SMOKING AND ALCOHOL CONSUMPTION PREVENTION PROGRAM
L. Kovacs (Hungary)
3. MINIMAL INTERVENTION FOR SMOKING CESSATION IN A PREVENTIVE UNIVERSITY HEALTH CARE CENTRE.
R. De Roy (1), R. Thomas (2), K. Hoppenbrouwers (1)
4. EFFECTIVENESS OF PRACTICAL KNOWLEDGE EDUCATION ON SMOKING-PREVENTION DURING THE UNIVERSITY YEARS AT SEM-MELWEIS UNIVERSITY - *K. Antmann et al (Hungary)*
5. EXPERIENCE, ATTITUDE AND KNOWLEDGE ABOUT TOBACCO SMOKING PREVENTION AMONG MEDICAL AND DENTAL STUDENTS AND YOUNG GRADUATED DOCTORS IN HUNGARY. THE EFFECTIVENESS OF THE COMMUNICATION OF SMOKING PREVENTION PROGRAMS - *B. Oroszi (Hungary)*

12.45 -14.00

LUNCH / POSTER SESSION

THE PREVENTION OF ALCOHOL ABUSE IN BOARDING SCHOOLS

JHD Briscoe

Medical Officers of Schools Association, London, UK

A general account of the drinking habits of adolescents is given, quoting several surveys which reveal the age at which children start drinking, why adolescents drink and what sort of alcohol they prefer.

The prevention of alcohol abuse in the boarding school setting involves education about alcohol and limiting pupils' access to alcohol.

The school doctor's role in assisting these initiatives is examined.

SMOKING AND ALCOHOL CONSUMPTION PREVENTION PROGRAM

L. Kovacs

The main point of our new method_z is that for the target age group (13-18 years) we hold a new kind of hygienic informational lecture, in which we demonstrate the organic disorders caused by the exaggerated alcohol-consumption and smoking by comparing the abnormal organs to healthy ones. We first demonstrate our lecture to the school boards, and after their agreeing opinion shall we show it to the students.

In the course of our program from February 2001 to May 2002 we held lectures for 1230 teachers and 21468 students. See 1st table.

1st table The held lectures and audience in our county

	Primary school	High School	College	Altogether
Number of schools	25	48	2	75
Number of lectures	107	678	10	795
Number of teachers	215	1035	26	1276
Number of students	2642	22530	258	25 430

We know that becoming addicted to smoking and alcohol is a many-sided problem. We use the resource of hygienic knowledge.

Our results_z: We put the students off the unconcerned state, we directed their attentions to the problem. The surveying after the lectures proved, that in the course of the lectures the personal experience adjusted the opinions of 67% of the students. Most of the students found the seen and heard facts to be a preventing force. In this aspect, our program has reached its goal.



MINIMAL INTERVENTION FOR SMOKING CESSATION IN A PREVENTIVE UNIVERSITY HEALTH CARE CENTRE.

R. De Roy (1), R. Thomas (2), K. Hoppenbrouwers (1)

(1) Student services, Katholieke Universiteit Leuven, Leuven, Belgium,

(2) Faculty of medicine, University of Calgary, Calgary, Alberta, Canada

Smoking is the major preventable source of illness and premature death in Belgium. Registration of smoking behavior in the preventive medical centre of the University of Leuven over the last 10 years showed that 21.6% of the male and 17.4% of the female first year students smoke. Only 3 to 5% of the smokers who try to quit on their own will remain abstinent on the long term. The Cochrane review found that brief advice increased the quit rate (odds ratio 1.69, 95% confidence interval 1.45 to 1.98). Minimal intervention should be extremely useful in a student population, given the low cost for the student and the opportunity of applying it to all freshmen. We set out to study the validity of this approach in our institute. All staff involved in student health care at the K.U. Leuven will follow a one-day course in minimal intervention. All smokers will then be offered this type of counseling, either during their initial screening or in a follow up consultation. During the minimal intervention students will be provided with self-help materials, which will include an interactive website based on the stages of change model to guide each individual student through the smoking cessation process. The number of cigarettes smoked per day, number of attempts to quit and number of non-smoking days will be measured for each student before the project and at three monthly intervals during the project

EFFECTIVENESS OF PRACTICAL KNOWLEDGE EDUCATION ON SMOKING-PREVENTION DURING THE UNIVERSITY YEARS AT SEMMELWEIS UNIVERSITY

K. Antmann, J. Oszlár, B. Oroszi, J. Forrai, Á. Sima, E. Morava

Semmelweis University, Medical Faculty, Institute of Public Health, Budapest

Hungary is one of the countries where the mortality of smoking related diseases is increasing dramatically in Europe comparing with the European Union member states. In this situation it is very important to teach the doctors of the next generation about the harmful effect of the smoking and the prevention possibilities.

We carried out two surveys among medical and dental students in 2002. One at the end of the pre clinical training period and one at the end of the clinical part. This questionnaire is a part of an international survey studying education of smoking-prevention in different countries.

Results on the Semmelweis University:

At the end of the preclinical years 33% of medical and 64% of dental students agreed with the next statement: "Tobacco use is one of the most serious public health problems in the world."

After the clinical studies the same data are 43% and 37%.

Only 48% of medical and 41% of dental students marked with the maximum point the harmful effect of active smoking after the preclinical, and 57% -55% after the clinical years.

At the end of the preclinical training period only 11,7% of the students give cessation advice to the patients, but at the end of the clinical period it is more than twice: 26,4%. To advice drug to help quitting is very rare, about 6% of the ready doctors answered it.

We asked their opinion about education of practical skills of smoking cessation. Only 13.81% of the students were satisfied with the presentation of this topic. (In the earlier order: 4%, 25.3%, 11,11%, 14,9).

Regarding these results we advice to modify the university curriculum.



EXPERIENCE, ATTITUDE, AND KNOWLEDGE ABOUT TOBACCO SMOKING PREVENTION AMONG MEDICAL AND DENTAL STUDENTS AND YOUNG GRADUATED DOCTORS IN HUNGARY. THE EFFECTIVENESS OF THE COMMUNICATION OF SMOKING PREVENTION PROGRAMS

Oroszi Beatrix, Antmann Katalin, Oszlár Julianna, Forrai Judit, Sima Ágnes, Morava Endre
Semmelweis University, Faculty of Medicine, Department of Public Health

Abstract

Background: The key elements of successful smoking prevention programs are on the one hand the effective communication, on the other hand the active participation of medical experts and other trustworthy personalities. The communication strategy should be built on the knowledge, opinions, and attitudes of the target groups. The changes of these indicators also give us information about the effectiveness of the communication. Medical and dental students and young graduated doctors are both target groups and can play important role in smoking prevention programs.

Objective: The aim of the study was to evaluate the smoking habits, and the knowledge and beliefs, attitudes and practice of smoking prevention of medical and dental students and young graduated doctors at Semmelweis University, Budapest.

Methods: 208 students who completed the sixth semester and 225 doctors just graduated at the university were asked to complete a self-administered anonymous questionnaire. The response rate for medical students was 75,79%, and for dental students it was 60,47%. Smoking prevalence was calculated. The questionnaire asked the opinions about statements and messages of smoking and smoking prevention. The participants were asked about their concern and involvement in smoking prevention both in community level and in clinical practice.

Results: 74% of the participants were non-smokers. The young female doctors are agree the most with the messages of smoking prevention, and male doctors agree the least. 77% of the participants more or less agree with the restrictions of tobacco advertising, but one third of the students and doctors disagree with the total ban. 70% of the students and doctors agree with cigarette tax increase, but 40 % believes that it is not effective in decreasing youth onset of smoking. The overwhelming majority of the participants believe that the government has to play bigger role in smoking prevention. High percent of the students and doctors don't advocate and support local (34,4%) and countrywide (75,1 %) smoking prevention programs at all. Only 56% of the students and doctors agree with that statement, that it is the doctors task to convince his patient of giving up smoking.

Conclusions: The knowledge and attitude of practitioners towards smoking and smoking prevention have an important role to play in persuading their patients to stop smoking. The knowledge of the most important anti-smoking messages is relatively appropriate among medical students and doctors. Despite of it, participation is very low. More university education and effective prevention program communication are needed to improve their attitudes and participation toward prevention of smoking.

14.00 - 14.30

R

PLENARY SESSION 4

Giorgio Tamburlini

CHILDREN'S ENVIRONMENTAL HEALTH: OVERVIEW OF EXISTING EVIDENCE

14.30 - 15.30

R

Environmental health: allergy, asthma and respiratory disease

Chair: Mojca Juričič, Giorgio Tamburlini

1. SCREENING FOR ASTHMA IN SIX YEAR OLD SCHOOLCHILDREN
M. Roelants et al (Belgium)
2. ALLERGY TIME - BOMB AMONG HUNGARIAN YOUTH?
M. Velkey (Hungary)
3. ASTHMA AND SPORTS, COMPANIONS NOT ENEMIES
J. Šorli (Slovenia)
4. ASSESSMENT OF RISK FOR DEVELOPING CHRONIC RESPIRATORY DISEASE AMONG SCHOOL CHILDREN IN AN ENVIRONMENT DECLARED TO BE MORE POLLUTED - I. Eržen et al (Slovenia)
5. ASSESSMENT OF RADON LEVEL IN SLOVENIAN SCHOOLS
J. Vaupotič (Slovenia)

CHILDREN'S ENVIRONMENTAL HEALTH: OVERVIEW OF EXISTING EVIDENCE

Giorgio Tamburlini

Istituto per l'Infanzia "Burlo Garofolo", Trieste, and WHO European Centre for Environment and Health, Rome.

The presentation is aimed at providing an overview of the scientific basis for the growing international concern on the health effects on children of environmental hazards and at outlining some of the policy implications.

Our knowledge on the association between exposure to environmental agents during childhood and short and long term effects on health has significantly improved over the last decade. We have learned for example that periods of rapid cell growth and organ development represent windows of specific vulnerability (Bearer, 1995), that children and particularly young infants are characterised by peculiar absorption, distribution, biotransformation, storage, and excretion of chemicals, which can all influence toxicity (Roberts RJ, 1992) and that infants and children present very specific exposure patterns (Bearer, 1995). We also know that a variety of external factors, at macro as well as micro level, influence the exposure of fetuses, infants, children and adolescents to various environmental threats and consequently affect their health. These factors include primarily the economic and social status: environmental problems in all countries tend to be borne more heavily by poorer people. The interaction of these and other factors such as the educational background, place of residence, gender, ethnicity and the knowledge, attitudes and behaviour of parents, teachers and peers determines multiple exposures and risks and as a consequence different and possibly cumulative health effects.

International organisations and national Environmental and Health authorities have recently renewed and strengthened their commitment to protect the health of today's and tomorrow's children from environmental threats (G8, 1997; IMCEH 1999; WSSD, 2002). In 2004, Budapest will host the Interministerial Conference on Environment and Health and the theme of the Conference will be "The future for our children".

The main environmental risk factors which will be discussed include: indoor and outdoor air pollution; poor water supply and inadequate sanitation; inadequate dietary intake; unsafe housing and building materials; hazardous chemicals in water, food air and soil; radiation, UV and electromagnetic fields; noise; mobility and transport patterns; environmental emergencies; occupational risks; adverse social circumstances; and the consequences of armed conflicts.

Indoor and outdoor air pollution High levels of indoor air pollution lead to an increased risk of lower respiratory infection among children. The most severe health effects, (such as higher mortality from respiratory infections) are mainly confined to limited areas of the European Region, where poor households still rely on biomass fuel combustion (wood and coal), for heating and cooking purposes. But high morbidity due to poor air quality is widespread even in the most developed areas, due to smoking, reduced ventilation, presence of biological agents such as moulds, chemicals in furnishing and construction materials. The classic outdoor air pollutants are particulate matter, nitrogen dioxide, sulfur dioxide, and ozone. Children may be exposed to various mixtures of contaminants, depending on factors such as proximity to polluting industries, power plants, areas of high traffic load, etc. A variety of chronic health effects, mainly respiratory, can be the consequence of long-term exposure. Many PAHs, for example, have a carcinogenic effect.



Maternal smoking and exposure to environmental tobacco smoke at home or in public places during pregnancy are associated with increased incidence and severity of respiratory infections, both acute and chronic, particularly if the exposure to smoke occurs during the first years of life, i.e. during lung growth and development. Other health effects on children of exposure to environmental tobacco smoke include adverse effects on the outcome of pregnancy (abortion, premature birth and low birth weight).

Poor water supply and inadequate sanitation Poor water supply and inadequate sanitation is a widespread problem that involves populations in Western as well as in Central and Eastern Europe and NIS countries. Droughts, floods, lack of water reservoirs, aqueducts and sewage systems, but also insufficient maintenance of the existing infrastructure may hamper the supply of sufficient and safe water. A variety of health effects, mainly gastrointestinal diseases among young children, are the most important consequences of water scarcity and biological contaminated water. Water can be contaminated by a variety of chemical agents including residues and emissions from industrial productions and those that are known to occur naturally such as fluoride and arsenic.

Inadequate dietary intake In spite of widespread improvement in the conditions of the majority of the population in the European region, under-nutrition is still present in some areas and in disadvantaged population groups, particularly in transition countries. Inappropriate feeding practices can lead to diarrhoeal diseases and anaemia in infants and young children, and reduced growth in childhood may have reduced learning and work capacity (Savage King and Burgess 1995). Inadequate dietary intake and eating patterns that include consumption of soft drinks and junk food, particularly if combined with insufficient physical activity, contribute to the increased prevalence of overweight and obesity

Inadequate building standards and materials Housing in poor suburban or rural areas may not offer adequate shelter due to inadequate building materials and fuel scarcity. In many countries of the European region, including poor neighbourhoods and shanty towns, a significant proportion of the population still faces the problem of inadequate housing. Other indoor hazards derive from the presence of dangerous substances in building materials, particularly of lead and asbestos. Leaded materials have been extensively used in paints, walls, woodwork and window casings. Unsafe building standards and materials may also lead to poisoning and injuries. Poisoning may result from inappropriate storing of hazardous substances, or incorrect administration or exposure to medications, chemicals, petroleum products and crafts materials. Injuries are common as a consequence of unsafe building and play materials, unsafe biomass burning (burns, kerosene ingestion), unsafe electrical wiring, etc. Toys may contain potentially harmful chemicals such as phthalates.

