



HEALTH SCIENCES
GESONDHEIDSWETENSKAPPE
UFS·UV

STUDENT RESEARCH FORUM

STUDENTE NAVORSINGSFORUM

TUESDAY, 23 AUGUST 2016
DINSdag, 23 AUGUSTUS 2016

KINE 1

ADJUDICATORS/BEOORDELAARS

Dr Lily van Rhyn
(Chairperson / Voorsitter)
School of Nursing
Skool vir Verpleegkunde

Prof Hanneke Brits
School of Medicine
Skool vir Geneeskunde

Mr /Mnr Nashua Naicker
School for Allied Health Professions
Skool vir Aanvullende Gesondheidsberoepes

Mr /Mnr Cornel van Rooyen
Department of Biostatistics
Departement Biostatistiek

PROGRAMME / PROGRAM

- 08:00 - 08:05 WORD OF WELCOME / VERWELKOMING
Ms/Me Chante Scott
Student Representative (Organising Committee) / Studente Verteenwoordiger (Organiseringskomitee)
Assisted by / Bygestaan deur: Prof Annemarie Joubert
Chairperson: Student Research Forum / Voorsitter: Studente Navorsingsforum
- 08:05 - 08:15 OPENING / OPENING
Prof Yvonne Botma
Kerneels Nel Medal winner 2015 / Kerneels Nel Medalje wenner 2015
Best research article in an educational discipline that have been published / Beste navorsingsartikel in 'n onderwyskundige dissipline, wat in 'n publikasie verskyn het

SESSION / SESSIE 1

Chairperson /Voorsitter: Mr/Mnr Johann Fourie
(Assisted by/Bygestaan deur: Prof Gina Joubert)

- 08:15 - 08:30 (1) **THE INCIDENCE OF ANAESTHETIC AWARENESS IN PATIENTS UNDERGOING CARDIAC SURGERY REQUIRING CARDIOPULMONARY BYPASS AT UNIVERSITAS HOSPITAL**
D Corbett, AB Narayanan, T Muringathuparambil, O Tshabalala, K Phomane, G Lamacraft
Department of Anaesthesiology, School of Medicine /
Departement Anesthesiologie, Skool vir Geneeskunde
- 08:30 - 08:45 (2) **ANTHROPOMETRIC NUTRITIONAL STATUS OF GRADE R LEARNERS IN FICKSBURG**
M Barnard, S Farrington, S Fourie, A Mac Sherry, K Russon
Department of Nutrition and Dietetics, School for Allied Health Professions /
Departement Voeding en Dieetkunde, Skool vir Aanvullende Gesondheidsberoepe
- 08:45 - 09:00 (3) **EMOTIONAL REGULATION STRATEGIES USED BY UNIVERSITY STUDENTS IN THE LATE ADOLESCENT PHASE**
A Nel, C Macdonald, B Labuschagne, M Swanepoel, N Chadwick, S MacBean, M Strauss, J Raubenheimer
Department of Occupational Therapy, School for Allied Health Professions /
Departement Arbeidsterapie, Skool vir Aanvullende Gesondheidsberoepe
- 09:00 - 09:15 (4) **DIABETES RELATED KNOWLEDGE, ATTITUDES AND PRACTICES (KAP) OF ADULT PATIENTS' WITH TYPE 2 DIABETES**
L Bester, J Steenkamp, N Bezuidenhout, C Boshoff, D Cameron, T Dreyer, J Farrington, K Nel
School of Nursing /
Skool vir Verpleegkunde

- 09:15 - 09:30 (5) **WHY WOMEN GIVE BIRTH BEFORE ARRIVING AT NATIONAL DISTRICT HOSPITAL IN BLOEMFONTEIN**
A Beukes, T Mabasa, L Mkhungo, C Olivier, N Ramoo, D van Rooi, BR Dawadi
Department of Family Medicine, School of Medicine /
Departement Huisartskunde, Skool vir Geneeskunde
- 09:30 - 09:45 (6) **PREOPERATIVE EDUCATION IN ELECTIVE HIP- AND KNEE ARTHROPLASTY PRIVATE PATIENTS IN BLOEMFONTEIN: WHAT IS RECEIVED AND WHAT ARE THEIR NEEDS?**
C Seesink, J Dawkins, J van der Linde, J Jacobs, R Venter,
N Human, R Barnes, K Bodenstein
Department of Physiotherapy, School for Allied Health Professions /
Departement Fisioterapie, Skool vir Aanvullende Gesondheidsberoepe
- 09:45 - 10:00 (7) **IMPROVEMENT OF REFERRALS TO UNIVERSITAS ANNEX EYE CLINIC: USING BASIC SCREENING METHODS**
A Mans, H Human, M Verreynne, N Spies, T Burger, LS Coetzee
Department of Optometry, School for Allied Health Professions /
Departement Optometrie, Skool vir Aanvullende Gesondheidsberoepe
- 10:00 - 10:15 (8) **THE ASSOCIATION BETWEEN QUALITY OF LIFE AND THE LEVELS OF BURNOUT AMONGST FOURTH YEAR MEDICAL STUDENTS AT THE UNIVERSITY OF THE FREE STATE**
L Colby, M Mareka, S Pillay, F Sallie, C van Staden, E du Plessis
Department of Psychiatry, School of Medicine /
Departement Psigiatry, Skool vir Geneeskunde
- 10:15 - 10:30 TEA AND REFRESHMENTS / TEE EN VERVERSINGS

