

HEALTH SCIENCES RESEARCH REVIEW

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11 May – Inaugural Lecture: Professor Judith Bruce

27 June – 2022 SAAHE Conference

Covid-19: Striking a balance in news reporting



When it comes to news reporting on health issues, there is much to be considered. At the forefront of moral concerns are: accuracy, impartiality and accountability.

Although obvious to some, the intention and thus consequences of such reports can either be constructive or destructive, as has been proven by several pandemics in Africa.

Critical to all approaches in health communication, the use of credible scientific research is central to upholding the news reporting principles mentioned above.

In the most recent health crisis, the Covid-19 pandemic, there is much to be learned from how South <u>Africa dropped the ball on health communication</u>. For example, ensuring equitable access to accurate and relevant information so that the public is reliably informed at all times. Health communications players are not exempt in their role and influence, as they can use the same prototype to inform media and communicators' reporting, as discussed by scholars in the "Pandemic Preparedness Lessons from the experts" symposium in March.

Specialist reporting can surely be an overwhelming task for someone without a background in the particular specialty they are reporting on. This challenge is made even trickier in the midst of a global pandemic, as being a medical doctor does not necessarily mean one is equipped to give commentary on infectious diseases or vaccines, for instance.

Although some media organisations are in a position to hire expert journalists for relevant news segments, some sadly cannot. However, in South Africa, the widely used norm is to invite qualified specialists to give expert commentary on issues within their domain, which mitigates the likelihood of disinformation and misinformation in news reporting.

In an article recently published by the Daily Maverick, titled <u>"Covid-19 hit diabetics with a double whammy and</u> <u>revealed deadly gaps in South Africa's health system"</u>unpacking the impact of Covid-19 on people living with diabetics struck a balance between impartiality and accountability in health reporting that is supported by scientific research.

The article features commentary of Wits Rural Public Health and Health Transitions Research Unit (MRC/Wits- Agincourt Unit) researcher, Dr Alisha Wade citing multiple scientifically proven data that link the dire outcomes in Covid-19 positive patients with a predisposition towards diabetes.

Social Media and Covid-19: Perceptions and Public Deceptions of Ivermectin, Colchicine and Hydroxychloroquine -Lessons for Future Pandemics

This study sought to ascertain links between social media reports and utilization for three repurposed medicines in South Africa, between January 2020 and June 2021.



Sentiment analysis revealed that posts regarding the effectiveness of these repurposed medicines were positive.

The capacity for social media to influence the utilization of re-purposed medicines to manage Covid–19, despite limited availability of safety and efficacy data, is a cause for concern within healthcare systems.

This study provides evidence of social media as a driver of re-purposed medicines. Healthcare professionals have a key role in providing evidence-based advice especially with unidentifiable posts.



Wits researchers involved: Neelaveni Padayachee



Communication in Healthcare: Global challenges in the 21st Century

This article explores the communication challenges brought about by the digital revolution in the 21st century for healthcare professionals internationally. It particularly focuses on the use of contentgenerating and sharing platforms like social media.

Wits researchers involved: <u>Harriet Rosanne</u> <u>Etheredge</u>, <u>June Fabian</u>

Globally, healthcare has been irrevocably altered by digital innovation and health professionals deploy an extensive range of social media and web-based tools daily. Many professions have been swept up by the myriad of new technologies available. Healthcare is no exception. Today, aside from the use of social media in their personal lives, healthcare professionals (HCPs) deploy digital platforms when providing care to patients.

The Covid-19 pandemic may have thrust healthcare into the digital domain faster than anticipated— giving many HCPs no choice but to embrace digital technology to continue practicing. For instance, telemedicine has become a cornerstone of patient consultation, and video streaming services have been installed by health institutions and HCPs to facilitate connection with loved ones isolated in hospital.

The huge power conferred on us by digital technology comes with commensurate responsibility, and a different set of "rules of engagement" which, for a HCP, adds an extra layer of complexity in terms of ethically sound and legally acceptable best practice. The rules governing digital interactions by HCPs in our professional lives are inevitably different from those that guide our personal lives—we have an obligation to familiarize ourselves with these rules, and we need to be aware that they are not mutually exclusive.

About the study

This article explores the communication challenges that the digital revolution has created for HCPs in the 21st century. The researchers argue that because of special protections afforded to the HCP-patient relationship, and the importance of a HCP's reputation, it is vital that we understand how to traverse the many ethical and legal challenges of the digital world. In particular, an appreciation for the intricacies of "publication" can serve us well.

