TALLINNA TERVISHOIU KÕRGKOOL

The International Week Conference

of Tallinn Health College

12-16 May 2008

„Research and Development in Higher Educational Institutions“

Book of Abstracts

Tallinn, 2008

Estonia

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PREFACE

We are very happy to welcome everybody in Tallinn Health College traditional International Week.

The purpose of the International Week scientific activities is to review the research and development of undergraduate training at Tallinn Health College and in partner countries, discuss health politics leading our changes in Estonia and evaluate environmental and working conditions influencing our health.

This book includes the abstracts of the International Week scientific activities (panel discussions, seminars, poster sessions and etc.) of the Tallinn Health College.

Abstracts are in alphabetical order by the author. The last pages include the author's index.

We hope that the book will be useful for the participants of the International Week and other health care specialists.

Tiina Juhansoo
Vice-Rector of Development and Foreign Relations

Tallinn, May 2008

PROGRAMME

TALLINNA TERVISHOIU KÕRGKOOL

Tallinn Health College International Week "Research and Development in Higher Educational Institutions", 12-16.05.2008,

Kännu 67, 13418, Tallinn and Kukruse, Kohtla-Järve (video conference), Estonia

MONDAY 12 MAY

Posters and exhibition	Room 115 8.30-17.30
Diploma thesis seminar of occupational therapy	Room 001 8.30 – 16.30
Registration and morning coffee	10.30
Opening of the week Tiina Juhansoo	Room 116 11.00
Chair of Nursing Chairperson: Nele Terras	Room 116 11.05- 14.00
10 Euthanasia in the Netherlands and continuing (nursing) education on moral argumentation and end of life decisions in an Amsterdam hospital Philip Esterhuizen, Netherlands	11.05- 11.45
61 The professional identity of a lecturer Andra Õismaa, Estonia	11.45- 12.05
33 Work-related risks, health complaints and safety measures of the workers in operating theatres Irma Nool, Estonia	12.05- 12.20

29 Wound healing by using acticoat dressing Surinder Mehan, Norway	12.20- 12.40
Break	12.40- 12.50
2 Supporting of child before and after cochlear implantation Annika Alas, Estonia	12.50- 13.10
48 Sift – work and night work effects of shift lengths on health and quality of work among nurses Katre Robas, Estonia	13.10- 13.30
11&42 **Subject`s understanding means first and third year students creative thinking and self/creativity in lessons** Panaiti Posmatš, Jaroslav Petruštšak, Anna Muromskaja, Viktoria Forõs, Alesja Gladkaja, Jekaterina Ivahnenko, Estonia	13.30- 14.00
Co-action in emergency (demonstration) Margus Mäe, Riina Räni, Estonia	All school 14.00 – 15.45
Workshops: Practical nursing: analysis of blood sugar, measurement of blood pressure, EKG Smoking and health (disease)	14.00 – 15.45 Room 210
Round table: **Cooperation with Helsinki STADIA University of Applied Sciences** Chairperson: Ülle Ernits	Room 231 14.15 – 15.45
Welcome party	Room 115 16.00 – 18.00

TUESDAY 13 MAY

Posters and exhibition	Room 115 8.30-17.30
Registration and morning coffee	8.30
Roundtable **Leadership** Chair persons: Ülle Ernits, Elina Eriksson	Room 231 8.30 – 11.45
Rectors info: Electing of the school council Ülle Ernits	Room 231 12.00 – 13.00
Chair of Occupational Therapy Chair person: Karin Lilienberg	Room 116 9.00 – 11.00

27 ERASMUS intensive project in occupational therapy
Karin Lilienberg, Estonia

49 Occupational therapy in social field
Mari – Liis Romandi, Estonia

Round table of chair of occupational therapy: Curriculum development	Room 001 14.30 – 16.30
HUUTA – HIV and other infection diseases prevention Chairperson: Ima-Riina Kisper Hint	1st floor hall 11.00 – 15.00
Chair of midwifery Chairperson: Ave Kõrve	Room 116 11.30 – 13.30

30 Interactive internet based smoking cessation tools for health professionals
Helinä Mesiäislehto Soukka, Finland

WEDNESDAY 14 MAY

Posters and exhibition	115 8.30-17.30
Registration and morning coffee	8.15
Chair of Health Promotion Chairperson: Pille Javed	Room 309 8.30 – 13.00
24 Health promotion in nursing – where are you? Liisa Koskinen, Finland	
Round Table: Health Promotion and future developments	Room 309 14.00-16.30
Chair of Dental Technicians Chairperson: Tõnu Kauba	**Room 116** 11.30 – 13.30
19 Comparison of the CAD/CAM systems used in manufacturing of zirconium based prosthesis Rene Kaur, Estonia	11.35-11.45
59 A comparison of strength properties of Zirconium Oxide and CoCR Metal alloy Magnus Tõnts, Estonia	11.45- 11.55
31 The comparison on dental materials DC-Zircon and DC-Titan Pirgit Männiste, Estonia	11.55 -12.05
64 A brief overview of Kaunas College and Dental Technology studies in Kaunas College Darius Varinauskas, Reda Pietaryte, Lituania	12.05 – 12.20
26 Survey of Dental Mechanic history in Latvia and world Andrei Lebedev, Aleksandr Prascaroncuk, Latvia	12.20-12.35

57	**History of dental technology 19.-20. centuries** Sandra Suursaar, Britta Šafranovski, Tuuli Toom, Estonia	12.35-12.45
Break		12.45 – 12.50
54	**Comparison of dental resins "Orthocryl" and "Biocryl" while making orthodontic appliances** Siret Sepp, Estonia	12.50-13.00
60	**Breaking of orthodontic wire: an experimental study** Anne Urbla, Estonia	13.00 – 13.10
38	**A comparison of strength properties of heat- and light curing denture base materials** Aivar Paist, Estonia	13.10 – 13.20
4	**A comparison of strength properties of Meliodent heat- and cold curing denture base materials** Heleri Arula, Estonia	13.20 - 13.30
5	**A comparison of mechanical properties of self- and light curing denture base materials** Ave Arumäe, Estonia	13.30 - 13.40

Chair of Optometry Chairperson: Vootele Tamme	Room 116 14.30 – 16.00
45 **Eyeglass lenses upgrade** Maris Pähn, Jaak Uusküla, Meelike Õun, Kadri Altküla, Ave Jõgibert, Estonia	
Workshop of the TEMPUS project Chairperson: Tiina Juhansoo	Room 105 13.00 – 15.00

THURSDAY 15 MAY

Posters and exhibition	115 8.30-17.30
Registration and morning coffee	10.30
Presentation of new study materials Chairperson: Tiina Juhansoo	Library 10.00 – 11.00
Open discussion of development plan for the years 2008 – 2012 Chairperson: Ülle Ernits	Room 116 11.00 – 12.45
Round Table of the Chair of Dental Technicians Chairperson: Tõnu Kauba	Room 208 14.00 – 17.00
Round Table of the Chair of Midwifery Chairperson: Ave Kõrve	Room 116 14.00 – 17.00
Meeting of the Curriculum Council of the Chair of Pharmacy Chairperson: Udo Margna	Room 223 14.00 – 17.00
Meeting of the Curriculum Council of the Chair of Optometry Chairperson: Vootele Tamme	Room 118 14.00 – 17.00
Rectorate reception for the Guest Teachers	17.30 – 19.00

FRIDAY 16 MAY

Posters and exhibition	Room 115 8.30 - 14.00
Registration and morning coffee	10.30
HC, History and Tallinn Health College Chairpersons: Alar Sepp, Helena Sepp, Estonia	Room 115 11.15 – 13.00
53 Physician studies in Estonia in 1995, 2000, 2005 Alar Sepp, Estonia	11.15 – 11.40
17 Health services in Petseri County in the years 1920-1925 Jane Kalajärv, Estonia	11.40 – 12.00
35 Healthcare in Harju County from 1922 to 1926 Kristina Oganjan, Alar Sepp, Estonia	12.00 – 12.20
44 Leprosy in Estonia in 1890-1940 Liina Põldla, Estonia	12.20 – 12.40
3 Interviews: An introduction to qualitative research and history of Tallinn Health College Gerlin Friimel, Nele Kunder, Riin Rodenberg, Estonia	12.40 – 13.00
Round Table: Estonian language for Russian speaking students Chairperson: Marika Asberg	Room 116 11.00 – 12.45
Closing of the week Chairpersons: Ülle Ernits, Tiina Juhansoo	Room 116 13.00 – 13.30

ABSTRACTS

1

A

POSTER: THE FIRST YEAR OF LEARNING MIDWIFERY

Merit Aare, Elena Agafonova, Minna-Mai Bergmann, Oksana Burova, Inge Elvet, Alina Jassinover, Maria Kester, Triin Kitsemets, Marja-Liis Kotkas, Kerda Kuusk, Lili Kuusk, Riina Lehtla, Katri-Liis Loori, Darja Nagornaja, Epp Pärgma, Jaanika Ränk, Agnes Sinikas, Olga Snezkova, Riin Solovjova, Aet Taremaa, Kaie Tilk, Kairit Väli

Mentors: Ave Kõrve, Tallinn Health College, Chair of Midwifery

The current presentation gives a review of the first year studies at Tallinn Health College and has been complied within the frames of subject *Learning and teaching* and is illustrated with photos of studying.

Everyone has some favourite subjects or lecturers and practical training and favourite learning methods in college.

Students` favourite lecturer was anatomy senior lecturer. His ways of teaching were creative and his examples from real life helped students to understand the aim of studies. In lectures students used special workbooks that he had made. Creative tests were done, students learned anatomy and physiology of all organ systems, also words in Latin.

Students were fond of learning the basics, theory and activities of nursing and midwifery, because in these lessons theory and practical work were very well connected. Here are some skills that were learned: install nasogastralprobe and catheter, make clyster, gastric lavage, wash the patient (from head to toe), change diapers, measure blood pressure, feel pulse, hear lung and heart work, make injections, take blood test.

The students found out that the first year at Tallinn Health College has been educating, interesting, fun, comprehensive, and full of surprises.

The first year students think that Tallinn Health College has worked out a good way of combining theory and practical work. The first year students of midwifery are very satisfied and happy that they chose this college and they are sure, they like to learn here and hope to be good specialists in the future.

2 REPORT (SUPPORTING OF CHILD BEFORE AND AFTER COCHLEAR IMPLANTATION)

A

Annika Alas, Tallinn Health College, Estonia

Mentor: Eha Hõrrak, Tallinn Health College, Estonia

The current presentation has been compiled as the diploma paper. The purpose of the diploma paper was to describe the supporting of child before and after cochlear implantation by the nurse. The diploma paper is the literature review and is based on scientifical articles, different organisations homepages.

The aim of diploma paper was focused on the situation in Estonia where according to the Estonian Association of Implant Children there were 52 children implant users in Estonia In February 2008. Cochlear implantat is an electronic device (which consists of an internal implanted part and external speech processor) for deaf individuals – children born deaf will have the greatest benefit if they have an implant preferably by the age of 3. Cochlear implantation remains a safe procedure with a low complication rate, but a long term rehabilitation process where the nurses support is needed.

Nurse as the member of implantation team observes child's behaviour and body language. Nurse defines the most vexed basic needs as maintaining of a safe surrounding (traffic, sirens, alarms, etc), communication (implant users may understand speech without lip-reading), eating and drinking (before an after operation), personal hygiene (how to keep dry the external parts of CI), playing and sports (to avoid static electricity exposure and to avoid severe blows), sleeping. Nurse helps the child and his family to adjust and to be up for the standards of cochlear implantation, is around in hospital and after in a long rehabilitation process. Also constantly supplying child and the family with new information motivates child and the family to participate in operation and in a long term rehabilitation process.

3 INTERVIEWS: AN INTRODUCTION TO QUALITATIVE RESEARCH AND HISTORY OF TALLINN HEALTH COLLEGE

A

Kaidy Aljama, Gerlin Friimel, Kai Kaldoja, Liina Kokk, Darja Korikova, Nele Kunder, Marju Mooses, Jaanika Orav, Kairi Pard, Kaisa Ristol, Riin Rodenberg, Janne Sokk, Tallinn Health College, Estonia

Mentors: Alar Sepp, MD, MA, Pille Javed, MD, Andrus Lipand, MD, Tallinn Health College, Estonia

Interviews as a method of qualitative research are an important additional source of collecting information, which can be used by the researchers of social history and people studying the field of health care. Usually the method of structured interview is used. Interviews as a source of scientific research are highly valuable especially when the subject of research is poorly documented and there are few published materials on it. In the course of the present work we started conducting interviews in February 2008. This report is connected with the preparations for celebrating the 70th anniversary of the foundation of Tallinn Health College in 2010. We set out in February 2008 by interviewing 13 lecturers and one former rector, using for interviews a model designed in 1994[1] and a structured questionnaire with open-ended questions. The recollections were tape-recorded with dictaphone Olympus WS-311M. The taped reminiscences were stored as files and provided with persons' names in a directory created for this purpose. Consequently, all tapes were dated and archived and the author concluded agreements on the conditions of their use with people who provided reminiscences. During the interviews nearly 20 hours of tape recordings were produced. Of the interviewed teachers/lecturers three had worked at the medical school/college for over 35 years. The teachers with the longest experience were Ly Saks, Eevi Tamm (formerly Rõuk), Kaljo Sõerde and Mai Lipping. Among the interviewees there was also Mr Arkadi Michelson who had been the longest-serving rector of the school/college. The academician and Head of the Chair of Pharmacy Udo Margna holds the highest academic degrees: PhD and DSc in biology. All interviewed persons may be generally characterised by a positive attitude towards life and lecturer-style accuracy. Recording the interviews is a suitable method of independent work for students.