Hazardous Chemicals In industrialised countries, there are more than 15 000 high volume chemicals, which are produced and dispersed in the environment, and are mainly found in soil and water. Chemical contaminants are usually not associated with acute effects: the problems usually arise after prolonged periods of exposure, and of particular concern are those, which have cumulative toxic effects. Symptoms may not therefore be apparent during childhood but may manifest themselves later in life. Lead in petrol has been phased out but it can also accumulate in water due to contamination of water sources and water pipes. Adverse

neurodevelopmental effects have been shown even for relatively low concentrations particularly in infants and young children. Food and soil contaminants which are often encountered are organic chemicals such as PCBs, polychlorinated dibenzodioxins (PCDDs), and various pesticides. Some of the older pesticides have been designed to be persistent and for this reason they can be found distributed worldwide in water and soil. Newer pesticides degrade more quickly but they still contaminate water and soil and consequently food. Health effects from PCBs and pesticides include neurotoxicity and endocrine disruption. Children may be exposed through groundwater, surface water, drinking-water, surface soil, sediments, consumable plants or animals.

Radiation, UV and electromagnetic fields Significant exposure to ionising radiation from radioactive fallout (for example: Chernobyl type accidents) and medical diagnostic equipment (x-ray and radioisotopes) is limited to specific settings, but exposure to radon is quite common in private and public buildings and represents most of the background radiation. Sources of exposure to electromagnetic fields are ubiquitous in houses and public buildings, and common outdoors. They can be long-distance transmission lines, distribution lines that bring electricity to homes, and electric appliances of all sorts. An association between childhood cancers and electromagnetic fields (EMFs) was suggested: so far, studies have demonstrated contradictory results. Exposure to ultraviolet light is widespread, although strongly dependent on latitude and sun protection behaviour. UV radiation exposure during childhood is of particular concern. Sun exposure during childhood and adolescence (IARC, 1992). sets the stage for the development of both melanoma and non-melanoma skin cancers

Noise Noise contamination exceeding safety thresholds is widespread in neighborhoods, schools and day-care centres, particularly in urban and suburban areas. It includes exposure to noise originating inside the buildings or outside such as from heavy road traffic, industrial activities and nearby railways, highways or airports. The health effects of noise include hearing damage from impulse noise at high levels which may damage inner ear hair cells and from prolonged exposure to sounds louder than 85 dB(A). Hearing loss may be transient or permanent. Such situations are becoming more common due to the increased use of earphones attached to loud music in portable CD/cassette players as well as due to the increased attendance of young people and adolescents in public places such as discotheques where the music is very loud. In children the most important and common effects of noise are interference with speech, communication and learning during the earliest years. Background noise may also interfere with concentration and sleep, cause psychological stress, contribute to a reduction in cooperative behaviour and trigger aggressive behaviour (AAP, 1999).

Mobility and transport patterns The exposure of children to present transport patterns, especially in the urban environment, is an example of the complexity of a situation where they are exposed simultaneously to a large number of health hazards. Health effects include those resulting from exposure to air pollution (outdoor and inside vehicles) and noise and from traffic injuries, as well as from reduced opportunities for physical exercise and autonomous travel.

In the WHO European Region approximately 9,000 children (younger than 18 years) die and 355,000 are injured in traffic accidents every year (WHO, 2000).

Levels of overweight and obesity are increasing amongst schoolchildren and the lack of physical activity is, together with inadequate dietary intake, one of the main risk factors for obesity (Chinn, 2001). In addition, the adoption of sedentary lifestyles in



childhood increases the risk of developing cardiovascular diseases, diabetes and hypertension in adulthood. The prevalence of overweight and obesity among children is rising significantly in eastern and western Europe as clearly shown by trend data on overweight and obesity in 10 year olds. The major problem associated with childhood and adolescent obesity is its persistence into adult life and its association with increasing cardiovascular disease and diabetes risk in later life.

Environmental Emergencies The effects of climate variability and change on human health may be direct or indirect. For example, climate change may indirectly affect exposures to air pollutants by inducing alterations in weather patterns that could increase or decrease local concentrations of air pollutants, particularly ozone; a change in the pattern of pneumo-allergens was recently documented and it can be attributed to climate change, and can explain part the observed changes in the prevalence of asthma and allergies. Climate change can enhance desertification processes and droughts, which can affect food production and result in under-nutrition. Direct effects include the consequences of extreme weather events, which are made more frequent by climate change: the experience of the Central European floods of 1997 and recently, of floods in Germany, Central Europe and Russia in 2002, shows that floods can have an impact on health and welfare even in industrialized countries.

Occupational hazards Currently several million adolescents are legally employed in Europe. Many others, including children as young as eight, are employed in a variety of activities such as farm work, commerce and industry, in violation of international codes as well as of national legislation on age limits or safety regulations (ILO, 1996). Migrant children are increasingly used for illegal activities, some of which are extremely dangerous or immediately harmful to children and adolescents. Thousands of female and male adolescents are illegally smuggled into many European countries and forced to work in the sex market (ECPAT, 2000).

Young people are less experienced and aware of risks, less apt to ask for and be compliant with safety regulations, and less likely to receive technical training (Woolf and Flynn, 2000). Injuries, for example, are four times as frequent in adolescents than in adult workers. Adverse health effects, too, are both more frequent and more severe due to the enhanced sensitivity of developing organisms to toxicants and to injuries, including chronic musculo-skeletal trauma and stress (Runyan and Zakocs, 2000).

Adverse social environments. Children are particularly vulnerable to poverty, intra-familial trauma and stress, social exclusion. Under these circumstances the likelihood of child neglect, violence, abuse and exploitation is strongly increased. Over the last decade, deregulation, disruption of social protection systems, migration particularly of young men and women in fertile age and consequent family disruption, falling salaries and alcoholism have caused an impressive increase in phenomena such as child abandonment, which may involve 1 in 30 newborns in the poorest NIS countries, and child neglect. As a consequence, phenomena such as street children, child exploitation and trafficking have appeared in countries where they were practically unknown (UNICEF 2002). Sexual abuse has been identified in as many as 1\10 of adolescent boys and girls in transition countries. The consequences of social and family neglect, violence and exploitation typically cumulate with increased exposures to polluted air, unsafe water, inadequate nutrition, toxic chemicals, so that children living in these circumstances show an extremely high risk of severe infection, including HIV\AIDs, chronic toxicity from chemicals, substance abuse and ultimately of injury, disability and premature death.



Direct and indirect consequences of armed conflicts. Children are also particularly vulnerable to the consequences of armed conflicts: to the injuries and deaths directly produced by conflict (some of which such as land mines, specifically affect children), the disruption of infrastructure and of family life leads to disease, neglect, orphanage and lack of basic opportunities for health care and education. The interaction of poverty and decreasing family and societal cohesion in many countries tend to increase the number of children that face extremely adverse environmental conditions, and armed conflicts are still present in several areas of the region. Prevention of these phenomena and mitigation of their effects is a priority for the European region.

Actions to protect children and more broadly the developing organisms from environmental hazards include improved scrutiny of chemicals to assess their toxicity, application of precautionary approaches, better information to the public and particularly to parents, teachers parents and child health professionals, and the involvement of communities and particularly of child-focused NGOs and youth organisations in the assessment of risk and in developing protective policies.

SCREENING FOR ASTHMA IN SIX YEAR OLD SCHOOLCHILDREN

M. Daelemans(a), M. Roelants(b), P. Vermeire(c), F. De Baets(d), O. Moens(e), F. Govaerts(f), K. Hoppenbrouwers(a,b)

(a) Flemish scientific association for youth health care, Leuven, Belgium; (b) Department of youth health care, Katholieke Universiteit Leuven, Leuven, Belgium; (c) Flemish association for respiratory health, Brussel, Belgium; (d) Pediatric Pulmonology University Hospital Ghent, Gent, Belgium; (e) Flemish institute for health promotion, Brussel, Belgium; (f) Flemish scientific association of general practitioners, Antwerpen, Belgium;

Asthma is generally considered the most prevalent chronic disease in childhood. Estimates indicate that 5 to 10 percent of children are affected, and that their numbers are still increasing. Up till today, the underlying mechanisms of this process remain largely unclear, but current hypotheses usually focus on exaggerated hygienic measures taken in early childhood. A major obstacle in the diagnosis of – and particularly screening for – asthma is the lack of a generally accepted criterion to define the disease. Currently two instruments are widely used to describe the prevalence of asthma related symptoms: a questionnaire (ISAAC, International Study of Asthma and Allergies in Childhood) with a focus on medical history, and an exercise challenge (FRAST, Free Running Asthma Screening Test), which detects bronchial hyper-responsiveness.

During the school year 2001-2002, both instruments were tested in a population of 5532 six-year old schoolchildren in Flanders, and their results compared to an assessment by an expert panel of paediatric lung specialists, which acted as our golden standard. Preliminary results show that 5.6% of children are known asthmatics, but that 25.9% responded positive to the ISAAC, and 11.4 % to the exercise challenge test (FRAST). Sensitivity and specificity of the ISAAC test were superior to the FRAST, but this might be related to the study design.

In this presentation we will describe in detail the diagnostic capabilities of the ISAAC and FRAST, either used alone or combined. Finally we will discuss the necessity for early asthma detection, the feasibility to implement a screening programme in school health practice, and possible benefits of a health promotion programme.

This study was commissioned and financed by the ministry of the Flemish Community (Belgium).

ALLERGY TIME – BOMB AMONG HUNGARIAN YOUTH?

ALLERGY SCREENING TEST IN SECONDARY SCHOOLS IN GYŐR, HUNGARY

Velkey Magdolna, Hungary

The author's aim for this study was to prevent to rise the number of allergic diseases among hungarian students, and to help by offering drug treatments to sufferers.

There were 5 teams comprising 3 members – a school doctor, an assistant and a nurse. They conducted 1958 allergy screening tests by 14-22 year-old students in Győr, Hungary. Students completed questionnaires before the prick test. After the test consultations were held with the students in which suggestions were offered for treatments and/or further medical examinations.

Results: The author's observed a 38% correlation between the student and his family anamnesis.

50% of students tested positive for allergies in the prick test. The symptoms of the upper respiratory tracts and eyes are the most frequent and early spring pollen cause symptoms most frequently. There were differences observed between rural and urban dwellers. As has been observed that many students tested positive for allergies in prick

test but had no symptoms. Conclusions: A medical examinations at schools are very important in order to conduct research on anamnesis and to make suggestions for further examination of sufferers. 2 questions appear: What to do with Students Who have an »allergy time bomb in their immune system? The author's believe that there is a possibility of preventing the manifestation of allergic disease with Psychological therapy. The other questionnaires: Who will supply financial support?

ASTHMA AND SPORT, COMPANIONS NOT ENEMYS

J. Šorli,

MD KOPA Golnik, Slovenija

The phenomenon of exercise-induced asthma was first recognised nearly 2000 years ago. It has been only over the last three decades, though, that we have been able to accurately characterize exercise asthma as a consequence of careful clinical observation, pharmacological studies, and direct airway measurement of heat and water content after prologed activity. Exercise-induced asthma (EIA) is a syndrom characterised by transient airway obstruction, usually occuring 5-15 min following physical exerion. Symptoms consist of wheesing, coughing, shortness of breath, chest discomfort, or a combination thereof lasting up to 15 - 30 min following exercise cessation. However, if exercise is prolonged, asthma can develop during physical exertion. Furthermore, if a patient has severe asthma, even minima exertion can provoke airflow obstruction. An estimated 12-15% of general population suffer from EIA. Although this is noted to be a problem for children and young adults because of their increased activity level, the recent heightened awareness of the additional benefits of fitness and exercise in older adults make EIA of relevance to all aged groups. Additionally, EIA is the most common exercise pulmonary syndrom observed in recreational as well as competitive athletes. Occurrence and severity of EIA could be linked to the degree of airway inflammation, the number of generations becoming dehydrated during exercise, structural changes in the airway, bronchial smooth-muscle responsiveness, or same combination thereof. There is sufficient evidence to suggest that release of constrictor mediators, histamine, sulfidopeptide leukotrienes, and prostaglandins provides an important contribution to exercise-induced bronchoconstriction. The bronchoconstrictor response cannot be explained by relese of any single mediator, and the relative contribution of different constrictor mediators is likely to vary among subjects. In some, the response may be mediated by leukotrienes, whereas in others, by histamine. Laboratory testing for EIA conventionaly involves six to eight minutes of ergometer or treadmill exercise, sufficient to raise the heart rate to 85% of the predicted maximum. Spirometry is checked prior to exercise, and every ten to fifteen minutes thereafter. A test is generally considered positive if FEV1 falls by 20% or more. There are a feve alternative tests also (normocapnic hyperventilation, manitol chalenge,..) The combination of general measures and pharmacologic intervention can prevent EIA in almost all asthmatics. A major goal is to ensure that exercise is not avoided by patients with EIA. Asthmatics should exercise as much as desired, and should be encouraged by the fact that athlets have won Olympic medals and playd professional sports, in spite of symptomatic asthma. The most important strategy is to improve overall asthma control. Inhaled steroids and leukotriene-modifying agents are often useful in this regard. Prophylactic treatment of EIA prior to exercise, using inhaled beta-2 agonists and/or cromolyn sodium, should be considered in all patients with EIA, even if EIA is the sole manifestation of airway hyperreactivity.