SESSION / SESSIE 2

Chairperson / Voorsitter: Ms/Me Lerato Matsabu
(Assisted by / Bygestaan deur: Ms/Me Elzana Kempen)

- 10:30 - 10:45 (9) **COMMUNITY- BASED OCCUPATIONAL ENGAGEMENT WITHIN A SOUTHERN FREE STATE COMMUNITY SETTING: TEACHERS' PERCEPTIONS AND DESCRIPTIONS OF THEIR OCCUPATIONAL IDENTITY**
S Steyn, C Lewin, S Kolbe, M Thompson, M Botes, T Rauch van der Merwe
Department of Occupational Therapy, School for Allied Health Professions /
Departement Arbeidsterapie, Skool vir Aanvullende Gesondheidsberoepe
- 10:45 - 11:00 (10) **THE PREVALENCE OF COGNITIVE ENHANCER USE AND ALCOHOL ABUSE IN STUDENTS LIVING IN JUNIOR ON-CAMPUS RESIDENCES OF THE UNIVERSITY OF THE FREE STATE**
L Fechter, J Griesel, M Nel, A Honiball, L Serfontein, M Diedericks, P van Zyl
Department of Pharmacology, School of Medicine /
Departement Farmakologie, Skool vir Geneeskunde
- 11:00 - 11:15 (11) **DIETARY DIVERSITY AND PRACTICES OF GRADE R LEARNERS IN FICKSBURG**
M Harrison, B Heuer, M Manley, J Marshall, N Spangenberg
Department of Nutrition and Dietetics, School for Allied Health Professions /
Departement Voeding en Dieetkunde, Skool vir Aanvullende Gesondheidsberoepe

- 11:15 - 11:30 (12) **THE INCIDENCE AND CAUSES OF DELAYS FOR SELECTED, URGENT SURGICAL PROCEDURES PERFORMED ON NEONATES IN UNIVERSITAS HOSPITAL, BLOEMFONTEIN, 2010 TO 2014**
K Davidson, L Klopper, J Spangenberg, J Willemse, SM le Grange
Department of Surgery, School of Medicine /
Departement Chirurgie, Skool vir Geneeskunde
- 11:30 - 11:45 (13) **KENNIS ONDER FINALEJAAR M.B.CH.B. STUDENTE AAN DIE UNIVERSITEIT VAN DIE VRYSTAAT OOR DIE BELANG VAN HANDEWAS AS 'N KERN, BASIESE INFEKSIEBEHEERMAATREËL**
M Bouwer, S Labuschagne, S Spamer, C Vermaak, L-M Zietsman, D Steyn,
Department of Internal Medicine, Skool of Medicine /
Departement Interne Geneeskunde, Skool vir Geneeskunde
- 11:45 - 12:00 (14) **CHALLENGES OF STUDENTS WITH MOBILITY LIMITATIONS ON THE MAIN CAMPUS OF THE UNIVERSITY OF THE FREE STATE**
C Scott, E Meyer, J Huang, L van den Heever, M Cizek, N van Wyk, H Nel
Department of Physiotherapy, School for Allied Health Professions /
Departement Fisioterapie, Skool vir Aanvullende Gesondheidsberoepes
- 12:00 - 12:15 (15) **VISUAL ERGONOMICS WITH THE USE OF MODERN DAY TECHNOLOGICAL DEVICES AMONGST RESIDENTIAL STUDENTS AT THE UNIVERSITY OF THE FREE STATE**
N Erasmus, K Muller, A Oosthuizen, J Oosthuizen, S Venter, N Naicker
Department of Optometry, School for Allied Health Professions /
Departement Optometrie, Skool vir Aanvullende Gesondheidsberoepes
- 12:15 - 12:30 (16) **THE ASSOCIATION BETWEEN THE CLINICAL LEVATOR HIATUS DIMENSIONS AND THE MODE OF DELIVERY AMONGST NULLIPAROUS WOMEN IN THE FREE STATE**
G Butler, E de Wet, C Pretorius, A van Dyk, PJ Viljoen, EW Henn
Department of Obstetrics and Gynaecology, School of Medicine /
Departement Obstetrie en Ginekologie, Skool vir Geneeskunde
- 12:30 - 12:45 (17) **THE WEIGHT AND METHOD OF CARRYING SCHOOLBAGS AND MUSCULOSKELETAL PAIN IN BLOEMFONTEIN ADOLESCENTS**
JR Long, Z Kukuk, N Mayat, E Top, J du Plessis
Department of Paediatrics and Child Health, School of Medicine /
Departement Pediatrie en Kindergesondheid, Skool vir Geneeskunde

ACKNOWLEDGEMENTS / BEDANKINGS

Ms/Me Anja Venter

ANNOUNCEMENT OF PRIZE WINNERS / BEKENDMAKING VAN PRYSWENNERS
Prof Annemarie Joubert