The argument is framed with the acknowledgment that these technologies have huge healthcare benefits—

and their power should be harnessed. The paper also advances some recommendations to stay out of trouble when navigating the complex intersection between the physical and digital domains, and our personal and professional use of these platforms.

The researchers' recommendations hinge on the notion of being a "good person and a good doctor" as a positive maxim for safe use of digital platforms. It is beyond the scope of this article to address the roles of institutions in regulating the digital interactions of their employees, apart from referring individuals to their relevant institutional policies.

Similarly, the reputational risks that may accrue to healthcare students as the result of irresponsible digital citizenship are for another article, but it is important for students to remember that unlike verbal communication, which is almost always ephemeral, digital content should be regarded as permanent. Even the most dogged efforts to eliminate it may fail.

Overview

Overall, it seems widely accepted that digital platforms have improved clinical communication, facilitating continuity and standardization of care, as well as enhancing transparency and accessibility.

However, it has also been noted that many HCPs are not aware of the legal and ethical pitfalls of social media use, and do not appreciate the potential to get into trouble when using digital platforms. This is where the HCP-patient relationship and the complementary notion of public trust in the health system play a vital role.

Although not an exhaustive list and it should always be read alongside the relevant legislation in the country and jurisdiction under which one is registered to practice, this study gives guidance on the themes below:

- Digital Communications in Healthcare;
- Digital Platforms and the HCP-Patient Relationship;
- Ethics, the Law and Publication;
- Reputation Management, Career Progression, and the Use of Social Media for HCPs;
- Guidelines for Good Digital Citizenship in the Health Profession.

*Read the full study



Was the Ad26.COV2.S vaccine effective in healthcare workers in South Africa?

Effectiveness of the Ad26.COV2.S vaccine in health-care workers in South Africa (the Sisonke study): results from a single-arm, open-label, phase 3B, implementation study

Wits researchers involved: <u>Ian Sanne</u>, <u>Cheryl Cohen</u>, <u>Anne von Gottberg</u>, <u>Wassila Jassat</u>, <u>Michelle Groome</u>, <u>Harry Moultrie</u>, <u>Barry Jacobson</u>, <u>Azwi Takalani</u>, <u>Fatima</u> <u>Mayat</u>, <u>Glenda E Gray</u>

Abstract

Since March 2020, South Africa has experienced four distinct waves of the Covid-19 pandemic, each characterised by different circulating SARS-CoV-2 variants of concern. South Africa has the eighth highest number of excess deaths due to Covid-19 by population globally, and has high levels of previous SARS-CoV-2 infection. Vaccine supply has been low and health-care workers have been severely affected due to their proximity to patients. Single-dose Johnson & Johnson Ad26.COV2.S Covid-19 vaccine was made available to health-care workers, as part of the Sisonke study.

The primary objective of the Sisonke study was to assess the effectiveness of the single-dose Ad26.COV2.S vaccine to prevent Covid-19-related admission to hospital (hereafter referred to as hospitalisation), hospitalisation requiring critical care unit (CCU) or intensive care unit (ICU) admission, and death in health-care workers.

Methods Study design and population

In the Sisonke single-arm, open-label, phase 3B, implementation study, health-care workers across all regions of South Africa aged 18 years and older were invited, via the national online electronic vaccination data system (EVDS), to register for vaccination and were then directed to give electronic informed consent to participate in the study before receiving the vaccination at one of 122 national vaccination sites. Each vaccination site was linked to a Sisonke clinical research team approved by the South African Health Products Regulatory Authority (SAHPRA) and an affiliated human research ethics committee.

Following a pause called by the US Food and Drug Administration on April 13, 2021, to review unusual clotting events in vaccine recipients in the USA, participants with a history of major venous or arterial thrombosis with thrombocytopenia and those with a history of heparin-induced thrombocytopenia were no longer recruited.

Thereafter, participants with a chronic history of severe clotting disorders were only included after approval by the protocol safety review team. Participants were not specifically tested for SARS-CoV-2 antibody status before vaccination.

Discussion

The Sisonke study, which was conducted during a period when both the delta and the beta variants of concern were circulating in South Africa, supports the real-world effectiveness of the single-dose Ad26.COV2.S COVID-19 vaccine in a large cohort of highly exposed health-care workers, many of whom have HIV.

