

# Capacity Development of Research Ethics Administrators: Scoping Review

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## Abstract

Capacity development of research ethics committees is generally limited to members, and seldom includes administrators. This study sought to map the capacity development efforts of research ethics administrators. A scoping review was conducted. The literature search yielded 92 potentially relevant records, and further screening yielded 22 studies. The 22 studies were extracted and synthesized; two studies spoke directly on administrators' capacity development, while the remaining 20 focused on the capacity development of committees or of committee members. The two studies which spoke directly on administrators reported about two capacity development efforts targeting administrators in Africa, namely the African Conference for Administrators of Research Ethics Committees, and the West African Bioethics Training Program.

## Keywords

capacity development, research ethics committee, administrator, bioethics, Africa

## Introduction

In 2020, the population of South Africa was recorded as having increased from the previous year's population census of 58.7 million, to 59.62 million (Stats SA, 2020) which amounts to 0.76% of the world's population (United Nations Population Fund, 2020). The top four leading causes of death in South Africa are HIV, tuberculosis, influenza and pneumonia (Stats SA, 2020). These leading causes of mortality have led to a growth in the number of international collaborative research studies, an upsurge of biomedical research involving human participants in sub-Saharan Africa (Ndebele et al., 2014) and an increase in complex research protocols in developing countries (Omosa-Manyonyi et al., 2014). The growth in biomedical technologies has had a negative effect in bringing about an increase in ethical dilemmas (Gefenas & Lukaseviciene, 2017), which has equally led to an increased workload of research ethics committees (RECs), and a positive effect in helping to strengthen RECs through capacity development programs (Kasule et al., 2016; Mokgatla et al., 2018; Moodley & Myer, 2007; Silaigwana & Wassenaar, 2015).

Capacity development has multiple different definitions (Franzen et al., 2017). According to Rajeshwari et al. (2020), "a central goal of capacity development is transforming participants into autonomous agents", which is accomplished by assuming that existing capacities require strengthening. Another definition describes capacity development as "a locally driven change process through which

individuals, organizations and institutions obtain, strengthen, maintain and adapt their capacities to set and achieve their own development objectives over time and learn from their efforts" (Hagelsteen & Burke, 2016). Capacity development and staff development might be similar, and Steinert (2014) concurs that the definitions might be interchangeable. Capacity development is generally the process by which individuals and organizations improve, while staff development predominantly focuses on improving focus areas, for example research, teaching effectiveness or administration. While the definitions of capacity development and staff development might somewhat be similar, the researchers have chosen to conceptualize the definition of capacity development for this study as *the process by which individuals and organizations expand knowledge to complete tasks competently*.

According to IJsselmuiden et al. (2012), there is an urgent need for ongoing capacity and resource development in Africa, as a result of the slow pace of capacity development due to the lack of resources. However, according to Silaigwana and Wassenaar (2015), there has been a

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substantial increase in ethics capacity building in Africa since 2005. Furthermore, there have been several initiatives which have contributed significantly to capacity development of health research in sub-Saharan Africa, including those supported by the World Health Organization (WHO),<sup>1</sup> Tropical Disease Research (TDR),<sup>2</sup> the Swedish International Development Agency (SIDA) and Department for Research Cooperation (SAREC),<sup>3</sup> the Bill and Melinda Gates Foundation,<sup>4</sup> the International Clinical Epidemiology Network (INCLEN)<sup>5</sup> (Halstead et al., 1991), the Fogarty International Center of the US National Institutes of Health (NIH)<sup>6</sup> and the Wellcome Trust<sup>7</sup> (Ijsselmuiden et al., 2012). Even with the increase in REC workload and abovementioned efforts and initiatives towards ethics capacity development, a recent study conducted in a South African business faculty REC laments the meagre existing administrative structures (Davies, 2020).