THE INCIDENCE OF ANAESTHETIC AWARENESS IN PATIENTS UNDERGOING CARDIAC SURGERY REQUIRING CARDIOPULMONARY BYPASS AT UNIVERSITAS HOSPITAL

D Corbett, AB Narayanan, T Muringathuparambil, O Tshabalala, K Phomane, G Lamacraft

Department of Anaesthesiology, School of Medicine /
Departement Anesthesiologie, Skool van Geneeskunde

Introduction and aim: The prime purpose of this research was to identify the incidence rate of anaesthetic awareness (AA) amongst cardiac surgery patients requiring Cardiopulmonary Bypass (CPB) at the Universitas Hospital, Bloemfontein. According to a cardiothoracic anaesthetist of Universitas hospital there are approximately 1-5 patients who experience awareness out of a total of about 350 adult heart operations a year, however, no for native research has been done specifically in the Free State.

Methods: This was a cohort study with descriptive and analytic components that ran for four months from August 2015 to November 2015 with a study population of 40 patients all 18 years or above. Consent was obtained from eligible patients pre-operatively by the anaesthetist responsible for their surgery. Intra-operatively, the same anaesthetist recorded the patient's Bispectral Index (BIS) monitor readings that were greater than or equal to 60 from the start of anaesthetic induction until the reversal of anaesthesia at the end of the procedure. These patients were flagged. Post-operatively, the pain nurse conducted a Modified Brice Questionnaire (MBQ) with the patient between the 4th and 7th day. Patients with a positive response to one or more of the questions in the MBQ was flagged. A comparison was then drawn between both flagged groups of patients.

Results: 15% of the patients (6/40) had a grading of AA according to their MBQ responses. From these patients, 80% (4/5) had BIS readings greater or equal to 60 compared to 71% of patients with no anaesthetic awareness ($p=1.00$).

Conclusion: Although the incidence of AA is high, the validity of the BIS monitor is questioned due to the lack of association between the BIS readings and the MBQ responses.

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ANTHROPOMETRIC NUTRITIONAL STATUS OF GRADE R LEARNERS IN FICKSBURG

M Barnard, S Farrington, S Fourie, A Mac Sherry, K Russon
Department of Nutrition and Dietetics, School for Allied Health Professions /

Departement Voeding en Dieetkunde, Skool vir Aanvullende Gesondheidsberoep

Introduction and aim: Inadequate nutrition during early life has been identified as a main cause of stunting, affecting long-term health and well-being. This study aimed to describe the anthropometric nutritional status of Grade R learners in Ficksburg.

Methodology: A cross-sectional descriptive study design was used. Weight (weight-for-age), height (height-for-age) and mid-upper arm circumference (MUAC) were measured using standardised procedures. Weight and height were used to calculate Body Mass Index (BMI) and interpreted using the World Health Organisation Z-Scores. Data on socio-demographics, food security and dietary practices were obtained from validated questionnaires and health history from the Road to Health Booklet (RtHB).

Results: The majority of the children were born at normal gestational age (40 weeks), birthweight (3.04 kg) and birth length (49.5 cm). Based on height-for-age, 7.4% (14/190) of learners were stunted / severely stunted and underweight was identified among 4.7% of participants. A low BMI-for-age was not recorded for any of the participants, probably due to stunted growth. Data from the RtHB indicated that 36.2% of children showed a poor growth trend, suggesting that undernutrition developed after birth. A statistically significant association [CI: 10.14%; 63.78%] was found between low caregiver's education level and stunting. No significant associations were found between stunting and socio-demography, dietary practices or information obtained from the RtHB.

Conclusion: Approximately one in thirteen children were stunted or severely stunted. This study associated caregiver's education level with stunting in the next generation. Maternal education and growth monitoring should be prioritised in order to facilitate early identification of children at risk of undernutrition for whom nutrition intervention is needed. Early nutrition intervention is therefore recommended to prevent growth failure.

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EMOTIONAL REGULATION STRATEGIES USED BY UNIVERSITY STUDENTS IN THE LATE ADOLESCENT PHASE

A Nel, C Macdonald, B Labuschagne, M Swanepoel, N Chadwick,
S MacBean, M Strauss, J Raubenheimer
Department Occupational Therapy, School for Allied Health
Professions /
Departement Arbeidsterapie, Skool vir Aanvullende
Gesondheidsberoepe

Introduction: Adolescence is characterized by intense emotional experiences. In an attempt to regulate emotions, adolescents implement certain strategies to cope. Ineffective regulation strategies could lead to mental health problems. Occupational Therapists need to identify the emotional regulation strategies used by adolescents in order to address the emotional states displayed, preventing occupational dysfunction. A gap in knowledge was found regarding the clinical picture of emotional regulation strategies used by adolescents, in South Africa.

Methods: A quantitative, descriptive study was done to describe the emotional regulation strategies used by University students in late adolescence. The UFS Emotional Regulation Scale was administered via the university's intranet and 719 responses were received. The frequencies, percentages and means were obtained as well as the Cronbach's alpha coefficient for each factor. Gender and personality interactions were seen using factorial analysis of variance (ANOVA).