[1] Sepp, A., Sepp, H. (2001). Collection of recordings stored at the Department of Public Health of Tartu University. Interviews collected in years 1994-2001.

4

A

A COMPARISON OF STRENGTH PROPERTIES OF MELIODENT HEAT- AND COLD CURING DENTURE BASE MATERIALS

Heleri Arula, Tallinn Health College, Estonia

Mentors: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia

Toomas Pihl, PhD, Tallinn College of Engineering, Estonia

This study was empirical and review of the literature. The main goal of this study was to compare two different denture base material and measure the strength properties of two denture base materials used in Estonia: Meliodent heat curing Hereaus Kulzer acrylic and Meliodent cold curing Hereaus Kulzer acrylic. Tested strength properties were tensile strength, compressive strength and hardness.

Hypothesis: Meliodent heat curing Heraeus Kulzer denture base material strength properties is better than Meliodent cold curing Heraeus Kulzer base material.

Method and materials: 3 samples were made from both heat and cold curing acrylic for each test. Sample dimensions for tensile strength were 50 x 10 x 5 mm, hardness 23 x 10 x 10 mm and for compression strength were 10 x 10 x 10 mm. In the results applied strength, tension and shortening/lengthening of the samples were compared.

Conclusion: Meliodent heat curing Heraeus Kulzer acrylic has better hardness properties than Meliodent cold curing acrylic Hereaus Kulzer. Meliodent cold curing Heraeus Kulzer acrylic has better tensile strength and compressive strength.

5

A

A COMPARISON OF MECHANICAL PROPERTIES OF SELF- AND LIGHT CURING DENTURE BASE MATERIALS

Ave Arumäe, Tallinn Health College, Estonia

Mentors: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia;

Toomas Pihl, PhD, Tallinn College of Engineering, Estonia

Light cured acrylic has better strength properties than self curing acrylic

Tested strength properties were draught strength, compression strength and hardness.

Material samples were made from both self and light curing acrylic for each test. Sample dimensions for draught strength were 50 x 4 x 9 mm, hardness 10 x 10 x 10 mm. and for compression strength a barrel with height of 15 mm and diameter of 6 mm. In the results applied strength, tension and shortening/lengthening of the samples were compared.

Conclusion: Light cured acrylic has better strength properties than self curing acrylic.

6

A

EVALUATION OF LEARNING ENVIRONMENT AND MENTORSHIP IN CLINICAL PRACTICAL TRAINING AMONG NURSING STUDENTS IN ESTONIAN HEALTH COLLEGES

Marika Asberg, MA, Tallinn Health College, Estonia

The objective was to describe the evaluation of learning environment and mentorship in clinical practical training among II and III year nursing students in Estonian health colleges and to explore the association between clinical practical training and mentorship. Questionnaire survey was used for data collection. In this survey The Clinical Learning Environment and Supervision Instrument (CLES) was used. The selection was formed by all the nursing students in Tallinn and Tartu Health Colleges who had passed the clinical practical training in internal patient nursing, surgical nursing or children nursing in the academic year 2006/2007. The quantity of the selection was 197 students, of whom 165 (83,8%) filled in a questionnaire and of which 158 were analyzed. The data was analyzed with *Microsoft Excel* 2000 and SPSS 10.0 for Windows computer programs.

The outcome of the survey indicated that the majority of respondents were satisfied or very satisfied with the department of practical training. The department's atmosphere was evaluated in 5-point scale as more than satisfactory (3,82). During practical training a nurse acted as mentor for more than half of students and a senior nurse for one-fifth of the students in the department. Almost half of the respondents had an individual mentor, one-third had a group-mentor and one-fourth did not have a mentor. Satisfaction with mentor's guidance in five-point scale was 4,15. Students with individual mentor experienced more individual mentorship, evaluated more highly mentor's attitude towards mentorship, received more feedback from the mentor, were more satisfied with the mentorship and regarded the department as a better learning environment. One-third of the respondents experienced private conversations with mentor. Meetings with nurse teacher of the practical training took place 1,4 times on an average of, whereas more than one-third of the students never had a meeting with the nurse teacher.

There was connection between clinical learning environment and satisfaction with mentorship. The more satisfaction there was with the last department of practical training, the higher it was evaluated as learning environment and the higher was the satisfaction with mentorship.

E

7 TALLINN HEALTH COLLEGE AS A PARTNER IN SAGE-PROJECT: PATHWAY TO HEALTH IN LATE LIFE

Anne Ehasalu, MA, Tiina Juhansoo, MD, PhD, Merike Kravets, BSSc

Tallinn Health College, Estonia

Population ageing means the growing proportion of older people and the shrinking proportion of younger age groups, growing size of elderly population and its increasing share of the total population, increasing life expectancy.

Tallinn Health College is one of the participants in international SAGE project, where several European countries are involved - UK, Denmark, Germany, Austria, Hungary, Spain, and Cyprus. Projects aim was to evolve training for the persons, who are interested in working with elderly to activate them in creating their own future. In frames of the project several studies were made to clarify the current situation of elderly in each participant country.

Find the possibility to make elderly citizens to create their own active future. The following questions were made to fulfil the aim of the study: What kind of knowledge will be needed for a work with senior citizens? What kind of person will be needed to work with elderly people?

The questionnaire was delivered to 9 social workers and to 9 nurses' assistants from all over Estonia. The questionnaire consisted in two parts. In first part respondents were asked to describe their previous knowledge, skills and competences from 18 different positions from gerontology till foreign languages knowledge. The second part from the questionnaire consisted in 16 questions about social competences, needed for a work with elderly.

Respondents' answers showed, that the best knowledge they already had from their previous training are gerontology and social theories of ageing. The less knowledge was mentioned in the financing and project management areas.

The most important aspect concerning the work with elderly was information about other organizations with elderly to cooperate with.

From social competences the most important for working with elderly were trust and empathy.

8

E

LLP/ERASMUS MOBILITY: STUDY VISIT TO HELSINKI POLYTECHNIC STADIA

Eve Epner, Gunnar Riisenberg
Tallinn Health College, Development and International Relations, Estonia

So far the Erasmus mobility programme offered possibilities for students and teachers to study and teach in partner educational institutions abroad. In 2007 the European Commission integrated its various educational and training initiatives under a single umbrella, the *Lifelong Learning Programme* and now also the staff in higher education institutions has the possibility to get training abroad in the frames of LLP/Erasmus mobility.

The aim of our LLP/Erasmus visit to Helsinki Polytechnic STADIA (10.02. - 15.02.2008) was to get fresh ideas for the development of our everyday work in Tallinn Health College.

According to the programme we had meetings with the Coordinator of International Relations Aija Ahokas, Senior Counsellor Päivi Hellen and Assistant of International Relations Kirsi Paasio.

The programme also included visit to one of STADIA student hostels, acquaintance with everyday life in Helsinki (prices, transport, possibilities to spend free time, cultural activities etc) and cultural programme.

LLP/Erasmus stuff mobility gave us possibility to compare the same work areas at Helsinki Polytechnic STADIA and Tallinn Health College, discuss problems and share experiences with colleagues. Such comparison gave us new ideas for enhancing our own work- for example for the improvement of information booklet for incoming students

9

E

PREVENTION OF OCCUPATIONAL DISEASES CAUSED BY PHYSICAL OVERLOAD IN ESTONIA

Ülle Ernits, MSc, Milvi Moks, PhD, Reine Kadastik, MSc, Ene Kotkas

Tallinn Health College, Estonia

The current presentation has been compiled within the frames of the ergonomic project „Lighten the Load". The purpose of the presentation is to give a survey of the events, conference presentations and published articles in Estonia within the frames of the campaign „Lighten the Load", which was carried out by SLIC and European Agency for Safety and Health at Work in 2007, and focused on prevention of musculoskeletal disorders. SLIC campaign „Lighten the Load" was intended for prevention of low back complaints among transport workers and health care staff. The other fields of activity like commercial and post service workers were involved in the campaign in Estonia. The main purpose of this campaign was to collect and spread the information on causes of the musculoskeletal disorders in the field of activities brought above, in particular on displacing loads; to make working conditions in the member countries relevant to the European Union Directive no 90/269 „Displacing the Loads by Hand".

The campaign of European Agency for Safety and Health at Work „Lighten the Load" was the continuation to the event on prevention of musculoskeletal disorders being started within the frames of the week „Turn Your Back on Musculoskeletal Disorders", which took place in 2000. Musculoskeletal disorders are the most spread conditions related to occupational health in Europe, including in Estonia.

Within the frames of the campaigns, a training for labour inspectors on the basis of Tallinn Health College and East Tallinn Central Hospital took place, a questionnaire on musculoskeletal complaints for health care staff in co-operation with specialists of the Labour Inspectorate was carried out, a seminar for the representatives of the fields of activity dealing with displacing loads was held; the representatives of the institutions were met; articles in the magazine *Estonian Occupational Health* and in other issues were published; the presentations at the conference intended for Occupational Health Day in Estonia were given. Occupational diseases caused by physical overload and the results of the researches related to the problems were discussed at the conference intended for Occupational Health Day in Estonia.

10

E

EUTHANASIA IN THE NETHERLANDS AND CONTINUING (NURSING) EDUCATION ON MORAL ARGUMENTATION AND END OF LIFE DECISIONS IN AN AMSTERDAM HOSPITAL

Philip Esterhuizen, RN, BA, MSc, PhD

School of Healthcare, University of Leeds, UK

Since changes in jurisprudence in the Netherlands and the introduction of laws governing euthanasia in 2001, practice has demanded that health care staff become more aware of their role and responsibility towards their patients. At the same time, changing attitudes regarding death and dying within Dutch society necessitated a reappraisal of values within the foundation of health care institutions. These developments, and discussion regarding the possibilities and implications of euthanasia - and more specifically the decisions regarding withholding/continuing of treatment - together with more personalised interactions between patients and health care providers, indicated the need for schooling. Together with a philosophy lecturer, we developing nursing curricula at undergraduate and postgraduate levels directed at argumentation and discussion strategies, and moral decision-making. During this 10-year period we also provided a similar, extensive, schooling for the nursing, medical and paramedical staff in an Amsterdam hospital. This multi-disciplinary schooling uncovered that if moral dilemmas are solved using a principle-based approach, health care professionals are often left with a different type of dilemma. This substantiates claims that a complementary - care-based analysis - may be necessary if health care providers are to be empowered to cope with moral dilemmas satisfactorily. The outcomes of the schooling programme also show that an investment of this type improves communication amongst disciplines and contributes towards the empowerment of nurses, but needs to be perpetuated in the form of a continual schooling. In this presentation, I provide an overview of the processes guiding euthanasia in The Netherlands and discuss the educational programme provided within a framework of reflective practice.

11

F

SUBJECT'S UNDERSTANDING MEANS THIRD YEAR STUDENTS CREATIVE THINKING AND SELF-CREATIVITY IN LESSONS

Viktoria Forõs, Alesja Gladkaja, Jekaterina Ivahenko, Tallinn Health College, Estonia

Mentor: Eda Müürsepp RN, MA, Tallinn Health College, Estonia

Kateriina Rannula, Tallinn Health College, Estonia

Student in the learning environment - based on students independent works.

Third year students: Subject „Management and enterprise" based on third year student independent work.

12

G

ELECTRONEUROMYOGRAPHY

Julia Gubanova, Jelena Modebadze, Riina Koltsanova, Riina Pajula, Urve Väljaots,

Kristi Melts, Tallinn Health College, Estonia

Mentors: Milvi Moks PhD, Ene Kotkas, Tallinn Health College, Estonia

The current presentation has been compiled as an autonomous work within the frames of the subject *Physiology* (*Biophysics*) and is based on the qualitative analysis of literature.

The purpose of the presentation is to acquire the more detailed information for use the neurophysiologic method based on registration of biopotentials- electroneuromyography (ENMG).

