

The Kenya UK Breast Cancer Awareness Week: curriculum codesign and codelivery with direct and lived experience of breast cancer diagnosis and management

Bahaty Riogi,¹ Carlo Ross,² Miriam Mutebi,³ Rajiv V Dave^{2,4}

To cite: Riogi B, Ross C, Mutebi M, *et al*. The Kenya UK Breast Cancer Awareness Week: curriculum codesign and codelivery with direct and lived experience of breast cancer diagnosis and management. *BMJ Global Health* 2022;**7**:e008755. doi:10.1136/bmjgh-2022-008755

Handling editor Seye Abimbola

BR and CR are joint first authors.

Received 8 February 2022
Accepted 19 April 2022



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹Department of Surgery, Kisii Teaching and Referral Hospital, Kisii, Kenya

²The Nightingale Breast Centre, Manchester University NHS Foundation Trust, Wythenshawe Hospital, Manchester, UK

³Department of Surgery, Aga Khan University, Nairobi, Kenya

⁴Faculty of Biology, Medicine and Health, University of Manchester, Manchester, UK

Correspondence to

Dr Carlo Ross;
carlokeenaross@gmail.com

ABSTRACT

Global health education holds a paradox: the provision of global health degrees focusing on challenges in low-income and middle-income countries has increased in high-income countries, while those in these low-income and middle-income countries lack access to contribute their expertise, creating an ‘information problem’. Breast cancer is a pressing global health priority, which requires curriculum design, implementation, ownership and leadership by those with direct and lived experience of breast cancer.

The Kenya-UK Breast Cancer Awareness Week was conceptualised following the signing of the Memorandum of Understanding between the Kenyan and UK governments launching the Kenya UK Health Alliance. This alliance aims to promote health cooperation to address Kenya’s breast cancer challenge. Here, we present the first of the collaborative’s initiatives: a breast cancer global health education programme designed, implemented, owned and led by Kenyan stakeholders.

We present the utilisation of the Virtual Roundtable for Collaborative Education Design for the design and implementation of a nationwide virtual breast cancer awareness week delivered across eleven Kenyan medical schools. By involving partners with lived and/or professional experience of breast cancer in Kenya in all stages of the design and delivery of the awareness week, the project experimented with disrupting power dynamics and fostered ownership of the initiative by colleagues with direct expertise of breast cancer in Kenya.

This initiative provides a platform, precedent and playbook to guide professionals from other specialties in the design and implementation of similar global collaborative ventures. We have used this approach to continue to advocate for global health curricula design change, so that those with lived experiences of global health challenges in their contextualised professional and personal environments are given leadership, reward and ownership of their curricula and further to highlight breast cancer as a global health priority.

INTRODUCTION

Global health education holds a paradox: the provision of global health degrees focusing on

SUMMARY BOX

- ⇒ Breast cancer is an evolving global health priority. Breast cancer is the most common cancer and the primary cause of female mortality worldwide. It is estimated that in the next 20 years, 70% of cancers will be diagnosed in countries on the lower end of the socioeconomic gradient.
- ⇒ Discussions within international collaboratives as to whose voices shape global health, medical power and power dynamics are infrequent. We present the codesign and codelivery of an international breast cancer collaborative designed, led and owned by those with direct and lived experience of breast cancer in Kenya, to guide professionals from other specialties in allyship of similar global health collaboratives.
- ⇒ We present the utilisation of the Virtual Roundtable for Collaborative Education Design for the design and implementation of a nationwide virtual breast cancer awareness week delivered across eleven Kenyan medical schools.
- ⇒ By involving partners with direct and/or lived experience in international collaboratives, typical power dynamics between international partners and within the patient-health professional relationship itself can be disrupted effectively.

challenges in low-income and middle-income countries (LMICs) has increased in high-income countries^{1,2} while those in LMICs lack access to contribute their expertise creating an ‘information problem’.³ Breast cancer is a pressing global health priority which requires curriculum design, implementation, ownership and leadership by those with direct and lived experiences of diagnosing and managing breast cancer in their respective countries.

