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Research Article

An exploration of faculty perspectives towards interprofessional education and collaborative practice during international electives in health professions training institutions in Africa

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Background

Faculty perspectives are key drivers of learning during international electives (IEs). However, in Africa, there is limited literature on these perspectives on interprofessional education and collaborative practice (IPECP) during IEs. Therefore, this study explored faculty perspectives toward IPECP within an international elective context from selected African institutions.

Methods

This was an exploratory qualitative study. The study participants included faculty from four health professional training universities in Africa. Thematic analysis was used to analyze the data. Common codes were identified and grouped to create subthemes and major themes.

Results

Four themes were identified: (i) The importance of IPECP during IEs, (ii) Approaches to IPECP during IEs, (iii) Perceived key barriers, and (iv) Perceived institutional support for IPECP during IEs. Most of the participants perceived IEs as a platform that can be used to cultivate IPECP with a multicultural perspective while promoting cross-border partnerships to advance health care. Suggested teaching approaches included case studies, joint clinical ward rounds, and simulations, among others, with an openness to having an online, blended, or physical mode of delivery. A framework to guide the implementation of IPECP during IEs was considered important, and most participants thought that their institutions had the infrastructure to support IPECP-IEs.

Conclusions

Faculty reported enabling perspectives of IPECP during IEs, emphasizing the need for a framework to guide and structure implementation. IPECP-IEs were perceived as a unique platform to cultivate IPECP skills with a multicultural component.

Interprofessional education (IPE) has been shown to improve patient outcomes by reducing length of stay, enhancing holistic efficiency of disease management, and better patient relationships with the health care providers.[1,2] As a result, various health professional training institutions have been encouraged to embed IPE in their curricula to advance interprofessional collaborative practice. IPE refers to situations when students from two or more professions in health and social care learn together, with, from, and about each other during all or part of their professional training to cultivate collaborative practice for client and patient-centered health care.[3] Inter-professional education and collaborative practice in health care can result in enhanced quality of health care, reduced hospital stay, cost-effectiveness, enhanced productivity, and job satisfaction among healthcare providers.[4]

Despite the benefits of interprofessional education and collaborative practice (IPECP) in Africa, healthcare professionals continue to be trained in silos with minimal emphasis on IPECP.[5] Professional silos in health care is a term often used to refer to the state of various health care professionals and departments working independently with a lack of collaboration on various tasks.[6] Internationalization in health professions education (HPE) has also gained momentum demanding innovative ways to global learning and exposure.[7] Most institutions globally and in Africa have de-

veloped international electives (IEs) through unilateral, bilateral, and multilateral partnerships between home and host institutions, often in different countries.[8] However, students who undertake IEs do so in professional silos rather than inter-professional teams,[7] characterized by pairing students with similar disciplines during IEs rotations. International electives (IEs) are defined as the time of learning where students have a choice on where to learn and what specialty program they should be learning from.[9] IEs as a form of teaching and learning are part of various health professions curricula,[10,11] with faculty being the key drivers for their effective structuring.[10-12] These have been documented to enhance the learners' global perspectives, knowledge and skills, interpersonal and professional development, and positive attitudes to better health service delivery.[13] Furthermore, IEs provide a learning platform where IPECP skills can be cultivated, especially if offered with a structured approach.[14] However, despite the relevance of IEs in advancing IPECP, there is limited published literature on faculty perspectives in Africa on IPECP during IEs, to inform facilitators of learning. A few studies[15] that have been conducted in Africa have assessed faculty perspectives of IPE in general but without a focus on the international electives learning context.[15] Therefore, this study aimed to explore faculty perspectives towards IPECP within an international elective context from selected institutions in Africa.

METHODS

STUDY DESIGN

This was an exploratory qualitative study conducted among four health professional training institutions in Africa. For IEs to happen in any African institution, institutional leaders, administrators, and teaching faculty play an important role. Therefore, the study included institutional leaders, administrators, and academic faculty (lecturers) to ensure a diverse representation of the faculty. Key Informant Interviews (KIIs) were used to collect data from the participating faculty.