The vaccine was effective against severe outcomes, including COVID-19-related death (83%), COVID-19related hospital admissions (67%), and Covid-19related admission to CCUs or ICUs (75%). Most breakthrough infections in these highly exposed healthcare workers were asymptomatic or mild, with less than 1% of health-care workers having a severe SARS-CoV-2 infection that resulted in hospitalisation or death.

The recent addition of a booster to the Sisonke study, per a protocol amendment on Oct 25, 2021, will provide critical information on the effectiveness of booster doses administered from 6 to 9 months after initial vaccination.

*<u>Read the full study</u>

Prevalence of Olfactory Dysfuntion in SARS-COV-2 Positive Patients



Multiple studies have shown an association between Covid-19 and chemosensory symptoms such as olfactory dysfunction and dysgeusia.

Olfactory dysfunction includes a complete loss of smell (anosmia); a decreased sense of smell (hyposmia) or a distorted sense of smell (dysosmia). It can occur either in isolation or in the presence of other symptoms.

Wits researchers involved: <u>Nabeela Gaffoor</u>, <u>Shivesh</u> <u>Maharaj</u>, <u>Kapila Hari</u>, <u>Shahpar Motakef</u>

Abstract

The purpose of the study was to determine the prevalence and features of Covid-19 olfactory dysfunction in a developing nation. Researchers conducted a prospective study at a tertiary, highvolume centre in South Africa, to determine the prevalence of olfactory dysfunction in SARS-COV-2 positive patients. The average recovery time of the olfactory dysfunction was also evaluated.

The study included patients diagnosed with SARS-COV-2 infection between November 2020 and January 2021. Patients were recruited to participate in a survey which assessed demographic data, date of diagnosis, initial symptoms, presence and recovery time of olfactory dysfunction symptoms.

A total of 86 patients with olfactory dysfunction were included and followed up telephonically over 6 weeks in 2-week intervals to determine recovery time.

Study Sample

Sample size predicted (using the formula for prevalence below) is 40, where the confidence interval Z is 95%, predicative prevalence is 60% (based on other studies). However, due to variability in other similar studies where prevalence is 33% and sample size would therefore be 133, a study sample of 100 patients was decided upon as this would attain reliable results and is feasible for a single researcher.

The effect of age, sex, use of certain medication on the prevalence of olfactory dysfunction was examined.

Discussion

There was a prevalence rate of 40.7% of olfactory dysfunction in patients in this study. This figure is essentially representative of the prevalence in Black Africans in our setting, as they comprised 97% of the study population. A study in Somalia shows similar prevalence of 40%.

OD is a common feature of aging and has been documented in approximately 75% of patients older than 80 years. In Covid-19, however, OD is more prevalent in younger age groups.

The overall median recovery time in our study was 7 days. A recent systematic review noted that most studies reported a resolution of OD within 14 days of symptom onset.

During the 6 week follow-up period only 1 (3%) patient did not recover from their OD. This study focused on acute OD and therefore it only followed up patients for 6 weeks. It would be of interest in future studies to note if patients who recover their sense of smell, would later develop cacosmia.

Our study confirms findings of previous studies and further addresses existing knowledge gaps regarding olfactory and gustatory dysfunction in Covid-19 patients in Africa. The prevalence of OD in our hospital based population is consistent with published data, but the documented rate and speed of recovery of OD in this study has no obvious explanation. The limitations of the study are mainly our ascertainment bias, cohort size and the reliability on adequate patient recall and reporting.

*Read the full study

RESEARCH

Examining the levels of acetylation, DNA methylation and phosphorylation in HIV-1 positive and multidrug-resistant TB-HIV patients



It has previously been noted that infection by Mycobacterium tuberculosis (Mtb), the causative agent of tuberculosis (TB) and Human immunodeficiency virus (HIV) that causes acquired immunodeficiency syndrome (AIDS) leads to a drastic change in the expression of host genes. In particular, the proper functioning of essential genes that play a crucial role in innate and adaptive immune response is significantly hampered by Mtb and/or HIV infection.

To this end, the project assessed the impact of epigenetic modifications such as acetylation, DNA methylation and phosphorylation in three study groups representing healthy, multidrug-resistant (MDR) TB-HIV co-infected and HIV-1 positive individuals.