The role of research ethics administrators has been well documented in countries in the Global North, yet there is not enough information on its growth, potential and professional and career trajectory in the Global South, specifically, in Africa (Bankert & Amdur, 2006; Kasule et al., 2016; Mokgatla et al., 2018). This is evidenced by capacity development efforts in the Global North, such as that of the United States-based association called Public Responsibility in Medicine and Research (PRIM&R) one of several associations offering professional certifications for institutional review boards. This association offers two streams of formal qualification: certified IRB professional (CIP) and certified professional in IACUC administration (CPIA), which ethics professionals and administrators are required to complete as a minimum requirement (Public Responsibility in Medicine and Research, 2020a, 2020b). Whilst PRIM&R may offer some semblance of criteria for ethics capacity development, these criteria are not often contextually relevant to all African settings (Kasule et al., 2016), due to the geographic location, affordability, policies and systems; PRIM&R states that their applicants are professionals who are “highly qualified to discharge their duties pursuant to United States rules and regulations”, which is not, therefore, relevant to settings outside the United States. The eligibility criteria show that candidates must have either Bachelor degree training, or two to four years’ experience in research ethics (Public Responsibility in Medicine and Research, 2020a, 2020b), which necessitates the need to establish Bachelor degree training in research ethics administration to allow for better vertical articulation. A similar training program called the Collaborative Institutional Training Initiative (CITI Program) is offered by a certification organization that offers different courses for people working in ethics, such as for IRBs and IACUCs (Collaborative Institutional Training Initiative, 2021).

There are no professional associations, such as PRIM&R and CITI Program, to accredit research ethics administrators in South Africa, although the Southern African Research

and Innovation Management Association (SARIMA) has, to date, driven a professionalization initiative to accredit and recognize research management administrators and managers (SARIMA, 2020). This initiative is not, however, specifically in the realm of research ethics or research ethics administration. A major capacity development effort for research ethics administrators in South Africa was the 2011 workshop, hosted as a collaboration between SARIMA and Tshwane University of Technology, which targeted incoming research ethics administrators from academic institutions and national science councils in the southern African region (Kasule et al., 2016). Unfortunately, the researchers of this study could not find any signs that this workshop ever continued after this initial event. Furthermore, institutions such as the Steve Biko Centre for BioEthics (University of Witwatersrand, 2021), the University of KwaZulu Natal through the South African Research Ethics Training Initiative (SARETI, 2020) and the University of Stellenbosch through Advancing Research Ethics in Southern Africa (ARESA, 2021) offer research ethics formal training such as short courses, postgraduate diplomas, masters and doctoral degrees (NIH Fogarty International Center, 2020), none of which specifically cater for research ethics administrators (Mulondo et al., 2022, p. 2).

Although research ethics administrators’ role may be administrative, in developed countries such as the United States, where their duties have been well-documented, their actual tasks exceed those of mere administrative work, and involve complex managerial tasks, such as preparing for audits, liaising with clinical trial regulatory authorities, collaborating with other institutions and providing research ethics training, all of which require training, further attention and a concentrated effort towards their capacity development (Kasule et al., 2016).

### Research Objectives

Capacity development of some RECs in low and middle-income countries (LMICs), which include most African countries, seems to be of significant interest to the ‘world’ of research and capacity development, while information, such as their structure, composition and availability of secretariat (also known as administrators or coordinators), is often lacking, leading to difficulty in giving an accurate view of capacity-building measures (Gefenas & Lukaseviciene, 2017). However, Mapping African Research Committees (MARC), which is an interactive map of RECs and their capacity to review (Council on Health Research for Development, n.d.) has helped to close some of the gaps regarding the scarcity of information. Mokgatla et al. (2018) shares that some of the 19 African RECs not registered on MARC’s Research Ethics Web<sup>8</sup> are regarded as either politically unstable (where ethical

health research might not be a priority), conduct their research without REC review (Mokgatla et al., 2018; Moodley & Myer, 2007), or are countries that do not use the English language as their official language (Mokgatla et al., 2018). Other studies, such as the current one, are, therefore, necessary to investigate the capacity development efforts of RECs further and, particularly, that of their administrators.