Breast cancer is the most common cancer and the primary cause of female mortality worldwide. In 140 of 184 countries, breast

cancer is the most commonly diagnosed cancer.⁴ In 2020, 2.3 million women were diagnosed with breast cancer and 685 000 deaths were recorded globally.⁵ It is estimated that in the next 20 years, 70% of cancers will be diagnosed in countries on the lower end of the socioeconomic gradient.⁶ Globally, breast cancer survival rates differ substantially across this gradient, with an estimated 5-year survival of 80% in those highest, to under 40% in those lowest along the gradient.^{7,8} It is imperative that equitable, efficient, effective and responsive global health curricula are developed, designed and delivered by those with lived experience of tackling breast cancer.

In Kenya, breast cancer is the most common malignancy accounting for 23% of all cases of female cancers (34 per 100 000).⁹ Furthermore, in Kenya, breast cancer is the primary cause of cancer-related morbidity and mortality in women.^{10–12} The annual incidence of breast cancer in Kenya is predicated to rise to 7396 (66% increase) with an annual mortality of 3258 people by 2025.^{13,14} The majority of women present with late stage or locally advanced disease (stage 3 or 4) with only 6.2% presenting within 1 month of their symptoms.¹⁵ This is evidenced across the Kenyan healthcare system which is a mix of public and private provision.^{12,16} Proposed theories for delayed presentation include painless symptoms and medical reassurance of benign nature of symptoms, however, there is a paucity of data regarding breast cancer education for medical students, professionals and the public.^{9,15,17}

In Kenya, the breast cancer curriculum is delivered to undergraduate and postgraduate students as part of their training. The basics of breast anatomy, physiology and pathology are taught in the ‘preclinical years’ of medical school (first and second year) while the clinical application of this knowledge is taught during the clinical rotations (third to sixth year). Doctors in specialist training programmes such as surgery, radiology, oncology and pathology will have exposure to a curriculum which includes management of breast disease. The curriculum is delivered by clinicians in these respective disciplines who have not necessarily received subspecialist breast diseases training. At the time of writing this article, there are no specialist training programmes in breast surgery, breast radiology or breast pathology in Kenya as is available in other countries such as the UK, resulting in trainees having to seek this sub-specialist training outside of Kenya. As breast cancer is one of the most common malignancies in Kenya, an in-depth training and understanding of the management of this condition is crucial to the delivery of effective, efficient, equitable and responsive breast cancer care.

DISRUPTING TYPICAL POWER DYNAMICS

The Kenya-UK Breast Cancer Awareness Week (KUKBCAW) was conceptualised following the signing of the Memorandum of Understanding between the Kenyan and UK governments, launching the Kenya UK Health

Alliance (KUKHA). The KUKBCAW aims to promote health cooperation to address Kenya’s breast cancer challenge and champions the ownership of strategic direction by Kenyan institutions with regard to health initiatives in the country while first recognising, and second aiming to offset, typical power dynamics present in the creation of global health curricula.¹⁸

Here, we present the first KUKBCAW; a programme designed, implemented, owned and led by stakeholders with direct and lived experience of breast cancer in Kenya. We use the term ‘direct and lived experience’ as a broad umbrella term for collaborators with professional (physicians, nurses, public health officials) and/or personal experience (patients and survivors with current or previous exposure to breast cancer or other cancer services in Kenya) of the Kenyan health system.

