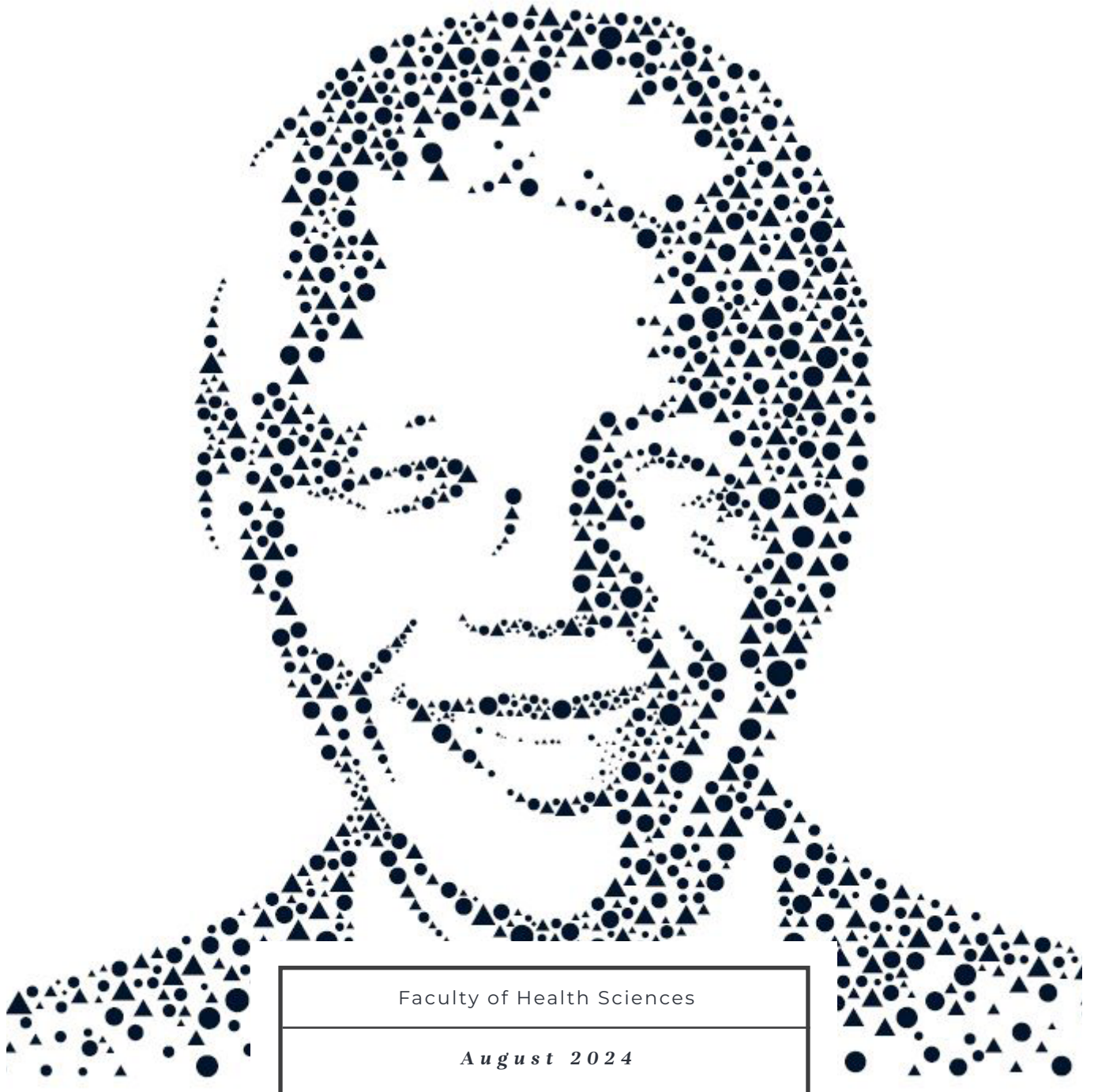


Abstract Book

Research Week 2024



Faculty of Health Sciences

August 2024



INTRODUCTION

The Faculty of Health Sciences Research Week is an annual event dedicated to showcasing research across the departments in our faculty. Speakers from other faculties at Nelson Mandela University are also invited to share insights on specific topics related to health sciences research to promote multidisciplinary and transdisciplinary research. This event also serves as a platform for researchers and students to present their innovative work, engage in collaborative discussions, and explore emerging trends in their fields. By highlighting the latest developments and facilitating interdisciplinary dialogue, it is the hope that participants are inspired with new ideas and drive to progress in the academic and scientific communities.

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WELCOME FROM THE DIRECTOR OF RESEARCH, PROFESSOR PAULA MELARIRI



It is my pleasure and privilege to welcome you to the 2024 Faculty of Health Sciences Research Week. The FHS is set to advance in research and innovation, and your presence in this research week is an indicator of your zeal and commitment to achieving the aforementioned goal.

This event has assembled researchers, scholars, and experts from diverse fields to share knowledge, ideas and best practices in research. We aim to advance a culture of research excellence, promote interdisciplinary, multidisciplinary and transdisciplinary collaborations, as well as showcase innovative research projects that address pressing societal challenges. The research week therefore creates an excellent platform for networking, collaboration within and between faculties. We take cognisance of the tremendous effort made, and the huge investment in funds by institutions around the world towards enhancing health outcomes via research and research engagements. We do not only wish them success in their several endeavours, but we also lend our voice and make our contributions as a faculty towards advancing this noble goal. Today, we are set to hear our distinguished colleagues and students report on their various research engagements, developments and scientific explorations. We look forward to engaging and insightful discussions and debates, inspiring research presentations, meaningful connections/networking, and collaborations.

Again, I wish to extend a warm welcome to everyone, and wish us a successful research week, filled with new insights, connections, and unimaginable opportunities. I am confident that this year's research week will serve as a catalyst for further growth and development in our various research endeavours, and I can't wait to see the impact this will have in the coming years.

Thank you for joining us in this celebration of research excellence. Let us therefore work together to advance knowledge and drive positive change to change the world.

SESSION CHAIRS



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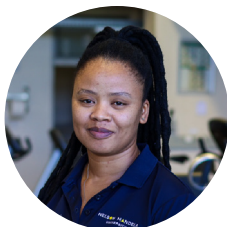
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PROGRAMME

Day 1: Tuesday, 6 August

Session 1

Chairperson:	Dr R. van de Venter
08:30 - 08:35	Welcome message and outline of Day 1 Prof P. Melariri (Director Research: Faculty of Health Sciences)
08:35 - 08:45	Welcome message Prof Z. Zingela (Executive Dean: Faculty of Health Sciences)
08:45 - 08:50	Opening Remarks Dr P. Mothapo (Director Research & Support Management: Nelson Mandela University)
08:50 - 09:00	FHS RESEARCH STRATEGY Prof P. Melariri (Director Research: Faculty of Health Sciences)
09:00 - 09:15	Operationalizing zoonotic neglected tropical disease one health strategy in WHO AFRO region. Prof T. Mdluza
09:20 - 09:35	Enabling research in the digital era ICT Services
09:40 - 09:55	Blended or hybrid learning and teaching? The experience of nurse educators teaching practical modules in undergraduate nursing programs in SA. Mrs K. Gerber
10:00 - 10:15	Early screening for the post ICU syndrome at a tertiary hospital in the Eastern Cape. Dr L van der Merwe

PROGRAMME

Day 1: Tuesday, 6 August

Session 2

Chairperson: Mr J. Naidoo

10:40 - 10:55 Scaling Mountains: Experiences of landfill waste pickers in East London, South Africa.
Mr M. Xweso

11:00 - 11:15 Moral Considerations in the Realm of AI technology.
Prof D. van Greunen

11:20 - 11:35 Characteristics and outcomes of biopsy-proven lupus nephritis in the Eastern Cape province of South Africa.
Dr R. Freercks

11:40 - 11:55 Hospital acquired infections in sub-Saharan Africa: A systematic review and meta-analysis.
Dr H. Melariri

12:00 - 12:20 **Undergraduate 5MIN SPOTLIGHT POSTER SESSION**
Workplace related burnout prevalence among diagnostic radiographers at selected public and private radiography departments in the Eastern Cape.
Ms S Saul, Ms A Qwayede, Ms E Tshutsha
The prevalence of schistosomiasis among school-going children in Southern African Development Community region: A systematic review and meta-analysis
Ms S Magwa, Ms A Mani, Ms N Mnguni, Ms Z Sikhunana

12:20 - 13:00 Networking Session: Academics get to know each other

Session 3 - Departmental Research Showcase

Chairperson: Mrs J. Barry

14:00 - 14:15 **Dr S. Ramroop** (Environmental Health)

