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## Needs assessment and preparatory work for addiction science programs at universities: experiences of universities in South Africa

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### ABSTRACT

**Background:** This paper discusses the results from the first formal needs assessment conducted in South Africa to identify university curriculum development needs for addiction science training, particularly Substance Use Disorders (SUDs).

**Aim:** The aim of the study was to report on the current addiction science curricula available at South African universities, educator views on the need for a new specialized addiction science curriculum, and the feasibility of implementing such a curriculum.

**Method:** A 33 item electronic survey was emailed to respondents.

**Results:** There is no standardization in SUD curriculum content and training at South African universities. Academic staff responsible for offering SUD training and curriculum development pedagogies in addiction are inadequately trained with a lack of content expertise. The absence of clear accreditation and certification standards and protocols results in graduates of varying competency levels and no registration as an addiction professional.

**Conclusion:** Standardized academic training in addiction science is crucial for the professionalization of an addiction workforce.

### ARTICLE HISTORY

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### Introduction

Substance Use Disorders (SUDs) continue to be a major problem globally and in South Africa. In 2002, the 12-month and lifetime prevalence of SUDs in South Africa was estimated to be 5.8% and 13.3%, respectively, the second highest of common mental disorders, with the majority of respondents diagnosed as having a severe SUD (Herman et al., 2009). SUDs contribute significantly to the burden of harm in South Africa, notably high levels of communicable (HIV/AIDS, TB, and Hepatitis) and non-communicable diseases (such as Diabetes, Cardiovascular diseases), and intentional and unintentional injuries (such as Fetal Alcohol Spectrum Disorders (FASD)).

It is estimated that 92% of the people with Mental, Substance Use, and Neurological (MNS) disorders do not receive treatment for their mental health condition in South Africa (Docrat et al., 2019). This resonates with reports that sub-Saharan Africa has one of the largest treatment gaps in the delivery of (MNS) disorder services in the world (Institute of Medicine, 2010, 2013).

This treatment gap remains high due to the paucity of adequately trained workforce in providing treatment for MNS disorders (Collins et al., 2015).

While there are public and private treatment centers in South Africa, access to specialist treatment services remains

low relative to their need (Pasche & Myers, 2012). This is attributed to ongoing challenges such as limited resources in certain areas, location (situated in largely urban areas), income, race, availability of services and for those who cannot afford private services (Dada et al., 2018; Myers, 2013).

The shortfall between high demand and lack of supply of adequately trained professionals, has its genesis in low priority assigned to this area by the erstwhile Apartheid state, with consequent minimal research and dedicated public health services relating to harmful substance use (Rocha-Silva, 1992 as cited in Petzler et al., 2010).

To address this historical neglect, the transitional and democratic state introduced various legislation, notably the Prevention and Treatment of Drug Dependency Act (Act No. 20 of 1992) and the Substance Abuse Act (Act No.70 of 2008). However, these services were split between the National Department of Social Development (NDoSD) and the National Department of Health (NDoH), with the former being responsible for treatment and aftercare, while the latter focused on the treatment of co-occurring disorders and the medical detoxification and health problems related to SUDs (The Presidency, 2009). The separation of institutional mandates has presented several programmatic complexities and

challenges with consequent diminished outcomes, including the current inadequate training of health professionals in addressing SUDs (Myers & Fakier, 2009). For instance, health-care workers employed in the service of the NDoH receive minimal training on the treatment of SUDs, while social workers, employed by National NDoSD, receive inadequate training on the treatment of co-occurring disorders (Pasche et al., 2014).

The coronavirus pandemic further magnified the extent of substance use and poor access to SUD health services. Prior to the pandemic, less than 5% of South Africans were able to obtain SUD treatment as required. During the pandemic, providers reported that the need for SUD treatment increased or remained the same during the most restrictive lockdown periods and that their capacity to meet community demand for SUD services was greatly reduced (Harker et al., 2022).

Despite the efforts of the South African government in implementing various SUD programs and initiatives, these remain hamstrung by an insufficient number of health professionals who are well-trained and competent in the field of SUDs. The shortage of skilled addiction professionals exacerbates the huge burden that SUDs place on the country's social and health resources and the long-term prognosis for people with living with SUDs (Myers et al., 2008).