Wits researchers involved: <u>Musa Marimani</u>, <u>Aijaz Ahmad</u>, <u>Sarah Stacey</u>, <u>Adriano Duse</u>

Study summary

After obtaining ethical approval from the University of the Witwatersrand Human Research Ethics Committee, the study was carried out by recruiting 10 patients coinfected with HIV-MDR TB on therapy, 10 recently diagnosed patients not on therapy at the time of sample collection and 10 healthy individuals without TB-HIV infection.

All patients were recruited from the HIV and TB clinics at the Charlotte Maxeke Johannesburg Academic Hospital, while healthy individuals were enrolled from the University of the Witwatersrand Faculty of Health Sciences. From all study participants, blood samples were collected and used to extract DNA, RNA and protein molecules. These biological molecules were used to determine and analyse the degree of DNA methylation, the level gene expression and protein production, respectively.

Results showed that DNA methylation and the expression of the DNMT gene responsible for methylation were significantly higher in HIV-1 positive patients not undergoing treatment, followed by healthy individuals and was lowest in MDR TB-HIV co-infected patients on therapy.

However, the expression of HAT gene (involved in acetylation) and PtkA gene (implicated in phosphorylation) was exceptionally increased in HIV-1 infected patients not on treatment, followed by MDR TB-HIV co-infected patients on therapy and was lowest in healthy individuals. By contrast, the expression of Dicer gene, responsible for regulating the expression of other host genes remained relatively similar among all three study cohorts. Similar results were obtained after performing protein analysis experiments.

Data indicated that new therapeutic drugs capable of reversing the devastating impact of DNA methylation, acetylation and phosphorylation introduced by TB-HIV infection may be ideally applied to maintain normal levels of host gene expression. This has useful clinical properties, as reversing gene expression to normal levels may restore normal cellular function and strengthen the host immune response against TB and HIV infections.

*<u>Read the full study</u>

Perceived efficacy of HIV treatment-as-prevention among university students in Johannesburg



Antiretroviral therapy (ART) nearly eliminates HIV transmission. Yet information on treatment as prevention (TasP) has been slow to diffuse in sub-Saharan Africa. This study assessed TasP knowledge among university students in South Africa.

Wits researchers involved: Jacob Bor; Nozipho Musakwa; Dorina Onoya; Denise Evans

Abstract

The HIV Prevention Trials Network (HPTN)-052 trial and multiple large cohort studies showed that antiretroviral therapy (ART) eliminates HIV transmission if the infected partner is virally suppressed. Treatment as prevention (TasP) has motivated countries to expand ART coverage to reduce HIV incidence. However, there remain significant gaps in HIV testing and treatment, particularly among young adults.

Despite scientific consensus on the efficacy of TasP, little is known about the diffusion of TasP information to young adults in countries where HIV is endemic. Studies have found increases in TasP knowledge in the 2010s among male sexual minority populations in North America, Europe and Australia. However, data from sub-Saharan Africa are scarce.

Evidence from South Africa, Zambia and Uganda suggests low familiarity with TasP in rural areas. However, information may have diffused faster in urban areas, among young adults, and among those with access to secondary-school HIV education and university health services.

This study measures beliefs about TasP among first-year university students in Johannesburg, South Africa. All South African university students would have received HIV education throughout their primary and secondary schooling, as South Africa has provided HIV education under the Integrated School Health Programme since 2000. We elicited participants' beliefs about the probability of HIV transmission in a serodiscordant couple, varying whether the HIVinfected partner was on ART and virally suppressed. We computed TasP efficacy as the perceived reduction of transmission risk with ART. We assessed the association of perceived TasP efficacy with respondent characteristics and beliefs.

Methods, study population & procedure

First-year students, aged 18–25 years, were surveyed between August and October 2017 at a large, public university in Johannesburg, South Africa. This excluded students who had completed secondary school more than 3years ago, those who had been a university student for more than 1year and those who were not comfortable communicating in English.

Study participants completed a self-administered, paper-based questionnaire. This study was nested as part of a larger study, the HIV/ TB Knowledge, Risk Perceptions and Barriers to Accessing Care study.

Data collected on respondents' age, gender, location of secondary school, receipt of financial aid, residence in student housing, source of health insurance, food insecurity, and an asset index. Participants were asked when they last had an HIV test.

The data collected was on beliefs related to the effect of sexual frequency and ART on transmission.

Discussion

Nearly a decade after HPTN-052 showed that HIV treatment prevents transmission of the virus, young adults in South Africa remain largely unaware of these benefits.