The aim of this study was to review the capacity development efforts of research ethics administrators, with the following objectives: 1) Synthesize existing knowledge on what is published about the capacity development of research ethics administrators; 2) Identify the main stakeholders in the capacity development of research ethics administrators; and 3) Identify the applicability of research ethics administrators' capacity development efforts.

To achieve these objectives, the methodology explained in the section below was applied.

## Method

This study deployed a scoping review methodology, which enabled the researchers to explore existing literature to locate the research topic in the existing body of knowledge. A scoping review aims to synthesize research evidence, map available literature in the field of interest, and summarize the results of the extracted evidence, and is usually employed when a particular topic has not been extensively researched (Mogaka et al., 2017; Pham et al., 2014). It allows researchers to learn from other scholars' findings in studies that might not have previously received extensive review. According to Pham et al. (2014, p. 372), the sole difference between a scoping review and systematic review is that, "the purpose of a scoping review is to map the body of literature on a topic area whereas the purpose of a systematic review is to sum up the best available research on a specific question". As the current study is a preface to a larger study, it was necessary to, first, employ the scoping review to map the existing literature, instead of employing a systematic review.

This study employed the methodological framework for scoping review by Arksey and O'Malley (2005). This was achieved by, firstly, identifying the objectives to be addressed and, secondly, by identifying the relevant literature, which was realized through conducting a NEXUS search<sup>9</sup> as well as a literature search on EBSCOhost (Academic Search Ultimate, Africa-Wide Information, APA PsycArticles, APA PsycInfo, CAB Abstracts, CINAHL with Full Text, eBook Collection (EBSCOhost), Education Source, E-Journals, ERIC, Health Source: Nursing/Academic Edition, OpenDissertations, Teacher Reference Center, Kovsiecat, KovsieScholar, MasterFILE Reference eBook Collection, MEDLINE with Full Text, APA PsycBooks) and Google Scholar search engine. The selected databases are not only relevant for the Global South, but extensive enough to encompass the broader

globe. Thirdly, the researchers selected literature sources to be used in the synthesis and finally, recorded and reported the findings.

## Inclusion and Exclusion Criteria

The language preference for this study was set as English (Ewusie et al., 2020; Mogaka et al., 2017). Excepting non-English studies with English abstracts available, all non-English-language literature was excluded, due to the lack of access to translation resources. Date restrictions were set at 2000 to 2021 to demonstrate the recent and current developments in this research area.

All study designs (quantitative, qualitative and mixed methods) and all literature (such as empirical research studies, scoping and systematic reviews) which referred to the capacity development of research ethics administrators was included.

Research conducted in LMICs and whose conclusions and discussions could be transferable to African settings was also included for comparative purposes. Perspectives from all stakeholders, whether they were viewpoints shared by research ethics administrators or other interested parties, (Departments of Health, WHO, funders, RECs) were included. Reference lists were also examined in search of more literature, to limit the possibility that a study could be omitted from the synthesis.

## Identification of Relevant Studies

**Key Search Words and Terms.** Search words were identified for the library and relevant literature search. Some of the key terms have secondary terms, such as *research ethics committee*, which is also referred to as *institutional review board*, while *capacity development* is also referred to as *capacity building*. Primary and secondary key search words were, therefore, used. A local tertiary institution's librarian assisted in finalizing the key search words and search strategy, and in obtaining relevant study literature that was not readily/easily accessible to the researchers. Relevant literature was then identified, reviewed and analysed with the aim of locating the scope of the current study topic in literature.

**Databases.** The databases searched include the following:

*Academic databases:* EBSCOhost<sup>10</sup> (Academic Search Ultimate, Africa-Wide Information, APA PsycArticles, APA PsycInfo, CAB Abstracts, CINAHL with Full Text, eBook Collection (EBSCOhost), Education Source, E-Journals, ERIC, Health Source: Nursing/Academic Edition, OpenDissertations, Teacher Reference Center, Kovsiecat, KovsieScholar, MasterFILE Reference eBook Collection, MEDLINE with Full Text, APA PsycBooks).