To address this limited availability of SUD treatment professionals in South Africa, two South African universities – University of Cape Town and Stellenbosch University – initiated diploma and degree-level programs for multidisciplinary professionals (Myers et al., 2010; Pasche et al., 2014). Apart from these specialized programs, training in SUD at other universities indicates a patchwork of curricula for upskilling of healthcare professionals.

Where available, these are typically embedded into other curricula in various forms such as stand-alone modules, short courses, seminars and workshops. Moreover, none of the professional university training in treating SUDs, including the specialized sub-specialty training programs, lead to a professional registration with the Health Professions Council of South Africa (HPCSA).

This paper discusses the results from a formal needs assessment conducted to identify addiction science training and curriculum development needs of universities in South Africa. More specifically, the paper reports on the current addiction science curricula available, educator views in relation to the need for new specialized addiction science curriculum, certification for multi-disciplinary professionals, and the feasibility of implementing the Universal Treatment Curriculum (UTC) and the Universal Prevention Curriculum (UPC). Based on the obtained data, the study proposes recommendations to assist these universities with addiction science curriculum development and the development of academic staff competencies in the addiction field.

In this paper, the term addiction science will be used interchangeably with SUDs, which includes prevention, treatment, research, and policy development related to substance use. This is largely because the terms are often used interchangeably in the literature.

## Methods

### Contextual background

This study was conducted by the South African Chapter of the International Consortium of Universities for Drug Demand Reduction (ICUDDR). The ICUDDR was established in 2016 to support a global network of universities and colleges to improve professional competencies in the prevention, treatment and applied research of SUDs and related conditions.

### Study design and data collection

The conceptual framework for the study was derived from the 2020 ICUDDR alcohol and drug demand reduction education and training guideline for university administrators and faculty (ICUDDR, 2020). The methodology for the needs assessment was adapted from McCawley (2004) and comprised the following key components: 1) identification of key objectives, 2) identification of key constituencies for sampling, 3) selection/development of instrument and collection of data 4) data analysis, and 5) dissemination of results.

A 33-item electronic survey was emailed to relevant academic staff (head of departments, lecturers and course coordinators) in the behavioral health sciences faculty of identified universities. The main focus of the survey was to a) provide an inventory of current addiction science education and training programs offered by South African universities, b) to assess the views of academic staff on, and their interest in the implementation of a dedicated addiction science curriculum at universities which are currently without these, c) to determine educator views related to certification for multi-disciplinary professionals, d) and to assess the feasibility of implementing the UTC and UPC in their respective universities.

There are 26 public universities in South Africa, 21 of these universities have a behavioral health science faculty, while the remaining five are technical universities (Department of Higher Education & Training, 2022). The sample for this study comprised 19 public universities and four private colleges which offer a behavioral health science curriculum and/or a health sciences degree. As academic staff were surveyed in several departments per university, the number of responses received per university vary across institutions.

### Ethical consideration

The study was approved by the Stellenbosch Research Ethics University Committee, Cape Town, South Africa (N10/08/253). Participants' informed consent for data collection was verbally solicited and via e-mail correspondence.

## Results

### Profile of participating universities and training offered

A total of 35 completed questionnaires were received. Thirty-seven percent of the returned surveys were from psychology departments, followed by social work departments (28%) with the remainder from diverse departments such as family

medicine, psychiatry and mental health, and social sciences (see Table 1).

The majority of universities surveyed reported offering some form of training in SUDs. The majority (34%) of these are a set module in SUDs (see Table 2). Only two post-graduate diplomas are currently offered in South Africa as well as two Master's degree programs. Ten universities reported not offering a dedicated SUD program.

### **Current substance use/addiction science curriculum and training**

Overall, all programmes seek to achieve a common set of objectives, namely, the screening, assessment, treatment, and prevention of SUDs, though each of these is achieved to varying degrees of emphasis and in different formats. There is no standardized length of training, content or duration of different courses and modules, with training being offered in some instances at undergraduate level (60%), graduate level (11%) or no dedicated course (29%).

### **Institutional and staff capacity and experience to provide and implement SUD training**

Most respondents (54%) indicated that they have adequate training and the capacity to provide SUD training whilst 42% reported some training in SUD, and 8% reported no capacity at all.