Results: The most prevalent strategies indicated, were: Verbal expression, Social comfort, Spirituality and Avoidance. The most prominent gender differences seen were in Verbal expression, Social comfort and Avoidance. The open-ended question revealed that the most used strategies are: music, self-reflection, sleep, talk and avoidance.

Conclusion: Results indicated definite preferred emotional regulation strategies within the population. It is recommended that the scale be administered on other groups of adolescents to best represent the South African context.

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DIABETES RELATED KNOWLEDGE, ATTITUDES AND PRACTICES (KAP) OF ADULT PATIENTS' WITH TYPE 2 DIABETES

L Bester, J Steenkamp, N Bezuidenhout, C Boshoff, D
Cameron, T Dreyer, J Farrington, K Nel
School of Nursing /
Skool vir Verpleegkunde

Introduction and aim: Type 2 Diabetes is a growing problem not only in South Africa but worldwide, literature states that 366 million people are affected by Diabetes globally, whereby the incidence remains the greatest on the African continent. Culturally it is still believed that being overweight is an accomplishment rather than a health risk. Being overweight increases a person's susceptibility of becoming insulin resistant and in turn increases their risk of developing type 2 Diabetes. Thus, the aim of our research is to identify the knowledge, attitudes and practices of people living with type 2 Diabetes who reside in Bloemfontein and attend local primary health care clinics accessible to the researchers.

Methodology : A Quantitative exploratory descriptive design was used through completing standardized questionnaires formulated according to Azjen's theory of planned behaviour. The sample group consisted of adult male and female participants diagnosed with Type 2 Diabetes, attending a local primary health care clinic in the area of Bloemfontein. Convenient sampling was used to gather data and participants were chosen randomly. The researchers served as the interviewers using a standardized KAP questionnaire.

Results : Thorough analysis of the data collected from the standardised questionnaires revealed that the participants have impaired knowledge and negative attitudes related to Type 2 Diabetes. Interestingly enough this did not influence their practices, thus not corresponding with Azjen's planned theory of behaviour.

Conclusion : The participants have a lack of knowledge, yet they carried out the correct actions to control their illness. This proves contradictory; possibly due to participants not fully understanding all the questions and not stating the truth to "impress" or "satisfy" the data collectors. The negative attitudes did not correlate with Azjen's theory of planned behaviour, as it did not influence the tasks necessary to control the participants' condition. This is not accurate though, due to a small population group that was researched.

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WHY WOMEN GIVE BIRTH BEFORE ARRIVING AT NATIONAL DISTRICT HOSPITAL IN BLOEMFONTEIN

A Beukes, T Mabasa, L Mkhungo, C Olivier, N Ramoo, D van Rooi, BR Dawadi

Department of Family Medicine, School of Medicine/
Departement Huisartskunde, Skool vir Geneeskunde

Introduction and aim : A large number of cases of babies being born before arriving (BBA) at National District Hospital per annum prompted this study to determine why women give birth before arriving at National District Hospital in Bloemfontein, Free State, South Africa.

Methods: A descriptive study was done at National District Hospital on women eighteen years or older who gave birth outside the hospital from October 2015 to January 2016. The mothers signed consent forms to be interviewed by a Medical Intern/Discharging Doctor who filled in a questionnaire that was coded and analysed by the student researchers.

Results: Of the 68 mothers with BBAs that presented at National District Hospital during the specified study period, 61 cases were included in the results of the main study. The excluded cases were mothers that did not sign consent or who were under the age of eighteen. Nearly half the women (49.1%) were 30 years and older and only 39.4% had grade 10 or higher education. Common factors in the study group were poor antenatal clinic booking, poor number of visits to antenatal clinic, high number of unwanted/unplanned pregnancies, smoking during pregnancy, alcohol consumption during pregnancy and dependency on Emergency Medical Services (EMS) where almost half of the mothers waited over 2 hours for EMS to arrive.

Conclusion: These results can be used to devise practical and efficient solutions so as to prevent BBA in the Bloemfontein area.

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PREOPERATIVE EDUCATION IN ELECTIVE HIP AND KNEE ARTHROPLASTY PRIVATE PATIENTS IN BLOEMFONTEIN: WHAT IS RECEIVED AND WHAT ARE THEIR NEEDS?

C Seesink, J Dawkins, J van der Linde, J Jacobs, R Venter, N Human, R Barnes, K Bodenstein

Department of Physiotherapy, School for Allied Health Professions/
Departement Fisioterapie, Skool vir Aanvullende
Gesondheidsberoep

Introduction: Total hip arthroplasty (THA) and total knee arthroplasty (TKA) are amongst the most frequently performed surgeries worldwide. Preoperative education has been shown to enhance patient management and satisfaction. Furthermore, preoperative education, should be tailored according to patient's preoperative educational needs. Limited research is available regarding the preoperative educational needs for THA and TKA patients.

Aim: To determine the extent of preoperative education and the preoperative educational needs of patients undergoing THA and TKA in identified private hospitals in Bloemfontein, Free State, South Africa.

Methodology: A structured interview utilizing a self-developed questionnaire was used in this quantitative descriptive study. Patients (n=50) admitted to Mediclinic and Life Rosepark hospitals where recruited by means of a convenience sampling method and included 14 THA and 36 TKA patients, two to four days postoperatively. The questionnaire included questions regarding demographics, preoperative education and participants' educational needs as well as the means of the education received and health care professionals providing the preoperative education.