*Search engine:* Google Scholar.<sup>11</sup>

NEXUS search assisted in ascertaining the originality of this study among ongoing registered studies, such as theses and dissertations. All literature included in this study was also reference list scanned and a search done for other relevant literature, to ensure no study was excluded from the synthesis.

**Search Strategy.** The databases included in this study are varied and provided access to diverse disciplines. Boolean operators ('and/or') were used in the literature search. The search strategies between the years 2000–2021: *TI ("research ethic\* commit\*" OR "institution\* review board\*") AND (administrat\* OR secretariat\* OR coordinator\*) and ("research ethic\* commit\*" OR "institution\* review board\*") AND (administrat\* OR secretariat\* OR coordinator\*) AND (capacity build\* OR capacity Develop\*) and on Google Scholar search engine.*

**Study Selection (Screening).** A two-stage screening process was employed to assess the relevance of the literature identified. The first stage was evaluating the literature studies' titles and abstracts. The studies were grouped according to the following labels: *Include* (title and abstract relevant); *Exclude* (title and abstract do not correlate); and *Uncertain* (title and abstract might somewhat relate to the subject matter). In stage two, studies in the *uncertain* category had their full text and content reviewed by the authors and evaluated against the inclusion criteria, until the studies fell within either the *include* or *exclude* categories.

Studies which fell in the *include* group were included in the literature synthesis and had their full text reviewed by the researchers. After every five studies reviewed, the authors communicated to ensure consistency with the research objectives. A kappa score of 80% or 0.8 agreement was set for the authors' findings, which agrees with the framework of Levac et al. (2010), which recommends that authors engage and resolve inconsistencies regularly.

**Risk of Bias (Quality) Assessment of Individual Literature Studies.** The quality of the literature was checked to ensure clear study designs (methodological quality assessment).

**Charting the Evidence (Data Extraction).** Relevant publications were listed in the data extraction sheet according to six areas, namely the capacity development training name and year offered, location, host or funder (stakeholder), focus, author and applicability.

## Results

The NEXUS search yielded five records, of which none were similar to the current study. Literature searches conducted on EBSCOhost, Sabinet and Google Scholar electronic databases and search engine yielded 87 potentially relevant literature studies. The 87 studies from EBSCOhost were then

screened for duplication and after the first stage of the two-stage screening process, 50 studies were yielded. Initially, 11 studies were categorized as *Include*, five studies as *Exclude* and 34 as *Uncertain*. The second stage yielded 22 relevant literature studies. The screening process is indicated in a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram in Figure 1.

