

Annual Academic Day Undergraduate Student Presentations 2019

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SUSANNA C.S. ALBERTYIN, SUATHA DAWHARAIN,
LAUREN HENDRICKS, JODIE JOHNSON, ALMORETTE
LANDMAN



The effectiveness of lower limb strength training
with Whole Body Vibration Training, compared to lower limb strength training
alone, on lower limb muscle strength, functional exercise capacity, voluntary
function and quality of life in adults with chronic obstructive pulmonary
disease



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KAUTHAR ALLY, SALMAH KHAN, ASMAA BEGUM
MUSTAPHA, MARIZAN MOOLMAN & MISQAH PARKER



Primary to secondary school transition of learners with
traumatic brain injuries in the Cape Metropolitan area:
a learner perspective



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RETHA DE WET



A scoping review of speech and swallowing
assessments included in the management of adults
with Generalized Myasthenia Gravis



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TESSA DU TOIT



Incident tuberculosis (TB) disease among
patients receiving biologic therapies in the
Western Cape, South Africa



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HANLIE COETZÉ, NADINE EDDY, LIESL GERSTMER,
CHRISTEL KRUGER, LIEZL FILMINGTON AND
BARBARA VENTE



The effectiveness of abdominal and/or pelvic floor exercises to
improve distal rectal abdominals, low back pain and pelvic
floor dysfunction in postpartum women: A systematic review



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J. BORDER, N. CLAASSENS, C. FOIRET,
J. FRANCKEISS, L. THESNAAR



Factors perceived to contribute to the
establishment and success of start-up businesses by
young adults in Kaysmanil



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CHRISTOFF GELDENHUYS



Clozapine haematological side effect monitoring in the
Western Cape: A retrospective review of the Provincial Health
Data Centre Database 2015-2017



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WILHELM HUBERT HANSEN



HIV and orthopaedics: A descriptive cross-sectional study
correlating HIV status and musculoskeletal infections in the
paediatric population at Tygerberg Hospital during 2019



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CHRISTINE LE ROUX



South African undergraduate health science
students' knowledge, attitudes, practices
and preferences regarding vaccination



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NICHOLAS LE ROUX



Financial burden of orthopaedic gunshot
related injury management at a major
orthopaedic centre



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KAYLA LIEDEMANN
ANGELA DRAMOWSKI



A 'nice to have' or a 'non-negotiable':
South African healthcare workers' knowledge,
attitudes, practices and perceptions of vaccination



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TINA LOUW
(DR A REDFERN AND PROF R SOLOMONS)



Describing the management and risk of seizure
recurrence in children diagnosed with neurocysticercosis
in a tertiary hospital in South Africa



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CLAIRE MCCUBBIN, CECILE DE WET,
SAMANTHA MCCRINDLE, STEPHANÉ
HORNSBY & ANDREA OLIVIER



Exploration of the reading culture within the home
environments of Afrikaans home language Grade 4
learners experiencing reading difficulty



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BONTLE MOATSHE, SAMI NIKABINDE and
YONELA KENTANE



Dynamic risk stratification and audit of patients with Papillary
Thyroid carcinoma seen at Tygerberg Academic Hospital



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FRANCES EGAN, MALESHOANE MALEKE,
LIEZL CLOETE AND SOFIA MOUTZOURIS



Last in Translation...Assessment of preschool children's
stuttering in an unfamiliar language: A scoping review



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WILHELM NIEUWOUT



Digit ratio as an endophenotype in a Xhosa
schizophrenia population



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BILQES ACHMAT, ZOËSHA APPENTENG,
KIRSTY-SIAN MCSHANE, CARMELL PILLAY,
AYESHA SALIE & SUSAN VAN EEDEN



Early communication intervention service delivery models in low- and middle-income countries and low-resource settings: A scoping review



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ANEL PRINSLOO, E. STEYN, A. VERWEY, V.B. KUBEKA



Community assault, an underestimated injury mechanism with costly consequences: Can qSDFA scoring predict risk?



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AMIRA RAMKLASS, ANEEQAH ISMAIL
BROWN, CHANDREE ROBERTS, MICHE'
JEFFRIES AND ZENOBIJA WAJA



Reasons for non-attendance in outpatients who do not attend follow-up Occupational Therapy and Physiotherapy appointments at the Western Cape Rehabilitation Centre



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ISMAIL RAWOOT



Why mothers (continue to) drink during pregnancy – a descriptive phenomenological study in a deeply rural area



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ADAMS A, HANNAH J, KEMPER B, LE ROUX D,
STEENKAMP B, EBRAHIM Z, KOEN N, SMIT Y



Taxation of sugar-sweetened beverages in South Africa: Perspectives of dietitians



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CARLA SWART



Evaluating the health needs of Mamre: A retrospective review



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SABEEHA ABDULLAH, BARBARA CRONJE,
JESSICA NATHAN & ALEXA THERON



The taxation of sugar-sweetened beverages in South Africa: the perspectives of key role-players in the City of Cape Town, Western Cape, South Africa



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ELLA VAN DER MERWE



The health needs of Nomzamo based on household data: A descriptive survey



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ANANJA VAN DER WESTHUIZEN



Opportunities and challenges for occupational TB screening: Insights from a qualitative study of healthcare workers at Tygerberg Hospital



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ANANJA VAN DER WESTHUIZEN



A case report of a TB-exposed neonate in South Africa: diagnosis and care



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BOOI A, BOTHA A, MZILA M, TURNER S, VAN DYK J,
KOEN N, EBRAHIM Z, NEL D, SMIT Y



Taxation of sugar sweetened beverages in South Africa: Perspectives of consumers



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JENNIFER VAN HEERDEN



Childhood cancers misdiagnosed as tuberculosis in a setting of high tuberculosis prevalence



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ANGELIQUE DU TOIT, SUNÉ GREEFF, CARLYN
VAN DER WESTHUIZEN & KYRAH WILLIAMS



The perceptions of persons with Aphasia with regards to their experiences of group therapy: A scoping review



Health Systems Strengthening: ORALS (3)

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ANANJA VAN DER WESTHUIZEN



Opportunities and challenges for occupational TB screening: Insights from a qualitative study of healthcare workers at Tygerberg Hospital

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HEALTH SYSTEMS STRENGTHENING (1)

ABSTRACT NUMBER: 5

OPPORTUNITIES AND CHALLENGES FOR OCCUPATIONAL TB SCREENING: INSIGHTS FROM A QUALITATIVE STUDY OF HEALTHCARE WORKERS AT TYGERBERG HOSPITAL

Ananja van der Westhuizen* (Stellenbosch University, Department of Medicine, Cape Town, South Africa), Ruvandhi R. Nathavitharana (Beth Israel Deaconess Medical Center/Harvard Medical School, Division of Infectious Diseases, Boston, MA, United States), Hridayesh Mishra (Stellenbosch University, Division of Molecular Biology and Human Genetics, Cape Town, South Africa), Annalean Sampson (Stellenbosch University, Division of Molecular Biology and Human Genetics, Cape Town, South Africa), Edward Nardell (Brigham & Women's Hospital, Division of Global Health Equity, Boston, MA, United States of America), Grant Theron (Stellenbosch University, Division of Molecular Biology and Human Genetics, Cape Town, South Africa)

BACKGROUND Healthcare workers (HWs) have at least twice the risk of latent tuberculosis infection (LTBI) compared to the general population. However, occupational health systems in high-incidence countries are often overburdened and, despite the growing emphasis on LTBI treatment in high-risk populations, data on HWs in high-incidence countries are scarce. We conducted a qualitative study to determine HW perspectives related to occupational TB screening at Tygerberg Hospital, Cape Town, South Africa. **METHODS** We conducted fourteen in-depth interviews with junior and senior nurse and physician stakeholders, as part of a study evaluating the correlation between rebreathed air exposure and HW acquisition of LTBI. Using an inductive approach, we performed open coding to identify emergent themes and selective coding to identify relevant text citations. We analyzed themes using the COM-B (capability, opportunity, motivation → behaviour change) framework. **RESULTS** Six emergent themes were analyzed according to COM-B domains. Within Capability, the themes were responsibility, which included HWs considering the relative importance of their own actions versus the hospital's policies to protect HWs from TB transmission, and the strong duty of care that made them sometimes forget to protect themselves while remaining conscious of the need to reduce transmission risk to patients. Within Opportunity, although all HWs identified a high risk of TB transmission due to unsuspected TB and recognized gaps in TB infection control (IC) measures, almost none had undergone workplace TB screening. Regarding Motivation, all HWs recognized the need for TB screening, including LTBI, and almost all were willing to consider LTBI treatment, particularly if re-exposure risk could be reduced. **DISCUSSION** All stakeholders identified the high risk of occupational TB and the need for TB screening. While the majority were willing to consider LTBI treatment, an occupational health intervention to implement

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J. BORDER, N. CLAASSENS, C. FOIRET,
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Factors perceived to contribute to the
establishment and success of start-up businesses by
young adults in Kayamandi

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HEALTH SYSTEMS STRENGTHENING (2)

ABSTRACT NUMBER: 6

FACTORS PERCEIVED TO CONTRIBUTE TO THE ESTABLISHMENT AND SUCCESS OF START-UP BUSINESSES BY YOUNG ADULTS IN KAYAMANDI

Chanel Foiret* (Stellenbosch University), Nicheri Claassens (Stellenbosch University), Lomarie Thesnaar (Stellenbosch University), Jenna Border (Stellenbosch University), Jenna Franckeiss (Stellenbosch University)

Unemployment is one of South Africa's largest social challenges, especially among the youth and within communities characterised by low socio-economic circumstances. Being unemployed thus puts an individual at risk of experiencing occupational injustice, which may also affect the individual's health, well-being and quality of life. Within the field of occupational therapy, unemployment is a concern, as being able to work forms an integral part of an individual's life. Occupational therapy can empower individuals to acquire work and become self-sustainable, through promoting independence. The aim of this qualitative study was to identify the factors perceived by young adults to have contributed to their successful *start-up businesses* within Kayamandi, a community characterised by low socio-economic circumstances. A collective case study, drawing on the narrative tradition, was used to gain in-depth information about these factors from the five participants between the ages of 18 and 35 years. The factors perceived by the participants were divided into three themes: factors internal to the business owners and their immediate environment, factors that portray interactions between the business owners and the environment, and factors external to the business and out of the business owners' control. These findings may aid in providing information to individuals aspiring to start their own businesses, professionals creating curricula for education and training, as well as government initiatives or organisations funding entrepreneurs. Therefore, empowering young entrepreneurs in similar circumstances and assisting in job creation in South Africa.