Results: Arthroplasty for all participants was scheduled due to osteoarthritis. The majority of the participants with THA (100%) and TKA (98%) received preoperative education from an orthopaedic surgeon and only 57% of THA and 25% of TKA participants from a physiotherapist. Education was mostly given in pamphlet format to THA (43%) and TKA (56%) participants, months before the surgery. All participants received the least information regarding exercises and daily activities. Education regarding exercise was indicated the least important but participants required additional preoperative education regarding home care, family advice and daily activities.

Conclusion: All participants perceived preoperative education regarding physiotherapy related topics as insufficient. This may be as a result of generalized preoperative education provided by orthopaedic surgeons and physiotherapists not seeing patients preoperatively. The importance of exercise as part of preoperative interprofessional education in the management of THA and TKA should be emphasized.

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IMPROVEMENT OF REFERRALS TO UNIVERSITAS ANNEX EYE CLINIC: USING BASIC SCREENING METHODS

A Mans, H Human, M Verreyne, N Spies, T Burger, LS Coetzee
Department of Optometry, School for Allied Health Professions/
Departement Optomerie, Skool vir Aanvullende
Gesondheidsbeoëpe

Introduction: This study selected the screening methods of pinhole, red reflex and visual acuity (VA), to determine if a streamlining of the existing referral system is possible. The researchers used these basic aforementioned tests to identify if said tests were effective to triage patients at the Universitas Annex Eye Clinic.

Methods: A prospective, observational, descriptive study was conducted using seventy-three randomly selected patients aged 25 to 92. They were referred to the ophthalmology clinic for undiagnosed conditions causing decreased vision. Data collection was standardised by the five researchers. The screening tests were: monocular, unaided Snellen VA; pinhole VA, monocularly; presence or absence of red reflex; cataract present or absent with red reflex using +10.00 dioptre through a direct ophthalmoscope. An ophthalmologist confirmed the presence or absence of a cataract, thereafter stating whether it was the primary cause for decreased vision. If applicable, additional diagnoses were recorded.

Results: Red reflex using +10.00 dioptre was superior in correctly predicting the absence, rather than the presence, of a cataract (79.17% vs. 69.44%). The sensitivity was 0.833 and specificity was 0.633.

VA improved in 37.155% of all eyes using the pinhole VA test, indicating a refractive error.

Conclusion: Red reflex test using the +10.00 dioptre setting was successful in screening for cataracts. The absence of a cataract coupled with no improvement of pinhole VA test indicated an urgent referral to an ophthalmologist. VA improvement using the pinhole VA test identified 37.155% of all patients who would benefit from a full refraction at an optometrist, the remainder should have been referred directly to the ophthalmologist.

Using these two tests in conjunction may improve the referral system and decrease the time taken for a patient to be attended to by the most appropriate eye care professional.

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THE ASSOCIATION BETWEEN QUALITY OF LIFE AND THE LEVELS OF BURNOUT AMONGST FOURTH YEAR MEDICAL STUDENTS AT THE UNIVERSITY OF THE FREE STATE

L Colby, M Mareka, S Pillay, F Sallie, C van Staden, E du Plessis
Department of Psychiatry, School of Medicine/
Departement Psigiatrie, Skool vir Geneeskunde

Introduction and Aim : Quality of life encompasses four domains namely: physical health, psychological health, social relationships and our environment. When these domains become neglected it adds on to the stress already experienced by medical students, which could contribute to burnout. Burnout is measured according to three subscales: emotional exhaustion, depersonalization and personal accomplishment. The aim of our study was to determine the association between quality of life and the levels of burnout amongst the fourth year medical students at the University of the Free State.

Methods: To determine the profile of the study population a self - compiled biographical questionnaire was used. The Maslach Burnout inventory was used to measure the levels of burnout and the WHOQOL-BREF was used to measure the quality of life. The results were summarized according to categorical and numerical variables. Intercorrelations between the variables were determined with Pearson-product moment correlation coefficients. Participants included 91 semester 6 medical students of the University of the Free State.

Results: A response rate of 75.2% was obtained. Participants who scored higher on the quality of life domains had significantly lower levels of burnout and vice -versa. There was a greater association between the psychological domain and all three burnout subscales but in particular emotional exhaustion, which produced a p value of <0.0001.

Conclusion: It is evident from the results that an association exists between the quality of life and levels of burnout experienced by medical students. These results strongly suggest that by improving the quality of life of medical students they will experience lower levels of burnout.

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COMMUNITY- BASED OCCUPATIONAL ENGAGEMENT WITHIN A SOUTHERN FREE STATE COMMUNITY SETTING: TEACHERS' PERCEPTIONS AND DESCRIPTIONS OF THEIR OCCUPATIONAL IDENTITY

S Steyn, C Lewin, S Kolbe, M Thompson, M Botes, T Rauch van
der Merwe

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Gesondheidsberoepe

Background: This paper reports on the descriptions and perceptions of teachers' occupational identities and how it leads to occupational engagement in a Southern Free State community setting.