ENMG is a diagnostic method, with the help of which the bioelectrical activity of nerve-fibres and muscles not only spontaneously but also stimulating the nerve and muscle electrically at different intensity and frequency is registered and analyzed.

A survey of theoretical bases of the neuromuscular transfer, possibilities of using ENMG, diagnostic value, types (superficial, local- use of the needle electrodes and stimulating ENMG), the nerves being researched, and work at the research are given. The presentation has been illustrated with the pictures taken by the authors.

NURSING MANAGEMENT IN THE CZECH REPUBLIC

Darja Jarošová, RN, MSc, PhD, University of Ostrava, Czech Republic

Since 2001 nurses are educated mostly at university in a three-year bachelor degree course. For further studies they may choose either a two-year university master degree course in Nursing. Presently in the CR, there is no individual master degree course in Nursing Management. There are only specialized courses which are accredited by the Ministry of Health. Nursing managers can work in 1. Primary and community health care (health centre, offices of general practitioners for adults or for children, gynaecological offices, dentist's offices and home care agencies), 2. Secondary health care (mainly hospitals, hospices and other inpatients' facilities). Top hospital management (head nurse of hospital) – has to have a university education, in most hospitals nursing care is controlled independently, by so-called "independent nursing line", the main job description of the head nurse of hospital is strategic management and personal policy, she is appointed for this position through a selection procedure. In middle hospital management (head nurse of the department) – organizes the running of the department (e.g. the whole surgery clinic), takes care of non-medical staff at the department – she places them according to the needs and requirements of the department (e.g. nurses, health assistants, hospital attendants), is appointed through a selection procedure, at least a bachelor degree is required in most hospitals. In lower hospital management (head nurse of unit) – works straight at the unit where the patients are, is in contact with patients and their families, organizes tasks by the patients' beds, distributes tasks for non-medical staff working at her unit (e.g. surgery A), is appointed by the head nurse of the department, in the past few years a bachelor degree is required in more and more hospitals. Nurses also work in various social facilities, as rest homes, homes for the elderly, social institutes for the people with mental or physical disabilities, and homes for abandoned children. The principle of the running of these facilities is similar to one in a hospital, apart from that nurses are usually subordinated to head doctors or social workers. In the Czech Republic the head of a social facility or a hospital is a doctor most often, not a nurse. Head nurses working in these social facilities are not required to have high level of education as nurses who work in acute hospitals.

CONTINUATION OF STUDENT MOBILITY WITHIN SOCIAL AND HEALTH CARE SECTORS`TRAINING AND TESTING OF ETM II-PILOT PROJECTS´FINAL PRODUCTS

Tiina Juhansoo, MD, PhD, Eve Epner, Ülle Kivisild, RN, Irma Nool, RN, MSc

Tallinn Health College, Estonia

Tallinn Health College as a professional higher education institution provides the first cycle of higher education to following professionals: nurse, midwife, occupational therapists, optometrist, dental technician, pharmacists and health promoter. On the level of vocational education we offer education for practical nurses.

Study programmes for both levels are based on curriculum worked out on the basis of professional standard. Practical training forms an integral part of all health care study programmes. Leonardo da Vinci project "*Continuation of student mobility within social and health care sector` training and testing of ETM II pilot project` final product"* is aiming to produce the following learning materials for social and health care students' foreign work placements and common preparation course:

- Nursing and caring at hospitals and health centres in partner country
- Care work with mental health and toxicants abuse
- Care work with people with disabilities in partner country
- Oral care in partner country
- Handbook for tutors

The process of the preparation and compilation of materials will be introduced on the poster presentation.

15

J

COOPERATION BETWEEN EUROPE AND CANADA INEQUALITIES IN ACCESS

Tiina Juhansoo, MD, PhD, Tallinn Health College, Estonia
Eileen Richardson, Bournemouth University, England
Liisa Koskinen, RN, PhD, Savonia University of Applied Science, Finland
Clara Aarts, Uppsala University, Sweden

Health care professionals are challenged by the increasing complexity of their own health care delivery systems and by growing inter-connectivity of this health care system world-wide. The role and the scope of health care practice within each country are often unclear, which can result inappropriate role assumptions and experience on different level of education. Consequently qualifications and roles are often misunderstood by health care professionals in other countries, despite the increasing calls for practice across boundaries in times of disaster, during international travel, and, due to immigration and relocation. (Inequalities in access to health care for rural communities (Primary health care reaching rural and aboriginal health care) consortium. Memorandum of agreement, 2005).

To fit this global environment, the partner institutions (Universite de Moncton, Mount Royal Colle, University of Prince Edward Island, Canada, and Bournemouth University, England, Uppsala University, Sweden, Savonia Polytechnic, Finland and Tallinn Medical School, Estonia, Europe) of higher education offering health related programs and involved in international activities have prepared and organised student exchange program Europe – Canada, Canada – Europe for giving to students work experiences in abroad, multi – cultural awareness, possibility to research principles of Ottawa Charter in guest country and make a compare health care systems in own and guest country.

The materials of the programme Europe – Canada, project "Inequalities in access to health care for rural communities 2005 – 2007." are presented on the poster.

16

J

HEALTH POMOTION AND NURSES GUIDANCE SKILLS – NEW ELECTIVE COURSE IN THE FRAMEWORK OF THE TEMPUS POGRAMME IN TALLINN HEALTH COLLEGE

Tiina Juhansoo, MD, PhD, Mare Tupits, RN, MSc, Riina Shor, MD, PhD
Tallinn Health College, Estonia

Population crises are expected to change needs for the health care and related education in Europe and Russia. In Finland, Estonia and Russia the number of elderly people and people with long – term illnesses is increasing. Certain public health concerns (e.g. diabetes, cardiovascular and musculoskeletal diseases) in all these countries is constantly growing due to bad habits and ageing of population. Preventing these risks and treating people suffering from their consequences require more knowledge and skills from health care professionals in the area of counselling and guidance, i.e. nursing pedagogic. It has been proven that counselling and guidance by health care professionals have a significant impact on the patients` treatment, quality of life, and prevention of complications and aid their financial situation. This confirms that adding pedagogical skills into nursing education is vitally important.

Together with the project partners from Pirkanmaa Polytechnic (Finland), Nizni Novgorod Medical Academy and Bogorodsk Medical College (Russia) the elective course for the pedagogical education of a child and family with diabetes mellitus was introduced and evaluated in all partner schools.

Tallinn Health College team is presenting the elective course on the poster presentation.

17 HEALTH SERVICES IN PETSERI COUNTY IN THE YEARS 1920-1925

K

Jane Kalajärv, Tallinn University, Estonia
Mentor: Alar Sepp, Tallinn Health College, Estonia

Petseri County was undoubtedly different, since it was mainly the area where the Setu people lived. The reason why the early years of the Republic of Estonia were chosen, was because it was a fairly interesting time period; since the creation of Petseri County and the establishment of the Republic of Estonia's power in Estonia's most south-eastern corner, it was just like the starting of a new age for the people who were living there. Modernization and turning the newly joined territory more towards Estonian ways, was started, to help this region catch up to the rest of Estonia. The new government decided to involve themselves in local situations, to start rectifying them. Treating existing diseases was not the goal; emphasis was put on anticipating diseases. Therefore, they tried to improve the living conditions for the people. During the early years of the Republic of Estonia, the government invested quite a lot into the developing and rectifying of existing problems in the County of Petseri. It can be said, that the efforts of the government achieved results in some respects, but they did not manage to achieve the same level of health services that the rest of Estonia had. The area lagged behind economically. Financial difficulties were the reasons, why people were unable to take care of their health properly. Doctor's fees were expensive, and they were only visited for serious health concerns. There was also a shortage of medical personnel. Even though the government's goal was to unify Estonia's most south-eastern area with the rest of Estonia with the help of innovations, the endeavour did not achieve the desired goal. The process of becoming more Estonian would have occurred more quickly, if the Setu people had not been so strongly associated with the Russians and with the true faith, and if the Estonians had not acted in a superior manner with the Setu people, which hindered the initial development. However, the Setu people generally went along with the Estonian governments' ideas, to improve every area of living in the county of Petseri. There were some regulations and dictates that were not fulfilled, but these can not considered opposition against modernization, merely the actual lack of resources to fulfil them. However, country people mostly preferred traditional living practices and patterns, which were based on continuing simplistic-conservative world views. External changes are considerably easier to introduce, then to try and change comprehension, attitudes and world views.

K

18

HOW MANY HIV-POSITIVE CASES AFTER YEAR 2008? HIV-PREVENTION AND PEER EDUCATION

Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia

Estonia has registered HIV-epidemic since the year 2000 (Figure 1). The highest rate of infected HIV-people in Europe has stayed for more than two decades.

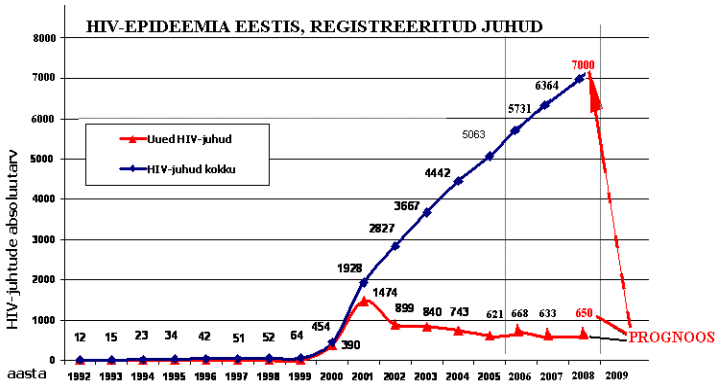

Figure 1: HIV-epidemic in Estonia since the year 2000; registered cases; prevalence rate and incidence rate (red line).

In March 2008 the registered rate is about 6500 cases, however, many experts indicates the calculated prevalence rate to be about 15 000 – 20 000 per 1.3 million Estonian inhabitant, which is the highest in Europe.

Author's prognosis is that at the end of 2008 Estonia will have circa 7000 registered HIV-infected people. If Estonia will not change the strategy, the epidemic will widen rapidly.

Since 2006 Tallinn Health College carries out courses of Peer to peer (P2P) education, the powerful and effective HIV-prevention. Lot students took part in the training: the main task was to acquire practical skills - how to teach friends and other young people or other target groups. One of most important aspects is that people who do not use condom for HIV-protection, they never have a condom in their pocket or handbag and most of them have never even touched a real condom. Students are in the peer-to-peer network in Estonia - www.noorednoortele.ee.

Despite the stabilization of incidence rate the prevalence rate of HIV-infected population increases in the future every year. Conventional methods of HIV-prevention (lectures) are not sufficient for Estonia during many decades. The author's suggestion is that peer to peer education is powerful and effective method for preventing new HIV-cases.

19

K

COMPARISON OF THE CAD/CAM SYSTEMS USED IN MANUFACTURING OF ZIRCONIUM BASED PROSTHESIS

René Kaur, Tallinn Health College, Estonia

Mentors: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia;

Toomas Pihl, PhD, Tallinn College of Engineering, Estonia,

Meeme Mõttus, DDS, MScD, CityMed, Estonia

The CAD/CAM systems are new step in the field of dental technology. The main goal of this empirical study was to compare two different scanning methods in following points:

1. Is it necessary to prepare the cast specifically, scanning time of single unit,
2. simplicity of modifying the copings, simplicity of the scanning process,
3. different programs, possibilities to manufacture different types of prosthesis,
4. adaption of the final copings/framework (marginal adaption and cluck), and, is it necessary to process the final framework?

The author's hypothesis was that laser scanning process takes less time, however at the training laser scanned coping are marginally not as precise as contact scanned copings.
Selected systems were the only contact scanner Nobel Biocare's Procera® and two laser scanners DeguDent's Cercon® and DCS's PreciDent.
According to the results of the studies following conclusions can be made:

1. All systems need specific preparation of the cast (die).
2. Contact scanner has the largest choice of zirconium based works and does not take most time.
3. Easiest coping modifying is in contact scanner's system.
4. One of the laser scanner systems (DCS PreciDent) has most changeable and recordable settings.
5. Contact scanned copings are marginally not more precise than laser scanned copings and single copings may cluck.
6. Two out of three (contact and of the laser scanner's) systems do not need processing of the final frameworks.

20

K

ERGONOMIC SURVEY OF THE CHEMISTRY LABORATORY OF THE CHAIR OF PHARMACY

Tiina Kiil, Krista Tooren, Tallinn Health College, Estonia

Mentors: Milvi Moks PhD, Ene Kotkas, Tallinn Health College, Estonia

The main attention of the European Agency for Safety and Health at Work is paid to the necessity of a-good-quality risk analysis in accordance with requirements. Within the assessment of health risks, an ergonomic survey of the work and work places must be carried out.