14:20 - 14:35 **Dr R. van de Venter** (Radiography)

14:40 - 14:55 **Dr A. Kholvadia** (Human Movement Sciences)

15:00 - 15:15 **Prof I. Truter** (DURU)

PROGRAMME

Day 2: Wednesday, 7 August

Session 1

Chairperson: Mr W. Douglas

08:30 - 08:45 Welcome message and outline of Day 2
Prof P. Melariri (Director Research: Faculty of Health Sciences)

08:45 - 09:00 Exploring the views of selected, unafflicted women from Walvis Bay and Windhoek, Namibia, regarding intimate partner killing and its effects on their well-being.
Dr L. Amadhila

09:05 - 09:20 Prevalence, risk factors and diagnostic biomarkers associated with schistosomiasis transmission among school going children in Nelson Mandela Bay.
Ms M. Vere

09:25 - 09:40 The role of environmental factors, vegetation type, and community knowledge, attitude, and practices on schistosomiasis intermediate host snails' distribution in the Nelson Mandela Bay water bodies.
Mr P. Campbell

09:45 - 10:00 Impact of an educational intervention on hygiene knowledge and practices among municipal waste and sanitation workers in NMBM.
Mr A. Ntunja

10:05 - 10:20 Harmonizing Worlds: Indigenous healing and psychological wellbeing in South African rural communities.
Ms T. Sdinane

10:25 - 10:40 Prevalence and determinants of burnout in medical doctors at public hospitals in Gqeberha, South Africa during the COVID-19 Pandemic: A cross-sectional study
Dr S. Khan

PROGRAMME

Day 2: Wednesday, 7 August

Session 2

Chairperson: Dr N. Mzimela

11:00 - 11:15 Departmental Research Showcase
Mrs E. van Tonder (Human Nutrition & Dietetics Department)

11:20 - 11:35 South African young adult females' experiences of social media use during adolescence.
Ms R. Chen

11:40 - 12:10 **Undergraduate 5MIN SPOTLIGHT POSTER SESSION**
Negative pressure wound therapy compared with moist wound therapy in preventing lower extremity amputation incidents in adult patients with diabetic foot ulcers in a private Nelson Mandela Bay hospital.
Ms Z. Nonkonyana & Ms S. Ngcobo

12:10 - 13:15 **Institutional Research Directors' Panel discussion**
Dr P. Mensah (Director Research & Support Management: NMU), **Dr P. Mothapo** (Director Research & Support Management: NMU) and **Dr N. Gumede** (Director: Innovation Office)
Ms S. Magwa, Ms A. Mani, Ms N. Mnguni, Ms Z. Sikhunana

Session 3

Chairperson: Dr R. van de Venter

14:00 - 14:15 AI in Healthcare: Potentials, pitfalls, open-source and the Global South.
Prof H. Noorbhai

14:20 - 14:35 Application of Behavioural Economics to identify and correct decision biases in implementation science.
Prof S. Mishi

14:40 - 14:55 SANLiC agreements- Nelson Mandela University
Ms BAVUMA

15:00 - 15:15 The Puzzle Project.
Dr J. Jansen

PROGRAMME

Day 3: Thursday, 8 August

Session 1

Chairperson: Ms T. Hutton

08:30 - 08:45 Welcome message and outline of Day 3
Prof P. Melariri (Director Research: Faculty of Health Sciences)

08:45 - 09:00 What does the Ocean have to do with it? Intersection between health sciences and aquatic research.
Dr D. Schael

09:05 - 09:20 Exploring University level admissions decision-making based on access testing and undergraduate admissions variables.
Dr E. Oakes

09:25 - 09:40 An introduction to my research experience and role in my workplace.
Prof A. Hussein

09:45 - 10:00 Strategies to facilitate the implementation of the Patients' Rights Charter in the Bono Region of Ghana.
Mrs D. Hans Wilson

10:05 - 10:20 The relationship between physical activity and body composition among quintile five primary school children in Gqeberha, Eastern Cape South Africa.
Mr A. Bunmi

Session 2

Chairperson: Dr S. Nqweniso

10:45 - 11:00 Departmental Research Showcase
Dr W. ten-Ham Baloyi (Nursing Department)

11:05 - 11:20 Departmental Research Showcase
Prof N. Smith (Medical Laboratory Sciences Department)

PROGRAMME

Day 3: Thursday, 8 August

Session 2

- 11:25 - 11:40 Departmental Research Showcase
Dr J. Cronje (Psychology Department)
- 11:45 - 12:00 Departmental Research Showcase
Prof Z. Soji (Social Development Professions Department)
- 12:05 - 12:20 Advancing resilience in the face of adversity: A Psychosocial exploration of Chimanimani's experience with cyclone Idai and covid-19.
Mrs M. Cheure
- 12:25 - 12:40 Student Entrepreneurship
Ms K. Snyman

Session 3

- Chairperson: Dr D. Morton
- 13:30 - 13:45 Lives Unchecked: The online lives of digital health influencers.
Dr G. Dlamini (Humanities)
- 13:50 - 14:05 Indigenous health knowledge of KhoiSan communities in the Eastern Cape: Exploring pathways for collaborative knowledge production.
Dr S. Mashego (Humanities)
- 14:10 - 14:25 An African care ethic that centres indigenous language as epistemic tool.
Dr Q. Maqabuka (Humanities)
- 14:30 - 14:45 Assessment of knowledge, attitudes, practices and prevalence of intestinal parasites in Sarah Baartman District, Eastern Cape.
Ms S. Mrwebi

PROGRAMME

Day 3: Thursday, 8 August

Session 3

14:50 - 15:50 **Campfire Session, NAVIGATING THE RESEARCH JOURNEY – Individual challenges, collective solutions**
Moderator: Dr R. van de Venter

15:50 **Closure and THANK YOU**
Prof P Melariri (Director of Research: FHS)



Exploring the views of selected, unafflicted women from Walvis Bay and Windhoek, Namibia, regarding intimate partner killing and its effect on their well-being

AUTHOR(S)

Ms Luise Utuhole Amadhila,

Department of Psychology, Nelson Mandela University, Level of Study: PhD

Prof. Magnolia Ngcobo-Sithole,

Department of Psychology, Nelson Mandela University

Intimate Partner Killing (IPK), popularly known as passion killing in certain regions, such as in southern parts of Africa, Europe and America, and also referred to as intimate partner homicide, is a global concern. In Namibia, the rate at which men take the lives of their intimate partners due to failed romantic relationships has sparked apprehension within the communities. This study delves into the perspectives of unafflicted women in Namibia, shedding light on the broader impact of intimate partner killing on female well-being. Using a qualitative approach, the study conducted face-to-face, semi-structured interviews with 14 participants. Grounded theory was applied to analyse the collected data and form categories from it. The data were transcribed and analysed using codes, thematic analysis and interpretation. The theoretical frameworks intersectionality theory, social feminist theory, structuralist theory and systems theory underpin this study.

The findings reveal that intimate partner killing severely affects women's mental health, leading to vicarious trauma characterised by fear and anxiety. Participants reported difficulty experiencing positive emotions in their romantic relationships due to the pervasive uncertainty of this growing issue. Intimate partner killing leaves women feeling scared, unsafe, and traumatised, often prompting them to exercise extreme caution in their relationships to avoid becoming victims themselves. Symptoms such as feeling unsafe, scared and traumatised align with post-traumatic stress and generalised anxiety. The study recommends implementing policy interventions and stringent laws in Namibia to prevent or discourage men from resorting to violence against their loved ones. Moreover, establishing assistance centres staffed with social work and mental health professionals is crucial to counselling and supporting women experiencing post-traumatic stress and anxiety resulting from intimate partner violence.

Keywords: intimate partner killing; intimate

partner violence; vicarious trauma;

well-being; Walvis Bay; Windhoek

THE RELATIONSHIP BETWEEN PHYSICAL ACTIVITY
AND BODY COMPOSITION AMONG QUINTILE FIVE
PRIMARY SCHOOL CHILDREN IN GQEBERHA,
EASTERN CAPE, SOUTH AFRICA

Author

Mr Ademola Bunmi

Purpose: Childhood physical inactivity, overweight, and obesity have become a global pandemic and a predictor of associated non-communicable diseases that contribute to premature morbidity in adulthood. The recent Global report of children and adolescents regarding physical activity (PA) shows that 81% of children and adolescents do not meet the recommended amount of moderate- to vigorous-intensity physical activity required for health and well-being. Given the tracking of adverse body composition and other confounding disease-related factors, early childhood is a crucial developmental period for early screening, identification, and prevention of obesogenic behaviour. Primary schools are ideal settings to serve as platforms for health education and the implementation of practice-based interventions. However, the restructured school curriculum in South Africa, where physical education as a separate school subject has lost formal instruction time to life skills, contributes to decreased physical activity levels among children. Children need heightened energy expenditure to address the adiposity challenge.