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**AMIRA RAMKLASS, ANEEQAH ISMAIL
BROWN, CHANDREE ROBERTS, MICHE'
JEFFRIES AND ZENOBIA WAJA**



**Reasons for non-attendance in outpatients who do
not attend follow-up Occupational Therapy and
Physiotherapy appointments at the Western Cape
Rehabilitation Centre**

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HEALTH SYSTEMS STRENGTHENING (3)

ABSTRACT NUMBER: 15

REASONS FOR NON-ATTENDANCE IN OUTPATIENTS WHO DO NOT ATTEND FOLLOW-UP OCCUPATIONAL THERAPY AND PHYSIOTHERAPY APPOINTMENTS AT THE WESTERN CAPE REHABILITATION CENTRE

Zenobia Waja* (Occupational Therapy), Aneeqah Brown (Occupational Therapy), Miche Jeffries (Occupational Therapy), Chandre Roberts (Occupational Therapy), Amirah Ramklass (Occupational Therapy)

Non-attendance of outpatient appointments is a major challenge for healthcare services worldwide. This study aimed at understanding and describing the reasons patients do not attend their scheduled outpatient follow up appointments in the South African context in order to assist Occupational Therapists and Physiotherapists to provide well run rehabilitation services at Western Cape Rehabilitation Centre (WCRC). Qualitative research using a constructivist approach with an exploratory and descriptive design was used in order to obtain rich information of participants lived experiences to aid in addressing the research aim and objectives. Purposive sampling was used, and data was obtained through face-to-face interviews consisting of open-ended questions. Findings revealed that the reason for non-attendance revolve mainly around external factors which are out of their control. It was identified that although participants were non-attenders, they were intrinsically motivated to attend appointments but external factors which they experienced led to them becoming non-attenders. Three themes emerged from the data namely: transportation, organizational procedures and social factors, which support the aim of the study. The themes emerged organically from the nature of the interviews. Researchers identified community mobility as the thread which was evident within each of the themes that emanated from the data collected. The findings show that there is not one clear reason for non-attendance but rather a culmination of numerous reasons relating to community mobility. The study describes how transportation is one of the main reasons for nonattendance due to accessibility and financial burdens as well as organisational procedures such as the scheduling and timing of appointments.

Health Systems Strengthening: POSTERS (2)

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CARLA SWART



**Evaluating the health needs of Mamre:
A retrospective review**

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HEALTH SYSTEMS STRENGTHENING (4)

ABSTRACT NUMBER: 22

EVALUATING THE HEALTH NEEDS OF MAMRE: A RETROSPECTIVE REVIEW

Carla Swart (Stellenbosch University), Professor Bob Mash (Stellenbosch University)

Introduction: With global and national increased focus on strengthening Primary Health Care a COPC approach is being implemented in the Western Cape Metro. This is being pioneered at 4 learning sites. The aim of this study is to assess the local health needs of Mamre (one of the four learning sites) and start implementing COPC in this community. Reviewing the literature on Mamre produced little results other than Census 2011 and a 1988 cross sectional survey describing morbidity parameters. In this retrospective review one gets a more current and comprehensive picture of the community's profile and health needs. Methods: This was a descriptive observational study using an existing database. Data from January 2018 to December 2018 collected by CHWs during household assessments has been analysed using the Statistical Package for Social Sciences. The sample includes data from 1338 households and 3895. The analysis is predominantly descriptive. Results: 97.6% resided in formal dwellings, most having access to water and electricity. Non-communicable diseases have been identified as the main health problem in this community. Hypertension was the most commonly reported condition, followed by diabetes. 26.6% of individuals were identified as smokers. Low numbers of TB and HIV were recorded. Immunisations and vitamin A of almost half of children less than five were not up to date. Of all health risks identified only 2.2% was referred, although this could be explained by the CHWs recording referrals on an alternative document. Of those being referred to clinic the most frequent reason was for pap smears, blood pressure, HIV and tuberculosis as well as breast related complaints and eye tests. Conclusion: The main health problems in Mamre are non-communicable diseases. Targeting adherence support and addressing lifestyle could be beneficial for this community.

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ELLA VAN DER MERWE



**The health needs of Nomzamo based on
household data: A descriptive survey**

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HEALTH SYSTEMS STRENGTHENING (5)

ABSTRACT NUMBER: 26

THE HEALTH NEEDS OF NOMZAMO BASED ON HOUSEHOLD DATA: A DESCRIPTIVE SURVEY

Ella van der Merwe (Stellenbosch University), Professor Robert Mash (Stellenbosch University)

Primary health care (PHC) aims to promote health as well as to prevent and treat disease. A good PHC system is vital for strengthening the overall quality of health services. In line with the Department of Health's vision for 2030, the Western Cape is reorganizing the PHC which includes the implementation of COPC. The COPC model is being tested in 4 sites to eventually be adopted by the entire Cape metro. Nomzamo is one of the sites being tested. Community health workers have gone to the households in the community and done a "household survey" collecting data on the current health problems in the community. The aim was to evaluate the utility of routine household data collected by community health workers to assess the health needs of Nomzamo community. This descriptive survey is based on a geographically defined community, Nomzamo. 320 households were randomly selected from existing database of 1500 household. Data was extracted and entered into an Excel spreadsheet. SPSS was then used to analyse the data. Inferential statistics was used to look for relationships between variables. We found that HIV and TB were the most common chronic conditions, followed by hypertension, asthma, diabetes and mental health. The mean age of the sample was 24.7 years with 57% of people residing in formal dwellings. Looking at the dwellings, 82.2% had access to electricity and 41.8% had piped water in the house. Health risks and CHWs action was evaluated and 45 people were identified as possibly needing referral, however only 27.8% of these people were documented as being referred by the CHWs. This research presents the demographics and health needs of the community and identifies potential health risks. This data is valuable as it enables Nomzamo to fully engage with the COPC model and will also assist with the development of COPC in the broader metropolitan area.

Infectious Diseases: ORALS (3)

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KAYLA LIEDEMANN
ANGELA DRAMOWSKI



**A 'nice to have' or a 'non-negotiable':
South African healthcare workers' knowledge,
attitudes, practices and perceptions of vaccination**

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INFECTIOUS DISEASES (1)

ABSTRACT NUMBER: 3

A 'NICE TO HAVE' OR A 'NON-NEGOTIABLE': SOUTH AFRICAN HEALTHCARE WORKERS' KNOWLEDGE, ATTITUDES, PRACTICES AND PERCEPTIONS OF VACCINATION

Kayla Liedemann (Stellenbosch University), Angela Dramowski (Division of Health Systems and Public Health, Department of Global Health, Stellenbosch University)

Introduction: Non-immune healthcare workers (HCWs) are at high risk of contracting and transmitting vaccine-preventable diseases (VPDs). Data on the knowledge, attitudes and practices (KAP) of African HCWs regarding the World Health Organization (WHO)-recommended vaccinations is extremely limited. Methods: A self-administered KAP survey was completed by 300 HCWs at Tygerberg Hospital, Cape Town between June and October 2018. All categories of HCWs were eligible including clinical staff (nurses, doctors, allied health) and non-clinical staff (laboratory, pharmacy, administrative, household and porter staff). Results: Of the 300 participants, most were female (76.0%), aged between 18-40 years (63.3%) and employed as clinical staff (252; 84.0%). The overall mean knowledge, attitudes and practices scores were 57.1% (17.7/31), 68.4% (13.7/20) and 39.9% (6.0/15) respectively; clinical staff scored significantly higher than non-clinical staff in all three areas ($P < 0.001$). HCWs believed vaccines to be effective (84.7%) and safe with few side effects (73.0%). Vaccine uptake was highest for hepatitis B (82.3%), followed by measles (53.0%) and diphtheria/ tetanus (33.7%) and poorest for influenza (22.7%). Common reasons for vaccination included HCWs wanting to protect themselves, their families and their patients. Common reasons for not vaccinating included fear of vaccine side effects and lack of workplace access. Conclusions: Clinical HCWs had better KAP regarding vaccination than non-clinical HCWs. Strategies to improve HCW vaccination uptake should focus on vaccination education and facilitation of better workplace access to vaccination.