The current presentation has been compiled as an autonomous work for the optional subject *Ergonomics*.

The purpose of the presentation is to acquire the methods of the ergonomic assessment of work places on the example of the chemistry laboratory in our college.

The ergonomic survey of working conditions in the chemistry laboratory was carried out by the students. Design of the work-room, placing of work areas, light conditions, correspondence of the furniture, and implements to lab work requests, students' posture and movements were assessed within the survey. A map of possible accident sources was drawn up. The students' proposals will be imparted to the Risk Assessment Team in the college.

21

K

PALLIATIVE NURSING AS PART OF PRE-GRADUATE EDUCATION OF NURSES AT THE FACULTY OF MEDICINE OF PALACKY UNIVERSITY OLOMOUC

Helena Kisvetrová, Mgr., Department of Nursing and Midwifery, Faculty of Medicine and Dentistry, Palacky University Olomouc, Czech Republic

To guarantee the availability of quality palliative care, which belongs to the basic rights of every person and is also declared by international health and political institutions, we need sufficiently skilled and qualified health professionals particularly in the field of palliative nursing. We can reach this need by incorporating palliative nursing already into the pre-graduate education of general nurses at universities. In the framework of the project "Support to Palliative Care in the Czech Republic" there was realized in the years 2003 – 2004 the first extensive investigation into the level of the care for incurably ill and dying people in the Czech Republic. The part of the investigation was also mapping out the ways and forms of teaching palliative care. The result of the investigation was the fact that nursing colleges did not pay any special attention to palliative care. Based on the results the authors gave the hypothesis that the education of health workers in the Czech Republic in palliative care is not sufficient and radically influences the level of the quality of the care for dying people. Based on the results of the research investigation, since the academic year 2006/2007 at the Faculty of Medicine of Palacky University in Olomouc there has been taught a newly outlined subject "Community, Home and Palliative Nursing" as a part of the study programme General Nurse. This subject consists of 15 seminar lessons and 130 workshop lessons. The topics included in the separate block of palliative nursing meet the Recommendation Rec (2003) 24 of the Committee of Ministers of the Council of Europe to the member states concerning "The organization of palliative care" as part of pre-graduate educational programmes in the education of nurses. At other universities in the Czech Republic nowadays palliative nursing as part of the study programme General Nurse is not taught in such range.

K

22

ALEXANDER TECHNIQUE

Marina Kopti, Tallinn Health College, Estonia

The Alexander Technique is a way of working with the self-prevention of unhelpful or harmful habits that interfere with the mental and physical conditions best-suited for the health and functioning of the "self" as a whole. Learning to inhibit one's "too quick and unthinking reactions" and to maintain openness and balance as we go about our daily activities can have wide-ranging benefits. The various teaching methods used to teach the Technique (which include hands-on guidance by the teacher) are also sometimes referred to as the Alexander Technique.

The Alexander Technique is usually learned from individual lessons with a teacher using specialized hand contact and verbal instructions. The Technique is also taught in groups, often using short individual lessons which in turn act as examples to the rest of the class. The Technique takes its name from F. Matthias Alexander, who first observed and formulated its principles between 1890 and 1900.

The Alexander Technique is learned in order to overcome unwanted physical habits by studying the kinesthetic evidence of how thinking is expressed in movement. The values of efficiency and effortlessness are the preferred criteria used to evaluate the often unfamiliar results of progress gained through guided experimentation. Among the methods taught are established forms of structural anatomy, characteristics of proprioception, how habits may be stopped, refined and well-formed, practical self-observation and the strategic use of empirical reasoning. This study may also demand re-evaluation of self-limiting assumptions, previous choices and conclusions that the Alexander Technique teachers believe keep in place a student's general *misuse*. The Alexander Technique is considered to be an educational technique taught to be practiced by the student on their own, rather than a curative treatment regimen of the client/patient relationship. It is designed to be used while doing any other activity, so there are no prescriptive forms of movements to follow.

23

K

”A CIGARETTE IN THE NON-SMOKER’S TRAY” -WOMEN’S EXPERIENCES OF SMOKING DURING PREGNANCY

Johanna Korkiamäki, Päivi Kuoppa-aho, Seinäjoki University of Applied Sciences, Finland

Tutors: Hilkka Majasaari, MNSc, Helinä Mesiäislehto-Soukka, PhD, Seinäjoki University of Applied Sciences, Finland

The purpose of this Bachelor's Thesis was to describe the experiences and beliefs about smoking and its effects on health among pregnant women. Our aim was to provide the professionals in health care with information of experiences of pregnant women to develop health service.

The study is qualitative and the material was collected by theme interviews. The interviews were analysed by content analysis. The participants in the interviews were five smoking and pregnant women aged from 17 to 25. The pregnancy of each mother had exceeded 20 weeks.

The mothers experienced smoking to cause mental sensations such as shame, regret, distress and indifference. They had experiences of smoking addiction, of difficulty in stopping and of withdrawal symptoms. The results showed that the mothers had a variety of beliefs about how the smoking would affect the coming child in general and its physical and mental condition. The mothers told about beliefs directed to them and about their difficulty to decrease and stop smoking.

One challenge for further study is the prevention of smoking among young girls. It seems vital to provide personal counselling, with a focus on the client's resources, feelings and needs. The results of this thesis can be used to develop the work in maternity clinics and to promote women's health.

24
HEALTH PROMOTION IN NURSING – WHERE ARE YOU?

K

Liisa Koskinen, DSc (Health Care), Savonia University of Applied Sciences, Kuopio, Finland

Cardiovascular diseases, obesity, diabetes type II, osteoporosis, cancer, depression and social isolation are the major threats of health and well-being in western societies. All of these are associated with life style, social and economical status and culture. Lack of physical activity, poor eating habits, smoking and high alcohol consumption are the major factors causing chronic diseases. Alcohol is highly related with accidents, social drop aside and increasing the mortality rates of work-age population. Diseases and social problems reduce quality of life, burden health care service system and raise health care expenditures. Human and quality care of increasing elderly population complicates the issue and further raises the demand of health promotion.

Can these challenges be faced by the health promotion framework of nursing profession and can the Ottawa Charter act as a health promotion model? Ottawa Charter is a declaration given in Ottawa Canada in 1986 to advocate World Health Organization to advance the promotion of health in all appropriate forums and to support countries in setting up strategies and programs for health promotion. The Ottawa Charter was meant to become a framework for health policy of all countries in the globe. The Ottawa Charter contains five main action domains which are building healthy public policy, creating supportive environments, strengthening community actions, developing personal skills and reorienting health services

Health promotion in nursing requires the following nursing skills, knowledge and attitudes: sensitivity to social and cultural aspects of peoples' lives; channels between the health sector and society; sensitivity to cultural language and stories of local people. During the workshop answers will be sought for instance to the following question: "In what way can physical activity of the population be stimulated and what role plays in this process 1) the government and politics 2) the business community, including health care providers 3) the consumer himself 4) the knowledge institutions (education & research).

ETICS OF DYING AND DEATH

Jana KUTNOHORSKA, doc.hab. PhDr. CSc.

Palacky University Olomouc, Czech Republic

Charles University in Hradec Králové, Czech Republic

The topic of death is sad and painful and belongs to life. It is not only the fact that the human being is dying, he knows about the death and this knowledge influences his behaviour, feelings, thinking. Each culture, each nation, each era copes with this topic in a different way. Dying and death is ethically and communicatively very difficult topic. Only the human beings out of all beings know that they must die, only human beings mourn for their dead, bury their dead and commemorate their dead. Dying and death is the fate of a human being and it awaits us all, it is our only certainty that we have on our pilgrimage on earth.

We expect from a nurse to influence the experience and behaviour of the patients, to bear the physical demands of her profession and to be able to deal with the problems associated with the work performance. A nurse has to be a specialist, fully responsible for the decisions and actions. Nurses should consider all human moral values that make an axis of moral behaviour of a health care worker. One of the most important ones is respect to people. A health care worker, who wants to take care of a dying person, has to be able to assume the attitude to him. If he or she is hiding his or her feelings from himself or herself, or if he or she denies them on purpose, he or she won't be sensitive to the feelings of other people. Caring for hard sick people requires above all emotional sympathy.

Important are patience, kindness, persistence, competence, the ability to offer mental support not only to the client but also to his relatives, to respect the wish of the client (e.g. a visit of a priest), to enable the family to say good bye to the patient and if they wish to let them care for the client themselves, to prevent the „social death". If the client/patient is unconscious, there can not be talked about him or her, about his or her state of health in his or her presence, the nurse should meet all patient's needs, relieve the pain, pay attention to the patient, and be empathetic. Everybody's dignity has to be respected. It is the most inflected word in all ethical codices dealing with health care. Preservation and respect of dignity is the most significant thing that we can offer to a dying person, it belongs to the piety that is missing much in contemporary society.

L

26

SURVEY OF DENTAL MECHANIC HISTORY IN LATVIA AND WORLD

Andrei Lebedev, Aleksandr Prascaroncuk, Riga 2nd Medical College, Latvia

Mentor: Aldis Vidžis, PhD, Riga 2nd Medical College, Latvia

A short survey of Dental Mechanic history in Latvia and world will be done, material based on the available information in Riga Medical 2nd College.

L

27

ERASMUS INTENSIVE PROJECTS IN OCCUPATIONAL THERAPY

Karin Lilienberg, MD, MSc, OT, Tallinn Health College, Estonia

Chair of Occupational Therapy is involved in several intensive projects in the frames of Erasmus programs. Interdisciplinary program on the theme of 'Palliative and end-of-life Care' offered an international intensive course for the students, participants from the clinical field and teaching staff in Belgium in January 2008. Interdisciplinary teamwork of occupational therapists, physiotherapists, nurses and social workers was taught while taking care for clients in the last part of their lives. The course outline consisted of different topics, including spiritual and existential pain, ethical aspects and medical decisions on end of life, bereavement and mourning. This project gives interdisciplinary approach in the development of OT curriculum.

In the network of ENOTHE and as a partner in the intensive program of Erasmus the Chair of Occupational Therapy continued collaboration on the theme of Community Based Occupational Therapy Towards Social Inclusion. Traditionally occupational therapy education has been based on the medical knowledge. The new society demands development of knowledge in social sphere. The aim is to develop the study curriculum of occupational therapy professionals to prepare for work also in social sphere, for facilitating inclusive employment. International intensive course took place in Bulgaria in March 2008. The aim of the Intensive courses was deepening knowledge of occupational therapists and students in social area. The main innovative aspects of this course were:

- Improving Occupational Therapy study programme according to actual societal needs and EU directives (concerning employment)
- Turning to a bio-psycho-social model in service delivery in Occupational Therapy
- Using professional competencies as indicators of project outcomes

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M

MEDICALLY ACTIVE SUBSTANCES OF HERBAL DRUGS – PUBLIC KNOWLEDGE *VS* REALITY

Udo Margna, PhD, DSc (in biology), Tallinn Health College, Estonia

Two different concepts exist for explaining the essence of medicinal plants as natural means for treating illnesses and functional disorders of human organism. Both concepts agree that the curing capacities of any plant rely on the natural chemical substances accumulating as products of metabolism in its tissues. However, one of them stresses specific nature of plant efficacy declaring that the therapeutic value of a particular herb is determined by a limited number of specific compounds among the hundreds of other chemical components (mostly indifferent) simultaneously present in that material. The other concept, on the contrary, gives importance to the whole variety of compounds inherently characteristic of a particular drug and, hence, claims total use of herbal drugs in full complexity of their constituents. Apologetics of traditional folk medicine, ordinary consumers of herbal drugs and, surprisingly enough, also a number of educated herbalists tend to support the importance of multiple chemical composition of herbs in treating health disturbances. Not denying preferences of consuming total drug in case of some plants or some kind of health disorders, it is still unacceptable to take it as a general principle of exploiting herbal drugs.

- Firstly, it adds to practical use of medicinal plants a strong paramedical accent making it difficult to consider their prescription, especially within truly scientifically oriented circles of medical doctors, as a true branch of contemporary medicine.
- Secondly, the total plant concept excludes, in fact, the usage of dosage forms other than the most primitive ones such as teas, extracts, tinctures and other first range simple preparations.
- Thirdly, the concept when taken as a leading principle of using herbs blocks seriously exact laboratory and clinical trials with any plant material slowing considerably down further progress of phytotherapy.

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M

WOUND HEALING BY USING ACTICOAT DRESSING

--- A BANDAGE THAT HAS REVOLUTIONIZED WOUND CARE!

Surinder Mehan, Rosendal Nursing Home, Stavanger, Norway

Acticoat, the nanocrystalline silver dressing is widely recognized as an effective broad spectrum antimicrobial agent. It has been shown to provide protection against more than 150 types of pathogen, including MRSA. It kills the broad spectra of bacteria within 30 min. Depending upon the type of Acticoat, Acticoat or Acticoat-7, the sustained release system ensures that the level of protection is maintained for at least 3 days.