Discussions within international collaborations as to what constitutes medical power and power dynamics are infrequent¹⁹ with theories posited for the presence of these power dynamics including the existence of four major types of power ‘capital’^{20,21}: (1) cultural capital, which includes non-academic factors bolstering power such as academic credentials and style of speech, (2) social capital—social networks and connections, (3) financial capital and (4) symbolic capital, understood as legitimacy.^{20–23} Many struggles in global health international collaborations centre around which party is right about what intervention to use to improve population health. In these struggles, global health actors within partnerships often draw on these four forms of capital to advance their ideas thus perpetuating power dynamics, the information problem and an ineffective use of knowledge.^{3,20,24} These power dynamics present in international collaborations are also inherently present in the physician–doctor relationship.^{25,26} We, thus, present the codesign and codelivery of the KUKBCAW by those with direct and lived experience of breast cancer diagnosis and management in Kenya to guide professionals from other specialties in allyship in the design and implementation of similar global collaborative ventures, to highlight breast cancer as a global health priority and to advocate and highlight this methodology as a means to disrupt dynamics between international partners and within the patient-health professional context itself.

We present the utilisation of the ‘Virtual Roundtable for Collaborative Education Design’ (ViRCoED) model developed by Sbaiti *et al*.²⁷ as a methodology for designing and implementing a nationwide virtual breast cancer ‘awareness week’ delivered across eleven Kenyan medical schools which championed those with direct and lived experience of breast cancer in Kenya in order to disrupt typical power dynamics and extend ownership beyond traditional faculty curricula creators.

The primary aim of this collaborative was to: (1) provide a high-quality breast cancer education and awareness to students (undergraduate and postgraduate) and doctors in Kenya, where the contents and processes of the ‘awareness week’ were designed, implemented

and led by Kenyan stakeholders (clinicians, epidemiologists, key opinion leaders (KOL; an individual who is recognised by Kenyan stakeholders as an expert medical and/or surgical and/or public/global health experience in cancer management in Kenya and sub-Saharan Africa), civil society organisations (CSOs)) using the ViRCoED model; (2) provide a platform for patient and public awareness to discuss and dispel myths and misconceptions of breast cancer in Kenya, designed and delivered by Kenyan stakeholders using this same model; (3) demonstrate feasibility of online platforms for delivery of sustainable global health curricula and (4) develop international relationships between stakeholders in Kenya and the UK, to facilitate a lasting collaboration in capacity building through training, education and bilateral peer-to-peer knowledge transfer, disrupting historic unbalanced power dynamics.

We present our experiences to act as a template and guide other professionals from other specialties in the design and implementation of global health education initiatives and as a methodology to disrupt typical power dynamics. Further, we present these findings to improve awareness of breast cancer as a global health priority by engaging professionals in the UK, sub-Saharan African and internationally.

VIRTUAL ROUNDTABLE FOR COLLABORATIVE EDUCATION DESIGN

The ViRCoED model was first developed to adapt the Global Health BSc curriculum at Imperial College London to incorporate the lived experiences of the Syrian conflict.²⁷ The ViRCoED model, which builds on experiential learning,^{28 29} was formed on the principle of ‘subsidiary’, where decisions about helping others to reach a common good should practically and ethically be organised at the most local level and only deferred distally if necessary.²⁴ As outlined by Sbaiti *et al*, the ViRCoED model seeks to provide a platform for global health educators to involve stakeholders who should eventually become leaders of the programme itself.²⁷

We used the ViRCoED model for the design and implementation of the KUKBCA first Breast Cancer Education Week. Kenyan clinicians (oncologists, pathologists, radiologists, surgeons and nurses), public health epidemiologists, individuals from the Kenya National Cancer Prevention Programme, KOLs, CSOs, technicians (data scientists) and cancer support charities with patient survivors were invited to participate in the ViRCoED process. As this was a collaborative endeavour between Kenya and the UK, stakeholders within the UK system were also invited, including but not limited to, clinicians (oncologists, pathologists, radiologists, surgeons and nurses), public health researchers and academics. Key to this process was the inclusion of those with direct and lived-experience of breast cancer in Kenya and have demonstrated an engagement and understanding of global health, including British-Kenyan diaspora,

UK-fellowship-trained Kenyan surgeons, UK faculty with experience working in LMICs, members of the ‘International Forum’ of the UK Association of Breast Surgery, The College of Surgeons of East, Central and Southern African, the Kenya Association of Breast Surgeons under the Surgical Society of Kenya and breast cancer patients and survivors.