Method: The study will use a descriptive and inferential research design that is quantitative in nature. The level of physical activity (PA) will be measured using an actigraphy accelerometer. Bioelectrical impedance analysis will be used to determine body mass index, fat-free mass, fat mass, and muscle mass. Data obtained will be analysed using the Statistical Package for Social Science (SPSS vs 27) and reported as means and standard deviations for PA and body composition of age and gender cohorts. The relationship between PA and body composition will be tested using the chi-square of the same software. Pearson correlation will be used to show the level of relationship between PA and body composition.

Expected output: The review output of this study will be published in a journal. Likewise, an article on the relationship between physical activity and body composition among quintile five primary school children in Gqeberha, Eastern Cape, South Africa will be published.

Keywords:

Physical activity, body composition, body mass index, fat-free mass, fat mass, muscle mass, and primary school children (6-9-year-old)

Diet and lifestyle changes during the COVID-19 pandemic among healthcare professionals in the Eastern Cape province

Author:

Ms Thabile Baloyi

The unprecedented COVID-19 era was one that posed drastic changes and challenges to healthcare professionals and the healthcare system. The increased pressure and expectations for healthcare professionals to ensure the continuum of care for patients while ensuring that they themselves do not become patients, further increased stress and affected their mental and physical health. Healthy dietary habits and physical activity play a significant role in supporting mental health and the immune system by improving its response to infections, therefore ensuring preparedness in the event of future pandemics.

Objectives: To determine the perceived changes of dietary and lifestyle habits and to investigate how environmental, physical, and social factors had contributed to the perceived changes.

Keywords:

Healthcare professionals, lifestyle, diet, COVID-19, Nutrition.



Methods: Data was collected from 348 healthcare professional during the COVID-19 pandemic through an online survey. Data included demographic, risk behavioural, dietary habit change, dietary diversity score, nutrition knowledge and COVID-19 impact data. Pearson Chi-square tests were used to compare significance rates.

Results: Dietary habits and lifestyle were negatively affected by the COVID-19 pandemic. Healthcare professionals indicated that their weight had increased, they consumed more alcohol and fast foods and participated in less exercise. There was a high caffeine consumption and decreased sleep which could affect healthcare professionals' productivity, resilience and mental health.

Conclusion: The negative impacts posed by the pandemic needs to be mitigated as it has the potential to increase the burden of non-communicable diseases. Coordinating wellness initiatives and developing sustainable programmes relating to coping mechanisms during any state of disaster can benefit healthcare professionals.



*South African
Young Adult
Females’
Experiences of
Social Media Use
during
Adolescence*

AUTHOR :

Ms Rebekah Chen

Social media has become an integral aspect of the lives of numerous young adults, particularly among females, who actively participate in various social media platforms (i.e. Facebook, Instagram, Tik Tok, etc.), which serve as avenues for leisure, entertainment, and staying informed about current trends happening in the world. However, social media can elicit a sense of identity loss, lack of self-esteem, feelings of anxiety and depression, and/or life difficulties. Attention has been drawn to the dearth of qualitative research aimed at investigating these phenomena. Based on a collaborative review of the scientific literature by Haidt et al. (ongoing), it has been noted that there is a lack of research that separates females from males, along with the distinct experiences that individuals have had from utilising social media from a young age. Additionally, there are few studies in South Africa that investigated subjective experiences of social media use by young adult females.

The aim of the proposed study is to explore how social media use potentially affects the mental health of young female adults in the South African context. Three operationalised objectives are proposed in order to achieve the overall aim of the study. Firstly, to retrospectively explore and describe the experiences of participants’ social media use as adolescents. Secondly, to explore and describe the perceived consequences of teenage social media use of participants. Lastly, to provide a comprehensive Schema Therapy perspective of the data collected through objectives 1 and 2. The researcher will use a qualitative research design, using the exploratory and descriptive approaches to gain a better understanding on the experiences of the young adult females. Non-probability, convenience, and snowball sampling will be used to recruit the participants (anticipated minimum sample size will be 10), and data will be collected using semi-structured interviews.

The role of environmental factors, vegetation type, and community knowledge, attitude, and practices on schistosomiasis intermediate host snails' distribution in the Nelson Mandela Bay water bodies

AUTHOR

Mr Prince Campbell

Background: Schistosomiasis, often known as bilharzia, is a parasitic water-borne disease caused by trematode flatworms of the genus *Schistosoma*. In 76 endemic countries, including 46 in Africa, over 800 million individuals are at risk of contracting the disease. This study examined the influence of water physicochemical properties, vegetation type and community knowledge, attitudes and practices (KAP) on the distribution and habitat preference of schistosomiasis intermediate host snails in the communities of Kariega and Kwa Nobuhle, in Nelson Mandela Bay.

Methods: A quantitative cross-sectional research design approach was employed in this study. Eight sampling sites were selected based on their proximity to residential areas. Snails and water physicochemical properties were collected over different seasons for 9 months. A simple dip method was used for surface water samples and measurements were done using multiparameter meters. Snails captured using a 300 µm mesh scoop net and predominant plant species were gathered and transported to experts for identification. A structured questionnaire was used to elicit responses from 380 participants for the pre- and post-intervention KAP study, using the interview format. Data was analysed using R software (version 4.3.1) and Microsoft Office 365. (2019 version).

Results: Freshwater snails were found in all eight water bodies studied; however, schistosomiasis intermediate host snails were only found in three of them while the prevailing species in the study sites were *Physa* snails. There was no correlation between the number of snails and turbidity ($r=-0.070$). However, a negative and weak correlation existed between snails and DO ($r=-0.185$), hardness ($r=-0.210$), pH ($r=-0.235$), TDS ($r=-0.236$), EC ($r=-0.240$), salinity ($r=-0.242$), and temperature ($r=-0.273$). There was also a negative correlation between snails and vegetation coverage ($r=-0.127$). Of the 380 study participants, only 8.7% were aware of the disease pre-intervention. The paired samples t-test results demonstrate a difference (7.2 ± 2.5) in knowledge scores, and the improvement in knowledge levels post intervention is statistically significant ($p<0.001$).

Conclusion: The study discovered an abundance of *Physa* snails; considering their biological characteristics and ability to endure, these snails could potentially serve as a biological control agent in locations where the disease is endemic, as they outcompete other snails, including schistosomiasis intermediate host snails. Most community members had a positive attitude towards the disease pre- and post-intervention. However, due to lack of awareness pre-intervention, some participants were engaging in risky practices regardless of the positive attitude. This suggests the need for health education and intervention programs on schistosomiasis and water, sanitation and hygiene practices to promote behavioural changes that interrupt disease transmission.

Keywords: Schistosomiasis; Physicochemical properties; Vegetation type; Intermediate host snails; Knowledge, attitudes and practices

Advancing Resilience in the Face of Adversity: A Psychosocial Exploration of Chimanimani's Experience with Cyclone Idai and COVID-19

Authors

Mrs Memory Matsikure Cheure and Prof Magnolia Nqobo-Sithole

This study explores the psychosocial impact of Cyclone Idai and COVID-19 on vulnerable communities in Chimanimani, Zimbabwe. We aimed to investigate the experiences and perceptions of community members, identify factors influencing resilience, and inform strategies for advancing resilience. A qualitative research approach was pursued using the multiple case study design involving five purposively and lottery simple randomly selected wards for comparisons across cases to generate more compelling evidence. Interviews were conducted with 7 key informants, and focus group discussions with 20 community members to solicit information on the participants' experiences.

Thematic analysis was employed to analyze the data, revealing patterns and themes through coding and categorization. Our findings reveal a complex interplay of factors affecting resilience, including trauma, economic instability, and social dynamics. We argue for a contextualized approach to promoting resilience, incorporating community-based initiatives, economic empowerment, and policy support. Our research contributes to the understanding of disaster resilience, highlighting the need for contextualized and theoretically informed strategies



**CHARACTERISTICS
AND OUTCOMES OF
BIOPSY-PROVEN
LUPUS NEPHRITIS
IN THE EASTERN
CAPE PROVINCE OF
SOUTH AFRICA**

AUTHORS :

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Objective:

In Africa, the treatment outcomes of lupus nephritis (LN) are not well known. This is especially true in the current era where contemporary treatment options are more widely available. This retrospective study aimed to measure the outcomes of biopsy-proven LN treated at the Livingstone Tertiary Hospital (LTH) Renal Unit in Gqeberha (formerly Port Elizabeth), South Africa and to identify predictors of a poor outcome.