STUDY CONTEXT AND SETTING

The study was contextualized within the African Forum for Research and Education in Health (AFREhealth) in Africa. AFREhealth is an interdisciplinary health professional group that works with Ministries of Health and training institutions to improve healthcare quality in Africa through research, education, and capacity building.[16] AFREhealth runs an international student elective program in 15 training institutions. The purpose of these electives is to enhance global exposure for students in various healthcare domains and systems. The electives are managed through partnerships with home and host institutions with direct supervision of the student's learning by faculty at the host institution.[17] Using the AFREhealth Elective Program web-based online application system, all students can access various elective opportunities and apply for an elective of choice in specific disciplines. Each institution hosts three to five students lasting four to eight weeks. Four of the 15 institutions participating in the wider AFREhealth elective program were included in this study. These include Makerere University (Uganda), Kenyatta University (Kenya), University of Ibadan (Nigeria), and University of Zimbabwe (Zimbabwe).

These institutions were selected based on the criteria or the justification that they have electives included as part of their curriculum and are in the east, west, and southern parts of Africa and thus a representation of Africa. Specific to the AFREhealth elective program, over five students participate in the program per institution per year,[18] and a minimum of one faculty member is involved in the student's supervision. Each institution has one leader and one administrator involved in supporting the program. Beyond the AFREhealth elective program, about twenty students in each institution participate in international electives.[18] However, all four institutions host more than thirty students per year from other training institutions for International elective programs being offered.[18]

STUDY POPULATION

The participants of this study included faculty at various levels, including the university Deans, academic faculty involved in international elective programs at their institutions, and Administrators involved in handling international elective programs at their respective institutions. Although this enabled diversity, the university deans actively make decisions and develop partnerships to support IEs at various home and host institutions. The administrators coordinate these through the international office. IEs are heavily reliant on effective administration and are key for a successful IE program[18] thus the justification to add the administrative faculty to this study. The academic teaching faculty are involved in teaching and supporting the students learning. The above three categories of participants are key for any IE program to run in various African training institutions.[19]

SAMPLING METHOD AND RECRUITMENT

Purposive sampling was used to identify study participants. This was used because the nature of the study was qualitative and required us to get the best-fit participants to gain a deeper insight into the study objectives. The criteria used for selecting participants was that one had to be a leader, administrator, or faculty involved in conducting IEs programs at their training institution within the AFREhealth elective Program for > 2 years. Experience in IPECP was not a requirement; however, we ensured that all participants received an explanation of what IPECP, and its principles meant before participation. Each eligible participant was contacted via e-mail for their interest in participating in the study. An online consent form and Zoom link were sent to them upon acceptance. As a result, we recruited 14 participants.

STUDY TOOLS

A KII guide was adapted from Bennett et al. 2011 study that assessed faculty perceptions towards IPECP[20] and was pre-tested to suit this study. The KII guide used included a section on social demographic characteristics and questions on establishing the participant's perspectives on the importance of IPECP during IEs, approaches, and strategies to IPECP-IEs, perceived barriers, importance of an IPECP-IEs framework, how to overcome them, and strengths at institutions to support IPECP-IEs. These were semi-structured, including closed and open-ended questions that allowed in-depth descriptions of participants' views.

DATA COLLECTION

Data collection was carried out for three months i.e., March to May of 2022. Participants were approached via e-mail. After that, consent forms and KII guides were e-mailed to the participants at least two days before the interview to enable substantive preparation. The KIIs were conducted via Zoom. We conducted 14 KIIs in total with four institutional leaders, four institutional administrators for IEs, and six academic faculty involved in IEs. Each interview lasted one hour. Participant responses from the KIIs were audio-recorded and later transcribed verbatim. We interviewed 14 participants; however, the saturation point was reached at 11 KIIs. To confirm saturation, three more Interviews were conducted. While the point of saturation determined the number of participants in this study, efforts to ensure equal representation from all the institutions were made. The KIIs in this study were conducted virtually online using Zoom. This was in consideration of the COVID-19 situation but also much more cost-effective to collect the data from the various African countries.

DATA ANALYSIS

Thematic analysis was employed in which Atlas Ti version 8 software was used. This was done by reading the transcripts several times to identify meaningful units and texts to develop codes. The codes generated from the transcripts were categorized from which emerging subthemes and themes were generated. The social demographic characteristics of the participants were summarized and presented as frequencies and proportions.