In children, who often exercise repeatedly throughout the day, repeated use of inhaled beta-2 agonists can result in tolerance to their protective effects. Leukotriene antagonists may be the best choice in this setting, as tolerance does not occur with regular use, and side effects are min

ASSESSMENT OF RISK FOR DEVELOPING CHRONIC RESPIRATORY DISEASES AMONG CHOOOL CHILDREN LIVING IN AN ENVIRONMENT DECLARED TO BE MORE POLLUTED

I Eržen L Zaletel Kragelj***, D Podkrajšek**

*Institute of public health Celje, Slovenia

**Medical Faculty, Institute of social medicine. Ljubljana

Aim: The aim of the study was to examine whether living in an environment which has been declared polluted represents a greater risk for chronic respiratory diseases development among children aged 7 to 11 years or not.

Methods: The polluted area was determined with the help of data on air quality, meteorological data as well as data on the distribution of industrial plants in the territory. 2618 school children aged 7 to 11 years from four areas, where different grades of pollution were anticipated, were invited to participate in the study. The parents of the children filled in a questionnaire about living conditions and children's state of health. Some information was also acquired from children's physicians.

Results: A total of 1767 school children from all areas actively participated in the study. The prevalence rates of chronic respiratory diseases varied in individual areas. The highest odds ratio for development of chronic respiratory diseases was noted for children living in the area, declared the most polluted, followed by lower OR in less polluted area and the lowest OR in the area with the most favourable environmental conditions.

Conclusions: The prevalence of chronic respiratory diseases among children is higher in the territory which is considered polluted. The distribution of respiratory diseases occurrence indicates an important role of polluted air in the development of chronic respiratory diseases among children.

ASSESSMENT OF RADON LEVEL IN SLOVENIAN SCHOOLS

Vaupotič J, Kopal I.

Jožef Stefan Institute, Ljubljana, Slovenia

Radon and its short-lived decay products may contribute up to one half to the annual dose a person receives from all sources of natural radioactivity. This exposure is a higher risk for lung cancer. It has been estimated that approximately 5-15% of all current cases of lung cancer are attributed to radon worl-wide. Therefore, indoor radon has attracted a great attention and many countries have performed national-wide radon surveys.

In Slovenia a nation-wide indoor radon program started in 1990. In the beginning we were mostly concerned for young population, which due to the lung morphology and breathing patterns, is more sensitive to the effects od radiation then adults. In the first step of the program, all 750 kindergartens were surveyed for radon, then 890 schools and at the end 1000 randomly selected homes. These systematic radon surveys provided the level of radon problem in our country, and gave a good orientation for further investigations. Since then our radon studies have been focused on high radon level buildings.



Radon survey in 890 schools, attended in total by 280,000 pupils, was carried out during the winter months of 1992/93 and 1993/94. Instantaneous indoor air radon concentrations were measured by the alpha scintillation technique under the so called »closed conditions« (in a ground floor classroom, closed for more than 12 hours prior to sampling). In general, radon concentrations were satisfactory low, below 100 Bq m^{-3} in 67% of buildings. However, in 77 buildings (8.7%) radon level exceeded the national limit value of 400 Bq m^{-3} . These schools have been thoroughly investigated; including isolation of radon source, dose estimates, mitigation measures and checking during and after mitigation. The results of radon survey in schools, with emphasis on high radon level buildings, are reported in this paper.

16.00 - 17.00

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PARALLEL SESSION 7

Health-related behaviour

Chair: Roger Harrington, Ivan Kauzlarić

1. RISK HEALTH-RELATED HABITS AND BEHAVIOUR IN SCHOOL CHILDREN AND ADOLESCENTS - *V. Jureša et all (Croatia)*
2. ADOLESCENT PREGNANCY IN EUROPE - *B. Pinter (Slovenia)*
3. SEXUAL BEHAVIOUR OF ECONOMY STUDENTS ANALYSED BY THE QUESTIONNAIRE ON THE SYSTEMICAL CHECKING IN THE FIRST AND FOURTH YEAR OF STUDY - *M. Miholič et all (Slovenia)*
4. STD's AND CONTRACEPTION USE IN FEMALE STUDENTS
M. Džepina (Croatia)



RISK HEALTH-RELATED HABITS AND BEHAVIOR IN SCHOOL CHILDREN AND ADOLESCENTS

V. Jureša, D. Petrović

School of Public Health "Andrija Štampar", Medical School, University of Zagreb, Zagreb, Croatia

Aim: To establish the risk factors, habits and behaviour that could influence the health of school children and adolescents and could contribute to the development of cardiovascular diseases and mental disorders in adulthood. To recognise risk factors that could be effected through preventive school programs.

Examinees: There were 9418 schoolchildren, 4704 boys and 4714 girls, from elementary and secondary schools, 7 to 19 years of age included in the study.

Methods: The study was conducted in 2001 on the representative, stratified 8% sample of schoolchildren from elementary and 10% sample of secondary schools in the city of Zagreb. The questionnaire had 84 questions on life habits, health behaviour and on personal and family medical history. It was filled in by parents of children attending I-IV grades while those attending V-VIII grades did it themselves during one school period. Body weight, body height, blood pressure and pulse were measured in all examinees. Descriptive statistics was used in the initial data analysis.

Results: 7% of boys and 15% of girls ate one or two meals per day. 46.3% of boys and 37.7% of girls ate hamburger or "fast food" during the last seven days three or more times. 22.2% of boys and 26.1% of girls ate meat less than three times during the last seven days. 30.3% boys and 24.6% girls put more than two teaspoon of sugar in tea or coffee. 54.4% boys and 36.1% girls exercised in some sport club. At least once in their lifetime 51.4% of boys and 52.4% of girls tried cigarettes. Smoking as an everyday habit is present in 19.3% of boys and 21.3% of girls. The highest number of examinees, 21.5% boys and 21.4% girls, drank their first alcoholic beverage out of home at the age of 13 to 14. More than five drinks in a row drank 58.9% boys and 39.1% girls.

The average BMI was 20.24 (SD=3.79) in boys and 19.78 (SD=2.51) in girls. The average systolic blood pressure was 121.26 mm Hg (SD=15.53) in boys and 116.65 mm Hg (SD=13.47) in girls. The average diastolic blood pressure was 73.04 mm Hg (SD=10.66) and 71.56 mm Hg (SD=10.09) in girls.

Risk behaviour and habits of the young and possibilities of implementation of effective preventive programmes with the aim of their elimination were analysed in the conclusion.

ADOLESCENT PREGNANCY IN EUROPE

B. Pinter

Dept. of Ob/Gyn, University Medical Centre, Ljubljana, Slovenia.

Adolescent pregnancy and birth are associated with a range of disadvantages for the mother and her child (health risks, educational underachievement, unemployment). Social context of adolescent pregnancy is also important as, in the countries of EU, women who gave birth as adolescents are twice as likely to be living in poverty. Therefore the abortion is still often the only personal choice in case of unintended pregnancy.

Adolescent pregnancy and abortion rates in the European countries vary considerably from country to country. Adolescent pregnancy rates vary from 11/1000 of women



aged 15-19 years (Netherlands) to 60/1000 (Hungary), and abortion rates from 1.3/1000 (Greece) to 30/1000 (Hungary), thus showing the differences in cultural, social and legal context of the adolescent sexuality. The high abortion rates do not necessarily reflect the lower average age at the first sex: e.g. in Belgium 69% of adolescents have the first sex before the age of 20, but the abortion rate is low (5/1000), and on the other hand, in UK 87% of adolescents have the first sex before the age of 20 and the abortion rate is high (21/1000); or the differences in the legal aspects of abortion and accessibility of abortion and contraceptive services. However, abortion is no one's first choice, and therefore must also be seen as a measure of failure of contraceptive use.

Over the last decades the northern European countries were the most successful in reducing unintended pregnancy rates among adolescents to very low levels. Their experience have shown that strategies should mostly aim on prevention of adolescent pregnancy: earlier and more comprehensive sex education, open discussion on sexual relationship, more liberal abortion laws, accessible reproductive health services and free access to emergency contraception.

SEXUAL BEHAVIOR OF ECONOMY STUDENTS ANALYSED BY THE QUESTIONNAIRE ON THE SYSTEMATICAL CHECKING IN THE FIRST AND FOURTH YEAR OF STUDY

Mojca Miholic MD, Department for student health of University in Ljubljana,

Nada Kastelec MD, Department for student health of University in Ljubljana,

Gaj Vidmar Dipl. Psych. Department of medicine informatics, Medicine Faculty in Ljubljana.

In our Department for student health of University in Ljubljana, Slovenia, we regularly do systematic checkings for all students in the first and the fourth class of study. Such a routine questionnaire does not contain certain questions about sexual behaviour of students.

We decided to add an additional questionnaire to all male students, while they are systematically checked. This questionnaire contains direct, anonymous questions about sexual behavior, sexual experiences, sexual determination, type of protection during the intercourse, questions about recent STD and the sources of informations about sex.

The questionnaire is divided into 16 questions which will be statistically and grafically presented on oral presentation. The number of analysed students is 310.

STDs AND CONTRACEPTION USE IN FEMALE STUDENTS

M. Džepina, Z.Topalović,** M. Čurić***

** Zagreb Institute of Public Health, ** Health Center Zagreb, Zagreb, Croatia*

In the academic year 97/98 a systematic gynecologic examination for first-year female students was introduced into the program of reproductive health protection.

Aim: to confirm or discard the hypothesis that a better reproductive health can be expected in the female students who receive gynecologic care and undergo systematic gynecologic examination during the first year of study.

Material and methods: The study comprised two groups of female students enrolled in the ac. year 97/98. Female students from the first group were included into the program of gynecologic care provided during that academic year, whereas those from the

second group (control group) did not undergo systematic gynecologic examination in the same year. Sexual behavior, gynecologic and cytological findings and testing for chlamydial infection were also analyzed.

Results: 65% of female students from both groups had two, three or more sexual partners. The students from the first group used condoms for contraception more often than the control group, 40.4% and 26.2% respectively. The "pill" was used by 30% of students from both groups. Only 5% of students from both groups used condoms in addition to the "pill". 17.1% of students with chlamydial infection diagnosed in 1997 were not treated simultaneously with their partners. In both groups, about 11% of cytological analysis of the Papanicolaou's smear showed dysplasia. 15.1% of students from the first group and 13.4% from the control group were positive for chlamydia.

Conclusion: Inclusion of female students into the program of gynecologic care provided during the first year of the study did not produce any significant changes in the risky sexual behavior. The incidence of chlamydial infections and cytological findings of dysplasia confirm this observation.





16.00 - 17.00

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PARALLEL SESSION 8

Vaccination and infection

Chair: Helmut Hoffmann, Janja Schweiger Nemanič

1. DATA ENGINEERING IN VACCINE PROGRAMS

E. Van Kerschaver (Belgium)

2. THE VACCINATION SYSTEM AND ITS RESULTS IN HUNGARY

Pinter (Hungary)

3. EVALUATION OF THE PROGRAM TO PROMOTE HEPATITIS B VACCINATION AMONG ADOLESCENTS - FACTORS ASSOCIATED WITH THE STUDENTS PARTICIPATION - *N. Perković et al (Croatia)*

4. ORAL PIERCING AMONG FIRST-YEAR UNIVERSITY STUDENTS

I. Ventä (Finland)

DATA ENGINEERING IN VACCINE PROGRAMS

E. Van Kerschaver

Kind en Gezin, Brussels Belgium

An adequate vaccination policy needs to be able to react quickly in the field and to ongoing evolutions. Enforced monitoring on a permanent basis will reveal where future policy should be focussed.

Registration is an essential tool to achieve an increase in vaccination coverage. It gives the administrator of vaccinations the feedback on their activities, essential for motivation and direction.

Vaccinations have evolved rapidly in recent years. Quick access to accurate and up-to-date information is essential.

Last decade there has also been considerable evolutions in information technology. It has become both technically and practically feasible to hold records on the whole population and to make these available to those involved in the health sector.

Increasingly more doctors are using information technology and this tendency will continue.

In order to take the best possible advantage of these new evolutions, and to achieve the objectives of the WHO, in 1998 Kind en Gezin, a Flemish public organisation, developed a digital registration system in which all vaccines and side effects in Flanders (northern part of Belgium) can be recorded.

Since 1999 3.6 million vaccinations are registered, together with the information on 620000 children, including all new born children.

It is a high technology, flexible and expandable database accessible to all health professionals via Internet or other route.

It contains a policy instrument for the government, WHO, scientific organisation or studies and quick access to accurate information on vaccines and the use of products. XML-technology makes exchange of data with personal electronic health files possible.

With a reminder technology, both the administrator of the vaccine and the family concerned can be prompted to action a missed vaccine.

The user can switch between 4 languages at any moment.

THE VACCINATION SYSTEM AND ITS RESULTS IN HUNGARY

A. Pintér M.D.

Health Promotion and Development Centre. Budapest Hungary.

One of the greatest successes of the Hungarian public health system is the decrease of the number of infectious diseases that can be prevented by vaccines.

Our vaccination system is up to date; with application of scheduled vaccination the occurrence of infectious diseases can be held at the zero level. The vaccination system is ruled by national regulations.

If there are no contradictions all children have to be vaccinated in the scheduled time.

The completion rate of age-related mandatory vaccination is higher than 99% year by year.

The vaccination timetable is presented; the mandatory vaccines and the preventive vaccines are listed, with special regard of the preventive vaccines for the young people.

The charts show the efficiency of the vaccines, the figures of the years before and after the installation of the system, the rate and distribution of reported diseases by age.

EVALUATION OF THE PROGRAM TO PROMOTE HEPATITIS B VACCINATION AMONG ADOLESCENTS-FACTORS ASSOCIATED WITH THE STUDENTS PARTICIPATIONS

*N.Perković, A. Tičinović, V.Jureša, Z. Puharić**

Zagreb Public Health Institute, Zagreb, Croatia

* Public Health Institute of Bjelovarsko-Bilogorska County, Bjelovar, Croatia

Objective: An adolescents hepatitis B immunization program was conducted in all high schools in Zagreb and Zagreb county and all students were offered a three-dose course of hepatitis B vaccine at a total cost of 200 kunas. The program was founded by Zagreb Public Health Institute.