One of the greatest concerns for wound care specialists is the increasing number of antibiotics resistant species being isolated from wounds. Wound infection delays healing and can be life threatening for the patient.

Recent advances in biotechnology and original research have provided unique opportunities to develop dressings, which are biocompatible and provide great benefit in advancing healing in difficult to heal wounds. Frequent dressing change can increase the risk of nasocomial infection, increase patient pain, cost and the potential for delayed wound re-epithelialisation. It is therefore advantageous to have a dressing that may be left on the wound for several days, whilst maintaining a bacterial barrier.

The present study was done at the nursing home, Stavanger, Norway, which showed improved healing rates, reduced wound exudates and reduced pain with the application of Intrasite Gel and Acticoat dressing. The patient had pressure ulcer, grade 3, on the hip for several weeks. The wound was infected and painful. All chronic wounds harbour bacteria. Evidences suggest that a bacterial load in a wound bed, irrespective of the organism, will adversely affect the wound healing. The most obvious maker of the chronic wound is the presence of necrotic tissue, which can both be focus for bacteria and a barrier to healing. The necrotic tissues were removed by the application of Intrasite Gel. Complete healing of wound was achieved in 2 months by using both Intrasite Gel and the Acticoat dressing.

The treatment of pressure ulcer with Acticoat dressing make a valueable contribution to improving healing rates and thus improving a patient's quality of life.

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M

INTERACTIVE INTERNET BASED SMOKING CESSATION TOOLS FOR HEALTH PROFESSIONALS

Helinä Mesiäislehto-Soukka, PhD, MA, RN, RM, Seinäjoki University of Applied Sciences, Finland

The National Care Guidelines on "Smoking, nicotine addiction and interventions for cessation" were published in 2002 and updated in 2006 in Finland. One tool in their implementation is Internet based interactive "Tobacco Dependence and Cessation Treatment Training in Health Care". The project was started at the National Public Health Institute, KTL, Finland. Later, the University of Kuopio and three Universities of Applied Sciences, including the one in Seinäjoki, have joined the project.

The Health Behaviour and Health among the Finnish Adult Population (AVTK) 2006 reports the opinions of daily adult smokers in Finland 1978-2006: 1) smokers were worried about health hazards of smoking, 2) smokers wanted to quit 3) smokers had tried to quit during the past 12 months. Stopping smoking is not easy because of considerable physical, psychological and social addiction. All health professionals have an important supportive role. There is a lack of specific smoking cessation training both for undergraduate students and in specialist training. It is also important to focus on the attitudes and opinions of health professionals. We do not have time; or we consider smoking a private matter of our clients or patients.

As easy-to-use tools were required, online multidisciplinary training was designed for physicians, dentists, pharmacists, nurses and public health nurses. The training involves a pre-seminar on the theory of tobacco and health, nicotine addiction and cessation. The participants answer interactive multiple choice exams specific for each medical speciality and get feedback. The seminar concentrates on addiction theory and practical tools for effective smoking cessation. A multidisciplinary approach is encouraged. This part is based on case studies and takes place on the same day in several universities. The post-seminar assignment means that the participants reflect on the learning experience and get a comprehensive picture of tobacco control in small groups. The current collaborators involve 30 Nursing schools and 5 Medical, 3 Dental and 3 Pharmacy faculties. The pilot was maiden spring 2007 and 15 students from Seinäjoki were with. The pilot results from 2007 are very encouraging.

M

31

THE COMPARISON ON DENTAL MATERIALS DC-ZIRCON AND DC-TITAN

Pirgit Männiste, Tallinn Health College, Estonia

Mentor: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia

This close study is about comparison two dental materials DC-Zircon and DC-Titan. This study was empirical and review of the literature. There were taken different tests with both materials. Tested strength properties were tensile strength, compressive strength and hardness.

Hypothesis: DC-Zircon strength properties are better than DC-Titan.

Method and materials: From both material blocks were cubed with diamond disk one sized sample dimensions with sizes 10x10x10 mm. For each test there were used cubes with same sizes. In the results applied strength, tension and shortening/lengthening of the samples were compared.

Conclusion: DC-Zircon has better hardness properties than DC-Titan.

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M

STATUS AND PROFESSIONAL PRACTICE OF PSYCHIATRIC NURSES IN THE INSTITUTIONS OF ESTONIA SERVING PEOPLE WITH SPECIAL PHYSICAL NEEDS ROUND-THE CLOCK

Eda Müürsepp, RN, MA, Tallinn Health College, Estonia

Mentor: Tiia Tamm, MA, Tallinn University, Estonia

The author of the current research has focused on problems of psychiatric nurses in the institutions of Estonia serving people with special physical needs round-the clock. The aim of the research was to find out the status of the psychiatric nurses and a need for the position in social and health care institutions in Estonia, which serve people with special physical needs round-the-clock.

The theoretical frame of the research includes a theory of systems, and the scientific philosophical approach to the topic is based on the theory of activity systems by Talcott Parsons (1938). In the theoretical part of the research, the nature of the theoretical starts of psychiatric nursing and psycho-social nursing care have been described by using existing scientific issues and psycho-dynamic nursing theory by Hildegard Peplau (1952). The research consists of two questionnaires: the first one is for managers, and another is for psychiatric nurses in the institution, and also the documents – job descriptions for the nurses in the institution and the pictures, taken of an one workday of the nurses.

The results of the research showed that the psychiatric nurses in the institutions serving people with special physical needs round-the-clock have a different status in social and health care field. The clients with special physical needs require continuous or short-time treatment, including solving the clients' problems and unexpected cases depending on changes in the clients' condition. The results of the research showed that the psychiatric nurses working both in social and health care field do not have any substantial differences in their work; the only differences are based on an environment where nursing care is performed and the number of the clients being served.

33

N

WORK-RELATED RISKS, HEALTH COMPLAINTS AND SAFETY MEASURES OF THE WORKERS IN OPERATING THEATRES

Irma Nool, RN, MSc, Tallinn Health College, Estonia

There are several risk factors in occupational theatres, which may affect the health of personnel. The personnel of regional and central hospitals in Tallinn were questioned (n=112). The questionnaire examined chemical, physical, biological, psychological and ergonomic risk factors, the usage of personal safety equipment, work and its influence on health. General frequency tables, Spearman's correlations coefficient and Odds Ratio were used to analyse the data.

For 2/3 of the workers the usage of cleaning solutions was the chemical risk factor. From the physical risk factors, for about 3/4 of workers it was noise, ionizing radiation, inadequate spot lightning, too warm/cold rooms, draught, stuffy air and unpleasant smells. The biological risk factor was contact with patient's secretions. About 3/4 of workers mentioned were salary imbalance to the work, no regular breaks, assignments were given that were not mentioned among job description, not enough time to do one's work and feedback about one's work, demand of concentration, working overtime and during weekends. From ergonomic factors the staff mentioned repetitive positions and movements during work and physical hardship of the work.

The health problems for 1/3 of workers were fatigue, pains in legs, neck and shoulder region, tiredness of eyes, lower/upper back pains. Work-related illnesses were radiculitis, asthma, varicosis. The tiredness of eyes was correlated with inadequate spot lighting. The changes in mood were correlated with lack of information about work, which was correlated with the increases in irritability. The work safety demands were ignored. One quarter of the workers was not vaccinated against hepatitis B and some people had health control 5 years ago. In conclusion there are many risks involved in working in an operating theatre affecting the workers health; therefore, it's important to pay more attention to the safety measures and prevention of risks.

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N

BRONCHIAL ASTHMA OVERVIEW AND OCCUPATIONAL THERAPY APPROACH

Merike Nõgene, Tallinn Health College, Estonia

Mentors: Malle Kundla, MD, PhD, Tallinn Health College, Estonia

Karin Lilienberg, MD, MSc, OT, Tallinn Health College, Estonia

Asthma is an inflammatory disorder of the airways, which causes attacks of wheezing, shortness of breath, chest tightness, and coughing. Asthma is caused by inflammation in the airways. When an asthma attack occurs, the muscles surrounding the airways become tight and the lining of the air passages swell. This reduces the amount of air that can pass by, and can lead to wheezing sounds. Asthma symptoms can be substantially reduced by avoiding known allergens and respiratory irritants. Treatment is aimed at avoiding known allergens and respiratory irritants and controlling symptoms and airway inflammation through medication.

The emphasis of the presentation is on the occupational therapy approach. Explanation is given how this disease affects the person. Bronchial asthma has wide influence on the person's life including physical, psychological and social impact. It also influences the family, friends and colleagues. An overview is given about theoretical basis for occupational therapy approach. Frames of references that can be used are compensatory, educational, biomechanical and cognitive-behavioural. Some examples are given how these frames of references can be used in intervention with patients who have bronchial asthma.

O

35

HEALTHCARE IN HARJU COUNTY FROM 1922-1926

Kristina Oganjan, Tallinn University, Estonia

Mentor: Alar Sepp, MD, MA, Tallinn Health College, Estonia

The history of healthcare in Harju County and in Estonia has not been studied extensively yet. The subject itself is very wide and that is why herein I have only concentrated in researching healthcare in Harju County from 1922 to 1926. I have chosen this time period, because in 1922 A. Rammul started Sanitary – topographic research in Estonia and the Republic of Estonia had its first census. These are some of the most important sources in this research. In 1926 the Republic of Estonia reformed medical system and it started to stabilize.

Harju County is located in the North and North-West of Estonia and the most important centre in Harju County is Tallinn – the capital of Estonia. In the 1920s Harju County was much bigger than it is today and according to the 1922 census there lived 91 032 people, most of them were Estonians. Due to the casualties of the First World War and the Estonian War of Independence in Harju County lived mostly women: for 46 618 women there were 41 748 men.

In the 1920s one of the biggest problems in healthcare were contagious diseases such as tuberculosis, typhoid fever, trachoma, diphtheria, scarlatina and measles. To fight against them the Government of Healthcare in Estonia gave out different laws, for example it was mandatory to build a toilet in every household. In the 1920s more than 50% of households had a toilet, but often they were in bad conditions or people didn't use them. Hygiene has important role in fight against contagious disease; however in Harju County only 25,6% of households had saunas.

Another important problem was the accessibility of medical care. There was a lack of doctors and treatment was expensive. Hospital treatment was not accessible for many people, because all of the hospitals in Harju County were located in Tallinn. The transport and medical treatment in Tallinn were expensive. People, who had treatment in hospitals, were often after that in depts. Probably that is why instead turning to the doctors, people tried to cure them with old folk medicine.

O

36

ACTIVITY OF A MIDWIFE IN LABORATORY WORK

Anna-Liisa Ovir, Minni-Triin Kasemets, Tallinn Health College, Estonia

Mentors: Milvi Moks PhD, Ene Kotkas, Tallinn Health College, Estonia

The current presentation has been compiled as an autonomous work for the subject *Clinical Chemistry*.

The aim of the presentation is to describe the activity of a midwife at the pre-analytic and post-analytic stages in laboratory process in case of laboratorial diagnostics of anaemia during pregnancy (anaemia gravidarum).

The amount of blood is increasing on account of the increasing amount of blood plasma since the two-month pregnancy. The amount of erythrocytes is not increasing in parallel with the amount of plasma. That is why the blood is becoming „thinner". The process is maximizing at the 28th-32nd week of pregnancy. Possible anaemia can be assessed by the level of haemoglobin and values of blood serum ferrites.

A survey of the activity of a midwife performing these investigations in the laboratory process is given:

- pre-analytic stage - preparing a pregnant woman for investigations; collecting, keeping, and sending the investigation materials to the laboratory; avoiding any mistakes;
- Post-analytic stage - comparing the results with the reference values, counselling the patient, and co-operation with the doctor and biotechnologists.

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P

ORAL NON-NARCOTIC OVER-THE-COUNTER PAINKILLERS

Anneli Paarasma, Tallinn Health College, Estonia

Pain is one of the most frequent accompanying symptoms of any organic disorders in the functioning of human organism. It is not surprising therefore that production of various painkillers represents a major target of drug manufacturing. Delivery of a great portion of those drugs is oriented to a free-sale distribution without obligatory prescriptions by medical doctors. The goal of this study was to examine the frequency and preferences of use of the three most popular over-the-counter painkillers – ibuprofen, paracetamol, and acetylsalicylic acid (formerly known as aspirin) – in Estonia. For that purpose a questionnaire was composed and thereafter completed within 65 ordinary visitors of a pharmacy. As a theoretical background of the study also a short historical survey about invention of non-steroidal anti-inflammatory drugs as well as a survey of their metabolic fate in the human organism, mechanisms of action, side effects and interactions with other drugs was compiled. Based on the answers to the questionnaire the following facets connected with the use of analgesics depending on consumer sex, age, and educational background were characterized and analysed:

- Main preferences of choice in consuming painkillers.
- Main causes of their use.
- Side effects observed in consuming painkillers.