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TESSA DU TOIT



**Incident tuberculosis (TB) disease among
patients receiving biologic therapies in the
Western Cape, South Africa**

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INFECTIOUS DISEASES (2)

ABSTRACT NUMBER: 7

INCIDENT TUBERCULOSIS (TB) DISEASE AMONG PATIENTS RECEIVING BIOLOGIC THERAPIES IN THE WESTERN CAPE, SOUTH AFRICA

Tessa du Toit (Stellenbosch University), Tonya Esterhuizen (Division of Epidemiology and Biostatistics, Stellenbosch University), Nicki Tiffin (Computational Biology Division, Integrative Biomedical Sciences, University of Cape Town), Ahmed Abulfathi (Division of Clinical Pharmacology, Stellenbosch University), Helmuth Reuter (Division of Clinical Pharmacology, Stellenbosch University), Eric Decloedt (Division of Clinical Pharmacology, Stellenbosch University)

Setting: The Western Cape Province, South Africa, has one of the highest tuberculosis incidence rates worldwide. Biologic therapy is associated with an increased risk of tuberculosis disease. We evaluated the incidence of tuberculosis disease in Western Cape public sector patients treated with biologic therapy. **Objective:** To describe the incidence rate and time to tuberculosis onset among public sector patients in the Western Cape receiving biologic therapies. **Design:** We conducted a retrospective, descriptive analysis using data recorded by the Provincial Health Data Centre (PHDC) from January 2007 (first use of biologic therapy in the Western Cape) to September 2018. We identified 613 patients treated with TNF α or non-TNF α biologic therapies. **Results:** Of the 613 patients, 37 developed tuberculosis after biologic therapy exposure. The incidence rate of tuberculosis disease per 100 000 person years was estimated to be 2216 overall [95% confidence interval (95% CI) 1583-3022], 2987 for TNF α inhibitors [95% CI 1826-4629] and 1525 for non-TNF α inhibitors [95% CI 886-2459]. The incidence rate ratio was 1.96 times higher in the TNF α inhibitor compared to non-TNF α group ($p = 0.057$). Patients treated with rituximab, golimumab and infliximab had the highest tuberculosis incidence rates. The median time to tuberculosis disease in months was lowest in golimumab (4.9) followed by rituximab (7.5). **Conclusion:** Non-TNF α and TNF α biologic therapies increased the risk of tuberculosis by 2.2-fold and 4.4-fold respectively compared with the background risk of 681 cases per 100 000 per year in the Western Cape.

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CHRISTINE LE ROUX



**South African undergraduate health science
students' knowledge, attitudes, practices
and preferences regarding vaccination**

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INFECTIOUS DISEASES (3)

ABSTRACT NUMBER: 11

SOUTH AFRICAN UNDERGRADUATE HEALTH SCIENCE STUDENTS' KNOWLEDGE, ATTITUDES, PRACTICES AND PREFERENCES REGARDING VACCINATION

Christine le Roux (Stellenbosch University), Angela Dramowski (Stellenbosch University)

Background. South African universities lack comprehensive vaccination policies for undergraduate health science students, despite exposure to vaccine-preventable diseases (VPDs) during clinical training. We investigated Stellenbosch University's health science students' knowledge, attitudes and practices (KAP) regarding vaccination and established their preferences for delivery of a student vaccination programme. **Methods.** A 32-question survey regarding students' KAP and preferences about vaccination was emailed to undergraduate health science students (n=2 472) between November 2017 and April 2018. Mean KAP scores and vaccination preferences were compared between Medical and Allied Health students. Responses to three open-ended questions were coded by two independent researchers to identify emerging themes. **Results.** Questionnaires (n=403) were completed by Medical (79.8%) and Allied Health (20.2%) students. There was no difference between the mean K-scores of the two groups (6.8 vs 6.4/10 questions; p=0.998). Students had positive attitudes to vaccination (mean A-score 4.1/7 questions) but felt education regarding recommended vaccinations was lacking. Although students supported the idea of mandatory vaccinations, many raised concerns regarding access to and affordability of vaccinations. Most (90.3%) had completed/were completing the Hepatitis B immunization series. There was widespread support for peer vaccination sessions and development of a webpage or mobile application to assist with scheduling of vaccinations. **Conclusions.** Undergraduate health science students support the introduction of an expanded vaccination policy. Additional educational content, vaccine accessibility and affordability are important issues to consider in the development of a health science student vaccination programme.

Infectious Diseases: POSTER (1)

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WILHELM HUBERT HANSEN



HIV and orthopaedics: A descriptive cross-sectional study correlating HIV status and musculoskeletal infections in the paediatric population at Tygerberg Hospital during 2018

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INFECTIOUS DISEASES (4)

ABSTRACT NUMBER: 30

HIV AND ORTHOPAEDICS: A DESCRIPTIVE CROSS-SECTIONAL STUDY CORRELATING HIV STATUS AND MUSCULOSKELETAL INFECTIONS IN THE PAEDIATRIC POPULATION AT TYGERBERG HOSPITAL DURING 2018

Wilhelm Hubert Hansen (Division of Orthopaedic Surgery, Stellenbosch University)

The antiretroviral (ARV) roll-out program across South Africa has contributed to extending the life expectancy of children living with human immunodeficiency virus (HIV) significantly; nevertheless many still experience musculoskeletal infections. Literature mostly focuses on the musculoskeletal manifestations and outcomes HIV has on adults, thus not providing any information on the impact it has on orthopaedics in the paediatric population. The aim of this study is to help understand the association between HIV and musculoskeletal infections in paediatric orthopaedic patients infected with the HIV. A single-centre, retrospective cross-sectional study was performed 2018 in Tygerberg Hospital included paediatric patients aged <13 years with musculoskeletal infections, that had undergone an HIV test. The HIV was recorded as HIV positive/negative/unknown. The prevalence of HIV in each condition was then reported on. There was a total 123 patients with musculoskeletal manifestations of which 65,85% fulfilled the requirements of the study. 54,32% of these paediatric patients (<13 years old) with musculoskeletal infections (including septic arthritis, osteomyelitis, osteitis, tuberculosis-related orthopaedic complications and pyomyositis), neoplasms and bone disorders had an unknown HIV status. The most common manifestations irrespective of HIV status were: septic arthritis (39,50%), osteomyelitis (27,16%), and tuberculosis-related orthopaedic complications (17,28%). Of the 5,88% that were HIV positive, infective manifestations occurred in 33% with septic arthritis being the most prevalent one. The results of this study reveal that joint disorders are the most common musculoskeletal manifestations. It is also uncertain whether the HIV status plays a role in the occurrence rate of specific manifestations in paediatric orthopaedic patients, as majority have an unknown status. In order to fully understand the correlation more HIV testing will have to be performed.

Maternal & Child Health: ORALS (3)

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ISMAIL RAWOOT



Why mothers (continue to) drink during pregnancy – a descriptive phenomenological study in a deeply rural area

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MATERNAL & CHILD HEALTH (1)

ABSTRACT NUMBER: 3

WHY MOTHERS (CONTINUE TO) DRINK DURING PREGNANCY – A DESCRIPTIVE PHENOMENOLOGICAL INVESTIGATION IN A DEEPLY RURAL AREA

Ismail Rawoot (Stellenbosch University), Michael Urban (Stellenbosch University), Chantelle Scott (Stellenbosch University)

Background: Much epidemiological research has been conducted in South Africa that shows that fetal alcohol spectrum disorder (FASD) is a common, important and under-recognised health burden. FASD encompasses a diverse range of congenital abnormalities related to alcohol consumption during pregnancy. However, the data are sparse in terms of a qualitative understanding of the phenomenon of drinking during pregnancy. **Aim:** To describe the phenomenon of drinking during pregnancy, from the perspective of pregnant women who have recently consumed alcohol, in a deeply rural town. **Methods:** A qualitative (descriptive, phenomenological) pilot study was undertaken to explore the perceptions and experiences around what influences mothers to drink during pregnancy. Semi-structured interviews were conducted with a total of 8 pregnant women attending an ante-natal clinic. The data were transcribed; and analysed thematically. **Results:** Women described reasons both to abstain from – or reduce– alcohol consumption during pregnancy, as well as reasons to continue drinking. Factors related to abstinence included knowledge that alcohol was harmful to fetal development, a belief that alcohol use was easy to stop, as well as the request of their partners. Some of the reasons to continue drinking included drinking out of habit, cravings, and a need to maintain social relationships characterised by drinking. Novel findings include how participants sought to reconcile negative emotions relating to alcohol use on their pregnancy; strategies to mediate risk while continuing to drink; and considerations about when to resume drinking after the pregnancy. **Conclusion:** Pregnant women who drink alcohol have multiple discourses with friends, family, partners and themselves regarding alcohol consumption during pregnancy. The co-occurrence of conflicting beliefs, ideals, and actions is common. Future interventions may employ strategies to leverage feelings of maternal responsibility, knowledge of FASD, and personal agency to effect change in drinking behaviours.

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ANANJA VAN DER WESTHUIZEN



**A case report of a TB-exposed neonate in
South Africa: diagnosis and care**

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MATERNAL & CHILD HEALTH (2)

ABSTRACT NUMBER: 4

A CASE REPORT OF A TB-EXPOSED NEONATE IN SOUTH AFRICA: DIAGNOSIS AND CARE

Ananja van der Westhuizen

Co-Authors: Ananja van der Westhuizen (MBChB VI, Stellenbosch University and Tygerberg Hospital, Cape Town, South Africa), Angela Dramowski (Department of Paediatrics and Child Health, Faculty of Medicine and Health Sciences, Stellenbosch University), Hendrik Simon Schaaf (Department of Paediatrics and Child Health, Faculty of Medicine and Health Sciences, Stellenbosch University), Marisa Groenewald (Family Clinical Research Unit (FAM-CRU), Faculty of Medicine and Health Sciences, Stellenbosch University), Adrie Bekker (Department of Paediatrics and Child Health, Faculty of Medicine and Health Sciences, Stellenbosch University)

BACKGROUND Tuberculosis (TB) disease is the leading cause of mortality in South Africans, and a major non-obstetric cause of maternal death, adverse pregnancy and perinatal outcomes. Even for infants with known TB exposure, perinatal TB disease presentation may be non-specific and diagnostic confirmation is difficult to obtain. **CASE DESCRIPTION** A preterm, low birth weight infant was born to a 30-year old G4P3M1 woman, who had received no antenatal care and had a history of substance use in pregnancy (methamphetamine and cannabis). Shortly after delivery, she was diagnosed with drug-sensitive pulmonary tuberculosis (DS-pTB); she had two previous episodes of pTB and a history of treatment interruption. The TB-exposed infant was screened for TB disease with a clinical examination, chest radiograph and abdominal ultrasound, and two gastric aspirates for GeneXpert, microscopy and culture. Although all direct TB microscopy was negative, the molecular test was indeterminate, with M.tb DNA detected in low amounts by the Xpert Ultra PCR test. After expert consultation, the infant was commenced on isoniazid (INH) prophylaxis (10mg/kg/day) as an outpatient for 6 months. BCG vaccination was deferred until completion of prophylaxis and the infant's condition and growth parameters were closely monitored at outpatient visits. Rapid infant growth required a three-fold increase in INH dosing from prophylaxis initiation to completion. The infant remained well and all TB cultures were negative. The mother successfully completed six months of anti-TB treatment at her local clinic. **CONCLUSION** There are multiple challenges in the identification, investigation and clinical management of TB-exposed infants. Clear guidelines and better diagnostic tools are needed to assist clinicians with the care of TB-exposed infants in South Africa.