This exploratory qualitative study was conducted among faculty at four health professional training institutions in Africa. For IEs to happen in any African institution, institutional leaders, administrators, and teaching faculty play an important role. Therefore, the study included institutional leaders, administrators, and academic faculty (lecturers) to ensure a diverse representation of the faculty. Key Informant Interviews (KIIs) were used to collect data from the participating faculty.

RESULTS

SOCIAL DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS

Most participants did not have prior training or exposure to IPECP (11/14, 78.5%), with an almost equal distribution of institutional representation, as shown in Table 1.

FACULTY PERSPECTIVES ON IPECP DURING IES

Four themes emerged from the data regarding faculty perspectives towards IPECP. These included: 1) the importance of IPECP-IEs, 2) Approaches to teaching and learning during IPECP-IEs, 3) Perceived barriers to IPECP-IEs, and 4) Perceived institutional support for IPECP-IEs.

THEME 1: IMPORTANCE OF IPECP DURING IES

From the findings of this study, it generally appeared that most of the participants perceived IPECP during IEs to be important. This is because IPECP-IEs would equip students with holistic team-based care skills that would improve patient outcomes in their future practice, develop international research networks, promote sharing of best practices, remove silos in care, and enable exposure to different healthcare systems thus grooming future health workforce with multicultural perspectives. The following quotes reflect this theme.

When talking about IPECP during IES, the patient will benefit more when care is Interprofessional, and the clinical pathway for patients will be much shorter in terms of hospital stay-KII 06

I think it is important because, at the end of the day, these students will be working in a team, and when they are done with training, this IPECP training during IEs will help them be better players in patient care - KII13.

IPECP- IEs will see students practice teamwork, and in the long run, it will save time by avoiding duplication of roles and thus improve patient care experience through reduced patient anxiety and shorter stay - KII 02

IPECP -IES would contribute to a global health workforce to jointly address health needs with a multicultural perspective since these electives will be taken by students in a different country - KII01.

To me, IPECP during IEs enables students to learn from other countries and thus foster joint learning, research, and sharing of best practices - KII 02

IPECP- IEs would lead to the start of elimination of current health professional rivalry, in other words, the silos. I would like to see such a program contribute to everybody realizing the role of each discipline and thus working as a team and working faster, better, and less stressed-KII04.

THEME 2: APPROACHES TO IPECP DURING IES

The participants mentioned various ways to IPECP teaching and learning during IEs. Most participants perceived case studies, simulation, clinical ward rounds, bedside teaching, community placements, lectures, and tutorial sessions as

Table 1. Background and Roles of the Key Informant Interview Participants N=14.

Characteristic	Frequency (N)	Percentage (%)
Institution / Country Location		
Kenyatta University, Kenya	4	28.6
Makerere University, Uganda	4	28.6
University of Ibadan, Nigeria	3	21.4
University of Zimbabwe Nigeria	3	21.4
Gender		
Male	9	64.3
Female	5	35.7
Role at Institution		
Leader	4	28.6
Academic Faculty	6	42.9
Administrative Support Staff	4	28.6
Professional Discipline		
Medical Doctor	5	35.7
Nurse	4	28.6
Pharmacy	2	14.3
Physiotherapy	1	7.1
Administration	2	14.3
Prior IPECP Training/Exposure		
Yes	3	21.4
No	11	78.5

appropriate teaching approaches for IPECP during IEs. This is reflected in the following quotes.

I would say multi-pronged including case studies, clinical ward rounds, community placements, simulation just name it- KII05

From the practical side, joint clinical ward rounds, joint research projects, assignments they can do together, joint bedside teaching, common unit joint lectures, joint simulation, joint community health placement- KII10.

To me, I think joint clinical ward rounds, joint community placements, joint clinical skills teaching, joint practicum, joint simulation- KII 08

In terms of the mode of delivery of IPECP during IEs, the faculty perceived online, blended, or physical mobility/ in-person presence (5) as the appropriate mode of delivery that could be used by various institutions according to the available resources for IPECP during IEs. All participants mentioned online and blended as reliable delivery modes, while about three-quarters thought in-person mobility was a better option. This is reflected in the following quotes.