Methods:

A retrospective cohort study of 131 patients with biopsy-proven LN who had a kidney biopsy between 01 January 2012 to 31 December 2021 as identified from the biopsy register. A sub-analysis of 107 patients with proliferative and/or membranous LN was performed.

Results:

Mean age was 31.4 ± 12.7 years with a female predominance of 86.3%. At 6-month follow-up, 69.6% of patients had complete or partial response to treatment. This increased to 70.3% and 72.6% at 18 and 30 months, respectively. Twenty-seven patients were lost to follow-up, while 7 (5.3%) patients progressed to kidney failure. There were 3 (2.3%) deaths. Predictors of poor response were an elevated baseline serum creatinine (OR = 2.53, 95% CI 0.99 – 6.52, $p = 0.054$), a decreased eGFR (OR = 2.92, 95% CI 0.94 – 9.09, $p = 0.065$) and an elevated blood pressure (OR = 6.06, 95% CI 1.11 – 33.33, $p = 0.038$) at the time of biopsy. There was no difference in response between those receiving mycophenolic acid derivatives or cyclophosphamide for induction ($p=0.459$).

Infections were the most common adverse event with 50 infections seen in 39 (29.8%) patients. Herpes viral infections were frequently noted ($n=12$) accounting for 24.0% of all documented infections.

Conclusion:

Response rates were similar in this cohort when compared to other contemporary studies. Predictors of poor response were an elevated baseline serum creatinine, a decreased eGFR and an elevated blood pressure at time of the biopsy. There were no statistically significant differences in outcomes between CYP and MMF as induction agents. Infections were the most common occurring adverse event, although the mortality rate remained low at 2.3%.

Blended or hybrid learning and teaching? The experience of nurse educators teaching practical modules in undergraduate nursing programs in South Africa

Author

Mrs Karin Gerber

Education is crucial for advancing all seventeen Sustainable Development Goals. During the COVID-19 pandemic, educators and students had to rapidly switch from traditional to emergency online learning, facing numerous challenges. This transition was especially difficult for health science programs like nursing, which rely heavily on in-person practical sessions. International studies show that practical modules cannot be effectively taught entirely online and require a blended approach. However, there is limited research on this in South Africa, particularly regarding whether nurse educators can adapt to this approach and what support they need.

This qualitative, explorative, descriptive study aimed to develop strategies to support nurse educators transitioning from traditional in-person-only learning and teaching (LT) to blended LT of practical modules in Bachelor of Nursing programs in South Africa. As part of the first phase of the researcher's doctoral study, the researcher explored the experiences of nurse educators regarding the LT of practical modules in the Bachelor of Nursing programs at University Nursing Departments. Purposive sampling was used to select nurse educators teaching practical modules in nursing programs for at least two years. Eleven semi-structured interviews were conducted using online platforms such as Zoom or MS Teams. Thematic analysis of the collected data was performed, applying the six phases of Braun and Clarke's thematic analysis (2006).



The experiences shared by the nurse educators indicated that insufficient transitioning to blended LT in the practical modules was present, which formed the overarching theme for this group of participants. There were three main themes: nurse educators expressing their lack of readiness to transition to blended LT, nurse educators feeling safe applying the traditional, in-person LT approach in the practical modules, and nurse educators recognising the need to transition to blended LT. Although the nurse educators verbalised experiencing many barriers and lack of knowledge, most acknowledged the need to include a changed approach to LT in educating nursing students in today's technologically driven environment to prepare them for the working world.

Keywords: Educators, Healthcare education, Higher education, Blended learning and teaching,

University Nursing Departments, Nursing programs, Nursing students, and Practical modules.

PATIENTS' PERCEPTIONS REGARDING THE IMPLEMENTATION OF THE PATIENTS' RIGHTS CHARTER IN THE BONO REGION, GHANA

Author:

Ms Diana Hans Wilson

Health is as a fundamental human right which every individual is entitled to the highest attainable standard notwithstanding race, gender, ethnicity or economic or religious affiliation. Many countries including Ghana have enacted patients' rights charters (PRCs) which seek to defend the rights of the patient to higher standards of quality and accessible health care without discrimination. Implementation of the PRC leads to an increase patient satisfaction, quality of health care services and improved treatment outcomes. However, despite efforts by the Ghanaian Ministry of Health, the level of implementation of the PRC still remains low. This study therefore explored and described the experiences of patients regarding the implementation of the PRC in various hospitals in the Bono Region of Ghana.

The design used was a qualitative, exploratory descriptive design. Convenient sampling was used to select participants from three hospitals, comprising a government, quasi- and private hospitals. Semi-structured interviews were conducted with twelve (12) patients. The interviews were transcribed, and data were analyzed using the Tesch's eight steps of coding. Lincoln and Guba's framework was used to enhance the trustworthiness of the study.

Preliminary findings identified six themes from the analyzed data, including: patients' roles regarding the implementation of the PRC; patients' perceptions regarding the roles of nurses in the implementation of the PRC, factors influencing health care providers' ability to implement the PRC; Government's role in the implementation of the PRC and cultural factors influencing the implementation of the PRC.

Based on the preliminary findings of the study, there is a need for the government and the health care facilities to empower the public and patients to understand the PRC and what it stands for. This can be achieved through communicating through various media and by patient education in hospitals. Nursing education institutions need to include the PRC in their curricula. Families and traditional authorities also need to promote the implementation of the PRC.

THE PUZZLE PROJECT

Author: Dr Jennifer Jansen

In South Africa, particularly in rural areas, children face significant developmental challenges exacerbated by socio-economic disadvantages. Existing local developmental and school readiness tools are outdated and insufficiently representative of the current socio-cultural context. This study aims to address this gap by piloting and standardising the Puzzle Box Screening Tool, designed for children aged 5 to 6 years 11 months, in IsiXhosa, English, and Afrikaans within the rural Eastern Cape. The research is conducted in two phases: the piloting phase assesses the tool's performance and factor structure, while the standardisation phase confirms its psychometric properties.

The study employs quantitative methods, including descriptive analysis, item analysis, Exploratory Factor Analysis (EFA), and Confirmatory Factor Analysis (CFA). By analysing data from a sample of preschool children, the research seeks to develop a culturally and contextually relevant screening tool that captures holistic developmental aspects beyond traditional school readiness metrics. This initiative aims to enhance the assessment landscape, contributing to more equitable early childhood development practices in South Africa. The theoretical framework integrates Ruth Griffiths' developmental model, emphasizing the interconnected nature of child development across multiple

Prevalence and determinants of burnout in medical doctors at public hospitals in Gqeberha, South Africa during the COVID-19 Pandemic: A cross-sectional study

AUTHORS

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Background:

Burnout, resulting from chronic workplace stress that has been unsuccessfully managed, has previously been documented in doctors. The coronavirus disease 2019 (COVID-19) pandemic has increased occupational challenges faced by doctors, potentiating their risk for burnout.

Aim:

This study aimed to determine the prevalence and determinants of burnout among medical doctors during the COVID-19 pandemic.

Methods:

A cross-sectional study of 260 voluntary participants was conducted. Participants completed self-administered electronic questionnaires. Logistic regression analysis was performed to explore the determinants of burnout.

Results:

The prevalence of burnout in this study was 78%. Burnout was significantly associated with being a medical intern or community-service medical officer (AOR = 6.72, 1.71–26.40), being in the lowest income band (AOR = 10.78, 2.55–45.49),

and using alcohol to manage work-related stress (AOR = 3.01, 1.12–8.04). Job-related factors associated with burnout were experiencing high conflict at work (AOR = 5.04, 1.92–13.20) and high role ambiguity and role conflict (AOR = 4.49, 1.98–10.18). Low support at work (AOR = 9.99, 3.66–27.23), medium job satisfaction (AOR = 5.38, 2.65–10.93) and medium support at work (AOR = 3.39, 1.71–6.73) were positively associated with burnout. Participants with medium (AOR = 0.28, 0.10–0.80) and high levels of resilience (AOR = 0.08, 0.03–0.25) were protected against burnout. Coronavirus disease 2019-related factors were not significantly associated with burnout.

Conclusion:

The burnout prevalence among South African medical doctors at public hospitals during the COVID-19 pandemic was high and strongly associated with job stress factors.

Contribution:

Given the increased prevalence of burnout among doctors and the strong associations with job stress factors, mitigation of burnout requires targeted organisational interventions.