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JENNIFER VAN HEERDEN



**Childhood cancers misdiagnosed as
tuberculosis in a setting of high tuberculosis
prevalence**

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MATERNAL & CHILD HEALTH (3)

ABSTRACT NUMBER: 5

CHILDHOOD CANCERS MISDIAGNOSED AS TUBERCULOSIS IN A SETTING OF HIGH TUBERCULOSIS PREVALENCE

Jennifer van Heerden

Co-Authors: Jennifer van Heerden (Stellenbosch University), Anel van Zyl (Stellenbosch University), Prof. Pierre Goussard (Stellenbosch University), Prof. Helena Rabie (Stellenbosch University)

Introduction: Tuberculosis (TB) and childhood malignancies have overlapping presentations and, in high prevalence areas cancer may initially be diagnosed as TB. There is no data on how commonly this misdiagnosis occurs in children in South Africa. Methods: This retrospective study investigated the diagnosis of tuberculosis in children with cancer entered into the Tygerberg Hospital Tumour registry between 1 January 2008 and 31 March 2018. We identified children on anti-tuberculosis treatment (TB-Rx) at the time of cancer diagnosis. We also reviewed children initiated on tuberculosis treatment after cancer diagnosis. Results are reported as median values and 95% confidence intervals (CI). Results: Twenty seven (5,0%) of 539 children on the registry started TB-Rx before cancer diagnoses. Their median age was 5,48 years; 95% CI [3,75 to 9,56]; similar to those not diagnosed (4,78 years; 95% CI [4.44 to 5.64]). Nine of the 27 (33,33%) children continued TB-Rx after cancer diagnosis. Both pulmonary and extra-pulmonary TB were found to have overlapping clinical features with malignancies, with the central nervous system (CNS) the most common site after pulmonary TB. Haematological malignancies made up the majority of cancers treated for TB (59,26%; 16/27) (95% CI [39,91 to 76,11]) with an even distribution between leukaemia and lymphoma. The mortality burden of paediatric cancer at TBH was 38,27% (204/533) and was 62,96% (17/27) in patients on TB treatment. Three of the 4 patients diagnosed with TB after cancer diagnoses initiated TB-Rx within 1 month after the cancer diagnosis and were receiving chemotherapy at the time of TB diagnosis. Conclusions: The clinical and radiological overlap TB and cancer causes diagnostic confusion in a significant number of children with cancer. In the absence of microbiological confirmation careful review to identify misdiagnosis is essential.

Maternal & Child Health: POSTERS (4)

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**HANLIE COETZÉ, NADINE EDDY, LIESL GERSTNER,
CHRISTEL KRUGER, LIEZL PILKINGTON AND
BARBARA VENITE**



The effectiveness of abdominal and/or pelvic floor exercises to improve diastasis recti abdominis, low back pain and pelvic floor dysfunction in postpartum women: A systematic review

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MATERNAL & CHILD HEALTH (4)

ABSTRACT NUMBER: 19

THE EFFECTIVENESS OF ABDOMINAL AND/OR PELVIC FLOOR EXERCISES TO IMPROVE DIASTASIS RECTI ABDOMINIS, LOW BACK PAIN AND PELVIC FLOOR DYSFUNCTION IN POSTPARTUM WOMEN

Liesl Gerstner (Stellenbosch University), Christel Kruger (Stellenbosch University), Liezl Pilkington (Stellenbosch University), Barbara Vente (Stellenbosch University), Hanlie Coetze (Stellenbosch University), Nadine Eddy (Stellenbosch University)

Background: Diastasis recti abdominis (DRA) is the separation between the two rectus abdominis muscles that develops due to stretching and thinning of the linea alba. A persistent DRA affects 30%-70% of women postpartum resulting in lack of stability and increasing their risk for injury, therefore, potentially negatively impacting both mother and child's wellbeing. Limited research has been conducted on the efficacy of abdominal and/or pelvic floor exercises in aiding the reduction of a pathological DRA, pelvic floor dysfunction and low back pain. **Objective:** To establish the effectiveness of abdominal and/or pelvic floor exercises on improving pathological DRA, low back pain and pelvic floor dysfunction in postpartum women compared to only educational advice or no intervention. **Methodology:** Seven computerised databases were searched, namely EBSCOHost, Cochrane Library, Science Direct, PubMed, Scopus, PEDro and Google Scholar. The search terms included: Diastasis recti, Diastasis recti abdominis, Diastasis rectus abdominis, exercises, abdominal exercises, pelvic floor exercises, physiotherapy, physical therapy, rehabilitation, postpartum women, lower back pain, pelvic floor dysfunction and inter-recti distance. The included studies had to meet specific criteria to be included in the review. The PEDro Scale was used to critically appraise the methodological value of the included RCTs. The adapted JBI Data Extraction Form was used to extract data from the selected articles. **Results:** Two studies met the inclusion criteria and methodological quality ranged from 6/10 - 7/10 on the PEDro Scale. Abdominal and/or pelvic floor exercises resulted in a greater and faster reduction in inter-recti distance (IRD) over 12 months. The IRD was measured using either finger widths via palpation or ultrasound imaging to report on the severity of the DRA. One study reported inconclusive findings with regard to the impact of abdominal and/or pelvic floor exercises on reducing pelvic floor dysfunction and low back pain, measured using the PFDI-20 and RDQ. **Conclusion:** There is level II evidence to suggest that abdominal and/or pelvic floor exercises can aid with the resolution of a pathological DRA up to 12 months postpartum. However, there is currently limited supporting evidence. No conclusion can be drawn on the efficacy of abdominal and/or pelvic floor exercises on pelvic floor dysfunction and low back pain. Further research in this field is recommended using larger, more diverse sample groups, with a holistic approach.

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**BILQEES ACHMAT, ZOËSHA APPENTENG,
KIRSTY-SIAN MCSHANE, CARMELL PILLAY,
AYESHA SALIE & SUSAN VAN EEDEN**



**Early communication intervention service delivery
models in low- and middle-income countries and
low-resource settings: A scoping review**

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MATERNAL & CHILD HEALTH (5)

ABSTRACT NUMBER: 22

EARLY COMMUNICATION INTERVENTION SERVICE DELIVERY MODELS IN LOW-MIDDLE INCOME COUNTRIES AND LOW-RESOURCE SETTINGS: A SCOPING REVIEW

Carmell Pillay

Co-Authors: Susan Van Eeden (Speech-Language and Hearing Therapy IV), Bilqees Achmat (Speech-Language and Hearing Therapy IV), Zoesha Appenteng (Speech-Language and Hearing Therapy IV), Kirsty-Sian Mcshane (Speech-Language and Hearing Therapy IV), Ayesha Salie (Speech-Language and Hearing Therapy IV), Carmell Pillay (Speech-Language and Hearing Therapy IV)

Background: Young children in South Africa experience several risk factors for poor developmental outcomes, including communication development. The negative effect of these risk factors can be prevented or reduced through Early Intervention, including Early Communication Intervention (ECI). Knowledge is needed regarding existing ECI service delivery models in low-and middle-income countries (LMICs) and low-resource settings, such as South Africa. *Objectives:* To map the literature around this topic; to describe existing ECI services; and to describe the results, implications and recommendations of the literature on ECI service delivery models in LMICs and low-resource settings. *Data sources:* Nine electronic databases were searched. *Study eligibility criteria:* Studies had to be English and accessible through Stellenbosch University Library services. *Data charting and synthesis methods:* Selected studies were charted, followed by a process of thematic and numeric analysis. *Results:* Three main themes were identified: the use of integrated/combined EI within LMICs/low-resource settings to assist in making interventions feasible, cost- and time effective; the training of community health care workers to facilitate the delivery of ECI/EI services in these settings; and the positive impact of interventions aimed at mother-infant attachment and maternal mood on a child's overall development. *Limitations:* Methodological limitations included broadening search terms, non-blinded cross-checking, pearl growing process after initial data extraction process yielded limited studies and problems with accessing studies. Researcher limitations included the research group's large size and lack of research experience. *Conclusions and implications of key findings:* Limited research is available about ECI in LMICs and low-resource settings, therefore, a clear need for future research exists.