I would say blended is still the best because sometimes what you see physically is different from what you see online- KII 12

Physical approaches would be more effective as you observe the SOPS, you see, in learning, you need to see, feel, and touch, and online doesn't cater to all senses so that effective learning happens -KII 13

Virtual electives, it reaches the most number of people, thus you build capacity faster and better than some hybrid and blended opportunities- KII 11

The faculty also thought there was a need for a framework to guide the implementation of IPECP during IEs since this is a new model and approach to IEs. All participants perceived an IPECP-IEs framework as important, and it would address the resistance to IPECP change among faculty, harmonize training, and create a benchmark for sensitization. This is reflected in the quotes below.

The framework will address harmonization of training, flag out barriers and areas of key interest within individual countries, and thus more emphasis and focus on structuring IPECP even beyond IEs in Africa - KII01

The framework would be helpful to address the inertia to change, and it would make it easy to learn from those who have done it and create uniform teaching and assessment methods - KII07.

THEME 3: PERCEIVED KEY BARRIERS

One of the issues that were often mentioned is the perceived obstacles that would hinder the implementation of IPECP-IEs in various training institutions. These included funding, professional silos, attitudes, cultural differences, lack of harmonized curriculum in home and host schools, lack of knowledge and awareness of IPECP among students, faculty, and other stakeholders, and internet connectivity. These are reflected in the statements below.

The attitudes of people supposed to lead in this IPECP- IEs collaboration, i.e., faculty or clinical preceptors, are so poor

with lots of professional silos and people being adamant about changing how they are teaching - KII08.

Faculty and students are not well versed in IPECP approaches to teaching. For the faculty, it's a challenge to appreciate in their mind that it is ok to have a ward round with students, not from your profession - KII01.

To me, we have curriculum differences in terms of when different disciplines rotate with each having no point of common learning space. But this can always be agreed upon- KII06.

Most of the faculty and students have little or, let me say, no prior knowledge of IPECP -KII07

Many times, students have to look for their own funds for international electives, which would also apply to the IPECP -IEs-KII03

If taking a virtual approach to the IPECP -IEs internet connectivity can be a problem, especially here in Africa. However, there has been an improvement in bandwidth strength - KII04.

In addition to the barriers evident through the participant responses, key approaches were suggested to mitigate these barriers. Key among these included: funding prioritization and partnerships, joint curriculum harmonization, creating awareness of IPECP importance, Prior exposure and training of IPECP principles to students, faculty, and other stakeholders, remuneration of all academic and support staff involved, research to guide evidence-based implementation, internet service providers collaborations for dedicated bandwidth, and extensive acculturation. These are reflected in the following quotes.

We can develop funding collaborations, especially local funding, which is tailored to be sustainable-KII05.

Drawing on the strengths of regional meetings so that we can have a harmonized curriculum for students to be able to participate at the same time from different disciplines and countries if possible is key- KII01.

We need to research to generate evidence on the impact of IPECP on health care, and if the leaders see that this is what works, then they can change their perception of IPECP- KII13

However, ensuring we liaise with different departments, leadership, faculty, and the students themselves so that we do prior training and create enough awareness among the relevant parties about the IPECP approach since we for sure are used to organizing these per discipline is key-KII03.

For point 2 I raised it is good to see the remuneration of leaders, faculty, and administrators for this, and capacity development should be created to address attitudinal change-KII01.

With the internet, network providers can be contacted to have dedicated bandwidth to those in the health training institutions to address the internet strength issue- KII04.

THEME 4: PERCEIVED INSTITUTIONAL SUPPORT FOR IPECP_IES.

Despite all the barriers mentioned, the participants perceived that their institutions had the strengths to support IPECP-IEs. These include the diversity of students and faculty, Health Professions Education (HPE) Departments, teaching and learning infrastructure for clinical and classroom teaching, student social engagement activities, functioning administrative structures, and Problem-Based Learning Curriculum. These are reflected in the themes below.

We also have committed faculty to provide supervision from various disciplines in our faculty and departmental relationships between various disciplines- KII 04.

We have students with varying ambitions and from various disciplines, a variety of faculty committed from different levels-KII06.