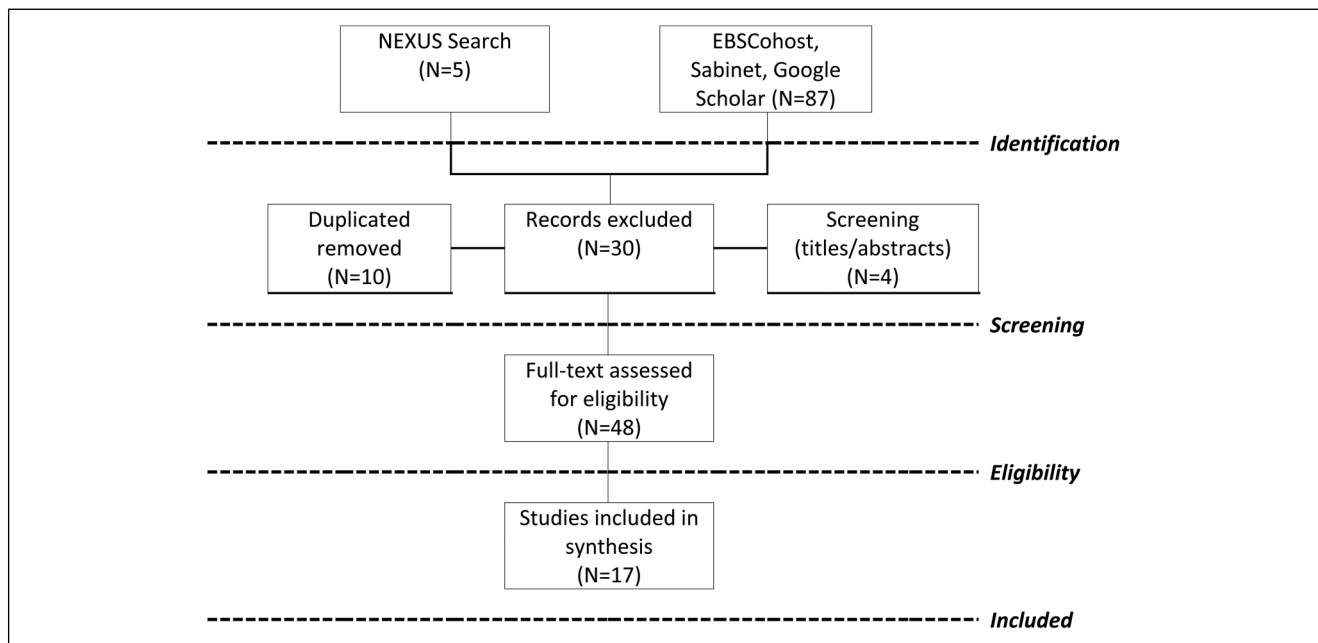
Of the 22 relevant literature studies analyzed, eight were quantitative (Franzen et al., 2017; Jaoko et al., 2016; Kasule et al., 2016; Milford et al., 2006; Mokgatla et al., 2018; Moodley et al., 2020; Van Rensburg et al., 2017; Yakubu et al., 2017), six were qualitative (Agunloye et al., 2014; Davies, 2020; Frantz et al., 2019; Henrikson et al., 2019; Iloghalu, 2018; Woodward-Kron et al., 2016), three were mixed method (Hyder et al., 2019; Ndebele et al., 2014; Omosa-Manyonyi et al., 2014), while the remaining five studies were analysis and reports on the topic (Choko et al., 2020; Gefenas & Lukaseviciene, 2017; Howard et al., 2010; Morton et al., 2013; Reston & Poliquit, 2020). The two literature studies, which focused on capacity development of research ethics administrators, were empirical research studies that used quantitative and mixed-method research (Kasule et al., 2016; Ndebele et al., 2014), the single literature study that conducted a needs analysis on IRB administrators in the United States followed qualitative approach (Henrikson et al., 2019), while the literature study that established a new REC in the United States and therefore capacitated new administrators shared the findings through a report (Howard et al., 2010).

## Collating, Summarizing and Reporting the Data

One study focused on the capacity development efforts of REC members (Omosa-Manyonyi et al., 2014), and one focused on establishing a REC and therefore capacity development of the entire REC structure (Howard et al., 2010), while only two focused on capacity development efforts of research ethics administrators (Kasule et al., 2016; Ndebele et al., 2014), and one study in the United States conducted a needs analysis of IRB administrators in genomics research (Henrikson et al., 2019). While few studies reported on capacity development efforts of RECs in general, five studies either reported on the mapping of RECs, (Mokgatla et al., 2018), performed assessments (Jaoko et al., 2016), wrote analysis and reports (Choko et al., 2020; Gefenas & Lukaseviciene, 2017; Howard et al., 2010; Morton et al., 2013) or surveyed RECs (Agunloye et al., 2014; Yakubu et al., 2017) in Africa/LMICs, to determine what capacity development efforts would be needed.

## Capacity Development of Research Ethics Administrators

The two studies that focused on capacity development of research ethics administrators (Kasule et al., 2016;



**Figure 1.** PRISMA flow diagram.

Ndebele et al., 2014) discussed capacity development taking place in Botswana and Nigeria (African countries) during 2011–2016. The funding for these studies on capacity development of research ethics administrators were from the Global North, namely from US NIH and European and Developing Countries Clinical Trials Partnership (EDCTP), while the study on needs analysis of research ethics administrators in the United States was funded by the US NIH.