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TINA LOUW
(DR A REDFERN AND PROF R SOLOMONS)



**Describing the management and risk of seizure
recurrence in children diagnosed with neurocysticercosis
in a tertiary hospital in South Africa**

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MATERNAL & CHILD HEALTH (6)

ABSTRACT NUMBER: 26

DESCRIBING THE MANAGEMENT AND RISK OF SEIZURE RECURRENCE IN CHILDREN DIAGNOSED WITH NEUROCYSTICERCOSIS IN A TERTIARY HOSPITAL IN SOUTH AFRICA

Tina Louw

Co-Authors: Tina Louw (Stellenbosch University), Dr Andrew Redfern (Tygerberg Hospital), Prof Regan Solomons (Tygerberg Hospital)

Introduction: Neurocysticercosis is a common cause of seizures and epilepsy in children. There are limited South African data describing the management or recurrence risk of neurocysticercosis (NCC). The aim of this study is to describe the management of children diagnosed with neurocysticercosis, and to determine the risk of seizure recurrence. Methods: A retrospective folder review and a prospective telephonic survey were done on children aged 0-13 years diagnosed with NCC from 2007-2018 at Tygerberg Hospital. Results: 48 patients were diagnosed with NCC, with a median age of 22.5 months and mean age of 38.4 months (range 2 months to 12 years old). 28 (58%) were male. 44 (92%) presented with a seizure, of which 52% were focal, 40% generalized and 8% unclassified. On CT scan, 19 (40%) had a single lesion, 11 (23%) had 2-5 lesions and 18 (38%) had multiple lesions on CT. 29% were viable lesions, 15% degenerating, 44% calcified and 6% were lesions in multiple states. 56% had perilesional oedema. Oral steroids were used in 33 (69%), antiparasitic agents in 45 (94%) and anticonvulsants in 38 (79%). Anticonvulsants were prescribed for less than 1 month in 12 (32%) cases, 1-3 months in 1 (3%), 6 months to 1 year in 23 (61%) cases and for more than a year in 2 (5%) cases. 31 caregivers (65%) were interviewed via telephonic survey. 77% of patients followed up. Seizure recurrence occurred in 17 (55%) patients, with 47% occurring within one month of initial presentation. 9 (29%) patients reported more than one seizure post diagnosis. Conclusion: The majority of patients were treated with oral steroids, antiparasitic agents, and anticonvulsants, despite their potential benefit being controversial. There was a high risk of seizure recurrence, with nearly third of patients experiencing more than one recurrent seizure.

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FRANCES EGAN, MALESHOANE MALEKE,
LIEZL CLOETE AND SOFIA MOUTZOURIS



Lost in Translation... Assessment of preschool children's
stuttering in an unfamiliar language: A scoping review

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MATERNAL & CHILD HEALTH (7)

ABSTRACT NUMBER: 27

LOST IN TRANSLATION: ASSESSMENT OF PRESCHOOL CHILDREN'S STUTTERING IN AN UNFAMILIAR LANGUAGE: A SCOPING REVIEW

Sofia Moutzouris

Co-Authors: Frances Egan (student), Maleshoane Maleke (student), Liezl Cloete (student), Sofia Moutzouris (student)

Accurate diagnosis and early identification of young children with fluency disorders by speech-language therapists (SLTs) are crucial for early planning of intervention. One of the most prevalent barriers within our multilingual, multicultural South African society is the communication gap between SLTs and their clients. South Africa has twelve official languages, but few therapists are able to provide intervention in all our clients' home languages. This study investigated the research question: What is known from the existing literature about the assessment of stuttering of children (0-18 years) when the clinician is not proficient in the child's home language? We were particularly interested in evidence-based guidelines available to support and direct SLTs in the assessment process and therapy. A scoping review was conducted using systemized searches of several databases (EBSCOhost -PubMed, CINAHL, Africa Wide Information, Academic Search Premier - Clinical Key, SCOPUS and Web of Science). Studies were selected if they focused on the paediatric population (children 0-18 years), on stuttering assessment and diagnostic procedures and were published in English/ Afrikaans between 1970-2019. Studies were identified to reflect the specific issues around assessment of stuttering and the aspects of multilingualism where the SLT is not proficient in the child's home language. Relevant articles were identified and charted. Specific issues with regards to the impact that severity of stuttering, language familiarity, bilingualism and inter-rater reliability has on the assessment process and differential diagnosis between mild/borderline stuttering and normal disfluencies were discussed. A significant gap in research and knowledge has been identified not only within the South African context but also worldwide.

Mental Health & Neurosciences: ORALS (2)

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CHRISTOFF GELDENHUYS



**Clozapine haematological side effect monitoring in the
Western Cape: A retrospective review of the Provincial Health
Data Centre Database 2015-2017**

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MENTAL HEALTH & NEUROSCIENCES (1)

ABSTRACT NUMBER: 2

CLOZAPINE HAEMATOLOGICAL SIDE EFFECT MONITORING IN THE WESTERN CAPE: A RETROSPECTIVE REVIEW OF THE PROVINCIAL HEALTH DATA CENTRE DATABASE 2015-2017

Christoff Geldenhuys (Stellenbosch University), Moleen Zunza (Stellenbosch University), Nicki Tiffin (University of Cape Town), Liezl Koen (Stellenbosch University), Eric Decloedt (Stellenbosch University)

BACKGROUND: Clozapine is indicated for treatment-resistant schizophrenia but may cause life threatening leukopenia and agranulocytosis requiring haematological monitoring. Haematological side effects (HSEs) incidence data from Sub-Saharan Africa are lacking. Clozapine reduces cellular immunity and it is unknown whether clozapine is a risk factor for tuberculosis or whether HIV is a risk factor for developing HSEs. The objective was to assess the frequency of white blood cell (WBC) monitoring and to determine the incidence of HSEs during the first 24 weeks of clozapine therapy. The secondary objective was to establish the incidence of tuberculosis and to determine the association of HIV with HSEs. **METHODS:** A retrospective descriptive study of patients initiated on clozapine between January 2015 and December 2017 using data from the Provincial Health Data Centre. A control group of patients initiated on risperidone were selected. Follow-up was 24 weeks. **RESULTS:** We identified 22818 patients; 5213 had WBC monitoring (n=1047 clozapine and n=4166 risperidone). The WBC of patients on clozapine were measured a median of 21 weeks, interquartile range 14 – 23 weeks. The incidence of leukopenia in patients on clozapine was 0.38% (95% CI 0.01-0.76%); 0.41% in patients on risperidone (95% CI 0.21-0.6%), (p=0.91). The incidence of agranulocytosis in patients on clozapine was 0.19% (95% CI 0.0-0.46%); 0.07% in patients on risperidone (95% CI 0.0-0.15%), (p=0.266). The incidence of tuberculosis disease were similar between patients on risperidone and clozapine (0.97% and 0.81% respectively; p=0.542). HIV infected patients had a higher relative risk than non-HIV infected patients of developing leukopenia (1.64% versus 0.22%, p<0.001) and agranulocytosis (0.36% versus 0.04%, p=0.004). **CONCLUSION:** Our incidence of clozapine-induced HSEs were lower than in the reported literature (0.8%) and not significantly different compared to risperidone. HIV infection was associated with HSEs. Our findings suggest the possibility of reducing the extent of WBC monitoring in HIV-negative patients.

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**CLAIRE MCCUBBIN, CECILE DE WET,
SAMANTHA MCCRINDLE, STEPHANÉ
HORNSBY & ANDREA OLIVIER**



Exploration of the reading culture within the home environments of Afrikaans home language Grade 4 learners experiencing reading difficulty

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MENTAL HEALTH & NEUROSCIENCES (2)

ABSTRACT NUMBER: 7

EXPLORATION OF READING CULTURE WITHIN THE HOME ENVIRONMENTS OF GRADE 4 LEARNERS EXPERIENCING READING DIFFICULTY

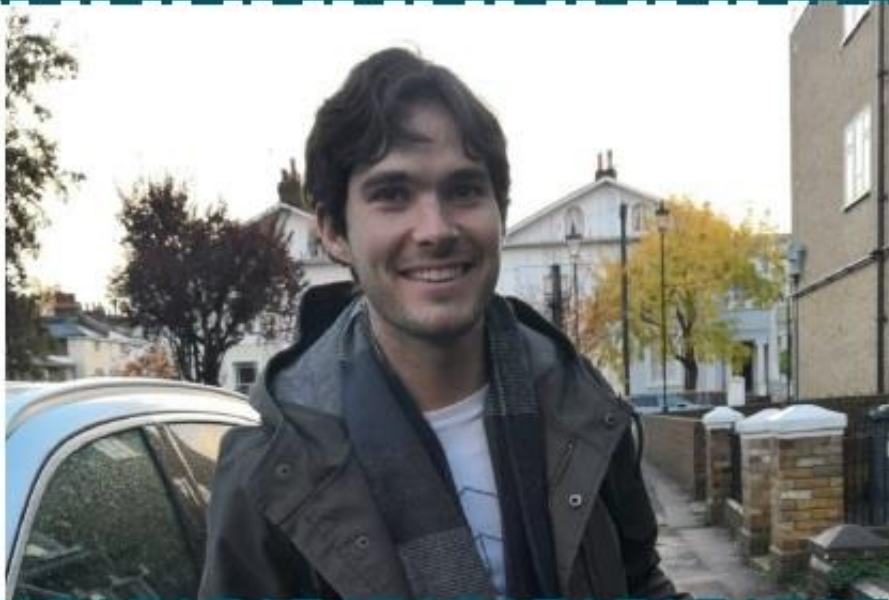
Claire McCubbin (Stellenbosch University), Cecile de Wet (Stellenbosch University), Samantha McCrindle (Stellenbosch University), Andrea Olivier (Stellenbosch University), Stephane Hornsby (Stellenbosch University)

Introduction: The Progress International Reading Literacy Study (PIRLS) conducted in 2016, noted that reading is an issue in SA schools, where the environment was a contributing factor to the child's ability to learn to read. Reading ability either enhances or hinders a child's ability to successfully engage and participate in future occupations. This study aims to understand and describe the reading culture within the home environment of the Grade 4 learners, paving the way for further research and interventions aimed to improve the reading culture in the Worcester area. Objectives include to determine the level of education of the household members and their attitudes towards reading, to explore the availability of reading resources and activities in the home, and establish what caregivers consider to be possible causes of the reading difficulty. Methodology: An instrumental case study was done and four participants were selected through purposive sampling from the study population of Grade 4 learners' caregivers who fulfilled all the criteria for participation in the study. Data was gathered from participant observations and semi-structured, in-depth interviews, relating to the five objectives of the study. Transcriptions of the interviews underwent a thorough content analysis, which sought to objectively identify and define all the possible perspectives describing the case. Findings: Four themes emerged: reading is important, that's just my child, this is what we do, and that's what happens here. These themes demonstrate how the interplay of environmental influences, household norms and children's individual traits contribute to a culture of reading. Conclusion: One participant cultivated a positive reading culture within her home, which had a positive influence on her child's reading ability. Factors limiting the development of a reading culture in the other households included the lack of positive role models, restricted access to books due to gang violence and minimal parental involvement.