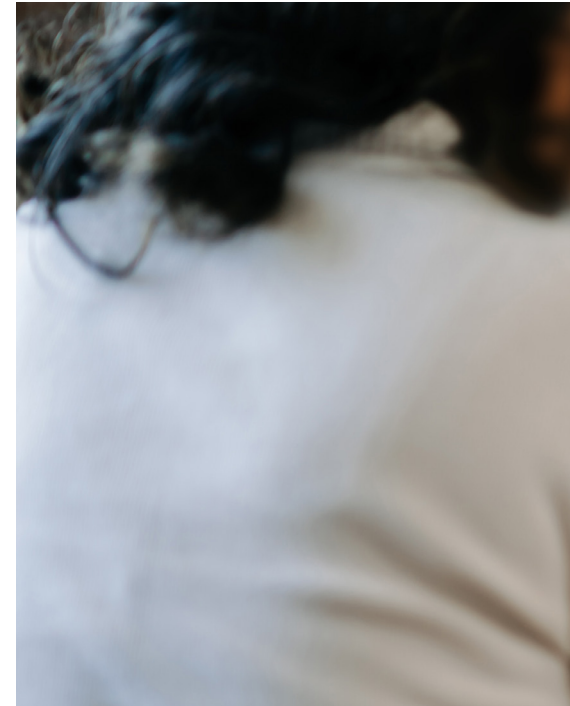


Osteoarthritis rehabilitative practices among biokineticists and physiotherapists in South Africa

Author:

Dr Aaysha Kholvadia

A multifaceted condition such as osteoarthritis is well matched within multidisciplinary management which emphasises holistic patient-focused care. Although a multidisciplinary approach to osteoarthritis management has been proposed, scientific literature has shown inconsistencies in referrals for the optimal engagement of patient-focused care in the South African healthcare system. The study's objective was to evaluate and describe osteoarthritis rehabilitative practices among biokineticists and physiotherapists, thereby identifying current trends in osteoarthritis management. Using a descriptive and cross-sectional study design, data were collected from a target sample of biokineticists (n=47) and physiotherapists (n=165) in the South African public and private healthcare sectors, who completed an online questionnaire. The questionnaire surveyed rehabilitative practitioners' management modalities and patient referral trends.



Respectively, 100% and 93% of the biokineticists and physiotherapists selected physical exercise therapy as their preferred management modality for osteoarthritis patients ($p=0.35$). Almost all biokineticists (89%) and physiotherapists (87%) stated that they refer osteoarthritis patients to other healthcare practitioners. Specifically, biokineticists (55%) and physiotherapists (50%) would most likely refer an osteoarthritis patient to a specialist medical practitioner. Notably, the majority of biokineticists (55%) also indicated that they would most likely refer an osteoarthritis patient to a physiotherapist. Understanding the various rehabilitative practices and the unique role of each profession could guide the discussion around the current referral systems in osteoarthritis management in the South African context, and thereby facilitate necessary referrals centred on multidisciplinary patient-focused care.



*Patients’
Perceptions of
Interprofessional
Collaboration:
A Scoping Review*

AUTHOR :

Dr Aayesha Kholvadia

Collaboration has emerged as a pivotal element within an intentional person-centred healthcare framework. However, there is a need for evaluative feedback from patients to enhance interprofessional collaboration and its outcomes. The objective of this review was to describe the state of knowledge on the perspectives of patients living with a chronic condition regarding their experiences of interprofessional collaboration. A scoping review across five online databases (EBSCOhost, Google Scholar, PubMed Central, ScienceDirect, and Taylor & Francis Online; February 2023) identified all peer-reviewed literature published in English between the years 2018 and 2023 that reported on patients’ perspectives of, and experiences with, interprofessional collaboration and/or its effect on patient care and outcomes. Articles selected for final appraisal were descriptively and thematically analysed. The literature search yielded 3454 articles.

One hundred and four (104) full-text articles were included for appraisal based on the eligibility criteria. Once study selection and critical appraisal were completed, 25 studies were included in the review. Three themes were reported on the patient’s perspective of interprofessional collaboration: (i) Team functioning, (ii) Patient involvement, and (iii) Coordinated care. Interprofessional relations, role clarification, and team-based communication were the main factors essential to successful team functioning as perceived by patients. Further exploration of these key factors is necessary to guide the development of improvement strategies or interventions focused on strengthening interprofessional collaboration and the patient’s experience. The patient’s perspective of interprofessional collaboration still warrants further investigation to improve patient experience, quality of care, and outcomes in a collaborative environment.

Team approach to osteoarthritis management: Viewpoints of biokineticists and physiotherapists in South Africa

AUTHOR(S)

Dr Aayesha Kholvadia

Robynne Gilchrist

Background:

The rehabilitative nature of biokinetics and physiotherapy in osteoarthritis management highlights a complex interaction between different professions to achieve effective outcomes for the patient. The success of a team approach is dependent on key competencies for optimal patient-focused care and appropriate cross-referral systems.

Objectives:

To explore and describe the viewpoints of biokineticists and physiotherapists regarding a team approach to osteoarthritis management in the South African public and private healthcare setting.

Methods:

A descriptive methodology with a convenience sampling technique was used. The target population consisted of biokineticists (n=47) and physiotherapists (n=165) located within the South African healthcare sectors. A self-administered, online questionnaire surveyed rehabilitative professionals' views of a team approach to osteoarthritis management.

Results:

There is no evidence that the biokineticists and physiotherapists differ with respect to how they rate the communication between team members in osteoarthritis management ($p=0.68$). Communication was viewed as neither of a high nor low quality by biokineticists (43%) and physiotherapists (36%). Biokineticists (54%) and physiotherapists (69%) felt adequately equipped on their understanding of the role of various healthcare professions involved in osteoarthritis management ($p=0.22$). However, 43% of rehabilitative professionals indicated that they had not been exposed to interprofessional education initiatives ($p=0.61$).

Conclusion:

Both professions were well-versed on the roles of various professions involved in osteoarthritis management, however, communication was not optimal. While this study creates an awareness of the benefits of team-based management for osteoarthritis, the findings could stimulate debate on the optimal implementation of key competencies required for effective teamwork, thereby facilitating patient-focused care and referral systems.

An African care ethic that centres indigenous language as epistemic tool



AUTHOR :

QAWEKAZI MAQABUKA

Care ethics continues to be an important issue in the moral and ethical dilemmas that we are confronted with daily. A silent but prevailing issue in the theorisation of care ethics is the dominance of the English language in the ways of thinking of and writing about care ethics. The problem with this it creates language inequities across cultures and geographical spaces whose ethics are not presented. This paper presents a philosophical discussion on how language changes the meanings, perception and approach to the act and experience of care and its ethical perimeters. To illustrate the former, this paper uses isiXhosa as a linguistic tool and its vocabularies of 'impatho', 'Isandla' and 'inkathalo', to stretch the existing definitional boundaries of care ethics and present an indigenous African care ethic.

care, language, impatho, isandla,

indigenous language

Operationalizing Zoonotic Neglected Tropical Disease One Health strategy in WHO AFRO Region

AUTHOR

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Background:

The successful execution of the WHO Neglected Tropical Diseases (WHO NTDs) Elimination Roadmap to 2030 hinges on adopting a One Health approach, necessitating collaboration among sectors responsible for human, animal, and environmental health, alongside other stakeholders. As delineated in the roadmap and the accompanying One Health for NTDs document, there's a need to refine the strategy for addressing neglected zoonotic NTDs (zNTDs), especially for African region.

Methods:

To achieve this, a Framework for zNTDs One Health is proposed, outlining detailed stages such as landscape analyses of zoonotic and NTDs prevalence, assessment of each country's One Health activities, consultations with experts, and identification of health system gaps. This framework provides a roadmap for multi-sectoral and transdisciplinary implementation, crucial for alleviating the burden of zoonotic NTDs among impoverished neglected populations. Implementation of the zNTDs One Health approach entails recognizing the prevalent zNTDs in each country, planning interventions individually with clear milestones and indicators, and aligning them with the revised NTDs Master Plans.

Results:

Despite well-planned interventions for preventive chemotherapy (PCT) NTDs, 48 countries under the WHO AFRO have struggled to effectively address zoonotic NTDs due to unclear strategies and lack of direct milestones and targets. Among the NTDs under current thrust at WHO, 10 are zoonotic with ranked prevalence as rabies 95.8% (46 countries), HAT 93.8% (45), snake bite envenomation 95.8% (46) Taeniasis/cysticercosis 79.2% (38), Mycetoma/chromoblastomycosis and deep mycosis 70.8% (34), Visceral Leishmaniasis 70.8% (34) and schistosomiasis 77.1% (37), echinococcosis 54.2% (26) while food borne trematodes is 25% (12) prevalent. No country in the WHO AFRO region is implementing zoonotic NTDs One Health, while only 3 countries reported setting up coordination and planning for effective implementation. However, 95.8% (46) countries have successful NTDs PCT programmes, and 31.2% (15) have intensive diseases management programmes for NTDs, while 87.5% (42) have effective veterinary public health targeting zNTDs and successful programmes being implemented in silos on vector ecology management 91.7% (44) and WASH 93.8% (45).