Also a view on the level of knowledge how much people know about simple painkillers and their practical use was received. The results of the study confirmed comparatively high awareness of ordinary people about the usefulness and danger of systematic intake of painkillers. Surprisingly enough, however, the general use of painkillers proved to be not as high as presumed. In spite of that, in everyday practice of pharmacies painkillers are and most likely remain to be the most saleable medicines.

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P

A COMPARISON OF STRENGTH PROPERTIES OF HEAT- AND LIGHT CURING DENTURE BASE MATERIALS

Aivar Paist, Tallinn Health College, Estonia

Mentors: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia;

Toomas Pihl, PhD, Tallinn College of Engineering, Estonia

This study was empirical and review of the literature. The aim of this study was to give an overview and measure the strength properties of two denture base materials used in Estonia: the heat curing Hereaus Kulzer acrylic and the light curing Densply Eclipse acrylic. Tested strength properties were draught strength, compression strength and hardness.

Method and materials: 5 samples were made from both heat and light curing acrylic for each test. Sample dimensions for draught strength were 50 x 4 x 9 mm, hardness 10 x 10 x 10 mm. and for compression strength a barrel with height of 15 mm and diameter of 6 mm. In the results applied strength, tension and shortening/lengthening of the samples were compared.

Conclusion: Densply Eclipse light cured acrylic has better strength properties than heat curing acrylic Hereaus Kulzer Meliodent.

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P

NUTRITIONAL HABITS IN ESTONIA IN RECENT YEARS

Laine Parts, MSc, Tallinn Health College, Estonia

According to statistics, Estonian nutritional habits have improved over the ten past years, yet among the groups with better income only. People from socio-economically disadvantaged groups and lower level of education tend to have lower intake of fruits, vegetables and dairy products, but eat more fatty and sugary foods. There are strong correlations between the conditions of development in childhood and adolescence years, on the one side, and the economic and social coping skills in adulthood, on the other. More advantageous development and living conditions as well as more supportive and considerate family relations in childhood contribute to a healthier and more productive person in adulthood. Two thirds of school-age children eat unbalanced food, 27% of children and teenagers are characterized by insufficient physical activity, and 11% have elevated blood pressure. Cardiovascular diseases are the main reason of early loss of working capacity (at the age below 65) and death in Estonia. There has been no significant change to the better over the past 20 years. Illness continues to strike at an early age and during the working years. Nutrition and cardiovascular diseases are strongly correlated. For preventing cardiovascular diseases it is recommended to reduce intake of hard fat, also reduction of total fat intake prevents obesity. According to statistics of National Institute for Health Development in 2005, the prevalence of obesity has increased: 5% of school-aged children, 51% of adult men and 55% of adult women were overweight. Most of Estonian inhabitants have adequate energy, protein and carbohydrate intake but imbalanced consumption of vitamins and minerals. It leads to chemical deficiency in organism and results in deficiency diseases. According to the dietary recommendations of FAO/WHO, daily consumption of fruits and vegetables should be 600g per day. In 2002, reported daily fruit and vegetable consumption by 11-year old children was 24% and by 13-year old ones only 21% of that limit - considerably less than in other countries of Europe. Similarly to adults, also children and teenagers in Estonia are characterized by insufficient physical activity. Low physical effort in school and during leisure time is also reflected in the weakening results of the health and physical performance. The combination of physical activity and good nutritional habits prevents obesity and maintains health.

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P

TALLINN MEDICAL SCHOOL/TALLINN HEALTH COLLEGE MIDWIFERY MAIN EDUCATION SPECIALITY 2002-2007 GRADUATED COMPETENCY INDICATORS I

Saskia Perlin, Tallinn Health College, Estonia

Mentor: Urve Kaasik-Aaslav, MD, MA, Tallinn Health College, Estonia

The aim of this coursework is to study Tallinn Medical School/ Tallinn Health College vocational- or professional higher education midwife main education speciality 2002-2007 graduated evaluations to their competence/readiness in midwifery and to make suggestions related to the study-results to change/upgrade the midwife curriculum in Tallinn Health College. In this course-work is used quantitative research method. Most respondents were more or less content with their preparation in school. Most of all were the respondents absolutely satisfied with their preparation in the field of midwifery ethics. Only 6% were absolutely satisfied with school in the field of management-work and 44% thought, that there were insufficiencies. Skill to diagnose early pregnancy, to set the gestational- and estimated time of birth, to perform examination of a pregnant woman and antenatal observation, to specify pregnancy complications, to prepare pregnant women for delivery, bottom line is, that 56% of respondents were absolutely content with their preparation. 52% of respondents are totally satisfied with their preparation to lead normal delivery, to observe parturient woman in every stage of a delivery and to evaluate the condition of the foetus. To recognize aberrations in normal process of pregnancy and labour, and act according to it, absolutely content was 44%, 40% were more or less satisfied and 16% thought that preparation has deficiencies. 69% were absolutely content with preparation in leading the puerperium and evaluating mothers' condition.

Conclusion: Emanate from the study-results it can be said, that majority of midwifes are satisfied with their preparation in school and they feel confident about being a midwife and work in midwifery. Suggestion: These results can be used by modernisation of curriculum.

P

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LABORATORIAL WORK ORDINANCE IN THE NORTH ESTONIA MEDICAL CENTRE

Olesja Pletnjova, Laima Remezova, Jekaterina Mitrohhina,

Tallinn Health College, Estonia

Mentors: Milvi Moks PhD, Ene Kotkas, Tallinn Health College, Estonia

The presentation has been compiled as an autonomous work for the subject *Clinical Chemistry*.

The aim of the presentation is to describe the ordinance of the activity related to performing lab examinations in the North Estonia Medical Centre.

The laboratory is the regional centre for lab examinations in North Estonia, where patients are tested for problems in blood pathology, coagulation, autoimmunity, toxicology, and microbiology, including tuberculosis. There are 450 different tests in the menu and 1,7 million examinations were performed in 2006. There are 107 employees in the laboratory. Karel Tomberg is running the laboratory. The laboratory is situated in four buildings (Mustamäe, Hiiu Oncology Centre, Hiiu Skin and Sexual Disease Centre, Keila Hospital) and performs lab examinations, except genetic testing. Blood tests are taken in Mustamäe, Keila, and Hiiu.

A survey of the ordinance of the pre-analytic, analytic, and post-analytic stages in the laboratory process in the North Estonia Medical Centre is given in the presentation. A nurse's activity in performing clinical and biochemical examinations at pre-analytic and post-analytic stages is completely treated.

The presentation has been illustrated with pictures taken by the authors.

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P

SUBJECT'S UNDRSTANDING MEANS FIRST YEAR STUDENTS CREATIVE THINKING AND SELF-CREATIVITY IN LESSONS

Panainti Posmatš, Jaroslav Petruštšak, Anna Muromskaja, Tallinn Health College, Estonia

Mentor: Eda Müürsepp RN, MA, Tallinn Health College, Estonia
Kateriina Rannula, Tallinn Health College, Estonia

Student in the learning environment - based on students independent works.

First year students: Subject „Research methods and development" based on first year student independent work.

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P

PREPARATIONS CONTAINING MINERAL SUBSTANCES IN THE PHARMACIES OF ESTONIA

Nina Pototskaya, Tallinn Health College, Estonia

A total of 124 pharmaceutical preparations containing varying amount of mineral substances (calcium, phosphorus, sodium, potassium, magnesium, chlorine, iron, copper, zinc, manganese, iodine, chromium, selenium, and molybdenum) were thoroughly examined to characterize them as items recommended for general use to prevent mineral deficiency. The content of minerals in the dosage formulations of different preparations, prices, and accessibility of those preparations in the pharmacies of Estonia were analyzed. A particular emphasis was laid on the comparative examination of preparations to find out whether the doses of minerals proposed for application by producers corresponded to the daily requirement of organism. For examining sale prices of preparations the data accessible through the Internet were employed. Overall, the prices of 62 Tallinn pharmacies were compared and analyzed.

In the analysis the majority of mineral preparations currently available in Estonia were comprised. On the basis of the study the following conclusions can be drawn:

- Not all preparations contain mineral substances in a sufficient quantity to meet daily requirements of organism.
- Only a limited number of preparations contain additive substances necessary for better assimilation of a particular mineral.
- Sale prices do not reflect the quality of preparations with many cheaper preparations having higher content of minerals than the more expensive ones.
- Low price of a preparation does not always mean smaller expenses in case of consuming the medicine during a long period.
- Insufficient number of preparations meeting daily requirement of people in any particular mineral is available in the pharmacies.

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P

LEPROSY IN ESTONIA IN 1890-1940

Liina Põldla, BSc, Tallinn University, Estonia

Mentor: Alar Sepp, MD, MA, Tallinn Health College, Estonia

The current study is focused on the leprosy issue in Estonia at the end of the 19th century and on the first half of the 20th century. The issue about leprosy was acutely raised on the 19th century. The students of the faculty of medicine from the University of Tartu organized a research among the people. It appeared that leprosy also known as the Hansen's disease was widely spread. The exact amount of the sick people is not known while the statistics for this particular area is very vague.

In the 19th century there was an order in Livonia established. Its main purpose was to build and maintain hospitals for the people with Hansen's disease. The first one was founded in 1891, named Muuli in Tartu. There were five more hospitals opened between 1891 and 1904- Nina (1892-1916) the near to lake Peipsi, Kuuda (1896-1977) in Märjamaa, Tarvastu (1899-1939) in Viljandimaa. The last one was opened in 1904 in Saaremaa called Audaku.

In 1919 leprosy was forced to be registered in Estonia. Since 1925 everyone known sick with Hansen's disease were compelled under observation.

During Estonian Republic Muuli's hospital soon became a Medical School, to where people from all over Estonia with different kind of leprosy symptoms gathered up for the purpose to use them in studies.

Organized fight with leprosy gave good results and the disease started almost immediately decreasing among the people. For an example in 1900 there were known 554 cases, by the year 1940 it was narrowed down to 113 people.

The main initiator among the doctors fighting against leprosy was Edvard von Wahl. From this particular area there were several more spectacular doctors like Peeter Hellat, Siegfied Talvik, Paul Parmakson and Aleksander Paldrok. He also invented a new method to cure the disease.

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P

EYEGLASS LENSES UPGRADE

Maris Pähn, Jaak Uusküla, Meelike Õun, Kadri Altküla, Ave Jõgibert, Tallinn Health College, Estonia
Mentors: Vootele Tamme, Ene Kotkas, Tallinn Health College, Estonia

The current presentation is based on the study material passed in English lessons to acquire special terminology on optometry.

The purpose of the presentation is to give a survey of different coatings that are applied to the surfaces of spectacle lenses in order to improve the quality of lenses.

Scratch protecting coating is a must have for plastic or glass lenses. It is easy to scratch the lenses and the damage usually can not be repaired. A scratch protecting coating will help the lenses become more resistant against most abrasions.

A UV coating helps to reduce the amount of UV rays that enter our eyes by blocking it through the lens.

Anti-reflective lenses are another upgrade that can help you see well. It not only gets rid of the glare and reflections but allows people to see your eyes without any problem.

Polarized lenses are like sunglasses in that they are tinted with a polarization filter and block vertical light from causing stress on the eyes. They are good for outdoor activities where the sun will be glaring down on you.

Photochromic lenses are designed not only for outdoor but also indoor wear. They are designed to lighten up the tint when in the shade, and darken the tint when in direct sunlight. There are a lot of brands with varying tint percentages.

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P

190 YEARS OF MIDWIFE EDUCATION IN TURKU

Liisa Päivike, RN, RM, PHN, MA, Turku University of Applied Sciences, Finland

The midwifery education in Turku has a long history. There is a historic connection between the former Finnish capital Turku and midwifery: Turku is the city where midwifery training in Finland started in 1816. Examples about the professional competences, studies and credits, also the questions of life-long learning principles will presented through the historical point of view.

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R

NURSING OUTCOMES IN NURSING AND SUPPORTIVE CARE

Olga Riklikiene, RN, MSPH, PhD (c); Arvydas Šeškevičius, MD, PhD,

Kaunas University of Medicine, Lithuania

According to Nursing Outcomes Classification (NOC), an outcome is a measurable individual, family, or community state, behaviour or perception that is measured along a continuum and is responsive to nursing interventions. For the accurate evaluation of nursing care it is important to identify the most relevant nursing outcomes in the particular area of clinical nursing practice.

The purpose of the paper presented is to discuss the most relevant nursing care outcomes of Functional Health domain that were identified in nursing and supportive care patients.