Key issue: A gap was identified regarding the importance of factors that influence the formation of teachers' occupational identities, and the impact this has on their occupational engagement within their community.

Aim: To explore how teachers of a Combined School in Trompsburg perceive and describe their occupational identities.

Methods: An observant, descriptive non-experimental research design was used in the study. Data collection methods included: photo voice, collage-making and semi-structured interviews. Data was analysed by means of open-coding.

Discussions and findings: It was found that positive social and personal influences from one's environment, and participation in meaningful occupations leads to the formation of a positive occupational identity. This further leads to occupational engagement taking place in the community. In contrary, teachers who have poor social and personal influences, have difficulty in finding meaning in occupations and this leads to un-established occupational identities being formed.

Recommendations: Investment in the occupational identities of teachers, either by further research or inclusion in the CBE programme, or department of education investing in the well-being of teachers in order for occupational engagement to occur within the community.

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THE PREVALENCE OF COGNITIVE ENHANCER USE AND ALCOHOL ABUSE IN STUDENTS LIVING IN JUNIOR ON CAMPUS RESIDENCES OF THE UNIVERSITY OF THE FREE STATE

L Fechter, J Griesel, M Nel, A Honiball, L Serfontein, M Diedericks,
P van Zyl

Department of Pharmacology, School of Medicine/
Departement Farmakologie, Skool vir Geneeskunde

Introduction and aim: Students at colleges and universities around the world are known for consuming large amounts of alcohol despite its detrimental effects. This means that cognitive enhancer use in university students takes place against the background of high pressure for performance as well as social drinking pressure. This study focused on the prevalence of the combined use of alcohol and cognitive enhancers, mainly methylphenidate, among on-campus residence students of the University of the Free State. Specific objectives included prevalence and severity of alcohol use and the prevalence of the use of cognitive enhancers.

Methods: A descriptive cross-sectional study was used. 10 randomly selected on campus residences formed the target population. Anonymous questionnaires were handed out during 2015 for each individual living in the selected residences. 1761 questionnaires were handed out and a response of 623 questionnaires was obtained. The data was compiled on an Excel data sheet and analysis of the data was done by the Department of Biostatistics.

Results: 28.2% of students exhibited hazardous and harmful drinking habits, according to an adapted version of the AUDIT. 12.8% of respondents used cognitive enhancers, of which only 26.3% were diagnosed with ADHD. 23.8% of the students who use cognitive enhancers have used it before consuming alcohol.

Conclusion: Non-medical use of cognitive enhancers is common among students at the University of the Free State. The high frequency of the combined use of cognitive enhancers and alcohol may indicate a lack of knowledge of the medication involved, or the deliberate misuse thereof.

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DIETARY DIVERSITY AND PRACTICES OF GRADE R LEARNERS IN FICKSBURG

M Harrison, B Heuer, M Manley, J Marshall, N Spangenberg
Department of Nutrition and Dietetics, School for Allied Health
Professions /
Departement Voeding en Dieetkunde, Skool vir Aanvullende
Gesondheidsberoepe

Introduction and aim: Usual dietary diversity refers to the number of foods consumed across and within food groups over a reference period. Dietary diversity is important to ensure that all micro and macronutrient requirements are met. The aim of this study was to determine dietary diversity and practices of grade R learners in rural Ficksburg, Free State, South Africa.

Methodology: A cross sectional study was undertaken at Masaleng and Caledon Park primary schools (n=144). Structured interviews were done with the parent/guardian of the child. Information related to socio-demographic information, a 24-hour recall and dietary practices were collected. Dietary diversity scores (DDS) were calculated, using the Food and Agricultural Organization tool.

Results: Most learners (66.7%) had a medium DDS, however 22.2% of learners had a low DDS. The median DDS of participants was four which borders on a low DDS. Three quarters (75.1%) of children consumed breakfast before school on most days of the week. Children who did not take a lunch box to school had a lower DDS than children who took lunch (95% CI: 1.98%; 38.85%). Most children consumed inadequate amounts of vegetables and fruit (<1x/day) and dairy products (1x/day). Most parents/guardians always add salt (72.9%), fat/oil (80.6%) and/or sugar (16%) to food when cooking.

Conclusion: Although most learners had a DDS in the medium category, unhealthy foods were consumed daily and may replace nutrient-dense foods. DDS can be improved by incorporating a wide variety of healthy foods in the diet and consuming regular meals.

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THE INCIDENCE AND CAUSES OF DELAYS FOR SELECTED, URGENT SURGICAL PROCEDURES PERFORMED ON NEONATES IN UNIVERSITAS HOSPITAL, BLOEMFONTEIN, 2010 TO 2014

K Davidson, L Klopper, J Spangenberg, J Willemse, SM le Grange
Department of Surgery, School of Medicine/
Departement Chirurgie, Skool vir Geneeskunde

Introduction and aim: Most neonatal operations are not regarded as emergencies, but rather as urgent procedures. The reality is that urgent procedures for neonates are often delayed beyond 48 hours. Causes of delay are divided into two broad categories namely unstable condition of the neonate and lack of resources in the hospital. This research aimed to determine the incidence and causes of delays of more than one day after admission for urgent, pre-selected procedures (oesophageal atresia with/without trachea - oesophageal fistulae, duodenal atresia, jejunal/ileal/colonic atresia and anorectal malformations) done on neonates at Universitas Hospital, Bloemfontein from 2010 to 2014:

Methods. Information on congenital malformation, date of birth, admission and surgery, and the cause of delay were obtained from the patient files and/or Meditech. Patient files with insufficient or incorrect information and patients who died before surgery were excluded from the study.