Conclusions:

Creating a Regional Strategic Framework for the One Health approach on zoonotic NTDs prevention, control, elimination, and eradication for the WHO AFRO region involves several key steps to address the unique challenges and leverage the potential of intersectoral collaboration. Therefore, it is recommended that countries reassess their planning processes, treating each prevalent zoonotic NTD individually, identifying gaps, and establishing clear targets for monitoring and evaluation, which would enhance disease monitoring and help prevent future pandemics in target communities.

Hospital Acquired Infections in sub-Saharan Africa: A systematic review and meta-analysis

Authors

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Globally, hospital-acquired infections (HAI) remain a major cause of morbidity and mortality. In sub-Saharan Africa (SSA), few systematic reviews and meta-analysis have been attempted. In this review, we systematically sought to fill this gap by reporting recent trends in HAI in SSA with emphasis on specific patient populations, geographic variation, and associated mortality. We searched six electronic databases (Web of Science, Pubmed, APA PsycInfo, CINAHL, Embase, and the Cochrane Library) to identify studies reporting on prevalence of HAI in SSA and published between 01 January 2014 and 31 December 2023. Teams of two or more reviewers independently conducted screening and data extraction from included studies. R software (version 4.3.1) meta and metafor packages were used in calculating the pooled prevalence estimates. Sources of heterogeneity were sought through subgroup analysis and meta-regression. Of 4338 records screened, we identified 41 studies reporting on the prevalence of HAI in SSA comprising 15 from West Africa, 12 from Southern Africa, 11 from East Africa, and 3 from Central Africa (n= 6821).

The pooled prevalence of HAI was estimated at 12.9% (95% CI: 8.9–17.4) for SSA. The pooled prevalence along subregional lines were estimated at 15.5% (95% CI: 8.3–24.4; n = 2107; k = 15), 6.5% (95% CI: 3.3–10.7; n = 2963; k = 12), 19.7% (95% CI: 10.8–30.5; n = 2142; k = 11) and 10.3% (95% CI: 1.1–27.0; n = 124; k = 3) respectively for West Africa, Southern Africa, East Africa and Central Africa. Mortality from HAI was estimated at 22.2%. Our study reveals a high burden of HAI in SSA with significant heterogeneity across regions. Distribution variations highlight the need for infection prevention and control strategies targeting the regions worse affected.

Keywords: Hospital-acquired infections;

Nosocomial; Trends; Healthcare;

Burden; sub-Saharan Africa



**ASSESSMENT OF
KNOWLEDGE,
ATTITUDES, PRACTICES
AND THE PREVALENCE
OF INTESTINAL
PARASITES IN SARAH
BAARTMAN DISTRICT,
EASTERN CAPE**

AUTHORS :

MS SISANDA MRWEBI
MSC ENVIRONMENTAL HEALTH

Background:

Intestinal parasites also known as parasitic worms are one of the common water, soil and faecal transmitted infections of public importance in the world. This study evaluated the Knowledge, Attitudes and Practices (KAP) of public workers comprising EPWP and CWP general workers on intestinal parasites in a selected municipality in the study area . Additionally, using secondary data, the researcher established the prevalence of intestinal parasites in Sarah Baartman District Municipality (SBDM) from 2012 to 2020.

Method:

The study made use of a quantitative, cross-sectional research design resembling a study by S.D. Hambury .A structured questionnaire, closed-ended, telephonically-administered questionnaire was used to collect data from 160 Expanded Public Works Programme (EPWP) and Community Work Programme (CWP) general workers. Data on the prevalence was obtained from the SBDM National Health Laboratory Service (NHLS). Data was analysed using both inferential and descriptive statistics using SPSS software version 16.1, inferential statistics tests used were Chi2 square tests and p-value tests. Descriptive statistic tests used included frequency distributions, percentage, cumulative percent, and valid percent.

Results:

The participants' overall awareness, attitudes and practices of the study were poor, 64.4% of the study participants had the correct knowledge about intestinal parasite infections. The age of study participants and who the participants thought was at risk of being infected by intestinal parasites had a non significant relationship ($p>0.05$). Gender and the responses to who is at risk of getting infected with intestinal parasites had a statistically significant ($p<0.05$) relationship. Intestinal parasite prevalence from 2012 to 2020 in SBDM was 46.37% which means it was close to half of the sampled population. Males had the highest prevalence as compared to females, with a prevalence of 53.1% in males and 46.9% in females. The highest disease infection was found between ages one and six years.

Conclusion:

The researcher concluded that the overall awareness, attitudes and practices on intestinal parasites in SBDM were poor. The intestinal parasites present in SBDM were *Cyrtospora belli* (35.4%) and *Giardia lamblia* (35.4%), *Ascaris lumbricoides* (17.7%), *Trichuris trichiura* (3%), and *Taenia* species (2%). The study also revealed that the prevalence of intestinal parasites was low from 2012 to 2020. Recommendations were made with an emphasis on education to increase disease prevention and control awareness.

Keywords: Intestinal parasites, Knowledge Attitudes and Practices (KAP), prevalence, , soil transmitted helminths, health

IMPACT OF AN EDUCATIONAL INTERVENTION ON HYGIENE KNOWLEDGE AND PRACTICES AMONG MUNICIPAL WASTE AND SANITATION WORKERS IN NELSON MANDELA BAY MUNICIPALITY, SOUTH AFRICA

Author

Mr Alive Ntunja

Background: Municipal waste and sanitation workers play a crucial role in maintaining public health by providing a safe and clean environment. They accomplish this by performing tasks such as sweeping streets, collecting domestic waste regularly, pit latrine cleaning, cleaning public toilets, and operating waste collection trucks. Nonetheless, they play a crucial role in mitigating health-related challenges by ensuring a clean and healthy environment through correct waste collection and disposal practices. Therefore, safe waste collection is a critical undertaking that safeguards the health and living conditions of individuals worldwide. However, their hygiene-related knowledge and practices remain very low due to a lack of educational intervention programmes related to hygiene. Therefore, the study investigated the impact of an educational intervention on hygiene knowledge and practices among municipal waste and sanitation workers in the Nelson Mandela Bay Municipality (NMBM) area.

Methods: The study used a quasi-experimental study (pre- and post-test) design. A total of 201 municipal waste and sanitation workers were conveniently sampled in the study from five municipal waste depots and six wastewater treatment plants in the NMBM. A self-administered structured questionnaire was used to collect the participants' demographic data and a pre-intervention assessment on hygiene-related knowledge and practices. An educational intervention based on existing literature and national environmental cleaning guidelines and policies was implemented, and after a minimum gap of two months following the intervention, participants were asked to complete the post-intervention questionnaire. The collected data was captured in a QuestionPro survey platform and analysed in Microsoft Office 365 (2019 version) and R software (version 4.4.1). The knowledge and practice items were further evaluated for internal reliability using the Cronbach's alpha technique. Inferential statistics were used to analyse and describe the data, including tests such as Pearson's correlations, student t-tests, analysis of variance (ANOVA) and multivariable linear regression analysis.

Results: A total of 201 participants, comprising 148 (73.6%) males and 53 (26.4%) females, participated in the study. Of the 201 participants, 95 (47.3%) indicated that they had never heard of hygiene-related diseases. The study participants had fairly poor knowledge and practices regarding hygiene prior to the educational intervention. Based on the paired samples t-test, there was a difference in the mean scores for hygiene knowledge of 4.0 (± 4.8), and the rise in knowledge levels was statistically significant ($p < 0.001$).

Additionally, findings from the paired sample t-test indicate a statistically significant difference (4.3 ± 3.4) in hygiene practice scores with $p < 0.001$. Output obtained from the multivariable linear regression analysis revealed that participants working in Depot (A) ($\beta = -2.82$, $p = 0.005$) were less knowledgeable about hygiene compared to those in Depot (B) in the pre-intervention phase. Participants who have not heard of hygiene-related diseases ($\beta = -3.05$, $p < 0.001$) were significantly less knowledgeable about hygiene than their counterparts who have heard about hygiene-related diseases before. Regarding age, participants older than 51 years of age had slightly poor knowledge ($\beta = -0.09$, $p = 0.919$) regarding hygiene when compared to the participants who were 18-30 years old. Furthermore, only female participants ($\beta = 1.44$, $p = 0.022$) and the coloured ethnic group ($\beta = 1.44$, $p = 0.050$) had good hygiene practices when handling waste, compared to male participants and those of African descent.

