



# Abstract booklet



## Dirisana plus Dissemination Conference

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**Dirisana+**

hosted by the

Sefako Makgatho Health Sciences University

# 1. Medical students' journey towards Cultural Humility – traveling with peers, teachers and patients through medical school and the health care system

GC Botha (SMU)

Introduction: Over the past 12 years, concerns have been raised regarding the quality of healthcare services and subsequent health outcomes in sub-Saharan Africa. Various studies in South Africa discussed barriers posed by language and culture as it was clear that such barriers affect the quality of healthcare. Cultural humility (CH) is recognized as vital journey for addressing diversity and power imbalances, but its application in health professions education remains elusive. While existing literature covers CH's *why*, the holistic development of supportive interactions, self-awareness and –critique, openness and neutrality during undergraduate training and health care delivery did not receive sufficient attention in curricula.

What was done: a unit of learning focusing on diversity and disparity – critical conversations were developed to be implemented with first year students at SMU. The unit used various learning and teaching strategies such as IPECP, Participative/active student centred activities, Scenario-based discussions, experience narratives and games, as well as patient clinical encounters with peer assisted learning, and reflective practice. Assessment included student submissions of a group portfolio of evidence and individual presentations as reflection of learning. A student learning guide, facilitators guide, power-point presentations with group exercises, assignment templates and rubrics were developed. The unit of learning was implemented during 2023 at SMU with more than 770 students representing 11 professions.

Teaching output / quality control: Colleagues to provide feedback and recommendations regarding the quality of learning material. A full set of materials will be made available to workshop participants before the event.

## 2. Evaluating the quality of Anatomy tests comprising multiple choice questions at a South African tertiary institution

PC Coetzee (SMU), Dr Ackermann (SMU) and Prof AC Oettle (SMU)

Emergency remote teaching has left us not only with many multiple-choice based anatomy tests but also the means to analyse the results on the popular learning management system augmented by Riddel, an offline learning and assessment system. There is also an opportunity to retain quality questions in a question bank. However, the possible effects of cheating on the results should be considered. The aim of this study is to evaluate the quality of tests and questions from 2020 to 2022 comprising multiple-choice questions towards the development of a question bank that takes possible cheating into account. Analyses were performed on 24 Anatomy tests for second-year medical students from 2020 to 2022. The average number of students who took a test was 258. Assessments where possible cheating took place could be identified by performing normality tests. An item analysis of all questions was made for difficulty and discrimination indices. Normal distribution in test scores was noted only in the 2022 year (4/8 tests) when invigilation took place. All tests using a proctoring system performed from home during 2020 and 2021 presented non-normal curves suggestive of cheating. However, the discriminatory ability of tests did not change with invigilation. Despite the possibility of cheating, questions with medium difficulty and good discrimination often involved questions based on diagrams and images, and therefore might be ideal to retain in a question bank.

### 3. The piloting of a student-led, person-centered, bedside interprofessional team consultation with a spinal-cord injury patient

E Viljoen (SMU)

**Background:** Interprofessional education (IPE) activities at SMU consist of a variety of campus-based and blended learning activities. Students learn from, with and about each other during group projects, role-play scenarios, educational games, and simulation with manikins and / or simulated patients - all aligned with the constructivism pedagogy. Using post-event surveys, a need was identified for having real hospital-patient interaction within an interprofessional (IP) team. As a result, IP team consultations at the bedside of spinal-cord injury (SCI) patients were organized.

**Methods:** Ten senior students from the five undergraduate programs in the School of Health Care Sciences plus two facilitators participated in student-led person-centered, IP team consultations with two SCI patients. Each student had a turn to explain and demonstrate their profession's role in managing this patient - ranging from assessment techniques, interventions, exercises, and follow-up consultations.

**Results:** A focus group discussion was held immediately after the patient consultation. Students reported that they could clearly see the benefit of this approach to the patient. Role clarification was emphasized, students enjoyed being peer-educated and seeing demonstrations in action. The patient as the expert, teaching the students about their lived experiences, was highlighted as a new learning event for most. Increased confidence to speak up in a team setting was reported.

**Conclusion:** The theoretical framework of social constructivism has a clear overlap with IPE where peer-teaching takes place in a social context. Bedside teaching helps students achieve competencies in clinical settings and develop their communication skills. It is crucial to expose undergraduate health care students to clinical environment during their training to become competent clinicians, regardless of profession. Similarly, clinical exposure in an IP team is necessary to develop the graduate attribute of collaborator.

## 4. The integration of immersive technology in Health Professions Education: finding best practices

Elize Venter (CUTL, SMU), Helga Hambrock (CUTL, SMU)

### **BACKGROUND AND OBJECTIVES:**

The integration of immersive technology in Health Professions Education (HPE) has seen a significant increase in recent years, driven by advancements in technology and the need for flexible and accessible education. The aim of this project is to gain an understanding on the best practices of integrating immersive technology in HPE.

The research questions are:

1. What is the baseline confidence of the study sample in integrating immersive technology in HPE?
2. What are the needs of academics at SMU regarding the skills they require to include immersive technology in HPE?
3. What online teaching and learning activities should be designed for a professional development online course on the effective and efficient use of immersive technology in HPE?
4. What are the best practices for the effective and efficient use of immersive technology in HPE?