Although all South African university students would have received HIV education throughout their primary and secondary schooling, the study found that beliefs about HIV transmission that differed markedly from the scientific literature. The perceived annual risk of transmission with ART was 73%. The objective risk is less than 1%. As one respondent wrote:

"Taking ARVs doesn't matter. As long as you are infected, it is very likely [for your partner] to get infected "

[•]<u>Read the full study</u>

Chronic conditions: Pandemics



The MRC/Wits-Agincourt Research Unit leads the multinational Excess Mortality initiative

It's been just over two years since Covid-19 was declared a pandemic on 30 January 2020 by the World Health Organization. As of 12 April 2022, the global number of confirmed Covid-19 deaths was over <u>6,2 million</u>. Despite high levels of reported deaths, at least in countries with functioning civil registration and vital statistics (CRVS), these largely under-represent the true mortality due to COVID-19.

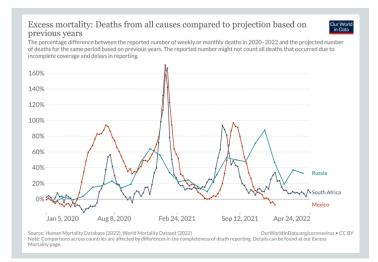
Wits research entity featured: <u>MRC/Wits-Agincourt</u> <u>Research Unit</u>

A fundamental question, then, is what is the impact of Covid-19 on mortality and the scale of excess deaths, and the population sub-groups most affected, particularly in low- and middle-income settings?

A multinational Excess Mortality initiative led by the MRC/Wits Rural Public Health and Health Transitions Research Unit (Agincourt), at the University of the Witwatersrand, funded by the Bill and Melinda Gates Foundation, USA, characterises all-cause and causespecific (using verbal autopsy data) mortality rates and trends, by age and sex, across a range of rural and urban sub-Saharan African and South Asian settings under continuous health and demographic surveillance.

Excess mortality is a concept used in epidemiology for measuring the total number of deaths during pandemic conditions, including unrecorded Covid-19 deaths as well as other causes of death. Constructing a truerepresentation of Covid-19 deaths can be useful for social policies and future pandemic preparedness planning.

Historical death data



<u>To understand the change in mortality rates</u>, historical death data for the years 2015–2019 is needed to project what the expected deaths for the years 2020–2022 would have been had the pandemic not happened, as well as accurate, actual all-causes deaths for the same period (2020–2022) under pandemic conditions.

Low- and middle-income countries typically lack the infrastructure and capacity to record deaths accurately and timeously, leading to underreporting and incorrect data, making modelling excess deaths impossible.

However, the research centres, sites and networks – from East, West and Southern sub–Saharan Africa and South Asia participating in this initiative have been operating health and socio–demographic surveillance systems (HDSSs) for an extended period.



Data managers participating in an MRC/Wits-Agincourt Research Unit-led multinational initiative on Excess Mortality, met at the School of Public Health, University of Witwatersrand for a data preparation workshop.

The multinational research centres are: **Southern Africa** <u>SAPRIN</u>; <u>Agincourt</u>; <u>AHRI</u>; <u>DIMAMO</u>; <u>Soweto CHAMPS</u>; <u>CISM</u>. **East Africa** <u>APHRC</u>; Kaloleni/Rabai; <u>Iganga-Mayuge</u>; <u>Magu</u>; MEIRU/Karonga; <u>MEIRU/Karonga</u>; Siaya Kenya; Manyatta HDSS; Kersa. **West Africa** <u>Navronga</u>; <u>Nanora</u>. **South Asia** <u>ICDDR</u>, B; <u>Matlab</u>; Dhaka; <u>Chakaria</u>; <u>KEM hospital</u>; Ballabgargh.

An HDSS offers a 'whole population cohort' as, at baseline, all those who live in a demarcated area are enrolled – thus establishing a denominator population – followed by systematic follow-up of every vital event (deaths, births, in- and out-migrations).

This process of continuous enrolment with vital event updates enables accurate rates and trends in mortality, fertility and migration patterns to be characterised and compared despite widespread weakness or absence of a periodic population-wide census and/or vital registration system in low and middle-income settings.

Thus, the participating research centres have the necessary historical death data available, and ongoing comprehensive and rigorous mortality surveillance, to measure mortality in their settings.