Conclusion: The study's findings highlight the significant positive impact of an implemented educational intervention programme among municipal waste and sanitation workers on improving their knowledge of hygiene-related diseases and hygiene practices when discharging their duties. However, predictor factors such as working environment, educational training background, age, and race significantly influenced the effectiveness of the implemented educational programme. The ongoing implementation of similar initiatives are highly recommended among municipal waste and sanitation workers, thus preventing hygiene-related infections among the studied population and fostering a healthier environment.

Keywords: Hygiene practices, knowledge, hygiene-related diseases, municipal waste and sanitation workers, educational intervention.

NEGATIVE PRESSURE WOUND THERAPY COMPARED WITH MOIST WOUND THERAPY IN PREVENTING LOWER EXTREMITY AMPUTATION INCIDENTS IN ADULT PATIENTS WITH DIABETIC FOOT ULCERS IN A PRIVATE NELSON MANDELA BAY HOSPITAL

AUTHORS

Zimkita Nonkonyana

Sindi Ngcobo

Background:

Diabetes mellitus (DM) is one of the most common chronic, metabolic diseases characterized by hyperglycaemia resulting from defects in insulin secretion, insulin action, or both. If DM remains undiagnosed or untreated it can lead to serious complications, including diabetic foot ulcers (DFUs). DFUs is the first cause of hospital admission in patients with diabetes and can lead to infection, gangrene, amputation, and death if needed care is not rendered. Latest available data in South Africa suggests 60.2% (3311 people) of all non-traumatic lower extremity amputations (LEAs) in public hospitals in South Africa are accountable to diabetes. There is research that suggests that Negative Pressure Wound Therapy (NPWT) compared to other wound therapies is more effective in managing DFUs and decreasing the risks for post-treatment amputation, thus preventing LEAs. However, there is a dearth of published research on LEA incidents and wound therapy in adult patients with DFUs in South Africa, and particularly the Eastern Cape

Aim:

To describe and compare NPWT with MWT in terms of the management of DFUs and prevention of LEA incidents in adult patients in a private Nelson Mandela Bay hospital over a three-year timeframe (1 January 2020-31 December 2022) in order to make recommendations to enhance the management of DFUs.

Methods:

A descriptive, quantitative, and retrospective study was used. Purposive sampling was used to select a minimum of 10 records. A developed data extraction tool was used to extract the following data: number of LEA's, number of healed patients and number of ongoing therapy patients. Descriptive data was employed using Microsoft excel.

Results:

NPWT is more effective in the management of DFUs and lowering the incidence of LEAs in adult patients with DFUs when compared to MWT for the treatment of DFUs.

Conclusion:

Evidence from the study demonstrates that NPWT when compared with MWT is more effective in the treatment of DFUs and lowers the incidence of LEAs.

Keywords: diabetes mellitus (DM), diabetic foot ulcers

(DFUs); lower extremity amputation (LEAs); Negative

Pressure Wound Therapy (NPWT), moist therapy (MT).

**EXPLORING UNIVERSITY LEVEL ADMISSIONS
DECISION-MAKING BASED ON ACCESS TESTING
AND UNDERGRAGUATE ADMISSIONS VARIABLES**



AUTHOR :

DR ELIZABETH OAKES

This study explored decision-making in a university admissions context. By combining Social Judgement and Cognitive Continuum theories and experimentally mirroring the real-life admissions context, a baseline description was provided of how decisions were made using school and access test results. Results indicated the uniqueness of decision-makers and the intuitive approach they adopted. Furthermore, knowledge regarding degree or diploma program decision-making was linked to the consistency of the decision-making patterns, as was the importance of emphasising access test results to enhance decision-achievement. This study contributes significantly to the methodology of researching decision-making, our understanding of admissions decision-making, and how to enhance the training of decision-makers in this context and

What does the Ocean have to do with it? Intersection between health sciences and aquatic research

Author:

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The Institute of Coastal and Marine Research (CMR) is an institutional entity that encompasses all seven faculties of the university and multiple external stakeholders and members. CMR members engage in a wide range of coastal, marine and maritime research at various levels. A focus on the intersection of coastal and marine research with health sciences presents an important, unique and dynamic field of study that bridges natural ecosystems with human physical and mental health. This presentation delves into the intricate connections between these domains, emphasizing the critical importance of fostering robust collaboration between aquatic and health sciences research. I will demonstrate how the focus of a health sciences discipline can be rooted in a marine or maritime context and how a multidisciplinary approach can reveal how findings from aquatic research can inform health sciences, and vice versa.



Additionally, I will discuss the interdisciplinary integration where new methodologies and frameworks emerge from collaboration with multiple stakeholders. Examples of joint projects between aquatic researchers and health scientists will illustrate how we can tackle complex challenges such as the health effects of algal blooms and the mental health benefits of aquatic environments. By embracing a holistic perspective that incorporates disciplinary, multidisciplinary, and interdisciplinary approaches, we can advance our understanding and devise innovative solutions for the sustainable management of aquatic environments and the promotion of human health.



Workplace-related burnout prevalence among diagnostic radiographers at selected public and private radiography departments in the Eastern Cape

Background

Constant profession advances, broad scope of practice, and the work setting contribute to occupational stress which increases radiographers' risk of workplace-related burnout. This can have negative consequences for radiographers' social and psychological wellness, patient safety, and service delivery. The prevalence of workplace-related burnout among diagnostic radiographers is not well-researched in South Africa. Thus, this study aimed to contribute to this knowledge gap.

Methods

An exploratory-descriptive, cross-sectional survey design was used. Diagnostic radiographers (n=29/35; 82.86%), at two research sites, participated. Data collection was through an electronic self-reporting questionnaire based on the burnout assessment scale (BAT). Data analysis was done as prescribed for the BAT scale: distribution frequencies, proportions and norm-referencing to determine the categorisation of scores as very high, high, average, and low.

Results

There was a high prevalence of the core symptoms of workplace-related burnout (44.83%), while the secondary symptoms prevalence was average (48.28%). Three core burnout symptoms contributed to the high burnout score: exhaustion (55.17%), mental distance (37.93%), and emotional impairment (48.28%). The overall cognitive impairment score was average, with the majority of participants scoring low and average (58.62%). Headaches (17.24%) and muscle pain (44.83%) were the most frequently experienced psychosomatic complaints. While a tendency to worry (37.93%), feeling stressed (37.93%), and being disturbed by noise and crowds (34.48%) were the most prevalent psychological complaints identified.

AUTHORS :

Ms Simamkele Saul

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Conclusions

The prevalence of workplace-related burnout was high. Participants demonstrated exhaustion and mental distance, but the lower cognitive impairment score indicates a sense of organisational commitment. Strategies need to be considered to promote workplace wellbeing to mitigate the development of burnout. Workplace-related wellness and wellbeing strategies would be beneficial as the participants noted work stress as their primary stressor.

Keywords: Wellness, stress, professional development,

management, service delivery



Drug
Utilization
Research
Unit (DURU)
at Nelson
Mandela
University

LEADER :

Ilse Truter

Distinguished Professor in
Pharmacy
Nelson Mandela University

The Drug Utilization Research Unit (DURU) was established in 1994 at the previous University of Port Elizabeth. It is a registered research entity at Nelson Mandela University (NMU). Drug utilisation research was defined by the World Health Organization (WHO) in 1977 as “the marketing, distribution, prescription, and use of drugs in a society, with special emphasis on the resulting medical, social and economic consequences”. It is a research area that has steadily developed over the years, and is today a recognised and established research area locally as well as internationally.

Drug utilisation research can follow a quantitative or qualitative methodology. Research revolves about the prescribing, dispensing and use of medicine and the studies can be conducted from the perspective of the prescriber, the health system or the patient. Studies can focus on patient, prescriber, medicine, health system and/or disease characteristics, as well as safety, outcomes and/or interventions. The main aim of a drug utilisation study is to ensure that medicines are used rationally and to improve the quality of care. Studies can also focus on the containment of the cost of medical care, and where appropriate studies can assist with the identification and control of fraud and abuse.

The Medicines Utilisation Research in Africa (MURIA) group was established in January 2015 at NMU, and after several successful MURIA meetings and training workshops, the research group is now also partnering with the International Society for Pharmacoepidemiology (ISPE). This year the 4th ISPE African Regional Interest Group (AfRiG) Conference was hosted in Kenya (the conference was hosted in Cape Town in 2023).