### **METHODS:**

The study design will be concurrent triangulation mixed methods. Both quantitative and qualitative methods will be used to answer the research questions.

The findings of this research will inform the design of a professional development course targeted at university teachers in the field of HPE. The course will provide participants with the necessary knowledge, skills, and tools to effectively incorporate immersive technology into their teaching practices, fostering student engagement, interactivity, and knowledge acquisition.

1. Quantitative methods:
  - An online survey
2. Qualitative methods:
  - A systematic literature review
  - In-person interviews with experts in the use of immersive technology in HPE.

## 5. The relevance and importance of the Anatomy and Physiology content in the practice of the nursing profession in the Gauteng and Eastern Cape South African Provinces

Amkelwe Simelane (SMU), Mandla Zatu (SMU)

Many nursing institutions still use teaching methods in introductory Anatomy and Physiology courses that lack modern strategies such as simulation, virtual teaching and learning and solid practical components. Lack of modern techniques compromises the teaching and learning of Anatomy and Physiology and negatively impacts students' critical thinking abilities. Exploring how nurses apply this knowledge to patient care is crucial. Therefore, this study aims to investigate the current state of Anatomy and Physiology knowledge among nurses in the Gauteng and Eastern Provinces.

The study will use a sequential explanatory mixed-methods research design to investigate the current state of Anatomy and Physiology knowledge among nurses in the Gauteng and Eastern Cape South African Provinces. This research design involves two phases of data collection and analysis. The first phase focuses on collecting and analyzing quantitative data. The second phase involves collecting and analyzing qualitative data. A questionnaire will be issued to the nursing professionals followed by online focus group interviews. Quantitative and qualitative data will be analyzed using descriptive statistics and a thematic framework respectively.

The study will aim to address the research questions:

What is the Anatomy and Physiology knowledge level among nurses in the Gauteng and Eastern Cape Provinces? How do nurses perceive the relevance and importance of Anatomy and Physiology knowledge in their nursing practice? What are the implications of Anatomy and Physiology knowledge on patient care and healthcare? What strategies can be implemented to enhance the acquisition, retention, and application of Anatomy and Physiology knowledge among nurses?

## 6. The field-of-practice experiences of South African and Namibian medical practitioners who qualified outside and returned to practice in their own countries

Mabuza LH, Nashed KK, Masiteng T, Adeniji AA, Cook R, Burger H, Manning DM

### **Background**

The field-of-practice experiences of medical practitioners who obtained their qualifications outside their countries of citizenship constitute vital information among their colleagues who obtained theirs within those countries. This information needs exploration.

### **Aim & objectives**

To explore their experiences of the medical practitioners trained outside their countries with respect to:

1. the relevance of their training (outside of the country) to practice in the South African / Namibian context (integration)
2. their reception by fellow medical practitioners, other health care professionals, health facility management and support staff
3. their interaction with senior clinicians serving as their supervisors
4. how they perceive their clinical performance compared to their South African / Namibian counterparts

### **Methods**

A qualitative study will be conducted among the medical practitioners practicing in South African and Namibia in the public and private sectors. The snowball recruitment method will be used to enroll participants. Maximum participant variability will be ensured by including both sexes and ensuring a wide range of institutions and countries where the practitioners obtained their training. The number of participants (sample size) will be determined by data saturation. Thematic analysis will be employed.

### **Conclusion**

It is hoped that the findings of this study will inform and facilitate the required integration of the practitioners trained in South Africa and Namibia with those trained outside these countries.

## 7. Dirisana + collaborations for interprofessional education (IPE)

A Dreyer (Wits), H Pitout (SMU), E Viljoen (SMU), R Eccles (UP)

**Introduction.** Dirisana+ is a multi-national collaborative team. The consortium consists of five partner institutions in across two countries in Southern African and three programme countries in the European Union. The collaboration centres on improving undergraduate and postgraduate student learning experiences with the aim to improve the workplace readiness of our graduates through training aligned with community and societal needs. This platform fosters relationships and collaboration for multi-disciplinary collaboration in innovation in health sciences education in southern Africa. Aiming to develop an equitable, diverse, and inclusive learning community, respond and reflect to challenges, and advocate for dynamic working relationships in under-represented areas in Southern Africa. The poster will capture the Interprofessional education activities that have been carried out during this collaboration to promote and quality assure cost-effective technological innovations in teaching, assessment, and research.

**Reported outcomes to share.** To share the scoping review results of the pedagogical approaches and teaching and learning materials that underscore interprofessional education globally and in South Africa.

- To share the use of games to clarify the interprofessional roles.
- To reflect on the planning and development of an interprofessional and collaborative practice module.
- To share the interprofessional education and collaborative practice in the training of healthcare students in Namibia and South Africa.

Dissemination of these outcomes has taken place through the Dirisana+ IPE committee workshops to allow each of the consortium partners to engage with the findings. Using the SAAHE platform to disseminate the outcomes will support further engagement.