Strides were made on the Excess Mortality initiative during a face-to-face week-long data preparation workshop with data managers from all the participating research centres, 28 March-1 April 2022 at the Wits School of Public Health. The workshop was aimed at strengthening each site's capacity to extract data from their respective databases into a common standard format. This included familiarising the research teams with the data collection system and quality assurance standards, harmonising the data to enable comparisons across the sites, and reviewing the historical mortality data.

The workshop's activities included presentations on data collection and analysis methods; and breakaway sessions for participants to work on, compare, and assist each other with constructing the data. This format, with dedicated time to focus on data, created a space for learning, support, and collaboration among the data managers.

HDSSs are critical for providing population-based information in environments where vital registration infrastructure is weak. The Excess Mortality initiative will strengthen the ability of these research centres to continue to document the changing sub-national mortality and cause-of-death profiles that reflect rapid yet complex health transitions; contribute data for policy development; and evaluate policy and program measures. These include strengthening the population health research networks in which all the sites participate.



Senior Scientist at Agincourt, <u>Professor Kathleen</u> <u>Kahn</u>, presenting at the workshop on the use of verbal autopsy in mortality surveillance.

Student life: Understanding the pieces of the puzzle



Investigating the risk factors for academic difficulties in the medical programme at a South African university

Wits researchers involved: <u>Sfiso Mabizela</u>, <u>Judith</u> <u>Bruce</u>

Research summary

This study aimed to understand academic and nonacademic variables linked with academic difficulties in the first three years of medical education. The academic variables used were the National Benchmark Test (NBT) and students' progression outcomes for the first three years. The non-academic variables were gender, place of origin, residency and school quintile.

Academic challenges are a serious threat to students' academic progress. They often result in delayed graduation and sometimes academic exclusion or discontinuation of studies.

Multiple studies suggest that medical students' academic difficulties tend to occur in the early years of training, resulting in an early exit from the programme. Personal issues, performance in admission tests, learning environments, and the curriculum structure are some of the variables associated with academic difficulties

The consequences of academic difficulties result in the protracted time to graduation and a high rate of attrition that have implications for students, educators and institutions in terms of lost resources and opportunities. For the students, failing may produce a variety of psychological issues such as lower levels of self-efficacy, depression, and low self-esteem, burnout, mental health issues and social isolation.

The study sample consisted of six cohorts of medical students from 2011 to 2016 (n=1392). A total of 475 students (34%) experienced academic difficulty; 221 (16%) in the first year of study, 192 (14%) in the second year and 62 (5%) in the third year of study.



Did you know that food insecurity continues to be a significantly alarming issue among students in South African higher learning institutions?

Research indicates that **30% of South Africa's university students might be experiencing food insecurity**, in comparison to 26% of the general population (Mthethwa, 2021).

The Covid-19 pandemic has also exacerbated this preexisting issue due to loss of employment and household income.

Consequentially, food **insecurity threatens academic success**, psychological health, cognitive functioning, and the overall livelihood of students. The students in Wits the Faculty of Health Sciences from low socioeconomic backgrounds are not an exception.

The Office of Student Success (OSS) offers academic advising and psychosocial services, and in alignment with the Wits transformation policy. Help to **ensure that the diverse needs of students are met** so that they can realize their career goals with success and dignity.

Since its inception in 2019, the OSS #MakeaDifference program, in particular. Help OSS support students by donating basic supplies. **Donate food**, hygiene and personal care items to help students reach their potential and achieve their personal goals through education.

Learn how to #MakeaDifference

*<u>Read the full study</u>

Pledge support

AWARDS & RECOGNITION



<u>Kara De La Harpe</u>

Faculty of Health Sciences Prestigious Postgraduate Award recipient inspires new innovation

WADDP Masters candidate's research benchmarks innovations for microvascular surgery applications.

Ms. Kara de La Harpe was awarded the Faculty's Most Prestigious Postgraduate Degree Award 2021 in a prize-giving ceremony which was held at the Linder Auditorium on the 20th of April.

Her research focused on the design of a novel 3D printed monofilament biosuture for microvascular surgery applications, supervised by <u>Professors Yahya E. Choonara</u>, Pierre Kondiah and Thashree Marimuthu.

This new biodegradable suture material is easy to fabricate, has high adaptability and inherent biocompatibility and can help overcome suture-related complications and improve the success rate of numerous surgical procedures. In addition, this new biosuture can be drug-loaded to help overcome infection related to surgery.

A total of 4 research papers have emanated from her work.



