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Editorial office:

Correspondence concerning manuscripts and all editorial matters should be addressed to:

Managing Editor, SHS
Tomas Faresjö
Dept. of Medicine and Care
Faculty of Health Sciences
Linköpings universitet
S-581 83 Linköping
SWEDEN

e-mail: shs@hul.liu.se
telephone: +46 13 22 20 00

Editorial Board:

Inger Rosdahl, Editor-in-Chief
inger.rosdahl@hud.liu.se
Tomas Faresjö, Managing Editor
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Elisabeth Skargren, Assistant Editor
elisabeth.skargren@hul.liu.se
Staffan Pelling, Webmaster
staffan.pelling@hul.liu.se
Anton Forsberg, Vice President of the Student Union
vko@consensus.liu.se

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– Editorial –

A Bright Future for the Faculty of Health Sciences

Curiosity drives students to enter deeply into specific fields. Term papers are an important way for students to specialise in their fields of interest. Some papers are of very high quality and deserve a better destiny than to be forgotten. The “Student Journal of Health Sciences” and “The Students Medical National Congress” provide good opportunities for students to exhibit their work.

To a large part of the students at the Faculty of Health Sciences the term papers is the first real contact with the word of research. During the work, the students get a good insight into how research is done and in some cases this results in a continued interest in research. Otherwise, the students have at least gained important knowledge that enables them to develop and renew themselves. However, if any of this is to be implemented, the research at the Faculty of Health Sciences must be of good quality and there must be competent individuals who are capable of sharing their knowledge and experience.

Research at Linköping University is doubtless of great importance for the quality of the education. It is thus necessary to focus on development and renewal in different fields of research. At the Faculty of Health Sciences Problem-based Learning has permeated the education provided. During several years Linköping University has been very successful when respect to Problem-based Learning. In recent years other universities in the country are now applying the same methods. The decreasing number of applicants to higher education along with an increasing number of places available has resulted in greater competition for students. The Faculty of Health Sciences has to enter it in order to maintain its status as one of the most innovative and prestigious universities in Sweden.

It is nice to see that the Faculty of Health Sciences is becoming aware of the work that has to be done. A number of professorships are planned to start along with reconstruction and extensions of the faculty’s premises. This will lead to the development of a campus, which certainly is gratifying to students who have missed the feeling of attending a university.

I know that students finishing their education at the Faculty of Health Sciences are well prepared to enter a life of either science or work. I know this because of two things; the high quality of the research at the Faculty of Health Sciences and Problem-based Learning. Problem-based Learning gives the students many qualities that are very important in today’s labour market. I also know that with a joint effort from students and personnel at the Faculty of Health Sciences we will continue to contribute to society with individuals who are well prepared to work in whatever situation they may enter.

Anton Forsberg, Vice Chairman of the Student Union

- Abstract section -

Womens Experiences of their Lifesituation after a Myocardial Infarction – a Qualitative Analysis

Authors: **Köster-Johansson A, Öberg A**, Nursing Programme, Faculty of Health Sciences, Linköpings universitet, Sweden.

Tutor: **Broström A**, RN, MSc, PhD-student, Dept of Medicine and Care, Linköpings universitet, Sweden

Coronary heart disease is one of the most common causes of death in Sweden. Differences between men and women have been shown concerning risk factors, symptoms and appearance of disease. The normal lifesituation for women is different from the lifesituation for men. Women often experience a conflict between family life and practising a profession and they often have a heavier load of caring for the family.

The aim of the study was to describe women's experiences of their lifesituation after a myocardial infarction.

A qualitative descriptive design was employed. Experiences were collected through semi-structured interviews with eight strategically chosen women who had experienced a myocardial infarction.

The findings showed that women experienced feelings such as guilt and anxiety, but also safety related to the cardiac rehabilitation team. Ability to adaptation after the myocardial infarction appeared among most of the women and they expressed feelings like confidence for the future. They also had appropriated new habits in their lifestyle.

Having knowledge about the special lifesituation for women and the influencing factors are of great importance for nurses. Through an increased awareness of the holistic perspective, nurses can more effectively meet the caring needs, and reduce the psychological stressors, that women develop after a myocardial infarction. Information and education, both to patients and the next of kin, about the disease can help patients to better cope with the new life situation.

Key words: women, myocardial infarction, qualitative method, social network, adaptation.

Paramedics Experiences Related to out of Hospital Cardiac Arrest - a Qualitative Study

Authors: **Kämpargård N Thörnström M**, Nursing Programme, Faculty of Health Sciences, Linköpings universitet, Sweden

Tutor: **Broström A.**, RN, MSc, PhD-student, Dept of Medicine and Care, Linköpings universitet, Sweden

One of the most common tasks within the ambulance service is a mission based on problems of cardiac aetiology. These can in severe cases cause cardiac arrest, which may require large skills and professionalism by the paramedics. The most important factor in a cardiac arrest situation is the time between the moment of collapse and start of treatment. Circulatory arrest causes irreversible damages after a few minutes and the chance of survival is rapidly decreasing. The medical treatment includes advanced cardiac life support.