A Lithuanian version of the Nursing Outcomes Classification (NOC) Use survey was used with a sample of 70 nurses from 13 nursing and supportive care hospitals. Functional Health domain includes nursing outcomes that describe capacity for and performance of basic tasks of life. In the Lithuanian version of NOC Use survey Functional Health domain consists from the same 4 classes and 32 nursing outcomes.

The results of factor analysis were used to identify factor subscales and to determine the items with the highest factor loadings in each subscale that were considered as the most relevant between nursing and supportive care patients (see table).

Class	Factor name	Loadings	The outcomes of the highest factor loadings
Energy maintenance	Activity Relaxation	0,790 – 0,918 0,843 – 0,916	Endurance Sleep
Mobility	Active Passive	0,703 – 0,888 0,630 – 0,910	Coordinated movement Immobility consequences: physiological
Self-care	Self-dependence Dependence	0,813 – 0,937 -0,851 – 0,507	Self-care: hygiene Self care: parenteral medication

NOC class Growth and development with the Physical aging and Sexual functioning showed very low factor loadings (0,487 and 0,448 respectively).

The extracted factors were easy to explain and conceptualize. Nursing and supportive care patients are usually severely impaired ones with more severe cognitive disorders, poor nutritional status and are the most dependent for basic activities of daily living.

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R

SHIFT-WORK AND NIGHT WORK EFFECTS OF SHIFT LENGTHS ON HEALTH AND QUALITY OF WORK AMONG NURSES

Katre Robas, Tallinn Health College, Estonia

Mentor: Irma Nool, RN, MSc, Tallinn Health College, Estonia

Many aspects of health care require 24-hour coverage, necessitating some form of shift work. While a certain percentage of nurses both prefer and enjoy shift work, important challenges exist when working outside the normal daytime hours. Shift-work and night-work disrupt natural circadian rhythm, and have adverse effect on workers health. Night-shift workers are constantly battling their circadian rhythms and many health problems are induced from those. Many articles have paid attention that shift work and associated sleep disturbances are considered risk factors for human health, injuries and medical errors. Shift workers mention considerable downtrend in sleeping quality. There will spring up sleeping debt during the ongoing sleeping deficiency and due to that the overall performance ability and the speed of reaction will reduce. Nurses` work is with very high responsibility and is demanding great accuracy and quick reaction. In conclusion the sleep disruption may influence performance and consequently patient safety. Another common medical complaint seen in night-shift workers is gastrointestinal (GI) distress, and they are to be at greater risk of developing peptic ulcer disease than day workers. The night workers meal times are in conflict with the circadian rhythms in gastric acidity emptying. Long workdays, overtime and inadequate staffing affect patient care quality. Nurses working longer than 12 hour shifts are three times more likely to make a patient care error than nurses working 8 hours. Shifts lasting longer than 12 hours imperil patients' safety due to nurses' fatigue. Sleep disorders, fatigue and drowsiness are associated with work-related accidents. In studies investigating satisfaction with work is found that rotating shifts have sinister influence on job satisfaction and efficiency. The negative consequences of shift-work are reduction of nurses health and wellness, decrease in patients health and safety, and diminution in job efficiency and professionalism. It is mentioned that workers who are chosen working in rotating shifts by certain intention are more productive and the quality indicators are higher and they are more satisfied with their work.

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R

OCCUPATIONAL THERAPY IN SOCIAL FIELD

Mariliis Romandi, Tallinn Health College, Estonia

Mentor: Karin Lilienberg, MD, MSc, OT, Tallinn Health College, Estonia

Occupational deprivation is by definition a state of prolonged preclusion from engagement in occupations of necessity and/or meaning due to factors, which stand outside of the control of the individual. The reasons why some people are not afforded equal opportunities to participate in occupations are different. The factors might be for example social, economic, environmental, geographic, historic, cultural or political. It is important to emphasize that the conditions leading to occupational deprivation are caused by external factors.

In this presentation the key terms in occupational therapy in social field are explained along with the concept of occupational deprivation. Also an overview of the projects undertaken in this area is brought. Although in Estonia occupational therapy practice in social field is yet to be established, there is a need for development in this area. With all this in mind, the occupational therapists can start to focus on social aspects of occupation. It is important to show to other specialists and to the society that occupational therapy has the means and the will to participate in social issues.

According to the words of Professor Gail Whiteford: „The challenges of the future are essentially occupational; we therefore have a unique perspective much needed in today's and tomorrow's societies."

R

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TALLINN MEDICAL SCHOOL/TALLINN HEALTH COLLEGE MIDWIFERY MAIN EDUCATION SPECIALITY 2002-2007 GRADUATED COMPETENCY INDICATORS II

Velly Roosileht, Tallinn Health College, Estonia

Mentor: Urve Kaasik-Aaslav, MD, MA, Tallinn Health College, Estonia

The aim of this coursework is to study Tallinn Medical School/ Tallinn Health College vocational- or professional higher education midwife main education speciality 2002-2007 graduated evaluations to their competence/readiness in midwifery, to find out before mentioned target groups contentment with lectures, pre-clinical- and practical trainings and to make suggestions related to the study-results to change/upgrade the midwife curriculum in Tallinn Health College.

To study: 1) Tallinn Medical School/ Tallinn Health College midwifery speciality vocational/professional higher education 2002-2007 graduated competence in women's diseases nursing/midwifery and midwifery in case of extreme situations; 2) To find out if the knowledge's/skills acquired in time on lectures, pre-clinical- and practical trainings are sufficient to manage in a practical vocational work. In this course-work is used quantitative research method.

Most of respondents are farther less or totally satisfied with schools preparation in this area. Ability to consult in case of frequent aberrations in women's diseases like menstrual-ovarian cycle, infertility, benign and malignant tumours reasons, clinical markers, diagnostics, diseases course, treatment and prevent principles. 50% of respondents were farther less pleased with schools preparation. Ability to consult in sexually transmitted disease reasons, clinical markers, diagnostics, diseases course, treatment and preventing principles. 38% of respondents were totally satisfied with schools preparation in this area.

As very good were held knowledge's/abilities acquired in the course of theoretical and preclinical training in case midwifery of pregnancy, labour and postnatal care. Conclusions: Tallinn Health College/Tallinn Medical School midwife speciality basic education graduated persons are competent to indicate qualitative healthcare service.

51 PROFESSIONAL STANDARD FOR PHARMACISTS

R

Lilian Ruuben, MSc, Tallinn Health College, Estonia

The pharmacist professional standard was first accepted on 10 March 2004. There was only one level in the document, pharmacist III, but it soon became apparent that a single level is insufficient for the description of pharmacists' skills. Thus, on 1 November 2005, a new professional standard was accepted, which established three different professional qualifications for pharmacists: pharmacist III, pharmacist IV and pharmacist V. The requirements for applying for these standards are as follows:

Prerequisite for applying for the qualification Pharmacist III is a professional higher education in pharmacy or an education in pharmacy based on secondary education and at least 3 years of professional pharmacy experience within the last 5 years.

Prerequisite for applying for the qualification Pharmacist IV is a professional higher education or a higher vocational education of equivalent content and volume in the pharmacy area of specialisation and at least 5 years of professional pharmacy experience within the last 10 years.

Prerequisite for applying for the qualification Pharmacist V is a pharmacy professional higher education or a higher vocational education of equivalent content and volume in the pharmacy area of specialisation, at least 10 years of professional pharmacy experience within the last 15 years, specialist knowledge and the completion of in-service training for the development of basic skills (of at least 3 credit points) within 5 years, and the fulfilment of at least one of the following additional conditions:

- the publication of at least two specialty articles in pharmacy or health related magazines or other publications;
- at least two public presentations of reports at specialty conferences or seminars or active publicity activity.

Professional certificate is a document proving the possession of a professional qualification. As of today, the Estonian Pharmacist's Union has issued 100 pharmacy III professional certificates and four pharmacy IV certificates.

S

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JOB SATISFACTION OF ESTONIAN JUNIOR PHYSICIANS

Alar Sepp, MD, MA, *Irma Virjo, MD, PhD, *Kari Mattila, MD, PhD,

Tallinn Health College, Estonia,*University of Tampere, Finland

Arst 2000-study found out Estonian junior physicians' psychosocial background, opinions on their medical education, working conditions, job satisfaction, values and professional and community identity. The study was implemented as a postal questionnaire. Responses were received from 283 (66%). The questionnaire was a translation from the Finnish Physician 1998 Study questionnaire adapted to Estonian conditions. The proportion of women among physicians in Estonia is bigger than in other European countries. 79,2% of respondents were women. The biggest age group was 35–39 years old; its share in the material was 53,7%. A majority (76,2%) of physicians were married or co-habiting. One third of the respondents (32,4%) informed that they would no more start studying medicine if they were again in the situation of choosing a profession. Majority (52,3%) of physicians had a permanent working contract. Only a few (12,9%) were working in the private sector. A small part (17,4%) of respondents had been working as physician abroad or informed planning to work abroad, mainly in Finland, Sweden or Germany. The majority of physicians (75,4%) worked either as hospital physicians or family doctors. Six percent of the respondents had given up the work as physician. Nearly half of physicians worked in Tallinn (25,9%) or Tartu (20,2%). Junior physicians worked whole time. The mean number of working hours was 46,7 in a week. The biggest share of time (31,6 hours) went to work with patients. Physicians thought they were well equipped with ADB equipments. Majority of physicians (75,7%) were satisfied with their work. The proportion of unsatisfied was 10,3% and unsure 14,0%. Interesting tasks, a possibility to develop professionally, a possibility to advance in work career, a possibility to continuing education and a good work community correlated with physicians' job satisfaction. As reasons to non-satisfaction were mentioned scarce resources, mental strain at work, bad communication of information, unsatisfactory equipment, fear of failure and mistakes and a bad working place. Family life and health were the most important issues in junior physicians' life, more important than e.g. success at work. This study gives a general picture of Estonian physicians' psychosocial background, job satisfaction and issues connected with it, physicians' professional and community identity and values.

53 PHYSICIAN STUDIES IN ESTONIA IN 1995, 2000 & 2005

Alar Sepp, MD, MA, *Irma Virjo, MD, PhD, *Kari Mattila, MD, PhD,
Tallinn Health College, Estonia,*University of Tampere, Finland

In Estonia the *Young Doctor 95 Study* was carried out at a time when the economy of the country was in transition and number of physicians' was decreasing. At that time, intake into the medical faculty in Tartu University was considerably reduced. The study was one of the first of its kind in the Baltic region. The example for the research was the Finnish *Junior Physician 88 Study*. We contacted with Finnish study group and got their questionnaire. The questionnaire was translated into Estonian language and used in 1995. The basic group consisted of doctors graduated in 1982-1991 and working in Estonia in 1995. The research provided important information on young physicians' social background and mobility as well as their career plans, job satisfaction and values.

The Physician 2000 Study was carried out at a time of economic growth and the employment situation in the profession was quite good. The basic group of this study consisted of doctors graduated in 1982-1996 and working in Estonia in 2000. Mainly the same questionnaire was used and the same questions were asked as in the *Young Doctor 95 Study* and the results confirmed the earlier survey. When compared to the results in 1995, there were some positive changes in satisfaction with job of family doctors'.

The Physician 2005 Study was a ten-year follow-up for earlier Physician studies. The study population consisted of physicians graduated in 1982-2001. When the study was done, the situation of political and economical state of society had clearly changed again. The economy had grown rapidly and Estonia lived a period of EU new membership from 2004. Changes reported in satisfaction with job of doctors' were again positive.
Summary of Physician studies (table 1.).

Table 1. Physician studies in Estonia in 1995, 2000 and 2005.

Study	Year	The basic group	Random sample	Respondents (%)
Physician 2005	2005	1982-2001	Odds-day born	635 (78%)
Physician 2000	2000	1982-1996	Even-day born	482 (67%)
Young Doctor 95	1995	1982-1991	Odds-day born	483 (64%)

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S

COMPARISON OF DENTAL RESINS "ORTHOCRYL" AND "BIOCRYL" WHILE MAKING ORTHODONTIC APPLIANCES

Siret Sepp, Tallinn Health College, Estonia

Mentor: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia

Hypothesis of this research was that thermo forming dental resin "Biocryl" is more time saving and durable than cold curing dental resin "Orthocryl" which are both used for making orthodontic appliances like dental retainers. The goal of this study is to find out if pressure moulding technique saves working time and gives a harder end product than retainer which is made from cold curing resin – powder and liquid method.