Harmonizing Worlds: Indigenous Healing and Psychological Wellbeing in South African Rural Communities

Authors

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The argument about epistemological positionings and knowledge production is not a new phenomenon in social science research. While researchers have engaged in discussions around the epistemological tensions, the gap between Eurocentric and Afrocentric frameworks still exists in how they view the world and understand human behaviour. Within the discipline of psychology this gap is evident in the contextual disparities in theory, practice and research. While there has been work done to address these which has been central in discussions in the relevance debate, decolonial arguments as well as within African psychology scholarship, the lack of practical application in addressing these issues including incorporating indigenous knowledge systems in the profession exists.

This paper aims to contribute to studies that are documenting and preserving ways of being and healing in South African rural communities. The Zionist healing methods falls within indigenous knowledge systems and limited research exists that explore their benefit to peoples wellbeing. The healing methods in the Zionist churches are underpinned by their syncretic approach that incorporates both the religious perspectives and African traditional belief systems and practices. Harmonising these worlds therefore is crucial in ensuring health and wellbeing.



The enactment of rituals is noted in their healing methods. With psychological wellbeing conceptualised as Ukuphila emoyeni/hophela moyeng, the discussion focuses on Ukuhlambulula as a ritual that is used by individuals in rural areas to enhance psychological wellbeing.

Keywords: Indigenous healing, Ukuhlambulula,

Rituals, Psychological wellbeing

EARLY SCREENING FOR THE POST INTENSIVE CARE SYNDROME IN A TERTIARY ICU FOLLOW- UP CLINIC IN THE EASTERN CAPE

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Background: There is a paucity of South African research on PICS (Post ICU Syndrome), a condition that comprises impairments in physical, cognitive, and/or psychological health in ICU survivors.

Objective: To determine incidence and impact of PICS symptoms in Eastern Cape ICU survivors.

Methods: Prospectively enrolled critically ill patients were assessed at six weeks and six months after hospital discharge. Physical impairment was measured by the six-minute walk test. Psychological symptoms were screened for with the Hospital Anxiety and Depression Scale and Impact of Event Scale-Revised. Neurocognitive function was screened with the NeuroScreen™ application and compared to a matched control group. The RAND Short Form-36 questionnaire was used to determine health-related quality of life (HRQOL), including at baseline.

Results: Amongst 107 patients, half of whom had COVID-19, at the six-month follow-up, 5 out of every 10 suffered from physical impairment, 4 out of every 10 reported significant psychological symptoms, with 3 out of every 10 affected by both. Six out of every 10 patients reported a significantly lower HRQOL at six months as compared to their baseline. Three out of every 10 patients had not returned to previous activities. There was significant improvement in neurocognitive functioning between study visits. 15% received rehabilitation therapy after hospital discharge. Female sex, co-morbidity and trauma were predictors of PICS symptoms, but not COVID-19.

Conclusion: ICU survivors demonstrated a high incidence of physical and psychological impairment six months after hospital discharge, and this affected their functionality, life roles and HRQOL. Few patients accessed rehabilitation.

Moral Considerations in the Realm of AI Technology

AUTHOR :

PROF DARELLE VAN GREUNEN



The swift progress in artificial intelligence (AI) technology has raised numerous ethical and moral questions that demand attention. With AI becoming increasingly complex and woven into the fabric of our daily existence, it's imperative to scrutinize the possible consequences and guarantee that AI's evolution and application adhere to ethical standards. Confronting the ethical challenges posed by the rapid expansion of artificial intelligence (AI) necessitates a sustained, collective effort from AI developers, ethics experts, legislative authorities, and the broader community. It is essential to actively deliberate on the moral ramifications of AI advancements. Through such proactive discourse, we can strive to guide the creation and implementation of AI technologies that not only serve the greater good of society but also respect and reinforce our shared ethical standards and ideals.

Prevalence, associated risk factors and diagnostic biomarkers of schistosomiasis among school going children in Nelson Mandela Bay

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Keywords: Schistosomiasis, STHs, risk factors,

biomarkers, low transmission area

Introduction:

Schistosomiasis and soil-transmitted helminthiasis (STHs) are prevalent parasitic infections in tropical and subtropical regions, disproportionately affecting school-aged children due to susceptibility and increased exposure to transmission sites. However, the true extent of these infections in low-prevalence areas, such as Nelson Mandela Bay, remains unclear, and the factors contributing to transmission are not well understood. Furthermore, the lack of easy-to-use point-of-care diagnostic biomarkers hinders effective disease surveillance and control. Therefore, this study aimed to conduct a comprehensive prevalence study of schistosomiasis and STHs among school-aged children in Nelson Mandela Bay, investigate the risk factors associated with schistosomiasis transmission, and identify urinary diagnostic biomarkers that could serve as possible diagnostic tools in low prevalence areas such as Nelson Mandela Bay Municipality.

Methods:

A cross-sectional study was conducted from September 2023 to February 2024 at 15 primary schools in the Nelson Mandela Bay. The study population consisted of schoolchildren aged 5-14 years (grades 0-7) from selected primary schools in Nelson Mandela Bay. The study consisted of three phases, starting with Phase 1, where urine filtration and Kato-Katz techniques were used to detect *Schistosoma* species and soil-transmitted helminths (STHs) in urine and stool samples from study participants. Next, in Phase 2, a comprehensive questionnaire was administered to gather data on socio-demographic, clinical, and risk factors, as well as knowledge, attitudes, and practices related to schistosomiasis transmission. Finally, in Phase 3, urinalysis strips were used to detect various urine parameters, including glucose, bilirubin, ketones, specific gravity, blood (haematuria), protein, nitrates, urobilinogen, and leukocytes. Additionally, the point-of-care circulating cathodic antigen (POC-CCA) test was used to diagnose *S. mansoni* infections, and polymerase chain reaction (PCR) was employed to confirm *S. haematobium* and *S. mansoni* infections in samples positive for haematuria and POC-CCA, respectively. Statistical tests using R software (version 4.3.1) were carried out to evaluate the association between and within the variables. Pearson's correlations, ANOVA, and linear regression analysis, were employed as well as multi-variable linear regression analysis was used to identify risk factors associated with schistosomiasis transmission and KAP. Statistical significance was set at $p < 0.05$.

Results:

The study included 759 participants (438 males, 321 females). Urine filtration revealed a 0.1% prevalence of *S. haematobium*, while Kato-Katz testing showed a 0.3% prevalence of *A. lumbricoides*, with no detected ova of *S. mansoni*, hookworm, or whipworm. Urinalysis for haematuria indicated a 33.5% prevalence, and POC-CCA testing for *S. mansoni* showed a 3.7% prevalence. PCR confirmation on a subset ($n=150$) found a 41.8% prevalence of *S. haematobium* and a 32.1% prevalence of *S. mansoni*. PCR sensitivity was 32.1% for *S. mansoni* and 41.3% for *S. haematobium*. Cohen's Kappa analysis indicated minimal agreement ($\kappa=0.0$) between diagnostic tests, suggesting the need for multiple diagnostic methods to accurately determine schistosomiasis prevalence. Risk factors included swimming, fishing, lack of household tap water, proximity to water bodies, and poor sanitation. Significant differences in knowledge scores were found across sex ($p=0.015$) and grade ($p=0.045$). Attitude scores differed significantly between grades 0-3 and grades 4-7 ($p=0.023$), as did practice scores ($p=0.001$). Knowledge, attitude, and practice (KAP) scores were influenced by gender and grade, with males and grades 4-7 scoring higher. Knowledge scores varied significantly by water source ($p=0.078$), presence of a toilet ($p=0.006$), toilet usage locations ($p=0.009$), awareness of snails ($p=0.001$), swimming ($p=0.004$), playing at home ($p=0.003$), and urinating in the river ($p=0.001$). Attitude scores varied by water source ($p<0.001$), proximity to a river ($p=0.016$), toilet usage locations ($p=0.025$), awareness of snails ($p<0.001$), swimming ($p<0.001$), fishing ($p=0.001$), playing at home ($p<0.001$), and urinating in the river ($p<0.001$). The study found bilirubin (39.9%) most prevalent, followed by haematuria (33.6%), leukocytes (21.3%), protein (15%), ketone (7.2%), and glucose (7.1%). Urobilinogen and nitrates were least common at 1.3% and 0.3%. Correlations included a negative link between specific gravity and pH, weak associations among various parameters, and a mild positive correlation between leukocytes and blood.

Conclusion:

The study highlights the importance of using a comprehensive diagnostic approach to accurately detect schistosomiasis infections, particularly in low-transmission areas. The results also emphasize the need for integrated control measures, including improved WASH practices, health education, and targeted interventions. Furthermore, the low awareness and knowledge among school-aged children underscore the need for enhanced educational programs to prevent and control schistosomiasis. Ultimately, this study contributes to the understanding of schistosomiasis and STHs in Nelson Mandela Bay, informing the need for effective strategies to control and eliminate of these parasitic diseases.

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