Forty-eight percent reported prior experience in providing SUD courses, 34% indicated some level of experience and 17% indicated no training at all. Forty-eight percent reported they currently have a multi-disciplinary team to undertake SUD training, whilst 51% indicated no team. About half (54%) of universities reported adequate capacity to implement programmes, 31% indicated some capacity and 14% reported no implementation capacity.

### **Readiness to implement substance use and addiction programmes**

The majority (97%,  $n = 35$ ) reported departmental readiness to implement addiction science programmes, with all universities except one indicating an openness to receiving additional support from ICUDDR for implementation. An equivalent

**Table 1.** Description of participating universities ( $N = 35$ ).

Provinces	University	Discipline	Responses
Eastern Cape	Rhodes University	Psychology	3
	Nelson Mandela University	Psychology	1
	University of Fort Hare	Social Work	1
Free State	University of Free State	Social Work	1
Gauteng	University of Pretoria	Family Medicine	1
	South African College of Applied Psychology	Social Work & Community Development	1
	University of Johannesburg	Psychology	1
	Sefako Makgatho Health Sciences University	Clinical Psychology	1
	North West University	Psychology	1
	University of Pretoria	Social Work & Criminology	1
	South African College of Applied Psychology	Academic Department	1
	University of South Africa	Social Work	1
	Boston City Campus	Academic Programme Development	1
University of Witwatersrand	Social Work	1	
Kwa-Zulu Natal	University of Zululand	Psychology	1
Mpumalanga			0
Northern Cape	Sol Plaatjie University	Social Sciences	2
Limpopo	University of Limpopo	Social Work	1
	University of Limpopo	Psychology	1
	University of Venda	Social Work	2
North West			0
Western Cape	South African College of Applied Psychology	Academia	1
	University of Cape Town	Social Development	1
	University of Cape Town	Psychiatry & Mental Health	1
	Cornerstone Institute	Psychology	1
	Stellenbosch University	Psychology	2
	Stellenbosch University	Psychiatry	1
	University of Western Cape	Psychology	1
	University of Western Cape	Centre for Interdisciplinary Studies on Children, Families and Society	1
	University of Western Cape	Social Work: Community Development Programme	1
	University of Western Cape	Social Work	1
	The Independent Institute of Education's Varsity College	Humanities & Social Sciences	1
<b>Total</b>			<b>35</b>

**Table 2.** Types of substance use training offered at universities.

Type of course	Number
Undergraduate courses and modules including limited awareness sessions or seminars	21
Postgraduate Diploma	2
Master's Degree	2
None	10
TOTAL	35

majority also reported they would benefit from having access to both evidence-based curricula offered by ICUDDR.

The training program universities are most keen on developing with the integration of UTC and UPC are stand-alone short courses with diploma (37%), standalone degree (23%), short courses (certificates, specialization) (68%), standalone short courses for CPD (62%); use externally available resources to strengthen courses currently being planned (45%), use UPC and UTC in existing curriculum (42%), integrate some of UTC and UPC of existing courses into existing related courses (60%), integrate into other different university courses (25%).

In further exploring readiness, 60% of the universities reported a need for building on and improving existing addiction science curriculum. Sixty-two percent indicated they were developing a new addiction science curriculum, whilst 88% were keen on enhancing staff teaching capacity in addiction science. Ninety-four percent indicated encouraging research in addiction science for students and staff and further enhancing collaboration between universities and practitioner organizations (85%).

### **Target audience, core competencies and resources**

In determining the target audience, the majority of respondents identified the upskilling of existing professionals (74%) as a core need, followed by post-graduate students (60%) and undergraduate students (45%). Respondents also indicated non-degree professionals as a potential target audience (45%). Thirty-seven percent reported some level of competency in providing addiction science training.

Respondents indicated an overall skill set for professionals that would include deep knowledge on theories of addiction, screening tools, assessment tools, evidence-based counseling skills and interventions for both prevention, treatment and aftercare at various levels (individual, family, group and community). A further competency identified is understanding SUDs in relation to concepts such as harm reduction, co-occurring disorders, pharmacotherapy, medication assisted therapy, policies and research. The social determinants of SUDs, the local context and policies underpinning SUDs in the country were seen as an important component of the core competencies for SUD training.

Universities indicated that the existing curriculum in addiction science may be utilized as a resource (37%) as well as existing knowledge networks (54%). In terms of financial and human resource availability, the universities reported 11% and 60%, respectively.