Design and setting: This research program was conducted in 3 high schools (1742 students) in Zagreb county to provide information on reasons why students did or did not participate in the immunization project, and to examine the relationship between the knowledge of hepatitis B, risk behavior and participation in a program.

Subjects: Data were collected through questionnaires to 500 students (9, 10 and eleventh grade, 66% females and 34% males), describing reasons to be vaccinated or not, behavior, and hepatitis B knowledge test.

Results: After the campaign, 33% of all students elected to enter the program and completed the three-dose schedule. Students participation varied by the type of high school, but did not vary by grade level or gender. The major reasons for participation or non-participation were personal. For those who were immunized, they were 1) safety, 2) protection against hepatitis B virus and 3) peer or family incentive. For non-participants reasons were 1) « I don't need it », 2) « I am not at risk so I won't get infected » and 3) vaccination cost.

Students who voluntarily received hepatitis B vaccine showed better knowledge of hepatitis B disease than the non-participants. 20% of subjects are sexually active. More students from the sexually inactive group (58%) came for vaccination than did those of the sexually active group (48%).

The program was highly graded (very good or excellent) by 90% vaccinated students and by 60% non-vaccinated ones.

Conclusions: Students who voluntarily received hepatitis B vaccine demonstrate greater knowledge of HBV infection and they show lower risk behavior patterns than those who did not want to receive vaccine.

ORAL PIERCINGS AMONG FIRST-YEAR UNIVERSITY STUDENTS

Ventä I, Haahntela S, Lakoma A, Peltola J, Ylipaavalniemi P, Turtola L.

Finnish Student Health Service, Helsinki, Finland.

The aim of the study was to assess the prevalence and type of oral piercings among first-year university students.

The subjects were found from a sample of first-year university students at the university of Helsinki in 2002. All first-year students born in the capital of Finland in 1981 or 1982 were invited to a routine dental examination in August 2002 at the Finnish Student Health Service. From the 277 invited students the number of participants was 230 students (83%; 48 men and 182 women) and from these the number of students with oral piercings was 8 (3,5 %). The study included clinical examination, panoramic tomograms, and questionnaires.

All eight students with piercings were women. The mean age of them was 20,6 years. They had a total of 11 oral piercings: tongue barbell (7 cases), a ring near the left commissura of lower lip (1 case), labrette in the midline of the lower lip (2 cases), and a

labrette in the lower lip in the region of left canine (1 case). Three of the students exhibited minor complications: chipping of premolars, gingival recession of the labial side of lower incisors, and irritation on the skin around the ring in lower lip. In an attempt to characterize the person with oral piercings it was found that six of the students smoked. None of them said to be a total abstainer of alcohol. Six of the students said they had used narcotics. According to the depression inventory of Beck three of the subjects had mild depression (Beck et al. Arch Gen Psych 1961, 4, 561). It is concluded that the number of oral piercings among first-year university students was rather high. In a similar sample of first-year students 20 years ago, there were no oral piercings.



17.00

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EUSUHM GENERAL ASSEMBLY 2003

AGENDA

1. Opening of the Assembly.
2. To appoint a Chairman for the Assembly.
3. Approval of the Agenda.
4. Minutes of the last General Assembly held at Stowe School, Buckingham, UK on Saturday 21st. September 2002.
5. Matters arising from the minutes.
6. Renewal of the register of voters.
7. Election of 2 representatives present to check the minutes of this meeting.
8. President's report.
9. Secretary General's report.
10. Hon. Treasurer's report and the presentation of the EUSUHM Accounts for 2002.
11. Appointment of 2 auditors.
12. Annual subscription for 2004.
13. Hon. Editor's report.
14. Election of the Executive Committee
Present Committee:
Joke Meulmeester President (1995. Re-elected 1999)
Roger Harrington Secretary-General (2001)
Helmut Hoffmann Hon. Treasurer (1999)
Karel Hoppenbrouwers Hon. Editor (2000)
Mojca Juričič Member (2000)
Marina Kuzman Member (2001)
Kari Pyllkanen Member (2000)
15. Evaluation of the EUSUHM Congress 2003.
16. EUSUHM Congresses in 2005 and 2007.
17. The future of the EUSUHM.
18. Venue for the General Assembly in 2004.
19. Any other business.
20. Closing remarks by the President.

18.00

CLOSING CEREMONY

18.30

REFRESHMENT

19.00

**INTERNATIONAL CENTRE OF GRAPHIC ARTS -
25th BIENNALE OF GRAPHIC ARTS AND EXHIBITION**

POSTERS:

- P1 ROMA CHILDREN - THE PROBLEM OF EDUCATION.
THE PLAN OF PREPARING ROMA CHILDREN FOR PRIMARY SCHOOL
N. Slugan (Croatia)
- P2 EVALUATION OF TEAM WORK ON DEFINING AN ADEQUATE FORM
OF SCHOOLING FOR CHILDREN WITH DEVELOPMENTAL PROBLEM
D. Brkljačić, R Orlović (Croatia)
- P3 KNOWLEDGE AND ATTITUDE ON SEXUALITY AND BEHAVIOR OF ADOLESCENTS
N. Đurašković, J. Perasović, V. Jureša (Croatia)
- P4 THE REFERENCE DATA OF ABNORMAL OBESITY IN PUBERTY
S. Darvay, K. Joubert, R. Ágfelvi (Hungary)
- P5 VARICOCELE: RATIONALE FOR SCREENING AND TREATMENT.
REVIEW OF THE LITERATURE
K. Broeckaert, B. Schoenmakers, K. Hoppenbrouwers, M. Roelants, D. Vanderschueren (Belgium)
- P6 THE SEXUAL ATTITUDE, BEHAVIOR AND KNOWLEDGE OF ADOLESCENTS IN THE
CITY OF GYŐR - *A. Wenhard (Hungary)*
- P7 INFLUENCE OF ILLUMINATION IN CLASS-ROOM AREAS UPON THE APPEARANCE
OF MYOPIA AMONG SCHOOL CHILDREN
M. Karovska, G. Karovski, M. Cilakova, S. Kamceva (Republic of Macedonia)
- P8 COMPARISON OF RISK FACTORS OF EATING DISORDERS
G. Karovski, M. Karovska (Republic of Macedonia)
- P9 THE INFLUENCE OF IMUNISATION AGAINST RUBEOLLA UPON THE PREVENTION
OF DISEASE AND ITS COMPLICATIONS
V. Poposka, M. Karovska, G. Karovski (Republic of Macedonia)
- P10 SEXUAL DYSFUNCTIONS IN YOUNG MALES FROM 17 TO 25 YEARS
C.R. Rosati, M.. Lenziardi, E. Cristofani, E. Regali (Italy)
- P11 AMENORRHEA IN YOUNG FEMALE ATHLETES -
A RISK FACTOR FOR OSTEOPOROSIS
M. Lončar Dušek, T. Dušek Croatia
- P12 THE INFLUENCE OF AIR POLLUTION ON THE APPEARANCE AND
FREQUENCY OF LOWER RESPIRATORY INFECTIONS AMONG PATIENTS
OF SCHOOL AGE
M. Bogdanova Cilakova, M. Karovska., A. Varsamis (Republic of Macedonia)



- P13 JUVENILIS DIABETES MELITUS – A DISEASE PRESENT IN SCHOOL DISPENSARY WITHIN THE PUBLIC HEALTH ORGANIZATION - HEALTH CENTRE BEROVO (OUR CASE) - *M. Radinska (Republic of Macedonia)*
- P14 ANTI SMOKING INITIATIVE IN HUNGARY – EUROPEAN MODEL IN INFANTELI PEDIATRY’S PREVENTION - *P. Schmidt, M. Korompáky, E. Bodrogi, J.Kálinger, S. Impert, J. Juhász*
- P15 SYSTEMATIC APPROACH TO IMPROVE SELF-CARE OF UNIVERSITY STUDENTS WITH TYPE 1 DIABETES - *A.M. Rönnemaa, M Väyrynen (Finland)*
- P16 ASTHMA, ALLERGIES AND ENVIRONMENT IN OUR SCHOOLS
A. Hojs (Slovenia)
- P17 EATING DISORDERS - DENTAL DAMAGE.
ORAL EFFECTS OF EATING DISORDERS - *L. Turtola, A. Lakoma (Finland)*
- P18 KEHRÄ – A NEW PROJECT FOR HEALTH AND WELL-BEING AMONG UNIVERSITY STUDENTS IN FINLAND - *K. Kunttu (Finland)*
- P19 CROSS-CULTURAL COMPETENCE IN DENTAL CARE
M. Marinescu Gava (Finland)
- P20 A REPORT ON EXAMINATION OF CHILDREN’S DEVELOPMENTAL HANDICAPS CARRIED OUT IN THE COURSE OF ENROLMENT INTO THE FIRST CLASS OF PRIMARY SCHOOL, VARAZDIN COUNTY, ACADEMIC YEAR 2002./ 2003.
F. Lancic, E. Hip, B. Mikulić, I. Mlakar, B. Pikija (Croatia)
- P21 THE FINNISH STUDENT HEALTH SERVICE
L. Turtola (Finland)
- P22 WALK-IN TREATMENT AS A PART OF ACUTE DENTAL CARE OR A SPECIAL SERVICE FOR STUDENTS - *M.Tipuri , A.Vuorinen (Finland)*
- P23 COMPARISON OF NUTRITION HABITS AND NUTRITION STATUS BETWEEN YOUTH AND ADULT POPULATION - SLOVENE RESEARCH DATA
M.Gabrijelčič Blenkuš (Slovenia)
- P24 LIFE SKILLS: A SCHOOL-BASED PROGRAM FOR PRIMARY PREVENTION OF BEHAVIOURAL AND EMOTIONAL PROBLEMS
A. Vlaanderen, D. Bentvelsen and E.J. de Wilde, (Belgium)
- P25 COUNSELLING FOR STUDENTS WHO ARE OVERWEIGHT: A MULTIDISCIPLINARY APPROACH
M. Sisk, K. Hoppenbrouwers , A. Neyskens, R. Droogmans and J. De Vuyst (Belgium)



- P26 THE RELATIONSHIP OF SOCIAL BACKGROUND TO SCHOOL SUCCESS
Z. Puharić, A. Tičinović, N. Perković, (Croatia)
- P27 LEVEL OF PHYSICAL ACTIVITY IN FIRST YEAR STUDENTS OF THE UNIVERSITY OF LJUBLJANA - *M. Škrjanec, (Slovenia)*
- P28 THE KNOWLEDGE ABOUT SEXUALITY AND SEXUAL BEHAVIOR OF THE ZAGREB HIGH-SCHOOLERS
V. Juhović Markus, I. Koder Krištof, V. Jureša, (Croatia)
- P29 CARIES PREVENTION IN FIRST-GRADERS FROM THE ZAGREB ELEMENTARY SCHOOLS – PILOT PROJECT
V. Barac Furlinger, V. Juhović Markus (Croatia)
- P30 EFFECT OF HEALTH EDUCATION ON DIETARY KNOWLEDGE, DIETARY HABITS AND NUTRITIONAL STATUS OF EIGHTH-GRADERS FROM ELEMENTARY SCHOOLS IN THE MAKSIMIR AREA, ZAGREB
V. Mandac, T. Čavlek, V. Juhović Markus (Croatia)
- P31 THE INFLUENCE OF FEAR AND EXCITEMENT ON APPEARANCE OF CHILDHOOD HYPERTENSION
T. Pervan, M. Kuzman, I. Preradović, N. Meandžija (Croatia)
- P32 DRUG ADDICTION TREATMENT AND HARM REDUCTION ACTIVITY IN A SMALL TOWN HEALTH CENTRE - *I.Kauzlarić (Slovenia)*
- P33 SECULAR TRENDS IN HEIGHT AND MENARCHE IN BELGIAN UNIVERSITY STUDENTS
M. Vercauteren, M. Roelants, K. Hoppenbrouwers, A. Moreels, and R. Hauspie (Belgium)
- P34 EVALUATION OF AN INTERVENTION TO PREVENT SMOKING AMONG ADOLESCENTS WITH A LOWER EDUCATION
M. Crone et al (The Netherlands)
- P35 INVESTIGATION OF ALUMINIUM IN PATIENTS WITH CHRONIC RENAL FAILURE
A.Smalinskiene, O. Abdrahmanov, S. Ryselis, I. Skarupskiene, V.Kuzminskis, (Lithuania)
- P36 ROOT IDEAS IN PREVENTION. ORGANIZATION DEVELOPMENT AND HEALTH EDUCATION
C. Meleg (Hungary)
- P37 DENGUE FEVER IN TRAVELLERS
M. Miholič, (Slovenia)

P 1

ROMA CHILDREN – THE PROBLEM OF EDUCATION THE PLAN OF PREPARING ROMA CHILDREN FOR PRIMARY SCHOOL

N. Sluga

Međimurje County Public Health Institute – Department for School Medicine

Five thousands Roma people live in Međimurje County. It's about 4% of all inhabitants. They live in the sixteen villages in a very bad social and hygienic conditions. Each school year, about 300 Roma children attend the first class of primary school. Till the end of fourth class, only 35% Roma children attend school. The education in primary school (eight years) finish only 5% Roma children. The High school attend only 2%.

Three months before the beginning of school year 2001/02 and 2002/03 Roma children attended »little school«. There the program contents:

Work with children to prepare them for education in school for example learning the croatian language. In that work young Roma people – theasistents, help the educators in communication with Roma children.

Pedagogue, psychologist, defectologist and physician – specialist of school medicine, examine and communicate with each child. They also work with their parents.

The ideal period of lasting »little school« named »0-class« is nine months (it lasts as the real school year). In Čakovec it began in the autumn of 2002, for Roma children, who will attend school in the school year 2003/04.