The aim of the study was to describe the paramedics experiences related to out-of-hospital cardiac arrest.

A qualitative method was used and interviews with seven paramedics were performed.

The results showed four categories based upon the respondent's experiences related to out-of-hospital cardiac arrest. The paramedics described how different conditions affected their experiences of the situation. If long time had passed before the beginning of resuscitation or if the patient was very old or suffered by severe sickness, the paramedics experienced a lack of motivation to begin resuscitation. In cases like these some of the respondents thought that the patient actually had the right to die without interventions. If the patient was younger there was a higher degree of motivation to succeed with the resuscitation attempts compared to older patients even though the paramedics claimed that they always did their best to succeed in all cases. How to treat the patient and especially the relatives was of high significance according to the paramedics even though the level of engagement varied among them. The relatives were assumed to be in need of information and support and could also share important information about the patient. The respondents also stated that they felt a safety in existing routines and in the support from the colleagues that could be used for coping and evaluation.

Key words: paramedic, out-of-hospital cardiac arrest, qualitative interview, conditions, support

How to Encounter Patients with Cancer – from the Viewpoint of the Patient and the Nurse – a Review

Authors: **Bager K, Larsson K**, Nursing Programme, Faculty of Health Sciences, Linköpings universitet, Sweden

Tutor: **Lorefält B**, RN, MSc, PhD-student, Dept of Medicine and Care, Linköpings universitet, Sweden

Cancer is for many people a disease connected with fear and death. A caring encounter can facilitate for patient through the process of the disease.

The aim of this study was to describe caring and uncaring encounter towards patients with diagnosed cancer from both the patient's and the nurse's point of view.

Search for articles for this review was carried out in the databases Cinahl and Medline as well as a manually search in references, between the years 1990-1999. Inclusion-criteria were adult patient with diagnosed cancer disease and registered nurses who work with adult patient with cancer. There were 340 findings of which 25 articles were considered useful for our aim. They were analysed from of a schedule with keywords. The articles were analysed by both authors and results were compared.

The results showed that the notion of a caring encounter differs between patients and nurses. Patients considered competence to be the most important factor while nurses considered emotional factors to be of more importance. An uncaring encounter was according to the patients experienced when the nurse didn't show the patient interest and didn't treat him with respect. The nurse's ability to facilitate the patients' disclosure of concerns could be increased through communication skills training. A caring encounter increased the patient's sense of wellbeing.

Key words: nursing, cancer patients, encounters

Clinical Nurses´ View of their Role as Mentors for Nurse Students

Authors: **Bidås H, Wikner U**, Nursing Programme, Faculty of Health Sciences, Linköpings universitet, Sweden

Tutor: **Almtun A**, RN, MSc , Dept of Medicine and Care, Linköpings universitet, Sweden

The clinical nurse mentors for student nurses could have different shape depending on the art of caring task. It is the responsibility of the mentor to decide which nursing task the student nurse is allowed to do. The purpose of mentor is to help the student nurse grow in their professional role and identity, so that the nursing quality for the patients is ensured.

The aim of this study was to investigate how nurses that are mentors perceive their mentorship role. The aim was also to investigate the role of the mentor related to the development of clinical knowledge and problem-based learning.

The method used to collect data was a structured questionnaire. The questionnaire contained questions about nurses´ mentorship role, clinical knowledge and problem-based learning. The questionnaire was distributed to the homes of nurses (N=135) who had mentored nursing-students on more than two occasions. The frequency of the answered questionnaire was 86 percent.

Few of the instructing nurses had some formal training in instructing. The majority of the mentors wanted training in mentorship. The instructors estimated themselves to function well in their role as mentor and believed themselves to be good at it. The support of the student was seen as the most important task. The lack of time was a common answer concerning difficulties in instructing. The majority of mentors had some or lot of interest in mentoring. There was a significant correlation between how the instructors perceived themselves as mentors and how safe they felt in their role as mentors. The mentors had no given pattern to discover if their teachings had an effect or how the student was developing. The majority of mentors had partial to ample knowledge of problem-based learning and their knowledge of the pedagogy helped them in mentoring. It was stated that the mentors developed clinical knowledge mainly through working practical in wards. Students gave the instructors most of the feedback while the faculty and the head nurses seldom gave the mentors any feedback on their mentoring.