### Capacity Development of Research Ethics Committee Members

The one study on the capacity development of REC members reports that training took place in Kenya, Africa from 2012 to 2013 (Omosa-Manyonyi et al., 2014). The study was funded from the Global North, by the Global Health Research Initiative (GHRI) of Canada. The one study on the establishment of a REC and therefore capacity development of the entire REC structure reports that the training program was in the United States, 2005 (Howard et al., 2010). This study was funded from the Global North, by the National Center on Minority Health and Health Disparities Grants.

The rest of the studies focused on different aspects of a REC research, such as digital/health research (Hyder et al., 2019), health/hospital administrators (ILOghalu, 2018), tribally-based IRBs (Morton et al., 2013), ethics in randomized clinical trials (Choko et al., 2020), clinical ethics committees (Moodley et al., 2020), REC resources (Milford et al., 2006), review outcomes of a social science REC (Davies, 2020), novice researchers (Van Rensburg et al.,

2017), research capacity (Reston & Poliquit, 2020), faculty development (Frantz et al., 2019) and perceptions of research ethics administrators on a particular topic (Woodward-Kron et al., 2016). These studies were therefore not relevant to RECs, REC members or research ethics administrators. Table 1 gives a summary of the global capacity development efforts of research ethics administrators.

### Discussion

The synthesized literature studies were diverse in methodology and study design. Methodological screening was employed to ensure the quality of the studies and to ascertain the different methodologies employed. It was, however, evident that more empirical research, such as qualitative research, needed to be conducted on the topic of research ethics administrators to understand their capacity development needs better.

Capacity development of research ethics administrators is a new phenomenon, which may explain the little research that has been conducted on this topic in recent years. The studies analysed in this scoping review raised the necessity of capacity development of research ethics administrators, as this group of staff is not just an extension of, but play significant role and fulfill important positions in RECs.

### Objective 1: Identified Capacity Development of Research Ethics Administrators

The PRIM&R association was noted as offering certification and short courses in United States compliance regulations

**Table 1.** Global Capacity Development Efforts of Research Ethics Administrators.

Author [Reference]	Focus	Type of study	Training name, year offered	Country	Funder (stakeholder)
Hyder et al. (2019)	Digital health research	Mixed method	No training (case study)	LMICs (Bangladesh, Tanzania and Uganda)	Bloomberg Data for Health Initiative
Ilghalu (2018)	Healthcare administrators	Qualitative	No training	Phoenix, United States	Unknown
Frantz et al. (2019)	Health professions educators	Qualitative	African faculty development programme	South Africa	National Research Foundation, South Africa
Franzen et al. (2017)	Health research	Quantitative	No training (systematic review), 2000–2013	LMICs	Bill and Melinda Gates Foundation
Van Rensburg et al. (2017)	Novice researchers	Quantitative	Novice researcher programme for nurse educators, from 2010	South Africa	Not provided
Henrikson et al. (2019)	Research ethics administrators	Qualitative	No training (needs analysis), 2018	United States	US NIH, Office of the Director
Kasule et al. (2016)	Research ethics administrators	Quantitative	AAREC, 2011	Botswana, Africa	EDCTP
Ndebele et al. (2014)	Research ethics administrators	Mixed method	WABTP, 2004–2016	Nigeria	US NIH Fogarty – FIC
Woodward-Kron et al. (2016)	Research ethics administrators	Qualitative	No training (research ethics administrators' perceptions)	Melbourne, Australia	Melbourne Networked Society Institute
Agunloye et al. (2014)	RECs	Qualitative	No training	Nigeria	International Development Research Centre
Gefenas and Lukaseviciene (2017)	RECs	Report	No training (special report)	LMICs	Not provided
Jaoko et al. (2016)	RECs	Quantitative	No training (assessing tool)	Nairobi, Kenya,	Fogarty International, NIH
Mokgatla et al. (2018)	RECs	Quantitative	No training (mapping)	All African countries	EDCTP
Yakubu et al. (2017)	RECs	Quantitative	No training (survey)	Nigeria	NIH/Fogarty International
Omosa-Manyonyi et al. (2014)	REC members	Mixed method	Workshops, 2012–2013	Kenya, Nairobi	Global Health Research Initiative of Canada
Reston and Poliquit (2020)	Statisticians in academia	Report	Outcome-based statistical capacity development programme, 2016	Philippines	Commission on Higher Education, Philippines government
Moodley et al. (2020)	Clinical ethics committees	Quantitative	No training	African countries	Centre for Medical Ethics and Law
Morton et al. (2013)	Tribally-based IRB	Report	No training	American Indian/Alaska Native (AIAN) communities	Not provided
Choko et al. (2020)	Ethics in randomized clinical trial	Analysis	No training	LMIC's	Global Forum for Bioethics in Health Research and Canadian Institute of Health Research grant
Milford et al. (2006)	REC resources	Quantitative	No training	African countries	UNAIDS/WHO HIV Vaccine Initiative (HVI) and the African AIDS