Theoretical material that is used is not older than ten years and is from Tallinn Health College library, Estonian National library and Tartu University library, mainly translated from English. Test specimen were made of thermo forming dental resin "Biocryl" and cold curing resin "Orthocryl" in total number of five of both for both tests. Vickers hardness tests and tensile tests were done with special machines by independent person. Test results were collocated in tables and analyzed. Vickers hardness tests showed that "Biocryl" is harder than "Orthocryl" while at the same time "Orthocryl" showed better results in tensile tests. Besides mechanical properties human resource factors were analyzed in comparison of two different techniques depending which material were used. Thermo forming technique used with "Biocryl" is shorter in working time, requires less working procedures and is more accurate on patient soft tissues as "Orthocryl" cold curing resin. According to the research it can be concluded that thermo forming dental resin „Biocryl" is more durable than cold curing resin „Orthocryl" and „Orthocryl" bears more tensile tests. Working procedures with "Biocryl" saves more time and human resources as there are less working stages in comparing to more commonly used cold curling technique.

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S

OCCUPATIONAL THERAPY STUDENTS IN INTERDISCIPLINARY PROGRAMME ON PALLIATIVE AND END- OF- LIFE CARE

Siiri Siimenson, Hanna-Stiina Heinmets, Sandra Pais, Ulla Küüts, Ave Uke, Tallinn Health College, Estonia

Mentor: Karin Lilienberg MD, MSc, OT, Tallinn Health College, Estonia

Hanna-Maria Vardja, OT, Tallinn Health College, Estonia

Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.

The goal is: satisfaction with care

Physical wellbeing

Acceptance

Good death (peaceful)

The poster presentation gives an overview of the international course on palliative and end-of-life care in Belgium in January 2008. The course gave an interdisciplinary approach on palliative and end-of life care, dealing with the teamwork of occupational therapists, physiotherapists, nurses and social workers.

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S

BLOOD PROTEINS

Diana Skribtsenko, Tallinn Health College, Estonia

Mentors: Milvi Moks PhD, Ene Kotkas, Tallinn Health College, Estonia

Proteins are the bio macromolecules consisting of one or several polypeptide chains. They consist of amino acid residues; carbon (51-55%), nitrogen (15-17%), and hydrogen (6-7%) are the elementary components of them. There are 40-46% proteins in the dry weight of the human body. The protein content in tissues and organs depends on their functions: many contraction proteins are in muscles; enzymes are in the liver; transport proteins are in the fat tissue. The protein content changes during the human development and in case of diseases.

The current presentation has been compiled as an autonomous work for the subject *Clinical Chemistry*.

The purpose of the presentation is to give information on different protein groups, synthesis and functioning of them.

Developing a crossword has been chosen as the method of the presentation. The concepts in connection with blood proteins have been used in order to develop the crossword. A survey of different protein groups, synthesis and diagnostic value of them is given in the presentation.

There are more than 100 individual basic proteins in blood plasma. The electrophoresis method is used in determination of proteins in blood plasma. The following aspects are taken into account in assessing the results:

- has there appeared a new fraction compared with the normal blood plasma;
- has the quantity of the group changed;
- Are the changes of the group's one-directional or opposite-directional?

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HISTORY OF DENTAL TECHNOLOGY IN 19.-20. CENTURIES

Sandra Suursaar, Britta Šafranovski, Tuuli Toom, Tallinn Health College, Estonia

Mentor: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia

A brief overview of dental technology history will be done.

1825 - The commercial manufacture of porcelain teeth started.

1839 - The vulcanization process for hardening rubber invented.

1840 - The first dental school, the Baltimore College of Dental Surgery established.

1887 - In Boston opened the successful industrial-type Dental Laboratory, first in the US, the earliest known dental laboratory in the U.S. opened in New York City around 1854.

The authors point out some critical things in the last century: in 1907 where invented a "lost wax" casting machine, allowing dentists to make precision cast fillings. In 1926 The Carnegie Foundation sponsored Gies Report, the first comprehensive report on the state of dental education, is published and has an immediate impact on the dental profession.

1930-1943 - Dentist McKay's research verifies that drinking water with high levels of naturally occurring fluoride is associated with low dental caries and a high degree of mottled enamel.

In 1937 inserted the first Vitallium dental screw implant. Vitallium, the first successful biocompatible implant metal, had been developed a year earlier.

1938 - The nylon toothbrush, the first made with synthetic bristles, appeared on the market.

By the early 1940s, was determined the ideal level of fluoride in drinking water to substantially reduce decay without mottling.

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THE EXPERIENCES OF SCHOOL NURSES OF SCHOOL VIOLENCE, RISK FACTORS AND VIOLENCE PREVENTION

Mare Tupits, MA, Tallinn Health College, Estonia

The aim of the study was to describe the experiences of school nurses in the prevention of school violence. Research methods used in this study were semi-structured interview for data collection and inductive content analysis for data analysis. The sample consisted of school nurses from Estonian-speaking schools in one district of Tallinn. The selection criteria for school nurses were as follows: a nurse can speak Estonian and agrees to participate in this study. Eight school nurses met the criteria. Analysed units were the integrities of thought describing the experiences of school nurses. The integrities of thought were classified and as a result of that substantive codes and categories were formed. The first main category, experience of school violence, included two upper categories: experience of mental violence and experience of physical violence. The second main category, risk factors of school violence, included two upper categories: internal and external risk factors. The third main category, experience of the prevention of school violence, included three main categories: prevention on the individual, school and family level. The outcomes of analysis indicated that school nurses had experienced both mental and physical violence at school, in the form of violence between pupils and teachers' violence against pupils. Remarkable was the cruelty of violence methods used between pupils. The risk factors of school violence were divided into internal and external. The internal risk factors were related to the behaviour, health, progress in school and physiological/anatomical factors of victim and despot. The external risk factors were related to school, teachers and family. Prevention of school violence has three levels. On the individual level the school nurses practiced mainly the prevention on secondary and tertiary level, dealing both with the victim and despot. Primary prevention was practiced on school level, but school nurses were not included in the development of school environment. Cooperation with staff took place as secondary and tertiary prevention. On family level the school nurses practiced only secondary prevention.

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A COMPARISON OF STRENGTH PROPERTIES OF ZIRCONIUM OXIDE AND COCR METAL ALLOY

Magnus Tõnts, Tallinn Health College, Estonia

Mentors: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia

Toomas Pihl, PhD, Tallinn College of Engineering, Estonia

The aim of this study was to measure the strength properties and give an overview of the two different materials used in making the frameworks for partial fixed prosthesis – the new all-ceramic cercon ZrO system by DENTSPLY and the more traditional CoCr metal alloy. Tested strength properties were hardness, compression and impact strength.

Method and materials: 5 samples were made from both heat and light curing acrylic for each test. Sample dimensions for impact strength were 4,7x1,3x0,6cm, hardness 4,7x1,3x0,6cm. and for compression strength a barrel with height of 15 mm and diameter of 6 mm. In the results applied strength, tension and shortening/lengthening of the samples will be compared.

Conclusions: ZrO has as good or better strength properties as metal alloy CoCr.

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BREAKING OF ORTHODONTIC WIRE: AN EXPERIMENTAL STUDY

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Mentors: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia

Toomas Pihl, PhD, Tallinn College of Engineering, Estonia

The main goal of this study was orthodontic appliance producing availability of the Orthodontic steel wire strength measuring. Author's hypothesis was that the breaking of the wire is not conditioned of the mechanical properties. The study composed of empirical research work. On the composition with the work was used different literature material. The tests were performed in technical laboratory of Tallinn Technology University. With these results we know that some wire mechanical properties are not same with the ISO certification. In fact, if the wire will brake the reasons may be the wire mechanical properties.

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THE PROFESSIONAL IDENTITY OF A LECTURER

Andra Õismaa, Tallinn Health College, Estonia

Mentor: Larissa Jõgi, Tallinn University, Estonia

More and more the society's development and the power of innovation depend from the proportion of people with higher education in the population. Professional higher education is an important part of the higher education but in many higher schools the lecturers are often speciality professionals with specific preparation. To understand teaching as a profession, the lecturer's identity plays an important role, and the initial requirement for the development of lecturer's professional consciousness is to interpret the notion of being a lecturer. As nursing studies have become a part of the higher education, it should promote the status and development of nursing as a profession, nurse' s wider education should provide better results in patient care. When moving from a more practical environment into a more academic one, the role of a nurse teacher becomes more complicated and a transformation of professional identities takes place. The development of a lecturer, however, depends on realizing the professional identity. The problem of a current paper is - how does a nurse teacher see oneself as a lecturer in a higher school or, in another words, what is the professional identity of a nurse teacher? The author's goal is to understand the phenomenon of being a lecturer and compile an analytical overview of the lecturer's professional identity and it's expressions in the comprehensions of nurse teachers in Tallinn Health College. Nurse teachers see their profession as a part of a nurse's profession: the implications and basics of a nurse teacher's professions are said to be professionalism and reliability as a nurse; the aim of work is described as building a bridge between theory and practice; the profession of a nurse teacher is chosen as a possibility of self-development and challenge. Nurse teachers create the role of a lecturer in a higher school depending from the professional identity of a nurse: resting upon one's personal learning experience and appreciating nurse's professionalism and experience in the learning process. Nurse teacher's self-reflection of one's professional development is closely connected to defining oneself as a part of a speciality or academic culture.

CHEMICAL HAZARDS

Mari Vahtre, Merlin Nurk, Tallinn Health College, Estonia

Mentors: Milvi Moks PhD, Ene Kotkas, Tallinn Health College, Estonia

Dangerous chemicals and their compounds treated in work environment occur to be chemical risk factors. To protect employees from harmful effects of the dangerous chemicals, an employer must perform a risk analysis, take measures to eliminate or lessen the risks, monitor the effectiveness of the precautions, and check the risk analysis, if necessary.

The purpose of the current presentation is to describe the chemical risk factors in work environment, harmful effects of them on an organism, and general concepts of prevention of the harmful effects.

A survey of the classification of dangerous chemicals, the ways of getting them in an organism, and the harmful effect of them on an organism is given in this presentation. More attention is paid to prevention of the harmful effects of dangerous chemicals through the risk analysis. Some advice for the mapping of the chemical risk factors, assessment of health risks and reducing the risks is given.

The presentation is provided with the signs of risk, drawn by the authors.

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63 COUNSELLING PATIENTS WITH PSYCHOLOGICAL PROBLEMS DURING PREGNANCY

Mare Vanatoa MD, Tallinn Health College, Estonia

Aim of the presentation is to give a short review of the courses, which took part in Tallinn Health College 2006-2008 and were part of the wilder project.

2005 meeting at Office of Social and Health Affairs was held in the presence of representatives from Tallinn East Hospital, Psychological Crisis Centres and foundation Caritas (dealing with family problems); there was a discussion about establishing the network of pregnancy counselling. From this meeting counsellors pilot-project started at East Tallinn Hospital. It was evident, that women needed wider, more professional counselling.

There was need for counsellors who knew much more about pregnancy and pregnancy related psychological or social problems; so the additional education courses were needed.

So the members of the project appealed to Tallinn Health College with a proposal for working out a program for courses of preparing counsellors who were able to counsel patients with psychological problems during pregnancy.

According to the program which was worked out in Tallinn Health College, the additional training for counsellors was started at Tallinn Health College in The Chair of Midwifery in 2006. Aim of those courses was to educate pregnancy crises consultants, who could start working in the hospitals and consulting centres after graduating those courses.

From November 2006 till January 2008 advanced training courses 40 CP "Counselling Patients with Psychological Problems during Pregnancy" for psychologists, midwives and social workers took place in Tallinn Health College. In January 2008, the first 15 consultants graduated the courses.

First graduates have started consulting in 4 hospitals (The Women Clinic of East Tallinn Hospital, Women Clinic of West Tallinn Hospital, Women Clinic Fertilitas and Rapla County Hospital) and Pregnancy Crisis Centre has been opened in Tallinn.

The feedback to the courses has been very positive and as the need for counsellors still exists, the next group will start the same courses with small changes in the program next year.

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A BRIEF OVERVIEW OF KAUNAS COLLEGE AND DENTAL TECHNOLOGY STUDIES IN KAUNAS COLLEGE

Darius Varinauskas, Reda Pietaryte, Kaunas College, Lithuania

Mentor: Tõnu Kauba, MD, PhD, Tallinn Health College, Estonia

A short survey of Kaunas College Dental Technology department will be done.

Dental technologies department is a part of Medicine and social sciences study centre, the **s**tudy program is Dental Technology with training duration 3 year. The curriculum contains all needed topics for dental technology.

There is for students a library in Kaunas College, what seeks integration into the net of Higher Schools Library Net (LABT) and Lithuania's Integrative Library Information System (LIBIS). Due to this, an automated library program ALEPH 500 has been started to install in the central library. At present an electronic cataloguing system is being installed – it already contains 687 books.

In the year of 2008, the first two students of Kaunas College perform their 2nd course practical work in the practical basis of Tallinn Health College with the aid of Erasmus Programme.

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