

DRILL: An innovative programme to develop health research leadership in KwaZulu-Natal, South Africa

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Early-career academics, apart from formal training in the conduct of research at undergraduate and graduate levels, develop individual research capacity principally 'on the job'.^[1-3] Research leadership capacity entails research leadership skills development, supervision and mentorship, multidisciplinary team collaborations, grant-writing skills, research career pathing, publication in high-impact journals and dissemination of important research projects and outcomes to policymakers and other stakeholders.

Developing Research Innovation, Localisation and Leadership (DRILL) programme

The DRILL programme at the University of KwaZulu-Natal (UKZN), Durban, South Africa, nurtures a selected talented group of early-career researchers (DRILL fellows) and is a move towards active, focused development of research leadership capacity and research. In this regard, the shift has been from a more unstructured (*laissez-faire*) to an increasingly structured and managed (contractual and directed) mode of research supervision and mentorship. The key objectives are:

- to capacitate, train and produce, after 5 years, at least 20 research leaders in health, including early-career academics at UKZN and selected personnel from the KZN Department of Health (DoH)
- to build the eligibility and increase the likelihood of retention of these trained scientists at UKZN and the KZN DoH as a pool of highly skilled researchers on an accelerated research leadership trajectory
- to develop skills of mentorship and supervision in these DRILL fellows to identify, inspire, train and support emerging research talent and build thematic communities of practice.

Outcomes

The DRILL programme is currently active. An empirical evaluation will be conducted and published at the end of the grant period. Two multidisciplinary cohorts of 10 fellows were enrolled in the programme in October 2016 and 2017, respectively. The high visibility and perceived impact of the programme resulted in a surplus of interested and appropriate candidates. We managed to enrol an unplanned third cohort (5 fellows) in 2019, which was made possible owing to unexpected exchange rate improvements in our financial resources. More females have been enrolled (Table 1).

Research leadership development of these fellows is provided in the form of technical, scientific and research ethics competence, a dedicated,

Table 1. Demographic profile of DRILL fellows by cohort

Demographic variable	Total, N	Cohort 1, n	Cohort 2, n	Cohort 3, n
Gender				
Male	7	3	3	1
Female	18	7	7	4
Race/ethnic group*				
Black	11	5	3	3
White	2	1	1	0
Indian	9	2	6	1
Coloured	3	2	0	1
Place of employment				
UKZN (academic)	20	10	5	5
KZN DoH (clinical)	5	0	5	0
Stage of research				
PhD	10	1	6	3
Post-doc	15	9	4	2
Age, years				
<40	14	4	6	4
≥40	11	6	4	1
Scientific track				
Health professions education	5	2	2	1
Health systems strengthening	7	3	3	1
HIV/AIDS	6	3	3	0
Mental health	5	2	1	2
Health research ethics	2	0	1	1
Discipline				
Physiotherapist	3	2	1	0
Optometrist	3	1	2	0
Pharmacist	2	1	1	0
Nurse	3	1	2	0
Medical specialist	4	1	3	0
Physiologist	2	2	0	0
Neuroscientist	2	2	0	0
Anatomist	2	0	1	1
Psychologist	2	0	0	2
Audiologist	1	0	0	1
Sports scientist	1	0	0	1

DRILL = Developing Research Innovation, Localisation and Leadership; UKZN = University of KwaZulu-Natal; DoH = Department of Health. *Described as per South African census data variables.

well-resourced and supportive environment, and systematic supervision and mentoring from established locally based research leaders. DRILL fellows are required to maintain a research portfolio comprising 6 components: an individual development plan (to document activities for reporting back to our funder); a reflective journal (to allow for deliberation on their career path, goals and reflective practice); research competencies (skills and competencies acquired); health communication and social media engagement (communicating research to the lay media); a teaching portfolio; and preparation for formal rating by our national research council. Writing and communication skills are also integral, especially the production of articles in high-impact publications.

Conclusions

Although empirical data are currently being collected for future analysis and publication, we believe that DRILL is a unique, comprehensive research leadership programme that will help our institution and the region to maintain its national and international standing as a leader in high-impact evidence-based solutions to pressing regional health problems.

Declaration. None.

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Conflicts of interest. None.

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