Dr Constance Khupe

Joint recipient of the 2022 Jack Mezirow Living Theory of Transformative Learning Award for a research paper: <u>"Experiences of applying for</u> <u>promotion as counter-cultural</u> <u>transformative learning."</u>



<u>Assoc Prof Veronica</u> <u>Ntsiea</u>

Head of the physiotherapy department was appointed as a member of the WHO Rehabilitation Programme: Peer Review Group for the Package of Interventions for Rehabilitation for Stroke.



<u>Dr Ryan</u> <u>Wagner</u>

Recipient of the Dr Charles Kyeyune Memorial Prize at the Faculty of Health Sciences Prize-giving Ceremony.

Congratulations

to Professor Thesla Palanee – Phillips on her promotion and joint appointment to Affiliate Associate Professor with the University of Washington, Department of Epidemiology; School of Public Health, Seattle, USA.





Mr Kganetso Sekome awarded three funding grants

The NRF Thuthuka, Consortium for Advanced Research Training in Africa (CARTA), and University Staff Doctoral Programme (USDP) funds were recently awarded to Mr Sekome.

These funds were awarded for the period 2020 – 2023 for a research project titled 'The implementation of a contextualised physical activity and diet intervention based on the cultural and social beliefs for the control of hypertension in rural adults'.

Research Synopsis

South Africa has seen a huge increase in access to treatment for chronic communicable diseases in rural areas, such as TB and HIV, and as a result, populations are now living to older ages.

More than 40% of adults from rural areas in South Africa have been diagnosed with hypertension and the level of treatment and control is very low.

This research aims to test whether making adjustments to the usual daily life of the rural adult population in terms of physical activity and diet has any effect on the control of hypertension from a single sub-district.

The research will use a scientific approach to implement an intervention that is based on the assessment of the communities' views on



their health, physical activity, diet, social and cultural beliefs, as well as objectively measured health parameters. If found to be successful, the roll-out of the intervention will significantly reduce the burden of premature deaths from conditions such as stroke and heart diseases which are on the rise in rural South Africa.

Mr Kganetso is currently a PhD candidate in public health at Wits where he has co-registered his PhD with Loughborough University in the United Kingdom through the USDP. He is spending 12 months in the United Kingdom during the course of his PhD.

Faculty papers in high-impact journals:

Population Immunity and Covid-19 Severity with Omicron Variant in South Africa - NEJM

Shabir A. Madhi, PhD, Gaurav Kwatra, PhD, Jonathan E. Myers, MD, Waasila Jassat, MMed, Nisha Dhar, PhD, Christian K. Mukendi, MSc, Amit J. Nana, BSc, Lucille Blumberg, MMed, Richard Welch, BSc, Nicoletta Ngorima-Mabhena, MBChB, and Portia C. Mutevedzi, PhD.

<u>Cabotegravir for the prevention of HIV-1 in women: results from HPTN 084, a phase 3, randomised</u> <u>clinical trial</u> - The Lancet

Sinead Delany-Moretlwe, PhD, James P Hughes, PhD, Peter Bock, PhD, Samuel Gurrion Ouma, MD, Portia Hunidzarira, MBChB, Dishiki Kalonji, FCPHM, et al.

<u>Effectiveness and cost-effectiveness against malaria of three types of dual-active-ingredient long-</u> <u>lasting insecticidal nets (LLINs) compared with pyrethroid-only LLINs in Tanzania: a four-arm,</u> <u>cluster-randomised trial</u> - The Lancet

Jacklin F Mosha, PhD, Manisha A Kulkarni, PhD, Eliud Lukole, Msc, Nancy S Matowo, PhD, Catherine Pitt, PhD, Louisa A Messenger, PhD, Elizabeth Mallya, Bsc, Mohamed Jumanne, BSc, Tatu Aziz, BA, Immo Kleinschmidt, PhD, et al.

<u>Carotid Atherosclerosis, Microalbuminuria, and Estimated 10-Year Atherosclerotic Cardiovascular</u> <u>Disease Risk in Sub-Saharan Africa</u> - JAMA

Engelbert A. Nonterah, MD, PhD, Daniel Boateng, PhD2, Nigel J. Crowther, PhD, Kerstin Klipstein-Grobusch, PhD, Abraham R. Oduro, MD, PhD, Godfred Agongo, PhD, Shukri F. Mohamed, PhD, Palwendé R. Boua, PhD, Solomon S. R. Choma, MSc, Shane A. Norris, PhD, Stephen M. Tollman, MD, PhD, Michiel L. Bots, MD, PhD, Michèle Ramsay, PhD, Diederick Grobbee, MD, PhD.