Mental Health & Neurosciences: POSTERS (1)

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WILHELM NIEUWOUTD



**Digit ratio as an endophenotype in a Xhosa
schizophrenia population**

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MENTAL HEALTH & NEUROSCIENCES (3)

ABSTRACT NUMBER: 13

THE POTENTIAL OF DIGIT RATIO AS AN ENDOPHENOTYPE IN A SCHIZOPHRENIA POPULATION

Wilhelm Nieuwoudt (Dept of Psychiatry FMHS SU), Inge Smit (Dept of Psychiatry FMHS SU), Esme Jordaan (Biostatistics Unit, MRC), Dana Niehaus (Dept of Psychiatry FMHS SU)

Background: A number of studies have been conducted attempting to delineate the incidence and nature of minor physical anomalies in Schizophrenic patients compared to both the general population and their unaffected family members. The identification of such anomalies has led to the suggestion of a neurodevelopmental component in the aetiology of the illness. This study aims to augment previous research by examining the use of digit ratio as a parameter in identifying individuals with a possible strong genetic underpinning of their illness by assessing the reliability of digit ratio as a stable feature connecting the clinical phenotype of Schizophrenia and largely undifferentiated genotype. Methods: The 2nd (D2) and 4th (D4) digits of a large group (n=200) of participants with Schizophrenia who were subjects in a 2006 study on Morphological features in a Xhosa Schizophrenia Population by L Koen et al. are to be measured from a large image database with scientific image analysis software and the digit ratios (D2:D4) will be calculated. Participants will be characterised by sex, age of onset of their illness and dominant symptomatology and significant differences within and between these categories will be assessed for in order to identify a connection between features more suggestive of a strong genetic basis for disease and significantly unique digit ratios if present.

Non-Communicable Diseases: ORAL (1)

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ADAMS A, HANNAH J, KEMPER B, LE ROUX D,
STEENKAMP B, EBRAHIM Z, KOEN N, SMIT Y



**Taxation of sugar-sweetened beverages in South
Africa: Perspectives of dietitians**

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NONCOMMUNICABLE DISEASES (1)

ABSTRACT NUMBER: 11

TAXATION OF SUGAR-SWEETENED BEVERAGES IN SOUTH AFRICA: PERSPECTIVES OF DIETITIANS

Adams A (University of Stellenbosch), **Hannah J** (University of Stellenbosch), **Kemper B** (University of Stellenbosch), **Le Roux D** (University of Stellenbosch), **Steenkamp B** (University of Stellenbosch), Ebrahim Z (University of Stellenbosch), Smit Y (University of Stellenbosch), Koen N (University of Stellenbosch)

In order to combat the battle against non-communicable diseases (NCDs), South Africa has implemented a sugar tax also known as the health promotion levy (HPL) on sugar sweetened beverages (SSB's) as a measure to reduce the high consumption of sugar in the population. A high intake of SSB's contributes to an increased risk of overweight and obesity. The aim of this study was to investigate the perspectives of dietitians on the HPL. In this cross-sectional descriptive study, a self-administered electronic survey, created using SurveyMonkey®, was used to collect data. Dietitians were recruited through the Association of Dietetics in South Africa's weekly newsletters and social media platforms. Descriptive statistics was performed using Statistica version 13.2. Most of the participants were female (n =131; 95). Two thirds were qualified with a four year Honors degree (n= 92; 67%) and a quarter (n=34; 25%) had a Master's degree. The most common field of work included the clinical environment (n=33; 26%) and private practice (n=27; 20.9%). A majority of the respondents (n=127; 98%) were aware of the implementation of the HPL. Although three quarters of dietitians (n=63; 75%) were positive about the HPL, 56% (n= 68) disagreed it will reduce the prevalence of obesity, 72% (n=89) agreed the tax is too little to influence purchasing behaviour and 87% (n=108) believe other factors contribute to NCDs. Nearly three quarters of dietitians (n=90; 73%) counsel patients with NCDs. Most dietitians (n=77, 88%) educate their clients on nutritional information of products with 83% (n=75) emphasising the total sugar content. Less dietitians perceived their patients to be consuming SSB's on a daily basis after the HPL levy was implemented. Dietitians have a positive opinion on the HPL, however they agree that the HPL alone will not influence the purchasing behaviour of consumers or reduce the prevalence of obesity.

Non-Communicable Diseases: POSTERS (3)

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BOOI A, BOTHA A, MZILA M, TURNER S, VAN DYK J,
KOEN N, EBRAHIM Z, NEL D, SMIT Y



**Taxation of sugar sweetened beverages in South
Africa: Perspectives of consumers**

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NONCOMMUNICABLE DISEASES (2)

ABSTRACT NUMBER: 26

THE TAXATION OF SUGAR-SWEETENED BEVERAGES IN SOUTH AFRICA: PERSPECTIVES OF CONSUMERS IN THE CITY OF CAPE TOWN, WESTERN CAPE, SOUTH AFRICA

Aziwe Booi (Division of Human Nutrition, Department of Global Health, Stellenbosch University), **Anika Botha** (Division of Human Nutrition, Department of Global Health, Stellenbosch University), **Mandisa Mzila** (Division of Human Nutrition, Department of Global Health, Stellenbosch University), **Santi Turner** (Division of Human Nutrition, Department of Global Health, Stellenbosch University), **Jancke van Dyk** (Division of Human Nutrition, Department of Global Health, Stellenbosch University), Yolande Smit (Division of Human Nutrition, Department of Global Health, Stellenbosch University), Zarina Ebrahim (Division of Human Nutrition, Department of Global Health, Stellenbosch University), Nelene Koen (Division of Human Nutrition, Department of Global Health, Stellenbosch University)

Globally, fiscal measures such as taxes are increasingly recognised as effective complementary tools to curb the obesity epidemic at population level. In 2018, a health promotion levy (HPL) was implemented in South Africa (SA) to discourage purchasing of sugar-sweetened beverages (SSBs). This study aimed to determine the perspectives of consumers within the City of Cape Town regarding the HPL and to determine the self-reported impact on consumer purchasing behaviour and consumption of SSBs since the HPL implementation. In this cross-sectional descriptive study, an interviewer-administered questionnaire was conducted with literate adult consumers (n=696) from 16 grocery stores within four health sub-districts of the City of Cape Town, South Africa. Less than half (n=320; 45.97%) of consumers indicated that they were aware of the HPL. Of the consumers who were aware of the taxation, only two (0.63%) participants knew the correct amount of sugar (in grams) that is allowed in SSBs before being levied (4g in 100ml). Fifty four percent (n=379) of consumers reported to have noticed a price increase in SSBs and of these consumers, 43.07% (n=171) reported that the increased SSBs pricing influenced their purchasing behaviour resulting in them purchasing less SSBs. There is almost an equal amount of participants who agreed (n=326; 46.84%) and disagreed (n=331; 47.56%) on whether the HPL will help to reduce overweight and obesity rates in SA whilst the remaining participants (n=39; 5.60%) were unsure. More than half of participants had an overall positive feeling towards the HPL (n=388; 55.83%). City of Cape Town consumers had mostly mixed reactions towards the HPL, its effectiveness and whether it has influenced consumer purchasing behaviour. More should be done to educate consumers about the HPL and the impact of consuming large quantities of sugar on their health.

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**SABEEHA ABDULLAH, BARBARA CRONJE,
JESSICA NATHAN & ALEXA THERON**



**The taxation of sugar-sweetened beverages in South Africa:
the perspectives of key role-players in the City of Cape Town,
Western Cape, South Africa**

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NONCOMMUNICABLE DISEASES (3)

ABSTRACT NUMBER: 27

THE TAXATION OF SUGAR SWEETENED BEVERAGES IN SOUTH AFRICA: THE PERSEPECTIVES OF KEY-ROLEPLAYERS IN THE CITY OF CAPE TOWN, WESTERN CAPE, SOUTH AFRICA

Alexa Theron (Faculty of Medicine and Health Sciences Stellenbosch University Department Global Health Division Human Nutrition), **Sabeeha Abdullah** (Faculty of Medicine and Health Sciences Stellenbosch University Department Global Health Division Human Nutrition), **Jessica Nathan** (Faculty of Medicine and Health Sciences Stellenbosch University Department Global Health Division Human Nutrition), **Barbara Cronje** (Faculty of Medicine and Health Sciences Stellenbosch University Department Global Health Division Human Nutrition), Yolande Smit (Faculty of Medicine and Health Sciences Stellenbosch University Department Global Health Division Human Nutrition), Zarina Ebrahim (Faculty of Medicine and Health Sciences Stellenbosch University Department Global Health Division Human Nutrition), Nelene Koen (Faculty of Medicine and Health Sciences Stellenbosch University Department Global Health Division Human Nutrition)

The prevalence of overweight and obesity, a major risk factor for non-communicable diseases, are reaching staggering statistics worldwide, claiming more lives every year. Eighty percent of these deaths occur in low- and middle income countries. The South African government responded to this crisis by implementing the taxation of sugar sweetened beverages (SSBs) or the health promotion levy (HPL) Added sugars may contribute to obesity and other NCDs. The aim of the study was to determine the perspectives of industry role-players regarding the HPL. A descriptive, observational study was conducted. Key role-players from government, the public sector and academia were identified via snowball sampling and recruited via email. An online, electronic survey using Survey Monkey was used for data collection. Thirty nine role players completed the electronic survey. Role players (n=31, 8%) were of opinion that the food industry understands the government's reason for implementing the HPL. Almost two thirds of the study participants (n= 25, 64,1%) felt that the general public are not aware of, nor understand (n=24, 64,5%) the HPL. Sixty four percent (n= 24) of the participants believed that the proposed taxation rate of 11% is not sufficient to have a significant impact on the purchasing behaviour of consumers. Half of the participants (n=20, 54%) believed that the HPL will not lead to a healthier population. Fifteen role-players (40.5%) were of opinion that the taxation will have a negative impact on job security. Participants were doubtful that the revenue from the HPL will be spent on health promotion. Two thirds of respondents (n=25, 64.1%) agreed that the food industry will reformulate products to lower the sugar content. Key role-players are of opinion that fiscal measures alone is not enough to change consumer's behaviour. More should be done by government to educate consumers and create a supportive environment.