Keywords: nursing, mentorship, students, reflection, pedagogy

A Comparative Study on Measured Temperatures between Tympanic and Oral Thermometers to a Rectal Reference

Authors: **Andersson U, Jarhall B**, Nursing Programme, Faculty of Health Sciences, Linköpings universitet, Sweden

Tutor: **Lorefält B**, RN, MSc, PhD-student, Dept of Medicine and Care, Linköpings universitet, Sweden

The history of fever is as old as the history of man. Thermometry is a common criterion to differ health from illness and the thermometer has been clinically used for more than a hundred years. A number of various factors have an influence on the normal body temperature and the individual is striving to reach and preserve balance between heat-loss and heat production. Substances can effect temperature-regulation and cause fever. Knowledge about temperature-regulation and fever is an important tool for the nurse to prevent and estimate the patients' febrile conditions and implement nursing effected by the patients' feelings and physical status. Along with the nurse's ability to apprehend the patient's symptoms of fever and the patient's own perceptions of his/her state, thermometry determines the specific nursing in connection with fever. There is a need of an instrument that measures correctly.

The purpose of this study was to compare measured temperatures between tympanic and oral thermometers compared with a rectal reference.

Two tympanic and two oral thermometers were included. The study was based on 139 measurements. The measured samples were arranged statistically with Pearson's product momentum correlation, ANOVA (Analyses of Variances) and simple linear regression. The power of the material was calculated to 98 %.

According to Pearson's product moment correlation all four thermometers have high correlation. The interpretations of the statistical analyses indicate that Genius (TT) shows the best result compared to the chosen reference-thermometer.

Key words: thermometry, body temperature regulation, fever, nursing care, fever

Job Satisfaction and Psychosocial Work Environment among Nurses Working in In-patient Psychiatric Care

Authors: **Andersson E, Sundberg J**, Nursing Programme, Faculty of Health Sciences, Linköpings universitet, Sweden.

Tutor: **Bogren K**, RN, MSc, Dept of Medicine and Care, Linköpings universitet, Sweden

Psychiatric patients are treated for several different conditions. The nurse's work implies a close contact with the patient, which can mean psychological strain. This involves a significant risk of the work environment for the nurses. High psychological demands in combination with low control over the assignment cause psychological strain, yet a good social support could reduce this effect.

The objective of this study was to describe nurses' experiences of job satisfaction and psychosocial work environment working in in-patient adult psychiatric care.

The method was quantitative and the questionnaire measured job satisfaction and psychosocial work environment. The population consisted of all nurses (n=130) working in psychiatry at three middle-sized hospitals in Sweden and the external decline was 21,5%. Analytic and descriptive methods were used.

The result showed that the job satisfaction and work environment partly were positive. The result showed statistic significance between the nurses' degree of education or their experience in psychiatric care and psychological strain. Further, also between those with or without a leading position and control. The result also confirm previous studies which shows that work in psychiatric care mean a psychological strain, high workload and that the nurses want increased possibilities for competence development. They also experience a relative good social support at work that can compensate this strain and workload.

Key words: job satisfaction, work environment, psychosocial, nursing, psychiatry

Rehabilitation after Anterior Cruciate Ligament Reconstruction - a Review

Authors: **Nilsing E, Tagesson S.** Physiotherapy Programme, Faculty of Health Sciences, Linköpings universitet, Sweden

Tutor: **Kvist J.** RPT, PhD, Dept. of Neuroscience and Locomotion, Linköpings universitet, Sweden

The primary goal of rehabilitation after anterior cruciate ligament reconstruction is to restore impaired knee function, in the form of reduced muscle strength, performance and co-ordination, and to eliminate the functional instability.

The purpose of this review was to perform a critical evaluation of the literature concerning rehabilitation after anterior cruciate ligament reconstruction in order to identify those rehabilitation programmes which are evaluated to be the safest and most effective.

Twenty articles comparing two rehabilitation programmes were evaluated according to a model for critical appraisal to discover whether the methods and results of the research were sufficiently valid to produce useful information.

According to the results of the critical evaluation, rehabilitation in a closed compared to open kinetic chain implied less patellofemoral pain, moreover, the patients more often thought they returned to normal daily activities sooner than expected. Accelerated rehabilitation showed a successful outcome, but there were deficits in the scientific methods. The effect of knee bracing was evaluated to be as effective and safe as rehabilitation without a brace, with a bandage or immobilisation in a plaster cast. Proprioceptive rehabilitation improved proprioception and subjective function. Home-based rehabilitation for a selected group of patients was as effective as supervised rehabilitation and more cost-effective. Rehabilitation in water showed good results.

Key words: anterior cruciate ligament, rehabilitation, physiotherapy, exercise, review

Intra-rater Reliability of Peak Torque and EMG in Knee Extensors during Endurance Testing in an Isokinetic Dynamometer

Authors: **Eriksson M, Karlsson S**, Physiotherapy Programme, Faculty of Health Sciences, Linköpings universitet, Sweden.
Tutors: **Gerdle B**, MD prof, **Larsson B**, RPT, PhD-student, Dept. of Neuroscience and Locomotion, Linköpings universitet, Sweden.