P 2

EVALUATION OF A TEAM WORK ON DEFINING AN A ADEQUATE FORM OF SCHOOLING FOR CHILDREN WITH DEVELOPMENTAL PROBLEMS

D. Brkljačić, R. Orlović

Institute of public health, Zagreb, Croatia

Mental health of a family is the most important component for normal individual development of each of the family members. In a healthy family, a child feels protected and safe. Being well mentally balanced, he is capable to accept the socialization during his childhood as something valuable for the whole life.

Every child has a right to lead a healthy and protected life.. despite that, many children go through a lot of turbulences during their childhood. E.g., live in broken families, with mentally unstable parents, raised by inappropriate parenting, in economic hardship.

As a consequence, disorders in children's mental health and their learning abilities can develop. During the five years of the team work on Protection of Children mental Health in three elementary schools, First degree committees identified 130 children from 7 to 14 years old as those with problems.

According to the Regulation on elementary education of children with developmental problems, the further suggestions were made:

According to the Act 4, 65.38% of the students will be given an adapted form of education in their regular classes;

According to the Act 4, 3.84% of the students will be transferred to an individualized type of education which would follow the regular school program;

According to the Act 10, 22.30% of the students will be moved to special classes in their regular school and be supervised by defectology specialists;

According to the Act 12, 8.46% of the students will continue their education in special educational institutions.



P 3

KNOWLEDGE AND ATTITUDE ON SEXUALITY AND BEHAVIOR OF ADOLESCENTS

N. Đurašković, J. Perasović, V. Jureša

School Health Service, Institute for Public Health of Split-Dalmatia County, Split, Croatia, Institute of Public Health of the City of Zagreb, Croatia

Aim: To establish the differences in knowledge, attitudes and behavior in sexually active and non active students.

Examinees: The study comprised 818 first year students, 415 boys and 403 girls.

Methods: The study was conducted in 2001, on the representative 30% sample of the first year students from the University of Split. Anonymous questionnaire had 103 questions that were answered by the students during one hour.

Results: There were 53.02% of sexually active boys and 39.07% girls. Knowledge of the students in the area of reproductive health and sexually transmitted diseases is better in girls than in boys, regardless their sexual activity. The other questions were answered as follows: knowledge on exact duration of menstrual cycle has 55.3% of sexually active and 53.3% of sexually non active boys versus 92.3% or 91.5% of girls; only 17.7% of sexually active boys recognised gametophoresis as non sexually transmitted disease, 76.2% of sexually active and 75.3% of sexually non active girls and 69.5% of sexually active and 69.2% of sexually non active boys; 89.3% of sexually active girls and 76.4% till 78.6% of other examinees think that masturbation does not affect health.

Significantly positive attitude towards condom is present among most examinees, among 74.4% sexually active girls and 80.5% of sexually non active girls. 47.0% of sexually active and 68.9% of sexually non active girls do not masturbate. The same is with 7.3% of boys regardless their sexual activity. Religion is very important for 39.1% sexually active and 36.4% of sexually non active boys, and 34.5% sexually active and 26.4% of non active girls. 91.5% (sexually active girls) and 75.9% (sexually active boys) examinees are in favour of introduction of sexual education into secondary and/or elementary and secondary schools.

Conclusion: Knowledge of adolescents on sexuality is insufficient. The results of multivariate analysis will point to the complexity of the relation among knowledge, attitude and behaviour of adolescent. There are clear requests but also necessity for introduction of health education in this area.

P 4

THE REFERENCE DATA OF ABNORMAL OBESITY IN PUBERTY

S. Darvay, K. Joubert**, R. Ágfelvi****

*Eötvös Lorand University Faculty of Teachers' College, **CSO

Demographic Research Institute, ***Heim Pál Hospital, Budapest, Hungary

The authors used the data of the 1-18 year old age group of the Hungarian Longitudinal Representative Growth Study for elaborating their method of screening. They created a so-called reference data set from the measurements. They calculated the reference-centiles belonging to each height-for-age between age one and age eighteen.

They marked the 3rd, the 10th, the 75th and 97th centiles belonging to the different heights of the various age groups with a line as limits in the grid of a chart in which heights are shown in the vertical columns and the body masses in the horizontal ones.

The evaluating charts created this way give the 75th centile of the body mass as related to the height (length of body) as the bottom limit of being endangered by obesity.

The danger of obesity grows as the body mass of the child exceeds the child the 75th



centile and approaches the 97th centile, which is regarded as the bottom limit of gross obesity. The danger of gross obesity gradually increases over the 97th centile. It is the 10th centile that is viewed as the upper limit of low body mass or thinness. The closer the body mass of the child gets to the 3rd centile, the upper limit of abnormal thinness, the greater the risk of abnormal thinness is.

P 5

VARICOCELE: RATIONALE FOR SCREENING AND TREATMENT. REVIEW OF THE LITERATURE.

*K. Broeckaert**, *B. Schoenmakers**, *K. Hoppenbrouwers**, *M. Roelants**, *D. Vanderschueren*[°]

*Department of Youth Health Care, Katholieke Universiteit Leuven, Belgium;

[°]Department of Endocrinology, Universitaire Ziekenhuizen Leuven, Belgium

Varicocele is a frequent occurring pathology, as it can be found in up to 15% of men. Although it seems to be a fairly benign condition, the high prevalence of varicocele in men suffering from fertility problems suggests a link between varicocele and infertility. However, the impact of varicocele on fertility, as well as the need for treatment, remains highly controversial. As a direct consequence, the benefit of screening for varicocele in male adolescents, as part of the routine school health examinations, may be questioned.

In order to collect the existing evidence concerning this issue, Medline was searched using the MeSH terms varicocele, treatment, prognosis, and fertility. Given the paucity of results, no limits regarding publication date or study design were applied. Lecture of the retrieved articles revealed major methodological problems: retrospective study design (no randomised controlled trials); strong selection bias (fertility clinics), lack of long-term follow-up, important loss to follow-up. The lack of consensus on outcome measures to assess fertility (hormonal assays, semen analysis, pregnancy rate) makes interpretation and comparison of results difficult.

In spite of the methodological problems, the results show that aberrant spermatogenesis, reduced testicular volume and hormonal abnormalities can be detected in a minority of men with varicocele. A causal relationship between these findings and reduced fertility could not yet be proven. Correction of varicocele results in neither significant improvement of these parameters, nor increase in pregnancy rate.

Conclusion: the existing evidence does not allow us to recommend for or against screening for varicocele. Further research is needed to define the impact of varicocele on fertility and to assess the effect of treatment. We plan to perform a prospective randomised controlled trial in a population of adolescent and young adult men, in whom varicocele is clinically detected during routine school and university health examinations and confirmed by ultrasound examination.

P 6

THE SEXUAL ATTITUDE, BEHAVIOR AND KNOWLEDGE OF ADOLESCENTS IN THE CITY OF GYŐR, HUNGARY

A. Wenhard

Non-profit Foundation for School Health Care, Győr

Purpose: This research forms the basis for developing programs for sexual health education of teenagers to help them prepare for responsible sexual relationship, family planning, childcare and a happy and healthy family life.

Research: 1999/2000: We polled a sample of 300 students between ages 14 and 19, enrolled in secondary education in the city of Győr, Hungary about their sexual attitude and behavior. The sample represented the distribution of the student population of Győr with respect to gender, age and school type.

2003: The previous study was extended to cover sexual knowledge.

Method: Randomly centered, anonymous, systematic sampling with a closed questionnaire. Topics covered by questionnaire: demographic data, socio-cultural background, knowledge of contraceptives and their proper use, knowledge about anatomy, biology and hygiene, sexual attitude and behavior, ethical questions, decision making.

Conclusions: This poster will present the current status of the evaluation of the data obtained in this study.

P 7

INFLUENCE OF ILLUMINATION AT CLASS-ROOM AREAS UPON THE APPEARANCE OF MYOPIA AMONG THE SCHOOL CHILDREN

M.Karovska, G.Karovski, M.Cilakova, S.Kamceva**

School Dispanzery Kavadarci, School Dispanzery Veles*, Health Department Radovis*
Republic of Macedonia

The bigger part of school-work is based on sense of sight. Regular illumination at classroom working areas in according with C.I.E standards is essential condition for achieving a total working effect.

Aim: Influence of illumination at class-room areas upon the appearance of myopia among the school children

Material and methods: Analysis and elaborated data obtained from systematic medical check up of the students. Comparative analysis of appearance of myopia in correlation with illumination of classroom working areas. The following parameters were analysed: measuring of natural and artificial illumination, illumination of working areas (with luxmetre), disposition and types of light sources, shining absence, photometric measuring.

Results: Illumination of working classroom areas was inadequate in 5 school (between 100-150 lux). The number of children with myopia is increasing (37%) in schools with incorrect illuminated working areas. The number of children with myopia in schools with correct illuminated working areas is significantly decreasing. (15%) After introduction of proper illumination at classroom working areas the number of students with myopia is decreased for 20%

Conclusion: Proper illumination of classroom working areas is related to the decreasing number of students with myopia. Illumination of classroom working areas is essential factor for normal sight of students.

P 8

COMPARISON OF RISK FACTORS OF EATING DISORDERS

*G. Karovski, M. Karovska**

Psychiatric Department, School Dispanzery*, Medical Center Kavadarci
Republic of Macedonia

Aim: The implication of risk factors in the development of eating disorders.

The comarison between anorexia nervosa and bulimia nervosa.

Maternal&Methods: We analysed the group of 28 female subjects with a history of anorexia nervosa and 15 subject with bulimia nervosa involving the comparison with 180 healthy control subjects. Were used documentation of patients who have been treated in the psychiatric disease ward for the last year. All data are taken from the history of disease and their corresponding analyses then it has been made a clinical assessment. A broad range of risk factors was assessed by interview.



Results: The subjects with anorexia nervosa had a mean age of 15 years while the mean age of subjects with bulimia were 16 years. In comparison with the healthy controls (10%, subjects with anorexia (25,6%) and bulimia (31,2%) reported greater levels of exposure of the personal vulnerability factors and more than half of environment factors. The significant difference between anorexia (19.3%) and bulimia (25.3%) was to premorbid psychiatric disorders, with the subjects with anorexia having the less exposure. The subjects with bulimia (22.2%) had been exposed to more parental psychiatric disorder during their childhood. Negative self evaluation (53.6%), perfectionism (67.8%), ambitious (78.6%) and sensibility (71.4%) were most common among the subjects with anorexia.

Conclusion: The study has identified various personal vulnerability and environment risk factors for the development of the 2 compared eating disorders. Parental obesity, early menarche and parental psychiatric disorder distinguished subjects with bulimia from those with anorexia.

P 9 **THE INFLUENCE OF IMMUNISATION AGAINST RUBEOLLA UPON THE PREVENTION OF DISEASE AND ITS COMPLICATIONS**

V. Poposka, M. Karovska, G. Karovski**

School Dispanzery Struga, School Dispanzery-Medical Center Kavadarci*
Republic of Macedonia

Rubeolla is acute infectious disease with great importance of the rubeolla embriopathy.

Aim: Analyze of immunisation against rubeolla in the period between 1991-2002 on the territory of the community of Struga.

Material&Methods: Planned and continuous immunisation against Rubeolla is being conducted at 1982 like MMR at 12 monthly-old children. Re MMR is conducted in 1997 on 7 year-old children and in 1987 Re Rubeolla is conducted on 14 year -old females. The following parameters have been analysed: the accomplished immunisation, registration forms for infectious diseased, vaccine status of the diseased persons. Analytical and descriptive methods were used.

Results: In the analysed period 6027 persons were vaccinated and 6665 revaccinated. There were 224 diseased subjects, out of whom 195 were not vaccinated and 29 vaccinated. According to the age group there was predominance of male (204) subjects older than 14 years. The number of female (20) was smaller. With the introducing of the obligatory immunisation against rubeolla the morbidity level drastically decreased. The greatest number of diseased were registered on 1987 (422) and in 1977 (389).

Conclusion: The results obtained emphasize the importance of vaccine prophylaxis. A high 98,8% of immunization reduced the number of diseased resulting as well as significant decreasing and putting under control the risk of congenital rubeolla.

P 10 **SEXUAL DISFUNCTIONS IN YOUNG MALES FROM 17 TO 25 YEARS**

C. R. Rosati, M. Lenziardi, E. Cristofani, E. Regali
Andrology Center - S. Zita Hospital, Lucca, Italy

In the andrologic medical center we have examined N.86 boys that are from 17 to 25 years old, addressing to the center for a medical consultation about sexual trouble.

Results: 47 boys (54,6% of the sample) have psychosexual disorder without organic disease, and we have resolved it only with psychotherapy. 18 boys (21%) have genital organic disease, resolved with organic therapy. But this therapy haven't resolved sex-



ual trouble and we have to effect a psychotherapy too. 21 boys have genitals organic disease, resolved with organic therapy without need of a further psychotherapy.

About kind of sexual pathology we have realised that: 37 boys (43% of the sample) are suffering from sexual impotence, 26 boys (30,2 %) are suffering from precocius ejaculation. 1 not has ejaculation during the coitus, 1 has hypersexuality.

About the organic diseases: 31 prepuce pathologies, 4 prostate inflammation, 1 penis bent, 1 disease la Peyronie.

Conclusion: This observations show haw a sexual education program and medical genital check up are important for sexual life and psychic balance.

P 11

AMENORRHEA IN YOUNG FEMALE ATHLETES - A RISK FACTOR FOR OSTEOPOROSIS

M. Lončar Dušek, T. Dušek

General practice Mira Lončar Dušek, MD, PhD, Zagreb, Croatia
Zagreb University School of Medicine, Zagreb, Croatia

The aim of this study was to estimate the influence of intensive training on menstrual cycle disorders in female athletes. The questionnaire was used to determine the time of menarche, prevalence of primary and secondary amenorrhea, and dysmenorrhea in 72 active female athletes from Zagreb (10 volleyball players, 18 basketball players, 10 ballet dancers, and 34 runners) aged between 15 and 21, and 96 girls of the same age who were not engaged in any sport (control group). The prevalence of secondary amenorrhea was three times greater in athletes than in the control group. The prevalence of primary and amenorrhea was substantially higher in athletes (6/72 vs. 0/96) than in the control group. The highest prevalence of secondary amenorrhea was recorded in runners (14/31), particularly long-distance runners (11/17), whereas there was only one case of secondary amenorrhea among basketball players. Menarche was significantly delayed in those athletes who started physical activities before the onset of menstruation. The high-intensity training before menarche postpones its onset.