Results. The total sample size was 139 neonates. The incidence of delay was 46.8% (n=65). The most prevalent cause of delay was sepsis (35.4%). The median delay was four days. The highest percentage of delayed surgeries was for oesophageal atresia and jejunal/ileal/colonic atresia.

Conclusion. The incidence of delays for more than one day after admission was 46.8%. Because of the urgent nature of the surgery, this should be regarded as significant. According to the collected data, there is no apparent lack of resources at Universitas Hospital. Sepsis was the most prominent cause of delay, and, as sepsis is preventable, stricter policies on preventing the spread of infections should be implemented.

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KENNIS ONDER FINALEJAAR M.B.CH.B. STUDENTE AAN DIE UNIVERSITEIT VAN DIE VRYSTAAT OOR DIE BELANG VAN HANDEWAS AS 'N KERN, BASIESE INFEKSIEBEHEERMAATREËL

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Inleiding en doelwitte : Onvoldoende handigiëne van gesondheidswerkers is een van die hoofredes vir verspreiding van nosokomiale infeksies. Een rede hiervoor is dat gesondheidswerkers nie oor genoegsame kennis oor handigiëne as basiese infeksiebeheermaatreël beskik nie. Die doel van die studie was om die kennis onder finalejaar mediese studente aan die Universiteit van die Vrystaat (UV) oor handewas as basiese infeksiebeheermaatreël vas te stel en om die algemene gebreke te identifiseer.

Metodes: 'n Dwarsnitstudie met 'n analitiese komponent is gebruik om die studie op 105 finalejaar mediese studente aan die UV uit te voer. Elke student het 'n veelvuldige keuse vraestel gebaseer op die Wêreldgesondheids Organisasie se handleiding oor handewas as infeksiebeheermaatreël, voltooi.

Resultate: Die responskoers vir die studie was 82%. Die gemiddelde prestasie vir die toetsvrae was 46.8%, en 61% van die studente het onder 50% behaal vir die toets. Van die 105 studente het slegs 53.3% geweet dat handewas die reëls belangrike manier is om die verspreiding van nosokomiale infeksies te verhoed. Die studie het ook bevind dat 44.7% van die studente gedurende hul derde jaar laas opleiding aangaande handewas as kern infeksiebeheermaatreël ontvang het. Slegs 10.5% van die studente het geweet hoe om alkohol as antimikrobiese middel korrek te gebruik. 42.9% van die studente het geweet dat die dra van juwele en langmou witjasse die verspreiding van nosokomiale infeksies bevorder. 53.3% van die studente het hul kennis as meer as basies beskryf, en 16.2% as gevorderd.

Gevolgtrekking: Kennis en opleiding onder finalejaar mediese studente aan die UV is onvoldoende en studente het 'n wanpersepsie van hulle werklike kennis oor handewas as 'n basiese infeksiebeheermaatreël.

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CHALLENGES OF STUDENTS WITH MOBILITY LIMITATIONS ON THE MAIN CAMPUS OF THE UNIVERSITY OF THE FREE STATE

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Introduction: Today, more and more South African tertiary institutions are placing an emphasis on the mainstreaming and inclusion of disabled students. To facilitate this process it is crucial that the challenges disabled students face are identified from their own perspective.

Aim: The study aimed to determine the challenges experienced by students with mobility limitations on the main campus of the University of the Free State (UFS) from their point of view. Secondary objectives were to determine possible reasons for these challenges, the location of these challenges and if emotional challenges were experienced.

Methodology: The study population consisted of 32 students registered at the Centre for Universal Access and Disability Support on the UFS main campus, all students were approached. The study used a convenience sampling method and had a sample size of nine participants. The self-compiled questionnaire used in the study was derived from two standardised questionnaires, the Facilitators and Barriers Survey of Environmental Influences on Participation among People with Lower Limb Mobility Impairments and Mobility Limitations (FABS/M) and the Craig Hospital Inventory of Environmental Factors and was completed by means of structured interviews or by the participant themselves.

Results: Challenges regarding classrooms was experienced by 67% of the participants. A major contributing factor was a lack of orientation. Inadequate orientation also contributed to problems with participation in sporting and social activities. Lack of exposure to available sports for disabled persons limited full participation in 40% of participants. The physical environment in and around the Administration Building (44%) and Sasol Library (56%) presented challenges. Emotional challenges were experienced in 44% of the participants.

Conclusion: This study provides valuable insight from the point of view of students with mobility limitations into the challenges they face on the UFS main campus. An inter-disciplinary team can investigate these challenges further for the holistic approach to the overall well-being of these students.