(continued)

**Table 1. (continued).**

Author [Reference]	Focus	Type of study	Training name, year offered	Country	Funder (stakeholder)
Davies (2020)	Review outcomes of a Social science REC	Qualitative Content Analysis Report	No training	South Africa	Vaccine Programme (AAV) Not provided
Howard et al. (2010)	Establish an IRB	Report	No training	USA	the National Center on

for research ethics administrators (Kasule et al., 2016). Its location and target group is in the United States, and it is therefore not applicable to settings outside the United States.

The literature reveals that research ethics administrators were capacitated either through workshops, such as the African Conference for Administrators of Research Ethics Committees (AAREC) in 2011, or training, such as the West African Bioethics Training Program (WABTP), which had been offered in West Africa between 2004 and 2016 (Kasule et al., 2016; Ndebele et al., 2014). The AAREC conference in 2011 appears to have been the first and last conference of its type, with no similar conference targeting African research ethics administrators since.

In 2020, SARIMA and EthiXpert ([ethixpert.org.za](http://ethixpert.org.za)) started hosting workshops for research ethics administrators. This is an exciting development, as it continues the conversation on this group of professionals.

## Objective 2: Main Stakeholders in Research Ethics Administrators' Capacity Development

Most of the training for capacity development of research ethics administrators was presented by international funders, such as the EDCTP in Europe and the NIH Fogarty-funded research ethics program, US NIH, in the United States. The training was, thus, mostly funded by the Global North (Kasule et al., 2016; Ndebele et al., 2014). The amount of growing research in the Global South, especially in sub-Saharan Africa, must be matched by local funding, to promote capacity development of research ethics administrators and ensure sustainability of capacity development initiatives.

## Objective 3: Applicability of the Capacity Development Efforts

Capacity development programs on research ethics administrators were hosted in Africa (Kasule et al., 2016; Ndebele et al., 2014). The training events were, therefore, applicable to most African settings. However, they were few and took place more than five years ago. There is a need to increase capacity development of research ethics administrators,

especially by means of formal qualifications relevant to the African continent, to ensure that research ethics administrators are properly qualified and skilled and able to respond to the increasing need for ethical review of research being conducted in the African continent or in the Global South.

## Conclusion

The study found very little research on capacity development of research ethics administrators. The studies on research ethics administrators were mainly funded by organizations in the Global North, such as EDCTP and US NIH. A few studies on research ethics administrator capacity development were conducted in Africa and are therefore applicable in most African settings.

More empirical studies and research need to be conducted on this topic, to allow for more discourse around capacity development of research ethics administrators. Further research is needed on what level/sort of training research ethics administrators need to fulfill their tasks and what platforms they can join to network with administrators from other institutions. Capacity development of research ethics administrators will provide an opportunity for a more efficiently-run REC.