This work also presents a case of a female mid-distance runner with a well known female athlete triade: eating disorders, amenorrhea and osteoporosis which resulted in stress fracture occurrence on four localizations of the skeleton.

P 12

THE INFLUENCE OF THE AIR POLLUTION APPEARANCE AND THE FREQUENCE OF THE LOWER RESPIRATORY INFECTIONS AMONG THE PATIENTS AT THE SCHOOL AGE

M. Bogdanova Cilakova, M. Karovska, A. Varsamis
Health Center-Veles, R.Macedonia

Purpose: Presence of the lower respiratory infections and their frequency, among the patients at the school age, in urban environment, where the air pollution is big, by the traffic and factories especial by the smelter for lead (Pb) and zinc (Zn) in our town. The presence of long duration of SO₂, lead, zinc and cadmium dust is the most dangerous.

Methods and Materials: There were followed patients at the age from 7-26, in a period of two years (2001-2003). We used the anamnesis, clinical picture, laboratory, microbiological and X ray findings. The patients were grouped by sex, season of appearing and age.

Results: There were 165 cases of acute bronchitis, 48 cases of recurrent bronchitis and asthma bronchial both and 65 cases of bronchopneumonia, by total 278 cases of lower respiratory infections. The infections were more frequent between male with 52% . 42% were female. In the first quarter (January, February and March), with 39%, than fourth quarter with 31%, third quarter with 17% and second quarter with 16%. Grouping by age: from 7 – 9 were 11%, from 10 – 14 were 53%, from 15 – 19 were 32% and from 20 -26 were 4%.

Conclusion: The air pollution is permanently present in our living environment and it has a negative influence on the immunity of whole population, but among the population, who is in growth and development has a very bad reflection. The frequency of lower respiratory infections, especial from new virulent form of viruses, in our town is big and is a reason for frequent acute and recurrent bronchitis, bronchopneumonia, bronchial asthma and other respiratory diseases, because the natural immunity barrier, at our patients is broken. We are calling for the living environment protection and reducing the air pollution.

P 13

JUVENILIS DIABETES MELITUS – ADISEASE PRESENT IN SCHOOL DISPENSARY WITHIN THE PUBLIC HEALTH ORGANIZATION – HEALTH CENTRE BEROVO (OUR CASE)

Dr. M. Radinska, spec.-school and university medicine

PHO Health Centre – Berovo, Macedonia

Diabetes mellitus is a disease of all adult groups, so it also means children's population...

This disease belongs to metabolic disease which is because of lack of insulin and it causes disorder in carbohydrates, fat and proteins with typical clinical manifestations.

The basic characteristic of juvenilis diabetes is its dependence on insulin, not only to control the disease, but also for child's survival. Etiologically, except that it is an autoimmune disease where it is supposed that the starter of the immune process upon Langerhans's isles of pancreas is a virus from Koksaki family, a great role also has the hereditary component which was proved in our case.

A girl aged 18 was brought to our dispensary in difficult general health condition: great vomit, heavy breathing, high fever, great exhaustion, tonsillitis.

The smell of the vomit made us check the level of sugar in blood which was too high (15.8 m mole / litre)

All the necessary measures for putting the insulin were taken right now. It was in a dose of 10 kilograms and it was taken to the Clinic of Endocrinology.

The level of sugar in blood was checked at the girl's mother and it was concluded high level too.

Conclusion: At unclear clinical picture and difficult general health condition at children the level of sugar in blood is always to be doubted and checked.

P 14

ANTI SMOKING INITIATIVE IN HUNGARY – EUROPEAN MODEL IN INFANTELI PEDIATRY'S PREVENTION

P. Schmidt, M. Korompáky, E. Bodrogi, J.Kálinger, S. Impert, J. Juhász

Foundation for health generation, Győr

Authors give some information about a national anti smoking initiative in Hungary.

It was published to pupils in kindergartens, elementary and secondary schools in 1993. 1156 competition essays have been received, they have been presented in 33 places, six times on congresses of infantele pediatrie.



Main aim is the prevention, it means to prevent the first smoking of pupils ages 12 – 16.

Church schools had been called up to take part on our initiative. Since change of regime these schools are determinant in Hungarian education.

Authors repeated this appeal 1997. and 2000. again.

1600 drawings have been received from 19 countries and from the capitol.

About 3000 children have filled in questionnaire. They show a significant relation, a direct connection about dangerous knowledge and lung cancer.

40% of children mean smoking of parents were dangerous. A great surprising: only 9% think passive smoking was dangerous too! 70% think, people would have longer life time stopping before age of 25.

Authors call up members of Parliament and self-governments to make an effort to prevent dangerous influence of smoking and to urge the importance of their positive opinion in favour of non smokers.

Authors think. Hungarian Parliament has to discuss the law in favour of non smokers and to take care it's keeping.

P 15

SYSTEMATIC APPROACH TO IMPROVE SELF-CARE OF UNIVERSITY STUDENTS WITH TYPE 1 DIABETES

A-M Rönnemaa, M Väyrynen

Finnish Student Health Service, Turku, Finland

Background: University studies are accompanied by many changes compared with previous life, e.g. variable every-day time schedules, frequent trips abroad, separation from previous health care providers, which all may hamper the self-care of subjects with type 1 diabetes.

Aim: We evaluated possible problems encountered by university students in the care of their diabetes and to identify means of improving their self-care.

Subjects and methods: Twenty-six type 1 diabetic university students (16 female, 10 male) were identified on the basis of our patients register. Mean age was 21.2 years, duration of diabetes 10.7 years. All had multiple insulin injection regimen. BMI and glycemic control (HbA1c) were determined. A diabetes nurse interviewed the students using a structured questionnaire. A test evaluating the students' ability to judge carbohydrate content of foods and a problem solving test were performed. Results: The mean BMI was 23.0 (recommended level < 25) and mean HbA1c was 7.5% (level for good glycemic control is < 7.5%). The number of weekly glucose measurements was > 20 (well satisfactory) in 7 and < 3 (clearly unsatisfactory) in 4 students. Obstacles for more frequent measurements were lack of time (n=5) and laziness (n=5). Thirteen students considered that diabetes negatively affected their studies, e.g. causing difficulties in the adjustment of meals and insulin injections. Dietary carbohydrate counting ability was good or satisfactory (correct answer in > 15 out of 22 questions) in 83% of the students. In the problem solving test the mean score was 4.7 (maximum 6.0). Nine students had experienced problems (mainly hypoglycemia) with diabetes treatment in connection with alcohol intake during the previous year. One student had once been admitted to hospital because of hypoglycemic coma.

Conclusions: The glycemic control of university students is in general satisfactory and better than among type 1 diabetic patients in Finland (7.5% vs 8.6%). Self-care can be further improved by motivating the students to more frequent glucose measurements when necessary and by providing more information about the effects alcohol on the management of diabetes.



P 16

ASTHMA, ALLERGIES AND ENVIRONMENT IN OUR SCHOOLS

A. Hojs

Institute of Public Health of the Republic of Slovenia

Asthma and allergies are increasing mainly among the children.

Children spend much of their lives in schools (sometimes 9 hours and more). They cannot make decisions concerning their own school environment, they have to live in their classrooms and gyms. There were nearly 99% of children of school age in our primary schools in years 2001/02.

We tried to estimate the prevalence of asthma and allergies and to find out which are the most common asthma and allergy risk factors in our primary schools.

We choose this theme as a part of our national program.

The checklist for allergy inspection in schools from Sweden was adapted in collaboration with Pulmonary and allergic patients association of Slovenia.

The questions regarding those factors which have an effect on the indoor environment and may cause or exaggerate asthma or allergies are in the checklist. There are some questions about health, indoor climate and moisture, ventilation, smoking, furry animals, plants, cleaning, and food.

Eight regional institutes of public health checked 75 of our schools in eight health regions of Slovenia.

Preliminary results:

Health: 6% of school children in 45 checked schools have had some form of allergy and/or hypersensitivity and/or asthma.

Indoor climate: improper temperature in classrooms of more than half checked schools in the part of the year (mostly in the summer), but they are not all confirmed with measurements .

Plants: there are half of schools with birch in the vicinity in half of the inspected schools.

Food: There are less than 1 percent pupils that have food allergy in checked schools. In nearly quarter of schools there are no data how many pupils have food allergy, only 28 schools have lists of what allergic pupils do not tolerate.

The checklist was tested and improved.

The following actions will be taken in the next phase of our national programme: random sample of schools and kindergartens will be chosen in all health regions of Slovenia regarding number of school age children in health regions; regarding the revealed problems some health education materials will be prepared, problems will be estimated more precise (eg. advised measurements); the number of children with some form allergy and/or hypersensitivity and/or asthma will be estimated.

P 17

ORAL EFFECTS OF EATING DISORDERS

L. Turtola, A. Lakoma

Finnish Student Health Service, Helsinki, Finland

Eating disorders have increased in recent years, especially in young adults. Most of the sufferers from eating disorders continue to be women, although the proportion of men is on an increase. The increase in eating disorders is mainly associated with cultural and societal factors: uncertainties in life, together with the requirements set by the fashion world on the figure of a woman, cause an increasing number of



people to think excessively about their relationship with eating and dieting. Many young women have begun to believe that their value as human beings is determined on the basis of their looks. Eating disorders usually emerge in adolescence or early adulthood, bulimia often later than anorexia. Eating becomes chaotic and/or uncontrolled.

Eating disorders affect oral health in many ways. Some of the changes are irreversible, and untreated they will become worse. Irreversible changes include dissolving of the tooth enamel, and in some cases swelling of the parotid salivary glands. Even dental caries causes permanent damage to teeth. Fortunately, all of the changes are not irreversible; some are reversed as eating becomes normalised. Drying of the mouth, most problems in the gums, and mucous membrane problems caused by deficient nutrition, as well as early-stage swelling of the parotid gland can be repaired.

It is often difficult for a person with an eating disorder to understand and express her emotions and physical feelings. During recovery, it is important to call attention to the understanding of these. Attitudinal changes are an essential part of recovery: a person's value is not dependent on her looks, and the shape of her figure is not a selection criterion for anyone.

P 18

KEHRÄ – A NEW PROJECT FOR HEALTH AND WELL-BEING AMONG UNIVERSITY STUDENTS IN FINLAND

K. Kunttu

Finnish Student Health Service, Helsinki, Finland

Prolonged studies, difficulties in time management, busy and performance-oriented life, physical and mental symptoms, lack of interaction ... These are some of the problems that served as the starting point for launching KEHRÄ, a national project for promoting student health and well-being and improving general study environment in Finland. The primary stakeholders in the project are, at national level, the Finnish Student Health Service (FSHS), the National Union of Students in Finland (SYL), the Finnish Student Sports Federation (OLL), and the Finnish Council of University Rectors and, at the local level, the universities, students' unions, and student health centers. The project is funded by the Ministry of Social Affairs and Health, the Ministry of Education, and the FSHS.

The aim of the project is to enhance the mutual awareness, interaction and co-operation between the actors in the field of student health and well-being. In practice, the idea is to facilitate networks between various actors, and through joint efforts, to promote student health and well-being for the benefit of individual students, universities and society.

Substantially, the objective is to bring about changes in student life to make it better support the well-being of both individuals and communities. This is achieved by strengthening study communities, by creating supportive learning atmosphere, by improving physical study conditions, and by encouraging intoxicant-free alternatives in student activities. Another objective is to improve individual students' skills in life control, health promotion, learning and problem solving during their student years.

P 19

CROSS-CULTURAL COMPETENCE IN DENTAL CARE

M. Marinescu-Gava D.D.S.

Finnish Student Health Service Tampere, Finland

We are part of a world of migration, where people and cultures come together and blend. Cross-cultural competence in dental care resides in recognition and respect for



differences among individuals, their values, expectations and previous experiences. Culture is a collection of learned behaviour patterns, characteristic for members of any given society. It has very little to do with genetic heritage and geographic boundaries, is everything a group of people does, says, thinks, material artifacts, customs, language, attitude and feelings. It is very difficult to evaluate or learn what life is about in a place whose culture one has never experienced before. One important issue is the lack of awareness of one's own cultural baggage with preconceptions and stereotypes. Medical professionals must assess themselves to determine their own inherent and their medical culture's biases and realize how these influence their everyday behaviour, as it may help them understand the magnitude of cultural influences on their p

Paper includes own experiences as a student, as a patient and as a dentist in a foreign country. A full experience of living, learning and working abroad changes people, makes them see the differences and adds richness to the fabric of life. Individuals everywhere also have a lot in common, such as need for affliction and love, care, participation and contribution. When the exterior is stripped off, the differences are not so many after all and seam easier to overcome. Building an international, cross-cultural competent practice requires a good interplay of perceptions, experiences, evidences and respect for cultural differences.

P 20

A REPORT ON AN EXAMINATION OF CHILDREN WITH DEVELOPMENTAL HANDICAPS CARRIED OUT IN THE COURSE OF ENROLMENT INTO FIRST CLASS OF PRIMARY SCHOOL VARAZDIN COUNTY ACADEMIC YEAR 2002./2003.