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VISUAL ERGONOMICS WITH THE USE OF MODERN DAY TECHNOLOGICAL DEVICES AMONGST RESIDENTIAL STUDENTS AT THE UNIVERSITY OF THE FREE STATE

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Introduction. Visual ergonomics refers to the multidisciplinary science between the visual demands of a working task and the human visual system. The visual demands of the past are different than what they are now due to the improvements in science and technology, therefore ergonomic factors associated with use of technological devices needs to be investigated. This study assessed the different working distances, posture, viewing angles, duration of device usage with common symptoms experienced with prolonged near work.

Methods. An observational descriptive study design was used where 200 residential students of the UFS aged 18-20 years, were randomly sampled. The data collection included completion of a questionnaire and measurement of preferred near working distance, viewing angle and assessment of body posture during laptop, smartphone, tablet and/or computer usage. Descriptive statistics were done to express the results which was analysed with SAS version 9.2 by the Department of Biostatistics.

Results. Usage of devices were as follows: smartphones (99%), laptops (93%), computers (45%) and tablets (37%). The average seated working distances were: smartphones (383mm), laptops (556mm), computers (557mm) and tablets (402mm). Average time spent on devices per day were as follows: smartphones (8 hours), laptops (4 hours), computers and tablets (3 hours). The viewing angle averages were: smartphones (34°), laptops (22°), computers (10°) and tablets (34°). Visual symptoms include: fatigue (73%), ocular pain (67%) and headaches (35%) after prolonged use of devices. A slight protraction with posture was noted while sitting: computers (76%), laptops (79%), smartphones (86%) and tablets (87%).

Conclusion. Working distance was within the norm for all devices except for the smartphone usage which was 1.7cm closer than the normal working distance. Prolonged time spent on devices and posture may be the cause of the symptoms experienced. These findings are useful to raise awareness on visual ergonomics while using technological devices.

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THE ASSOCIATION BETWEEN THE CLINICAL LEVATOR HIATUS DIMENSIONS AND THE MODE OF DELIVERY AMONGST NULLIPAROUS WOMEN IN THE FREE STATE

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Introduction and aim : The pelvic floor consists mainly of two muscles i.e. the coccygeus and levator ani muscles which surround and form the levator hiatus. An equivalent of the levator hiatus is the genital hiatus (GH) dimensions plus the perineal body (PB) dimensions, which can be measured clinically. The aim of the study was to determine whether a predictive model could be developed which would allow us to identify any association between the levator hiatus dimensions and the mode of delivery. This model would serve as an indicator for intervention and could assist health workers in predicting the probable mode of delivery given the patient's levator hiatus dimensions.

Methods: In this cohort study, 34 ethnic black pregnant nulliparous women were recruited at MUCPP Day Hospital and Heidedal Community Healthcare Centre. The genital hiatus (GH) was measured clinically from the external urethral meatus to the posterior border of the vaginal opening and the perineal body from the hymenal caruncle to anterior of the anus, during rest, contraction and Valsalva maneuver. Participants were followed up and their modes of delivery were documented. Twenty eight complete patient data sets were analysed. Groups were compared using appropriate hypothesis testing (Fisher's exact test and Mann-Whitney tests) with statistical significance set at $p < 0.05$.

Results: GHPB during rest has a mean value of 5.25 cm in patients with spontaneous vaginal delivery ($n=20$) and patients with any other mode of delivery ($n=8$). The GHPB during contraction and Valsalva differs between spontaneous vaginal delivery and delivery by means of other methods. There are however no statistically significant differences or correlations in this set of data.

Conclusion: Due to the small sample size the research question is still unanswered, yet still valid and applicable.

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THE WEIGHT AND METHOD OF CARRYING SCHOOLBAGS AND MUSCULOSKELETAL PAIN IN BLOEMFONTEIN ADOLESCENTS

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Introduction and Aim : Musculoskeletal pain in learners has increased due to excessive weight of schoolbags, type of schoolbag and carrying method. These factors all have an effect on bone growth and development of learners. The aim of this study was to determine whether the weight of schoolbags and method of carrying them are associated with musculoskeletal pain amongst Grade 7 and 9 learners in the Bloemfontein area.

Methods: A cross-sectional analytical study method was used, including learners from 3 schools. The following 3 measuring stations were used to measure the different variables of the study: station 1 measured the physical parameters of the learners, station 2 observed the methods of carrying and type of schoolbag and station 3 entailed interviews conducted with learners to determine musculoskeletal pain and location of pain experienced.

Results: Sixty one of the 83 learners (73.5%) experienced musculoskeletal pain of which 82% stated that it was schoolbag related. Schoolbag weight as a percentage of body weight was above 18% in all 3 groups (grade 7 boys, grade 9 girls and grade 9 boys), being the highest in grade 7 boys (27.1%). The majority of learners (98.8%) used backpacks. Most learners (77.1%) carried their schoolbags over both shoulders. Learners carrying schoolbags over 1 shoulder experienced an increase of musculoskeletal pain. Most learners' experienced musculoskeletal pain for longer than 12 months and the most common sites affected were the lower and upper back.

Conclusion: There is a high prevalence of musculoskeletal pain amongst learners in grade 7 and 9. Heavy schoolbags and a one shoulder carry method were associated with musculoskeletal pain in learners.

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PARTICIPATING FIRMS AND PERSONS

DEELNEMENDE FIRMAS EN PERSONE

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