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RETHA DE WET



**A scoping review of speech and swallowing
assessments included in the management of adults
with Generalized Myasthenia Gravis**

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NONCOMMUNICABLE DISEASES (4)

ABSTRACT NUMBER: 36

A SCOPING REVIEW OF SPEECH AND SWALLOWING ASSESSMENTS FOR ADULTS WITH GENERALIZED MYASTHENIA GRAVIS

Retha de Wet (Division of Speech-Language and Hearing Therapy, Stellenbosch University)

Background: Generalized myasthenia gravis (MG) is an acquired neurological autoimmune disease characterised by communication disruptions between the nerves and the muscles at the neuromuscular junction resulting in fatigable weakness of the voluntary muscles, including those involved in eating, swallowing and speaking. **Objectives:** To determine which speech and swallowing assessments are used as part of the initial management of adults with generalised MG. **Data sources:** Systematized searching of nine databases (Scopus, PubMed, CINAHL, Africa Wide, Academic Search Premier, Web of Science, Academic OneFile, Health Source: Nursing and Medline) identified evidence regarding the types of speech and swallowing assessments used, the contexts of these assessments and the referrals made by health professionals. Articles were included if speech or swallowing assessments of adults with generalised MG were discussed, they were available in English, peer-reviewed and published between 2000 – 2019. **Data charting and synthesis methods:** The scoping review methodology was utilised to map the available literature and identify any research gaps within the field. Numerical data analysis documented the year and country of publication, the methodologies followed, the participant details and whether speech, swallowing or both were reflected in the articles. The information was further categorised into the types of assessments and what is included in each, the referrals made post diagnosis, and the settings in which they took place. **Results:** The types of assessments used were instrumental assessments, bedside assessments, diagnostic assessments, and questionnaires. All the articles utilised instrumental assessments and the contexts were predominantly out-patient. Surprisingly, no mentions of referrals were made, and no articles discussed both speech and swallowing assessments together. Most articles focused on swallowing assessments but research on both topics was limited. Research opportunities exist on the speech and swallowing assessments used for adults with generalised MG.

Perioperative Sciences: ORALS (2)

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NICHOLAS LE ROUX



**Financial burden of orthopaedic gunshot
related injury management at a major
orthopaedic centre**

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PERIOPERATIVE SCIENCES (1)

ABSTRACT NUMBER: 5

THE EFFECT OF AN INFORMATION SESSION ON IONIZING RADIATION EXPOSURE IN ORTHOPAEDIC SURGEONS

NICHOLAS LE ROUX* (Division of Orthopaedic Surgery, Stellenbosch University)

M VAN HEUKELUM (Division of Orthopaedic Surgery, Stellenbosch University)

SM JAKOET (Division of Orthopaedic Surgery, Stellenbosch University)

M BURGER (Division of Orthopaedic Surgery, Stellenbosch University)

N FERREIRA (Division of Orthopaedic Surgery, Stellenbosch University)

Background: Violence and injuries are a significant global public health concern, and have a substantial emotional, physical, and economic impact on society. No more so than in South African and specifically the Western Cape. Western Cape Injury Mortality Profile shows that homicide increased from 38 deaths per 100 000 in 2010 to 52 deaths per 100 000 in 2016. The increased homicide rate was due to an increase in firearm-related homicides, which doubled between 2010 and 2016. A 2012 study estimated the average cost per gunshot wound (GSW) related orthopaedic patient at USD 2 940, >3 hours of theatre time per operation, and necessitated a hospital bed for an average period of 9.75 days. Total GSW related patient numbers as well as treatment costs have escalated exponentially over the last few years. We aim to calculate the average cost of treating orthopaedic gunshot victims in a tertiary level hospital setting. Methods: After ethics approval, a retrospective review of all GSW patients seen in the emergency unit over a 12-month period (2017) at a tertiary level hospital was undertaken. Patient record review yielded data that allowed analysis of cost, number and type of implants, theatre time, duration of admission, diagnostic imaging performed, laboratory studies ordered and medications and blood products administered. Results: A total of 400 (370 males and 30 females) patients, average age of 42 years were treated for orthopaedic gunshot injuries in the study period. 182 patients required surgical fixation (203 procedures), including 75 nails, 68 Plates 16 circular external fixators. Final costs will be calculated using a bottom up technique. Conclusion: This study will provide an up to date analysis of the costs involved in managing these patients. It will add to understanding the current epidemic of orthopaedic firearm injuries in South Africa. Improved understanding of the costs incurred will help the state healthcare system better prioritise orthopaedic trauma funding and training, while also supporting cost-saving measures, including primary prevention initiatives.

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**BONTLE MOATSHE, SAMI NKABINDE and
YONELA KENTANE**



**Dynamic risk stratification and audit of patients with Papillary
thyroid carcinoma seen at Tygerberg Academic Hospital**

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PERIOPERATIVE SCIENCES (2)

ABSTRACT NUMBER: 11

DYNAMIC RISK STRATIFICATION AND AUDIT OF PATIENTS WITH PAPILLARY THYROID CARCINOMA SEEN AT TYGERBERG ACADEMIC HOSPITAL

S NKABINDE (MBChB student, Stellenbosch University)

Y KENTANE (MBChB student, Stellenbosch University)

B MOATSHE (MBChB student, Stellenbosch University)

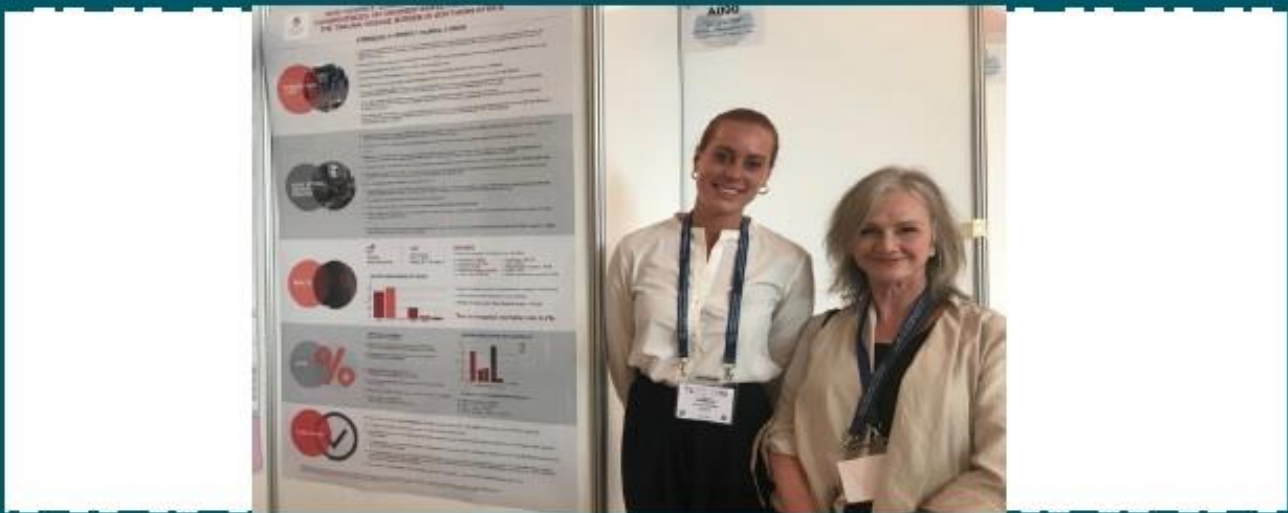
Introduction: Thyroid carcinoma is reportedly the most common endocrine malignancy, with the most prevalent subtype being papillary thyroid carcinoma (PTC)¹. Tygerberg Academic Hospital (TBAH) provides management to patients presenting with PTC in the Western Cape Province of South Africa. There is, however, a lack of evidence-based guidelines to the approach of follow-up management of PTC at TBAH. Local studies are required as a foundation to formulate risk-stratified follow-up of those patients with PTC that present to TBAH. **Aim and Methods:** The aim of the study was to risk stratify patients with PTC according to the American Thyroid Association (ATA) and the British Thyroid Association (BTA) guidelines. The study was a retrospective audit of patient case records. The variables specified in the ATA and BTA guidelines provided the variables of interest for the collection of data. **Results:** The study includes 29 patients with a mean age of 50 years and a 1:4 male to female ratio. According to the ATA risk stratification guidelines, 20.7%, 37.9%, and 41.4% of patients were categorised into low, intermediate, and high risk groups, respectively. There was insufficient data to risk stratify according to BTA guidelines for risk stratification of PTC. The mean tumor size of the sample population at diagnosis was 3.95 cm and radioactive iodine scan uptake (in local and distant metastases) in 81.3% of patients. In addition, there was a 62.5% prevalence of local metastases in contrast to a 29.2% prevalence of distant metastases as shown on radiological studies. The vast majority of patients with PTC (94.1%) required adjuvant therapy. **Conclusion:** According to the ATA guidelines, the majority of patients with PTC were categorized as being at high risk for recurrence, justifying the high utilization of adjuvant therapy in this sample. The statistical risk stratification currently attained from this study for TBAH should be used for improvement of future follow-up management.