Postgraduate supervision at decentralised training sites: A yes, a no or a maybe?

Did you know that the rapid growth of specialist training in family medicine in sub-Saharan Africa and the strong emphasis on workplace-based learning for speciality training make it vital to gain in-depth insights into registrar supervision.

A study by the Department of Family Medicine Senior Lecturer, Dr Neetha Erumeda, for her PhD explores family physicians' and registrars' perceptions of the strengths and challenges associated with clinical and educational supervision at five decentralised training sites in Gauteng and the Northwest province.

This study titled "<u>Perceptions of postgraduate family</u> <u>medicine supervision at decentralised training sites,</u> <u>South Africa</u>" forms one qualitative component of a broader convergent mixed-methods evaluation of the family medicine postgraduate training programme at Wits University.

While previous studies have explored supervision at decentralised sites in high-income countries, little is known about the benefits and constraints of decentralised Postgraduate supervision in low- to middle-income countries, especially in Africa. Semi-structured interviews with 11 FPs and 11 registrars conducted between March and August 2020 were thematically analysed.



The first of the four themes identified, 'supervision is context-specific and supervisor-dependent', contrasted the strengths of family physician supervision in the clinical context (enabling individual attention) and the non-clinical context (providing multiple perspectives) with the challenge of non-family physician supervision focusing only on clinical training.

It recommends the theme 'the nature of engagement matters' encompassed subthemes of engagement being tailored to learning needs, supervisor characteristics impacting training, and the impact of professionalism on engagement.

It found that the theme, 'supervision is not ideal,' included the time constraints experienced by family physicians, registrars often feeling unsupervised, and the lack of standardisation across the training sites.

The final theme of the study relates to challenges in the training environment associated with insufficient resources, registrars' difficulties with maintaining a work-life balance, and the district hospitals being perceived as hostile. Regular faculty development is essential for supervisors to be aware of current trends in postgraduate training.

WANT A PROMOTION?

Arm yourself with practical knowledge on applying for a promotion using guidelines from award-winning research by Dr Constance Khupe and Dr Eunice Nyamupangedengu.

The paper uses the methodology of self-study to explore the researchers' own experiences as academics applying for promotions. Through narrative inquiry, they document their experiences of applying for promotions "and those narratives unpack the 'hidden curriculum' of academic recognition and promotion as we experienced it within our context" writes Drs Khupe and Nyamupangedengu.

Events

MAY Inaugural Lecture: Professor Judith Bruce

11 "Advocating for nursing education scholarship: From Promise to Praxis"

To respond to changing disease profiles and advances in health care, nurse educators regularly review and renew educational programmes and strategies to prepare professional nurses, including developing their capacity for specialist practice. Advocating for nursing education and sharing ones scholarship, brings about new ideas or models that can be tested, refined or replicated; ultimately, building evidence for the advancement of nursing education, and developing nursing's potential in a more intentional, practical and evidence-informed manner.

JUN 2022 SAAHE Virtual Conference

27 The theme Healing Higher Education focuses on how we build and maintain relationships; vhushaka /kamano mo tirong, relationships of trust, respect and mutual empowerment. How to open minds to difference, address the challenges related to structural imbalances in the education and health care systems, institutions and society. Explore how to use your voice and demonstrate responsiveness, whether it be widening access, developing humility or advocating for improved practice and better services.

JUL 2022 Cricket Research & Practice Conference

25 The conference will live up to its theme, #gamechangingresearch, by bringing researchers, coaches, sports scientists, biokineticists, physiotherapists, sports physicians, strength and conditioning trainers, sports coordinators, sports managers, players together through scientific discussions, informal conversations, and lots of fun.

AUG 2022 Health Sciences Student Success Conference

24 The Office of Student Success invites researchers, practitioners, health sciences staff and students to show case innovations, high-impact practices and students experiences as they affect overall student success and well-being. The conference will also serve as a forum for participants' personal transformative experience, networking and developing collaborative relationships.

SEPT FHS Research Day & Postgraduate Expo 2022

15 Submit abstracts by 31 May 2022

Themes:

- Clinical Sciences & Therapeutics for Health
- Communicable Diseases
- Education, Policy & Systems
- Molecular & Comparative Biosciences
- Non-communicable Diseases

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