The majority of respondents expressed a need for assistance with curriculum development (88%), staff training in program delivery (94%) and financial support to fund their program

(62%). Respondents also indicated the need to build and/or improve knowledge networks (57%) and to promote mutual learning and facilitate knowledge transfer. They also indicated the need for human resources (34%) to assist with program implementation.

### **Discussion**

This survey was the first formal needs assessment that was conducted to document current addiction science training and to identify the training and curriculum development needs in South African universities. Current addiction science training in South African universities indicates a diverse range of training tasks of varying scope, depth, quality and efficacy for upskilling of healthcare professionals. It is evident from the data gathered that there is currently a lack of standardization in SUD curriculum content and training at South African universities. The variability of content across the universities and programmes mitigates against the provision of uniform standardized addiction science training as professionals are differentially trained and capacitated. Furthermore, the inconsistency in curriculum structure and pedagogy across different universities and programmes, with some offering full degrees or diplomas, while others offer modules or sub-modules within courses, also impacts on professionals having different and varied levels of expertise when they complete such training.

A notable shortcoming is inadequate training and content expertise of academic staff responsible for offering SUD training and curriculum development pedagogies appropriate for UTC and UPC training. This compromise in the competency levels of adequately trained personnel directly impacts on the quality of training offered and the competencies of graduates being trained in SUDs.

This study found that the majority of universities currently have no multi-disciplinary team to provide SUD coursework. The literature suggests the importance of a multidisciplinary (medical doctors, social workers, nurses, counselors, psychiatrists and psychologists) approach to academic training, as it provides professionals with an understanding of the complex nature of SUDs and can further facilitate collaboration between professionals (Miovský et al., 2015, 2016, 2021; Zavar et al., 2012).

A major concern reported is the absence of accreditation and certification standards and protocols across universities and programmes, resulting in graduates with greatly differential competency levels and no registration as an addiction professional. Formal accreditation and registration lead to professional credibility, which academic training helps establish. This can enhance career opportunities as employers and clients may prefer to work with professionals who have received formal training in addiction treatment.

The data obtained from this survey propose the following recommendations to assist South African universities with the next phase of addiction science curriculum development, implementation and development of academic staff competencies in the addiction field.

Firstly, in terms of addressing some of the challenges reported, it is recommended that the professional upskilling of academics to provide SUD training for students be

a priority. Secondly, given the lack of standardization in SUD curriculum and variability in content and training, universities in South Africa would greatly benefit from continued work through trainings in the UTC and UPC provided by ICUDDR, especially since the majority of universities indicated their readiness to implement the UTC and UPC.

Thirdly, the success of training is largely contingent on financing of such training, hence funding is crucial for the sustainability of addiction training at universities and for graduating addiction professionals. In addressing challenges in addiction treatment and training in Africa (Ebuenyi et al., 2021) emphasizes the importance of government's role in prioritizing and investing in addiction treatment and training. The government's role in ensuring the sustainability of SUD treatment and training is highlighted by the current situation in South Africa where government (DoSD) has stopped funding of the post-graduate diploma in addiction care. This resulted in a considerable drop in the number of students from 25 funded students in 2022 to six self-funded students in 2023 at UCT, with the possibility of discontinuation if additional funding is not secured.

Finally, there are established addiction science programmes such as the program offered at Charles University in Prague, which could serve as a model that can be adapted and replicated at South African universities (Miovský et al., 2016, 2021).

## Conclusion

Academic training is crucial for the effective treatment of SUDs. It provides professionals with the knowledge, skills, and credibility to provide high-quality care to clients and contribute to the advancement of the field.

Through the implementation of addiction science into academic curricula, the aim is to professionalize the addiction workforce by ensuring that students and addiction professionals are adequately trained at universities according to the core competencies needed for addiction professionals in the workforce.

## Author's contributions

Authors RK and LA developed the hypothesis of the study. RK, LA, RG and MM developed the study design and questionnaire. FA and NT designed the electronic survey. WC was responsible for the data collection. NH performed the statistical analysis. RG and NH participated in the data interpretation and manuscript preparation. RK wrote the first and successive drafts of the manuscript. All authors contributed to the literature search. RG and NH contributed with the critical revision of the manuscript for important intellectual content. RK, RG and NH had the final responsibility for the decision to submit for publication.

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