Through the ViRCoED model, the curriculum development focused on the clinical need in Kenya and emphasised on local data and local situation as opposed to the business-as-usual curriculum that has a lot of borrowed concepts and concentrates on the ideals which may be impractical. The education design allowed curriculum themes to be developed and shaped by those with lived experience specific to breast care, rather than general university or institutional faculty. The incorporation of the patient and public session was unique too as this enabled the students (both undergraduate and postgraduate) to understand the experience of the survivors in breast care journey and how national policy impacts on breast services. The design was able to address vast areas that span across science, social, public awareness and research, enabling the student to directly apply these aspects in breast care and appreciate how they build on each other, rather than learning them in isolation. Through the joint faculty from Kenya and the UK the delivery of the content saw a discussion that explored the current situation in Kenya and how best to work with the available resources to improve on breast cancer services.

To disrupt typical power imbalances between international collaborators, the ViRCoED roundtable was chaired by the co-leads of the KUKBCAW, RVD and BR, but Kenyan stakeholders were leaders of the discussion, with the ultimate direction and decision of the breast cancer awareness week format being theirs. The role of the UK and international faculty was to act as allies, championing the direction and ownership by those with direct and lived experiences of breast cancer in Kenya, thus aiming to reciprocate these typical power capitals seen in international collaborations. Harnessing the contribution of Kenyan diaspora as the international colead (author RVD) was important. In Tropical Health and Education Trust’s (THET) report ‘Experts In Our Midst’, it was recognised that these individuals “have a marked ability to work within a system with unfamiliar power dynamics and cultivate a deep appreciation for the value of new ideas through a profound understanding of other health systems”.³⁰ The inclusion of patients and survivors of breast cancer in Kenya, through Kenyan cancer support charities, was fundamental to the success of this collaboration and in further disrupting power dynamics at the physician–doctor level.¹⁹ Patients and survivors highlighted the information needs of the community/those affected by breast cancer in Kenya and how to use the knowledge of those with direct and lived experiences could be used most efficiently and effectively. Inviting patient advocate groups to the ViRCoED roundtable

ensured the collaboration truly served those it sought to become allies of.

The ViRCoED model was complemented by framing the ‘Breast Cancer Awareness Week’ as a health system innovation; this provided a toolkit to ensure integration, adoption, assimilation and sustainability of this education week.³¹ By this, we mean the authors used Atun *et al* framework during the ViRCoED roundtable, discussing clearly the ‘problem’ our awareness week sought to address (breast cancer awareness and education), our ‘intervention’ (the KUKBCAW), the ‘adoption system’ (Kenyan institutions) that would incorporate the intervention and finally, the contextual factors (ecological, technological and sociocultural) influencing the KUKBCAW³¹ in order to achieve the outcomes of increased awareness among future health professionals and the population and ownership and leadership by those with direct and lived experience of breast cancer in Kenya.

We conducted two ViRCoED roundtable discussions (3 hours each) with a total of 49 collaborators involved. The founders of the KUKBCAW, specifically the Kenyan stakeholders, introduced the concept of the model and the proposed programme outline. Discussions were then led by Kenyan stakeholders who encouraged all partners to engage regarding the scope, aims, design and delivery of the programme. Three primary objectives were outlined in the first ViRCoED roundtable:

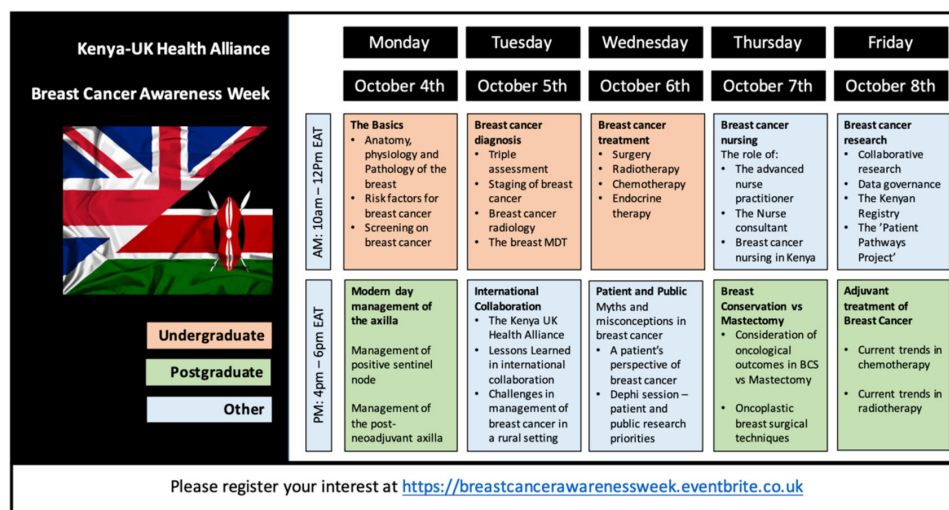
1. Define the learning outcomes and course content of the breast cancer education week.
2. Design learning activities which both meet the learning outcomes and are appropriate to the participants.
3. Determine an appropriate medium through which the education week could be delivered.

KENYA UK BREAST CANCER ALLIANCE EDUCATION WEEK

Through the roundtables, the first KUKBCAW was formulated. This was delivered by those attending the

ViRCoED and the aforementioned stakeholders over an online webinar platform (Zoom) and used a support webpage and community engagement platform; the THET online platform ‘Pulse’. The Pulse platform aims to enable sharing of learning, project development and furthering a sense of community among health partnerships and volunteers. We used this platform, creating a KUKBCAW page to post links to engage with the education week virtually and further as an interactive page for students and healthcare professionals to interact with counterparts in the UK and internationally. As this was a Kenyan and UK collaborative, each day was chaired by a Kenyan and UK representative, with each individual session within the seminars also having equal representation to ensure appropriate scope and perspective. An overview of the week can be seen in figure 1.

The programme was categorised into three broad components: ‘undergraduate’, ‘postgraduate’ and ‘other’. The undergraduate components consisted of three 2-hour seminars; ‘Breast Cancer: The Basics’ covering anatomy, physiology, pathology, risk factors and screening for breast disease; ‘Breast Cancer: Diagnosis’ focusing on the triple assessment, staging of breast cancer and the role of the multidisciplinary team (MDT); and ‘Breast Cancer: Treatment’ with separate lectures on surgical, radiological, and oncological management of breast cancer. There were three 2-hour postgraduate sessions delivered and moderated equally by Kenyan and UK clinicians, surgeons and oncologists entitled ‘The modern-day management of the axilla’, ‘Breast conservation vs mastectomy’ and ‘Adjuvant treatment of breast cancer’. Finally, the ‘Other’ components consisted of an ‘International health policy session’, a ‘Patient and public awareness session’, ‘Breast cancer nursing session’ and an ‘International research session’. The ‘International health policy session’ was delivered by the Head of the National Cancer Control, Ministry of Health Kenya, and



Kenya-UK Health Alliance 1st Breast Cancer Awareness Week
4th October 2021

Figure 1 Overview of KUKBCA breast cancer awareness week. KUKBCA, Kenya-UK Breast Cancer Awareness.

featured the release and discussion of Kenya's 'Breast Cancer Control Action Plan'. The 'Patient and public awareness session' was led by breast cancer patients and survivors from Kenya (via the Kenyan cancer support networks 'Faraja Cancer Support' and 'Martha Cancer Survivors Support Centre') and the UK. This event was livestreamed on social media to broaden access. The 'Breast cancer nursing' session explored the role of the breast cancer nurse in the UK and how this can be applied to the Kenyan setting and finally, the 'International Research' session discussed the principles and practice of international collaborative research.