The aim of this study was to evaluate the intra-rater reliability of peak torque and surface-EMG mean frequency in knee extensors, during endurance testing in an isokinetic dynamometer. There is a lack of studies concerning reliability when testing endurance with isokinetic dynamometers, and there is a need to study surface-EMG during dynamic conditions.

Twenty subjects (10 women and 10 men) performed, on two occasions separated by one week, 100 maximal knee extensions. Peak torque of each knee extension was determined, and mean frequency was obtained from m. rectus femoris, m. vastus lateralis and m. vastus medialis. Intraclass correlation coefficient (ICC) was calculated to estimate reliability.

The reliability was good for all peak torque variables (ICC >0.88). The reliability for surface-EMG mean frequency was good for m. rectus femoris (ICC >0.81) and m. vastus medialis (ICC >0.83), but not for m. vastus lateralis (ICC >0.72), when calculated on all participants. When the analysis was done separately for women and men, the men showed good reliability for all muscles (ICC 0.91-0.97). The women showed lower reliability for all muscles (ICC 0.07-0.69). The peak torque reliability during endurance testing seemed to be good. The results of the studied surface-EMG variables varied, which indicated a need for further studies.

Key words: reliability, isokinetic dynamometry, surface-EMG, peak torque, endurance

Intra- and Inter-Observer Reliability of One-Legged Vertical Jump Using Balkeforsmattan

Authors: **Fellman D, Lundstedt E**, Physiotherapy Programme, Faculty of Health Sciences, Linköpings universitet, Sweden.

Tutor: **Peolsson A**, RPT, PhD-student, Dept. of Neuroscience and Locomotion, Linköpings universitet, Sweden.

To our knowledge no reliability study of one-legged vertical jump has been published. Therefore the aim of this study was to examine the intra- and inter-observer reliability of one-legged vertical jump using Balkeforsmattan.

The study included 35 voluntary subjects aged between 22 and 53 (mean age 27.1 years and SD 6.4) without pain in the lower extremity or in the back. The subjects were not allowed to participate actively in rehabilitation of documented injuries in the lower extremity or in the back during the study. The subjects performed, on two different occasions (test - retest), three jumps per leg with each of the two investigators. The degree of reliability was calculated using Analysis of Variance (ANOVA), producing the Intraclass Correlation Coefficient (ICC).

The result showed substantial to almost perfect reliability (ICC-value between 0.80-0.96) for the right and the left leg, respectively, in both intra- and inter-observer reliability.

This study shows that examination of one-legged vertical jump using Balkeforsmattan can be recommended for estimation and evaluation of jumping height/explosive muscle work in sports and in science performed by physical therapists on subjects without pain. Before Balkeforsmattan can be used by physical therapists in rehabilitation, further studies should be done.

Keywords: functional assessment, jumping, physical therapy, reliability.

What is Physical Therapy and What Does a Physical Therapist Do? Conceptions of the encounter of patients-to-be. A Qualitative study

Authors: **Nilsson T, Olsson C**, Physiotherapy Programme, Faculty of Health Sciences, Linköpings universitet, Sweden

Tutor: **Beckmann K**, RPT, MSc, Dept. of Neuroscience and Locomotion, Linköpings universitet, Sweden

Earlier research describing the patient's conception of physical therapy has involved the patient's conception during and after a completed series of physical therapy treatment. From these we can tell that the physical therapist may face many and sometimes contradictory, expectations of their professional role. The subjects in this qualitative study consisted of eight strategically selected persons awaiting a physical therapy outpatient's appointment.

The aim of this study was to describe these persons' conceptions regarding physical therapy treatment and the physical therapist profession.

The methods used were phenomenography and content analysis. The data collection consisted of semi-structured interviews. At the content analysis four categories regarding physical therapy treatment and five categories regarding the physical therapist occupation emerged.

The phenomenographic analysis resulted in four qualitatively separated categories, describing the subjects' conceptions of the patient-therapist relationship. The result regarding treatment and profession matched the national guidelines for Swedish physical therapists quite well. Some of the categories concerning the patient-therapist relationship, however, differed from those very same guidelines. Bearing in mind that the patients' satisfaction depends on how well expectations are fulfilled, there is a need to find out how to approach these patients in order for them to experience quality of care.

Key words: patient attitudes, physical therapy, physical therapists, qualitative studies, professional patient relations

- Science and students –

Conference advertisement:



Studenternas Medicinska Riksstämma

17-18 MAJ 2001 I LINKÖPING



Anmälan till föredrag eller posters lämnas som abstracts med titel och 100-200 ord, författare, utbildning och universitet till Lena Scheidegger via e-post: lensci@ibk.liu senast 23 april 2001
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