Violence, Injuries, Trauma & Rehabilitation: ORALS

(2)

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ANEL PRINSLOO, E. STEYN, A. VERWEY, V.B. KUBEKA



Community assault, an underestimated injury mechanism with costly consequences: Can qSOFA scoring predict risk?

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VIOLENCE, INJURIES, TRAUMA & REHABILITATION (1)

ABSTRACT NUMBER: 3

COMMUNITY ASSAULT, AN UNDERESTIMATED INJURY MECHANISM WITH COSTLY CONSEQUENCES: CAN QSOFA SCORING PREDICT RISK?

Anel Prinsloo, Elmin Steyn, Anke Verwey, Vuyiswa Biotumelo Kubeka

Mob violence is utilized in poor communities to achieve rapid and brutal social justice. The term Community Assault (CA) describes a mechanism which produces a diverse range of injuries. Few studies have assessed the epidemiology, predictors of severity and disease burden of Community Assault. We aim to characterize the injury pattern and assess the value of early qSOFA scoring. Methods: 65 of the victims of CA presenting to Tygerberg Hospital between June and December 2018 were recruited. Informed consent was obtained, admissions data and clinical outcomes were collected from notes and the electronic records system (ECM). The qSOFA parameters are systolic blood pressure (BP) < 100mmHg, respiratory rate (RR) > 22 breaths/min and altered mentation. Results: Of 69 patients identified, 4 were excluded for age and mechanism of injury. More than 50% arrived on Saturdays, Sundays and Mondays. Mechanisms included whipping (53.7%), stoning (62.96%), stabs (22.2%), assault (7.41%) and burns (3.70%). Injuries such as abrasions (77.6%), lacerations (75.5%), bruises (63.3%) and tramline injuries (30.6%) were present. Facial fractures (37.2%), TBI (37.5%), and limb fractures (42.2%) were commonly seen, whilst crush injuries were invariably present. The median hospital stay was 5 days (absolute range = 1 to 56). Twelve patients required ICU admission (median 6 days). The hospital mortality rate was 6.2%. There was a significant association between mortality and high qSOFA ($p = 0.007$), intubation ($p = 0.0014$) and surgical airway requirement ($p < 0.001$.) Parameters associated with poor outcomes were tachycardia, GCS < 13 and urea > 10 mmol/L. Conclusions: Community assault is costly and predisposes to mortality and morbidity. The qSOFA scoring system may predict poor outcomes. The cycle of crime and retribution exhausts public health resources and perpetuates violence in communities. Community Assault must urgently be addressed and prevented.

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**KAUTHAR ALLY, SALMAH KHAN, ASMAA BEGUM
MUSTAPHA, MARIZAN MOOLMAN & MISQAH PARKER**



**Primary to secondary school transition of learners with
traumatic brain injuries in the Cape Metropolitan area:
a learner perspective**

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VIOLENCE, INJURIES, TRAUMA & REHABILITATION (2)

ABSTRACT NUMBER: 9

PRIMARY TO SECONDARY SCHOOL TRANSITION OF LEARNERS WITH TRAUMATIC BRAIN INJURIES IN THE CAPE METROPOLITAN AREA: A LEARNER PERSPECTIVE

Kauthar Ally, Salmah Khan, Asmaa Begum Mustapha, Marizaan Moolman, Misqah Parker, Lee-Ann Jacobs-Nzuzi Khuabi

School participation is a life situation in which adolescents spend a significant amount of time and it contributes to their personal development and overall well-being. However, there is limited literature on school participation of adolescent learners post TBI, specifically from an insider's perspective i.e. the learner with a TBI perspective. Existing studies are more inclined to focus on the hospital to school transition post TBI but does not explore other important school transitions, such as the transition from primary to secondary school. For a learner with TBI, it is of value to examine the transition through the different school phases as the impact of the impairments associated with TBI may become more noticeable as the scholastic demands increase within each phase. This may in turn affect the ability of the learner to optimally perform at school. This study therefore aimed to explore adolescent learners with TBI's lived experiences of their primary to secondary school transition within a developing context i.e. the Cape Metropolitan area. A qualitative approach was utilised while incorporating a phenomenological design. Four participants were purposively selected. Data was collected by means of semi-structured interviews and analysed inductively. Four overarching themes emerged from the data: 1) Changes in functioning, 2) Personal resources, 3) Enabling support structures, and 4) Gaps in support structure. This study provided insight into the enablers and barriers within the person and the environment which currently impacts on the adolescent learner with TBI ability to transition between two prominent school phases and optimally participate in school.

**Violence, Injuries, Trauma & Rehabilitation:
POSTERS (2)**

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**SUSANNA C.S. ALBERTYN, SUJATHA DAWNARAIN,
LAUREN HENDRICKS, JODIE JOHNSON, ALMORETTE
LANDMAN**



**The effectiveness of lower limb strength training
with Whole Body Vibration Training, compared to lower limb strength training
alone, on lower limb muscle strength, functional exercise capacity, pulmonary
function and quality of life in adults with chronic obstructive pulmonary
disease**

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VIOLENCE, INJURIES, TRAUMA & REHABILITATION (3)

ABSTRACT NUMBER: 21

THE EFFECTIVENESS OF LOWER LIMB STRENGTH TRAINING WITH WHOLE BODY VIBRATION TRAINING, COMPARED TO LOWER LIMB STRENGTH TRAINING ALONE, ON LOWER LIMB MUSCLE STRENGTH, FUNCTIONAL EXERCISE CAPACITY, PULMONARY FUNCTION AND QUALITY OF LIFE IN ADULTS WITH COPD

Susanna Catharina Sune Albertyn, Sujatha Dawnarain, Jodie Johnson, Lauren Hendricks, Almorette Le Roux, Marlette Burger, Karina Berner

Background: Chronic obstructive pulmonary disease (COPD) is a leading cause of death and disability worldwide. People with COPD experience various pulmonary and extra-pulmonary impairments; ultimately reducing quality of life (QoL). Rehabilitation modalities that do not elicit dyspnoea, such as strength training, are recommended to improve patient outcomes and combining such training with Whole Body Vibration Training (WBVT) may be even more effective. However, evidence for the effectiveness of such combined training remains insufficient. Objective: To systematically review and update evidence for the effectiveness of lower limb strength training combined with WBVT (intervention), compared to lower limb strength training alone (control), in adults with COPD for improving functional exercise capacity (FEC), QoL, lower limb muscle strength (LLMS) and pulmonary function (PF). Methodology: Eight databases were searched (inception to May 2019): Scopus, Pubmed, PEDro, Science Direct, Ebsco Host: SPORT DISCUSS, Ebsco Host: CINAHL, Cochrane Library and ProQuest. Only randomised controlled trials (RCTs) with PEDro scores >5 were eligible for inclusion. Heterogeneous data were described narratively and homogeneous data using forest plots. Results: Six RCTs (mean PEDro score: 6/10) were included. Besides a significant improvement in leg press peak force at 12 weeks, the intervention was not superior to the control for improving LLMS. FEC improved significantly more in intervention versus control groups at 3 and 6 weeks, and meta-analysis demonstrated a significantly superior effect of intervention versus control at 6-12 weeks ($p<0.001$). PF changes were similar in intervention and control groups. Besides one study showing significantly improved QoL at 12 weeks, and another significantly improved emotional function (12 weeks), QoL improvements were similar for intervention and control. Conclusion: Level II evidence suggests that combining strength training with WBVT has significantly beneficial short-term effects on FEC in adults with COPD, compared to strength training alone.

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ANGELIQUE DU TOIT, SUNÉ GREEFF, CARLYN
VAN DER WESTHUIZEN & KYRAH WILLIAMS



The perceptions of persons with Aphasia with
regards to their experiences of group therapy: A
scoping review

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VIOLENCE, INJURIES, TRAUMA & REHABILITATION (4)

ABSTRACT NUMBER: 23

THE PERCEPTIONS OF PERSONS WITH APHASIA WITH REGARDS TO THEIR EXPERIENCES OF GROUP THERAPY: A SCOPING STUDY

Angelique Du Toit, Suné Greeff, Carlyn Van Der Westhuisen, Kyrah Williams

Aphasia is a neurogenic communication disorder primarily caused by stroke which impairs language modalities. Aphasia therapy has shifted to a more client-centered approach aimed at addressing long term psycho-social consequences of aphasia by focusing on reintegrating people with aphasia (PWA) into their community. Previous literature focused on perceptions of caregivers and third-party stakeholders in the speech therapy intervention of PWA. Gaining insight into the perceptions of PWA will enable clinicians to have a better understanding of their preferences in a group therapy setting. The objective of this scoping review was to evaluate existing literature of the perceptions of PWA regarding speech therapy intervention in a group context. The aim being to gain greater insight into and explore their point of view constituting their experiences and preferences to service provision to establish and inform common goals between the client and the speech-language therapist. The Arksey and O'Malley's (2005) framework was employed and the search included four databases and generated 126 potential studies of which nine met the study inclusion criteria. The results included descriptive information and emerging themes found through content analyses. The three overarching themes which emerged related to the aspects of attitudes, communication and knowledge. Overall the groups were experienced positively by its participants due to its accepting and friendly environment. Negative perceptions led to reduced feelings of inclusivity, due to personal emotional factors or lack of skill of the PWA. The findings indicated limited research for this specific target group. It is recommended that further empirical studies be conducted that can be specifically applied to the South African context to inform service delivery that encompasses the goals of the PWA and further fosters a more meaningful patient-clinician relationship.