We have an effective international collaboration coordination office, training hospitals and faculty, and a variety of students are our strength -KII03.

At my university, we have a highly motivated dept of HPE that can guide since IPECP is really new -KII05.

We have great social aspects like diverse social spectrum and cocurricular activities to promote team building - KII05.

DISCUSSION

This study aimed to establish the faculty perceptions of IPECP during IEs in selected African universities. The findings show generally positive perspectives of IPECP during IEs among faculty of various cadres in the four selected universities. This, therefore, means that IEs are one of the avenues viewed by leaders, administrators, and academic faculty as an innovative way to advance IPE despite its limited existence in various health professional training institutions, in Africa. This study considered gaining faculty perspective from 3 categories, i.e. the leadership, administrators, and teaching faculty, simply because for any IPECP program to be successfully implemented, there needs to be support from the top leadership, administration, and teaching faculty.[16] Similarly, a study done in Malawi showed the need for leadership and teaching staff support to effectively implement an IPECP program.[15]

Many of the teaching approaches (case studies, community placements, bedside teaching, simulation, clinical ward rounds, among others) mentioned by the faculty already exist at the various training institutions for other forms of learning and those that create hands-on experiences for students during IEs. These, therefore, promote team building[17] and, most importantly, the interaction that would give students hands-on experiences, a key component for gaining collaborative practice skills.[4] Although lectures were mentioned as one of the ways to teach IPECP during IES, the researchers of this study view lectures on IPECP as a form of orientation and acculturation, giving students participating in an IPE-IE an overview of the principles of IPECP and not necessarily equipping students with the collaborative practice skills which is the end goal of IPECP. These findings are also similar to other studies conducted globally on IPECP, which strongly emphasize practical avenues to teach IPECP beyond lectures.[18] The various modes of delivery mentioned included in-person/ physical mobility, blended or online approach. These models have been used globally to advance IPECP,[19] and this also means that the various African institutions are open to internet-based or web-based technologies to support IPECP-IEs. This could be related to the COVID-19 pandemic, which has enabled various African universities to build capacity for

online teaching with some significant success.[20] Furthermore, given that many students globally and in Africa often find it difficult to participate in physical mobility IEs due to costs, online approaches would open more opportunities for more students to participate in IEs.

Most IEs happen through various partnerships between home and host institutions and the need for an efficient administrative structure to support their operation, as reported in this study. Since IPECP in IEs is a new approach and hardly exists in the various African training universities, most of the faculty thought a framework to guide implementation would be effective and ideal for effective structuring. This, therefore, means that the framework developed should be able to give guidelines for the roles of the leadership, administrators, and teaching faculty. Furthermore, it should be a guide on the various competencies to be gained, and the teaching and assessment methods. This is similar to a study by Mohammed et al. 2022 in India which showed the need to structure the approaches of IPECP in various health professions training curricula.[21]

Although the development of a framework was deemed appropriate, one of the biggest barriers perceived by the faculty in this study was the lack of prior knowledge among faculty and students on IPECP. This, therefore, means that there is a need to train faculty on IPECP and how to teach it appropriately and guide students' learning during IPECPIEs. Given that IPECP is an approach to Health Professions Education (HPE), involving the HPE departments at the various institutions to conduct workshops and regular capacity development programs in IPECP would be ideal given that it is one of the ways that has been used successfully in India.[21] To the students, it would mean that earlier exposure to IPECP during the pre-clinical years would enable them to gain a perspective on the key competencies and later get to engage practically in IPECP learning experiences like IEs in their clinical years, which would enable them to appreciate its value and acquire interprofessional education and collaborative practice skills.

Faculty are key stakeholders in health professions education whose views are needed to drive any teaching and learning approach, including IPECP. This study demonstrates key all-round perspectives from faculty in the domain of leadership, administration, and teaching faculty, and thus creates a starting point for teaching and learning innovation in relation to IPECP during international electives in various training institutions globally and in Africa. The strength of this study is that it was conducted from more than one institution and among various faculty cadres thus allowing triangulation with a multicultural perspective given that institutions were in different countries. Findings thus add to the body of knowledge in IPECP, especially in the context of international electives, in such a way that the concept of intercultural incorporation, which is a key aspect of any IEs, is positively appreciated by the faculty and their perspectives reflect the need for effective orientation and acculturation to enable appreciation of IPECP in a setting different from that at home.