F. Lancić, E. Hip, B. Mikulić, I. Mlakar, B. Pikija

Institut of Public Health of Varazdin county, Department for school medicine, Croatia

The beginning of school education is a turning point in every child's life. For children with developmental handicaps, this is an additional challenge. According to WHO, approximately 10% of children are handicapped to a certain degree. In Croatia, their education is regulated by Primary Education Act, First Class Enrolment Regulation, and Disabilities Education Regulation. Before enrolment into first class, an examination is carried out according to these regulations. Some of the handicaps are identified through the course of education, which explains why there are fewer children with developmental handicaps at the beginning than at the end of their education. The type and degree of handicap demand an appropriate decision: postponing of school education for a year, an enrolment with a full or partial inclusion, or a special education enrolment.

In Varazdin county, in academic year 2002./2003., 2158 children were examined prior to their enrolment into first class. 1082 of them were boys (50,1%), and 1076 were girls (49,9%). Certain developmental handicaps, according to the Regulation, were identified with 90 children (4,3%). 53 of them were boys, and 37 were girls. The enrolment of 59 children (33 boys and 26 girls) was postponed for a year. 31 children (20 boys and 11 girls) were enrolled into school. 21 children (13 boys and 8 girls) were with a full or partial inclusion, and 10 of them (7 boys and 3 girls) were enrolled into special education programmes. One year postponement was administered for following reasons: speech impediments, mental retardation accompanied by other illnesses, and hyperactivity with or without attention deficit disorders. Children enrolled with a full or partial inclusion generally displayed various difficulties not specified by Regulation itself, but still presenting a handicap for the child when combined. Physical disability was the second most common problem, and speech impediments were the third. Children with mild forms of mental retardation, sometimes accompanied by other illnesses which make education additionally difficult, were enrolled into special education programmes. Children with more serious or severe forms of mental retardation were referred to self-sufficiency

training programmes. Early detection of children with developmental handicaps at the beginning of their education, as well as determination of adequate forms of their upbringing and education, allows for their biological potentials to be developed in the best possible way.

P 21

THE FINNISH STUDENT HEALTH SERVICE

Turtola Lauri

The Finnish Student Health Service (FSHS) covers all - more than 135 000 - university students in 16 cities in Finland. FSHS provides students preventive health care, medical care, mental health care, and dental health care. Almost all kinds of health services the students may need, with exception of hospital treatment, maternity clinic and duty service, are included in the programme. Every first-year student is invited to a health check-up and every first- or second-year student to a dental check-up. Health promotion is integrated with these check-ups and with students visits for treatment. Health education programmes and activities promoting environmental health and safety in the universities have also been developed in co-operation with student organisations. Annually about 45 % of students visit a physician, about 35 % a dentist and 5 % a psychiatrist or psychologist at the FSHS. Visits to general practitioners make about two thirds of all visits to physicians and one third to those specialists which are the most important for the students (gynaecologist, dermatologist and ophthalmologist).

FSHS has a WWW-doctor counselling service through which our general practitioners give instructions and advice on health and illnesses. The website of FSHS contains a collection of articles on health matters. It includes advice on the self-care of the most frequent health problems of students, as well as instructions on when to seek for help from the health service unit.

Every student pays a health care fee (31,62 €) as a part of the student union fee. In addition, students are charged some fees for consultations and treatment at student health centres. The students pay 18.6 % of the finance needed. 63.3 % of the expenses are covered by the Social Insurance Institution, university cities pay 11.5 % and the Ministry of Education 4.7 %.

The services are produced at 16 health centres; there are ten Local Boards for their administration. The highest decision-making body of the FSHS is the Delegation, which has meetings twice a year. The Executive Board supervises the health centres and bears most of the responsibility in the FSHS. It is assisted by a Managing Director. Students are well represented at all levels of the administration. For the medical guidance FSHS has a Physician in Chief, a Chief Psychiatrist and a Chief Dental Officer. FSHS has about 590 employees. – FSHS had its 70th anniversary in 2002.

P 22

WALK-IN TREATMENT AS A PART OF ACUTE DENTAL CARE OR A SPECIAL SERVICE FOR STUDENTS

M.Tipuri D.D.S; A.Vuorinen D.D.S

Finnish Student Health Service, Tampere

Aim: Walk-in treatment as a part of dental care gives optimal dental services for students side by side with systematic dental care.

Background: The health centre in Tampere was founded in 1960. After the beginning with only 3 600 students Tampere has grown as the second largest university city in Finland. In Tampere there are two universities and 19 200 students. From the beginning has the dental care been a part of students health service. There are 12 dentists and 2 hygienists in Tampere health centre; it means 12 600 working hours in the year 2003.



Dental health care is given in the form of preventive treatment, basic treatment and specialist treatment and treatment of acute cases.

Normal systematic dental health care means that during the first or second academic year the students will be called to dental check-up in order to have his/her mouth and teeth examined free of charge including also x-rays. In the year 2002 only 62% of called students visited dental clinic.

The walk-in treatment aims to help to serve them students who fail their systematic care

The student can have the examination and basic treatment 2-3 times during her/his studies. The demand for dental services is all the time greater than supply. That's why it was important to find the solution how we organise dental treatments for all of the students.

Method: We started walk-in treatment clinic in the 1996. In today's scale we have had it since 2000. We have walk-in clinic twice a week; on Tuesdays and Fridays. The student can check in at 8-11 o'clock and everyone can get an appointment during the same day. In Tampere we have two dentists who take care of walk-in treatments. We also have daily some acute times. In the walk-in clinic the dentist aims to finish the care.

Walk-in treatment visits

	2000	2001	2002
Female	1567	1721	1992
Male	1049	1160	1443

Age/years	2000	2001	2002
< 25	935	1073	1315
25-34	1069	1158	1405
35-44	356	372	436
45 >	256	278	279
altogether	2616	2881	3435

In the years 2000-2002 visited 5825 patients with 8 932 visits.

Conclusion: When a student feels that he/she needs some dental treatment, walk-in clinic gives a possibility to meet a dentist in two working days. The secretaries find the arrangement also less stressful, since they can offer different options for the patients. Walk-in clinic makes dentist's day more peaceful and gives his/her time to systematic dental care.

Walk-in treatment is an excellent way to organise dental services side by side with basic treatment.

P 23

COMPARISON OF NUTRITION HABITS AND NUTRITION STATUS BETWEEN YOUTH AND ADULT POPULATION - SLOVENE RESEARCH DATA

M. Gabrijelčič Blenkuš, MD

Institute of Public Health of the Republic of Slovenia, Ljubljana, Slovenia

Background: The recommended daily intake of fruits and vegetables are two to three portions of fruits and four to five portions of vegetables daily. Adolescents are recommended to consume one portion of milk and dairy products daily more than adult population. Recommended body mass index (BMI) for adult population is 18,5 to 25.

Methods: Data from two cross-section epidemiological studies were used to compare the nutrition habits and status of youth and adult population in Slovenia, both were conducted in 1999. One cross-section study was performed on a proportional sample of 296 students, in average 18 years old, attending the third class of secondary schools, the survey sample covers the central third of Slovene territory. Another is Slovene public



opinion survey, performed on a proportional sample of 1012 adults. The applied dietary data collection method was interview investigation. The body mass index was calculated on the basis of the measured (students) or reported (adult population) body height and body mass values.

Results: Adolescents and adults consume insufficient amounts of fruits and vegetables. Only few more than a half of adult population and less than half of the adolescent population consume fruits on a daily basis. Similar significant differences are observed, only more distinctive, in the case of vegetables. There is no significant difference in consumption of milk and dairy products between compared populations. Approximately half of the adult and four fifth of adolescent population have normal BMI values according to the recommendations. Attitude towards body weight in both populations are comparable distributed, with significant differences between sexes.

Conclusions: Consumption of fruits and vegetables in adolescent and adult population in Slovenia is not in accordance with the recommended amounts. Overweight and obesity are growing up problems, underweight is observed in female adolescent population. Girls and women are significantly less satisfied with their body weight than boys and men.

P 24

LIFE SKILLS: A SCHOOL-BASED PROGRAM FOR PRIMARY PREVENTION OF BEHAVIORAL AND EMOTIONAL PROBLEMS

Vlaanderen, D. Bentvelsen and E.J. de Wilde
Municipal Health Service Rotterdam area

What do young people need so as to be able to properly handle situations of conflict? In order to provide them with the tools required, the Municipal Health Service Rotterdam area developed the so-called Life Skills programme. This programme trains young people so that they can expand their personal effectiveness and as a result, increase their self-confidence. Young people learn to use social and emotional skills in order to cope with difficult situations. They learn to think matters through first, before reacting. The poster presents an outline of the study and some results on a study on the efficacy of the programme.

P 25

COUNSELLING FOR STUDENTS WITH OVERWEIGHT: A MULTIDISCIPLINARY APPROACH

M. Sisk(1), K. Hoppenbrouwers(2), A. Neyskens(1), R. Droogmans(1) and J. De Vuyst(1)
(1)Preventive Health Center for Students, Katholieke Universiteit Leuven, Leuven, Belgium
(2)Youth Health Care, Katholieke Universiteit Leuven, Leuven, Belgium

Objective: The Preventive Health Center of the Katholieke Universiteit Leuven offers all freshmen (on average 4000 students yearly over the last 10 years) a preventive medical examination during which they are screened for several health related issues. Overweight (BMI ≥ 25) occurred in 9.3% of the students over the last 10 years. Overweight is a health hazard that has an impact on both the physical and psychological wellbeing of an individual. Therefore a multidisciplinary task force on overweight and obesity developed an intervention protocol, which was first launched in October 2000.

Subject and methods: All students with a calculated BMI of ≥ 27 were invited to participate in the project. Annually a group of about 10 students subscribed to the program running from October to May. The program consisted of (i) an initial health screening by means of standardized questionnaires and a medical examination by a physician; (ii) group sessions with a dietician and a psychologist, initially twice a month and then on a monthly basis; and (iii) sports sessions at least twice a week. Individual evaluation by a physi-

cian took place at 0, 3, 6, 12, and 24 months, during which issues such as weight control, general wellbeing and healthy lifestyle, were discussed.

Results: 31 students subscribed to the program over the last 3 academic years. Evaluation after 3 and 6 months of therapy showed a significant decrease in (over)weight, healthier eating patterns, improvement of general wellbeing and an increase in the degree of physical activity for most of the students. The compliance of the participants in the program consistently declined after 12 months of evaluation, with a high drop-out rate.

Conclusion: The presented type of multidisciplinary counselling for students with overweight appeared to be successful on the short term. On longer term, however (and due to an important drop-out rate), the outcome data are limited.

P 26

THE RELATIONSHIP OF SOCIAL BACKGROUND TO SCHOOL SUCCESS

Z. Puharić, A. Tičinović*, N. Perković*

Public Health Institute, Bjelovar, Croatia

* Zagreb Public Health Institute, Zagreb, Croatia

The objective to this study was to identify the social factors that effect the child school success. The subject were 299 fifth grade children, 162 girls (54,2%) and 137 boys (45,8%) from Bjelovarsko-Bilogorska Zupanija, Croatia. Data were collected from medical history. Analysis identified 3,3% children with fair final grade at school, 30,1% children with good final grade, 41,5% with very good final grade and 25,1% with excellent final grade. 59% of the children with an excellent final grade come from an urban setting, the rest come from rural setting. 7% of excellent students and 26,6% of good students have divorced parents. 54,5 % of the children with no siblings and 20% of the children with siblings are excellent students. 76% of excellent students have gone to kindergarten or pre-school for 2-4 years. 70% of excellent students have parents with university degree. There were no gender differences found for any of the social factors. Observations indicate a relationship between parental educational status and marital status, number of children in the family, place of living and school success.

P 27

LEVEL OF PHYSICAL ACTIVITY IN THE FIRST YEAR STUDENTS OF THE UNIVERSITY OF LJUBLJANA

M. Škrjanec

Student Services Health Centre, Ljubljana, Slovenia

The aim of this study was to find the level of physical activity in the first year students, and whether the level of their physical inactivity was related to other risk factors for the development of chronic non-infectious diseases.

In this retrospective study we analysed 206 randomly selected medical records of the 1st year students of the University of Ljubljana who underwent complete physical examination between 3 January and 27 February 2001. Clinical examination and a questionnaire served for the analysis. 48 % of students were physically active at least 3 times a week, and 13.6 % 5 or more times per week. In physical activity there was no statistically significant difference between males and females. Physically inactive students did not differ from physically active students in smoking habits, BMI and blood pressure.

At the beginning of university studies, the students are exposed to great life changes such as leaving their family and becoming a member of an unknown group of people. This may essentially affect an individual's life style, including the attitude to physical



activity. To prevent the development of risk factors for chronic diseases in older age groups it is an imperative to promote healthy life style in the young. Favourable experiences gained when socializing with peers during physical activity are important for building a positive self-image and for lowering stress.

P 28

THE KNOWLEDGE ABOUT SEXUALITY AND SEXUAL BEHAVIOR OF THE ZAGREB HIGH-SCHOOLERS

V. Juhović-Markus, I. Koder-Krištof, V. Jureša

Institute of Public Health Zagreb, Deptat. of School Medicine, Zagreb, Croatia

The aim of the study was to investigate the knowledge about sexuality and sexual behavior of the Zagreb high-school students. A total of 2700 first-grade and third-grade high-schoolers, representing an 11% stratified sample according to sex and school type were examined by use of an anonymous questionnaire. In the test of knowledge about sexuality, incorrect answers to five of ten questions were given by more than a half of study subjects. Female students showed better knowledge than male students. According to school type, humanistic high-schoolers showed highest and three-year vocational schoolers lowest level of knowledge. The highest and lowest proportion of sexually active individuals were recorded in three-year vocational schools and humanistic high schools (34.6% and 29.2% versus 25.6% and 19.8% of male and female students, respectively). Among the sexually active first-grade high-schoolers, 48.4% - 66.7% of them reported on the first sexual intercourse at age 15, with the exception of humanistic high-schoolers who reported it at age 14 (54.2%). Among third-grade high-schoolers, the majority of sexually active individuals (39.1% - 44.9%) reported on the first sexual experience at age 16, with the exception of female vocational schoolers who reported it at age 17 (45.8%). The indicators pointing to risky sexual behavior were identified: (a) three or more sexual partners in 18.0% of third-grade high-schoolers; (b) irregular or no use of condoms reported by 66.1% of female third-grade vocational schoolers; (c) sexual activity under the influence of alcohol reported by 54.1% of male third-grade technical schoolers; and (d) sexual activity under the influence of drugs reported by 22.2% of third-grade high-schoolers.