Findings of this scoping review study may encourage future studies, which might lead to the development of a framework for guiding ethics practice that is relevant for South Africa, Africa and the Global South in general, as well as the implementation of capacitation of administrators in other, comparative settings. As the globe's ethics committees continue to be inundated by submissions relating to multi-site studies on HIV and AIDS (Kasule et al., 2016) and, recently, Covid-19, administrators also need comparable capacitation to that REC reviewers receive.

## Best Practices

Capacity development of research ethics administrators may be an emerging focus and, as a result, may be embedded in efforts to capacitate the entire research ethics committee. We, therefore, recommend separate training and capacitation efforts for research ethics administrators, as the focus

should be dedicated and targeted. This is recommended for all research institutions, as well as REC.

## Research Agenda

It would be beneficial to conduct more research targeted at research ethics administrators in LMICs. Empirical research in these geographical areas appears to be limited. The more the focus reaches developing countries, the more the research agenda progresses in the desired direction. Furthermore, it appears that more research and information-sharing platforms need to be made available to facilitate institutional research office directors' meeting the training needs of REC/IRD administrators. It would also be necessary to explore whether training needs of REC administration staff differ according to the seniority/responsibilities of each REC administrator.

## Educational Implications

We recommend that research institutions and REC broaden their focus, from directing capacitation efforts to research ethics committee members, to also offering training for administrators. This may include funding administrators to attend offsite training events, and providing them with opportunities to benchmark with other institutions.

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## Ethical Statement

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## Patient Consent for Publication

Not required.

## Provenance and Peer Review

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## Data Availability

No data are available

## Declaration of Conflicting Interests

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## Notes

1. The World Health Organization (WHO) is the directing and coordinating authority on international health within the United Nations system (<https://www.who.int/>).
2. Tropical Disease Research (TDR) is the Special Programme for Research and Training in Tropical Diseases is a global programme of scientific collaboration that helps facilitate, support and (<https://www.who.int/tdr/about/en/>).
3. Swedish International Development Agency (SIDA) is a government agency working on behalf of the Swedish government, with the mission to reduce poverty in the world, while Sida's Department for Research Cooperation, SAREC, is responsible for providing support for research (<https://www.sida.se/en/about-sida>).
4. A non-profit founded by Bill and Melinda Gates, which seeks to improve the quality of life for all individuals (<https://www.gatesfoundation.org/>).
5. The International Clinical Epidemiology Network (INCLIN) aims to strengthen the research capacity of medical schools in the developing world through the development of Clinical Epidemiology Units.
6. The Fogarty International Center (FIC) aims to support and facilitate global health research conducted by the United States and international investigators and is dedicated to advancing the mission of National Institutes of Health (NIH) (<https://www.fic.nih.gov/About/Pages/default.aspx>).
7. The Wellcome Trust is an independent global charitable foundation which aims to improve the health for everyone (<https://wellcome.org/>).
8. Council on Health Research for Development's (COHRED) Research Ethics web is used by RECs and key stakeholders in health research in Africa to share knowledge in health research ethics (<https://www.cohred.org>).
9. Ascertains the originality and uniqueness of the title among ongoing registered studies, theses, and dissertations with the assistance of a librarian.
10. Global Online reference system used by most libraries in the world as a literature search engine.
11. Freely accessible web literature search engines.

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**Puleng LenkaBula** is the Principal and Vice Chancellor of the University of South Africa. She is an internationally recognized researcher with educational background in ethics. Her role in this study has been in assisting to prepare the draft of the research proposal, designing the methodology as well as checking the quality of the study.

**Perpetual Chikobvu** is the Director of Information Research and Knowledge management at the Department of Health, Free State. She is also a reviewer of current health research in the province of Free State, South Africa. Her role in this study was in quality checking the methodological quality of the study as well as overseeing the data analysis process.