Overall, the findings of this study increase our understanding and appreciation that IPECP can be conducted during IEs, a platform that has not been extensively used. Key and pertinent to this is the development of a framework since IPECP during IEs is a new approach and one that could be used to address the increasing demand for developing innovative approaches to internationalization in health professions education. Although IEs can be used as a platform to cultivate IPECP, more efforts need to be made to incorporate IPE in the general curricula of the various health professional training institutions given that not all health professional students participate in IEs. However, for the few students that get the opportunity to participate in IEs, they should have an option to choose IPECP-IEs among others like the clinical or community placement types of IEs, which will not only provide them with the transcultural experience, but also have an added advantage of IPECP exposure.

From this study's findings, developing a framework to guide the implementation of IPECP during IEs and a wider study to pilot the framework in various health professional training institutions is key. For practice and health professions education policymakers, it is key to incorporate IPECP in the various health professions education curricula. Furthermore, it is key to devise means for IPECP skills acquisition among the faculty given that most reported a gap in knowledge and training. This could be done through continued professional development programs conducted by the health professions education units in the various universities.

The trustworthiness and rigor of this study, given its qualitative nature, were observed. For credibility, prolonged engagement of the participants, having the research team review the findings, and review by a qualitative Analysis expert was done. Furthermore, the collection of data from different participants and institutions was done to ensure triangulation. A detailed description of the qualitative data collection and analysis process was done to ensure transferability in similar contexts elsewhere. To observe the dependability of the findings, Atlas Ti version 8 software was used to derive findings. To observe confirmability, the study team reviewed the study findings for accuracy and alignment with the study objectives.

This study was qualitative and thus prone to participant acquiescence bias. However, the research team ensured open-ended questions and provided enough time to provide in-depth responses with an emphasis on the participants' correct understanding of the questions. The study was only carried out in four training universities in East, West, and Southern Africa, without including Northern African countries as they are considered to be in the Eastern Mediterranean Region (EMRO). However, the strength of these results is that they represent the context of Sub-Saharan Africa, thus giving a wider scope of description relatable to the wider sub-Saharan Africa and other low and middle-income countries globally. Furthermore, the study has an all-around perception of IPECP during IEs obtained from the leaders, administrators, and teaching faculty, allowing triangulation. Discuss your results here and address their importance, as well as limitations. You can use the subheadings as in the Methods and Results sections

CONCLUSIONS

There is a generally positive perspective of IPECP during international electives among health professional training leaders, administrators, and academic faculty in African university institutions. One of the perceived barriers that stood out was the attitude change among the academic faculty that are used to training in silos. However, developing a framework to guide the implementation of IPECP during IEs, training leadership, faculty, and students on IPECP, and continued sensitization were perceived to be some of the ways to support the successful implementation of IPECP during IEs. All the participants perceived IPECP-IEs as one of the platforms that can be used to enable students to gain teamwork and collaboration skills with an intercultural perspective, foster positive professional identity, and understand their roles and responsibilities and those of others in a team.

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ETHICS STATEMENT

Ethical approval to conduct the study was granted by the Makerere University School of Medicine Research Ethics Committee (SOMREC) Mak-SOMREC-2021-96 and the Uganda National Council for Science and Technology (UNCST) HS2078ES. Ethical Administrative clearance was obtained from the University of Ibadan, the University of Zimbabwe, and Kenyatta University. Written Informed consent was sought from all participants of the study.

DATA AVAILABILITY

'The tools and data set for this study are available upon reasonable request from the corresponding author.

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AUTHORSHIP CONTRIBUTIONS

FN, IGM, AV, SK, and AGM conceptualized and developed the study. FN implemented and analyzed the data. FN, IGM, AV, and AGM reviewed the findings and jointly drafted the manuscript.

DISCLOSURE OF INTEREST

The authors completed the ICMJE Disclosure of Interest Form (available upon request from the corresponding author) and disclose no relevant interests / declare the following activities and relationships.

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