P 29

CARIES PREVENTION IN FIRST-GRADERS FROM THE ZAGREB ELEMENTARY SCHOOLS PILOT PROJECT

V. Barac-Furtinger¹, V. Juhović-Markus²

¹ Dental Medicine Private Office ² Zagreb Institute of Public Health, Department of School Medicine, Zagreb, Croatia

Health education is the basic precondition of oral health and should be practised from the very early age. The program presented was so designed as to include elementary school first-graders and introduce them in the fundamentals of oral health protection. The program included 1006 first-graders from 14 elementary schools, as a 13% representative sample of all first-graders in the City of Zagreb. The children's oral health status was documented on first-grade enrolment examination by the attending doctor of dental medicine in a standardized form. At the beginning of the academic year, a health education lecture was given by a previously trained preventive nurse, which was followed by play-class with coloring books. Children's parents were included by means of coloring books and occasional bulletin distributed to them. After two months, the lecture and play-class with extended content were repeated and a new bulletin was designed.

EFFECT OF HEALTH EDUCATION ON DIETARY KNOWLEDGE, DIETARY HABITS AND NUTRITIONAL STATUS OF EIGHTH-GRADERS FROM ELEMENTARY SCHOOLS IN MAKSIMIR AREA, ZAGREB

V. Mandac, T. Čavlek, V. Juhović-Markus

Zagreb Institute of Public Health, Dept. of School Medicine, Zagreb, Croatia

Inappropriate diet resulting in overweight or underweight is a substantial but preventable risk factor of chronic diseases. The aim of the study was to assess the effect of health education about appropriate diet on the nutritional status, dietary knowledge and dietary habits of the elementary school students. The study was launched in the 00/01 academic year including 522 6th-graders (258 male and 264 female) and was repeated in the 02/03 academic year in the same children, now 8th-graders elementary schools. Between the two examinations, study children from four elementary schools received health education, whereas those from the remaining four schools without such intervention served as a control group. Nutritional status was determined from body weight and body height, BMI was calculated for each individual child. The values thus obtained were compared with reference values (NHANES) for respective age and sex. Knowledge and dietary habits examined by use of an anonymous questionnaire. The workshops With Appropriate Diet to Health were carried out in 7th grades. Results on the nutritional status in 6th-graders showed 8% of girls and 11% of boys to be underweight, and 17% of girls and 22% of boys to be overweight. A satisfactory dietary knowledge was recorded in 77.3% and 80.6% of female and male underweight children, 82.9% and 82.3% of female and male children with normal nutritional status, and 81.9% and 82.9% of female and male overweight children, respectively. Appropriate dietary habits were reported by only 11%-32% of study subjects. Results on the nutritional status, dietary knowledge and dietary habits after the intervention with health education will be presented in the form of poster.

THE INFLUENCE OF FEAR AND EXCITEMENT TO APPEARANCE OF CHILDHOOD HYPERTENSION

T. Pervan, M. Kuzman, I. Preradović, N. Meandžija

Zavod za javno zdravstvo Brodsko-posavske županije, Slavonski Brod, Croatia

During the usual systematic inspection of pupils the blood pressure measurement is obligatory. We measured blood pressure in a sample of 806 pupils (VIII. class of primary school) and found it greater than 140/90 mm Hg in 72 cases. That pupils had to make control measurements at home 3 times daily for next seven days. We wanted to prove that mostly fear and excitement were reasons for their "hypertension".

The results show that 71 pupil had normal blood pressure at home, and only one had significant arterial hypertension, and that average blood pressure (measured at home) were approximately 115/70 mm Hg.

Our research shows that "white coat hypertension" is present between children and have not to be forgotten as a reason of childhood hypertension.



P 32

DRUG ADDICTION TREATMENT AND HARM REDUCTION A ACTIVITY IN A SMALL PLACE HEALTH CENTRE

I. Kauzlarić

Health Centre of Ilirska Bistrica, Slovenia

To reduce harm related with the use of illegal drugs simultaneous activities of different actors on various levels from the family to government and the parliament, experts from different fields as well as the volunteers and the users themselves are of great importance.

In the system of health protection in Slovenia acts the network of centres for prevention and treatment of drug addiction. In the comune of Ilirska Bistrica counting 14.000 inhabitants primary health care provides our Health Centre with its department – local Centre for Prevention and Treatment of Illicit Drug Addiction, also the part of the previously mentioned network.

From 1999 till the end of the year 2002 we treated 81 users of opiate drugs, 62 of them with methadone substitution therapy. They received methadone either for short term gradual withdrawal treatment or long term maintenance therapy. 19 drug users have been treated in so called drug free program. Entering the programs each client is tested for hepatitis B,C and HIV and vaccinated against hepatitis B.

In our Health Centre Emergency departement we offer needle-exchange program where everybody who brings used syringes, which we stimulate, gets anonymously and free of pay the same number of new sterile syringes. An intravenous drug user gets one or two syringes on his request even if he doesn't bring used ones. In the local pharmacy discrete selling of syringes to drug users is very much in practice. In this way the drug users have been provided in the year 2002 with 28,4 sterile syringes

daily, only in december 2002 with 33,7 syringes daily.

Testing our clients on infectious diseases we have not registreted yet any case of HIV – positive drug user. We have founded 2 cases of hepatitis B and 4 of hepatitis C.

The programs for treatment of drug addicts available to great number of drug users such as methadone

substitution program and the program of exchanging syringes, as well as the availability to buy syringes freely are important activities in reduction of harm related to intravenous drug use.

P 33

SECULAR TRENDS IN HEIGHT AND MENARCHE IN BELGIAN UNIVERSITY STUDENTS

M. Vercauteren (a), M. Roelants (b)*, K. Hoppenbrouwers (c), A. Moreels (d), and R. Hauspie (b)(a) Laboratoire d'Anthropologie et Génétique Humaine, Université Libre de Bruxelles (ULB); (b) Laboratory of Anthropogenetics, and (d) Student Health Centre, Vrije Universiteit Brussel (VUB), (c) Department of Youth Health Care, Katholieke Universiteit Leuven, Belgium.

It is well known that the pattern of human growth changes over time, a phenomenon generally referred to as secular trend. The goal of the present study was to demonstrate the ongoing secular trend in adult stature and age at menarche in a well-off group of young Belgian adults. Data on height and age at menarche (girls only) from a sample of 541 university students, collected at the Student Health Centre of the VUB (Flemish speaking University of Brussels) during the academic year 2000-01, will be compared to similar samples drawn at regular intervals from the 1940ties up till 1987.

The results show a significant positive secular trend in stature for male (2.2 cm/decade) and female (1.3 cm/decade) students, similar to what has been observed in surrounding countries. Mean age at menarche has stabilised around 13 years of age since the 60's,



which indicates that there is (at least in girls) no more secular trend in sexual maturation, and probably neither in tempo of growth. There is still evidence that the mean stature of university students is higher compared to the general population, but the difference is nowadays reduced to less than 1 cm. To what extent this is related to social factors remains largely unclear. Compared to the university population at the ULB (French speaking University of Brussels) in 1986-87, there is a higher representation of middle class and lower class families among university students, but within the student population we could not demonstrate a social gradient.

P 34

EVALUATION OF AN INTERVENTION TO PREVENT SMOKING AMONG ADOLESCENTS WITH A LOWER EDUCATION

M.R. Crone (1), R.D. Spruijt (2), S.A. Reijneveld (1), F.J.M. van Leerdam (1), M.C. Willemsen (2), P.H. Verkerk (1), S.A. Hira Sing (3)

TNO Prevention and Health, Leiden, the Netherlands

STIVORO for a Smoke Free Future, The Hague, The Netherlands

Department of Social Medicine, Institute for Research in Extramural Medicine, VU University Medical Centre, Amsterdam, The Netherlands

Introduction: Students with lower education smoke more often compared to students with higher education. They also perceive more positive norms, and social pressure to smoke, than higher educated students. Peer group pressure and social influence may therefore be used to prevent students with lower education from smoking. We developed and evaluated an intervention with this aim.

Methods: The intervention consisted of three lessons on knowledge, attitudes and social influence, followed by a class agreement not to start smoking for 5 months and a class-based competition. We randomly assigned 26 schools that provided junior secondary education to either an intervention (1444 students) or control group (1118 students). We compared smoking status before, a month after and one year after the intervention.

Results: In the intervention group 10% of the non-smokers at baseline had started smoking after the intervention versus 14% in the control group. This leads to an odds ratio of 0.61 (95% CI 0.41 to 0.90) to uptake smoking in the intervention group compared to the control group. One year after the intervention, the effect was no longer significant.

Discussion: In the short term, an intervention based on peer pressure decreases the proportion of adolescents with lower education who starts smoking. Influencing social norms and peer pressure would therefore be a promising strategy in terms of preventing smoking among adolescents. The results also suggest that additional interventions in later years are needed to maintain the effect.

P35

INVESTIGATION OF ALUMINIUM IN PATIENTS WITH CHRONIC RENAL FAILURE

A. Smalinskiene, O. Abdrakhmanov*, S. Ryselis*, I. Skarupskiene, V.Kuzminskis*

Institute for Biomedical Research, Kaunas University of Medicine Lithuania*, Department of Nephrology, Kaunas medical University Clinics, Kaunas, Lithuania

Environmental microelements have influence on general health status. Changes in Al balance are very important for patients with renal failure. The aim of this work was to investigate Al concentration in blood of patients with chronic renal failure. **Methods.** We investigated 89 patients with chronic renal insufficiency (CRI) without



dialysis therapy from 1 medical centre. The mean age of these patients was $55,5 \pm 16,4$ years. The mean glomerulus filtration rate (GFR) of these patients was $20,14 \pm 10,66$ ml/min. 266 patients with end-stage renal disease from 7 dialysis centres were enrolled in this study. The mean age of these patients was $51,61 \pm 15,27$ years. Venous blood samples from CRI patients and venous blood samples before and after hemodialysis (HD) sessions from hemodialysed patients were collected. Atomic absorption spectrophotometry was applied to measure blood levels of Al. Results. 12,4 % of the CRI patients and 24,9 % of hemodialysed patients had high blood Al (>30 microg/l). High blood Al was more frequently found in the hemodialysis groups. Mean Al levels in blood increased significantly after HD. The patients treated with acetate HD had significantly higher blood Al levels than the patients treated with bicarbonate HD ($38,4 \pm 44,6$ versus $25,9 \pm 43,5$ microg/l, $p < 0,04$). The HD patients with low plasma albumin level had more often high blood Al. The Al containing phosphate binder users (HD group) had significantly higher blood Al levels. The HD patients with infectious complications had significantly higher mean blood Al. Discussion. Al accumulation can cause dialysis dementia, hypochromic anaemia in spite of adequate iron treatment or status, Al can blunt the effect of erythropoetin, in part by interfering with iron bioavailability; vitamin D resistant osteomalacia. Conclusions. 1) Hemodialysed patients had higher blood Al rates than CRI patients. 2) The HD patients with low plasma albumin level had more often high blood Al 3) Correlation between increased Al rate of HD patients and infectious complications was established.

P 36

ORGANIZATION DEVELOPMENT AND HEALTH EDUCATION

Meleg Csilla

In this short summary my goal is to highlight the theoretical background on which my way of thinking is based. I connected the efficiency of health education to organization development. The first step was to clarify the notion of health. Following this I had to find the appropriate framework of the problem and transform it into OD.

In my presentation I am going to follow this order.

About health. Official definitions of health are of two main types. First, there are those which define health negatively, as the absence of certain qualities such as diseases and illnesses. Second, there are those which adopt a more positive stance. All of these suggest that health can be characterized by the presence of certain qualities. From these it should be clear by now that there is one way of looking at health or issues related to health. Rather, there are a number of different perspectives that can be adopted on health matters. We can summarize that lay beliefs about health are syncretic, drawing on a wide and disparate set of sources.

About theoretical background. It is important to recognize, that lay beliefs about health may vary according to status and social background. Most health inequalities are best accounted for not by one variable but by a number of factors. Theories about causes of health, disease, and illness vary widely from society to society. They also change over time. As a result, we live in a world in which there are competing explanations of health issues.

About organizations. Organizations are the locus of the connection between individuals, and through them human actions are transformed into social processes. Organizations provide people with resources and motives and they set the frames for human actions. Organizations are the most obvious components of society. They are formed



under tensions between centripetal and centrifugal forces. The stronger the centripetal forces are the stronger the cohesion in the organization is. Organization development in practice.

P 37

DENGUE FEVER IN TRAVELERS

Mojca Miholič

Department for Students health of the University of Ljubljana, Slovenia

Dengue is a viral disease endemic to tropical and subtropical areas of the world. It is caused by one of four dengue viruses, which are often transmitted by female *Aedes aegypti* mosquitoes that are produced in water- holding containers near human habitations

Because of the increase in the number of cases and epidemics of dengue fever and dengue hemorrhagic fever and its increasing incidence in other areas of the world, dengue diagnosis has become even more important.

This statement will describe case reports from two patients, who got dengue fever in Asia and continued with the treatment after their return in Slovenia. They both visited MD while they traveled in India and Thailan. I checked them after arrival in Slovenia. Dengue fever was suspected diagnose and I sent them to visit an infectologist.

Over the past 20 years, dengue fever has become one of the most resurgent tropical diseases. Prevention of dengue fever needs to be incorporated into routine pre-travel health advices for travelers to dengue- endemic areas.

I would like to present how their illness started and ceased within a month. Quantitative results and the way of treatment will be shown in details.



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