REFLECTIONS ON THE CONTENT, DELIVERY AND PARTICIPANT FEEDBACK

The virtual nature of the course enabled a real-time fieldwork diary documenting the questions and themes explored by the participants to be captured. During the awareness week delivery, one author (CR) acted primarily as the course coordinator, enabling the documentation of this diary. This documentation was complemented by formal feedback questionnaires for each session. Using these two sources, the data were analysed to identify recurrent thematic themes which we present below as questions raised or comments made, during the programme.

Undergraduate sessions

The three undergraduate sessions experienced high levels of turn out and engagement. We present three questions posed by the undergraduate students during these sessions to demonstrate key take home messages: (1) the enabling environment this education collaborative creates for the exchange of ideas and cultures; (2) the ability of the collaborative awareness week to promote future collaboration and (3) the ability to create an international research platform led by country stakeholders, advocates and future leaders.

In the first undergraduate sessions, students asked 'How does a one-stop clinic/triple assessment work in the UK and how does this translate to Kenya?' A recurring theme during this session was active exploration by the Kenyan medical students of the breast cancer diagnostic pathway in the UK and treatment practices and policies, and exploration as to how these could be translated into the Kenyan setting. In the formal feedback gathered from the medical students, the ability to explore global practices and policies was highlighted as a major strength. Medical students unanimously described the online platform as a positive tool that could be used to pose question and put forth ideas before, during and after the individual teaching sessions that could then be responded to in real-time by the collaborators. The students noted that this relationship out with the traditional teaching relationship strengthened the opportunities to learn and be involved in active breast cancer advocacy. As the session chairs and facilitators were composed of both Kenyan

and UK stakeholders, discussions of the differing models of breast cancer detection and screening between Kenya and the UK was enabled. This interlearning allowed UK faculty to explore differences in clinical guidelines such as the use of clinical-breast examination within screening in Kenya as part of National Cancer Control and Prevention guidelines. The participants challenged the faculty with exploring the enablers and barriers of effective breast cancer care in Kenya. In particular, UK faculty noted the significance of shared learning in their discussions with participants and the Kenyan facilitators with regard to pragmatism in translation of practice within differing health systems, and in the implementation of international research collaboratives.

In the second undergraduate session, participants were particularly engaged following the discussion of the MDT process. The participants asked, 'is the MDT open to everyone?' and 'how can we collaborate to set up an MDT between Kenya and the UK?'. The practices, principles and organisation within Kenyan MDTs was delivered by a Kenyan consultant breast surgeon. This set the scene for discussion of the so called 'tele-MDT' and how future MDT meetings could witness international collaboration, with in built peer-to-peer learning. It was clear to the facilitators that this collaborative awareness week was creating a virtuous cycle of consideration by the participants of further collaborative innovations. The undergraduate sessions displayed a key hunger for action and collaboration which is summed up clearly in a participant's comment, 'how can medical students be involved as advocates/help with the breast cancer problem in Kenya?' The inspiring drive demonstrated by the Kenyan medical students was encouraged to be channelled on the online Pulse platform for signposting to opportunities to engage in breast cancer research, specifically the KUKHA international collaborative pilot study which will study the breast cancer diagnostic pathways in Kenya commencing in late 2022. By using the online platform, the students were able to collaborate within a research context to such a degree that the KUKHA international breast cancer pathways study has formed bases at three hospitals in Kenya; Kisii Teaching and Referral Hospital in Kisii, Kenyatta University Teaching, Referral and Research Hospital in Nairobi and Coast General Hospital in Mombasa. Using an online platform as an adjunct to the awareness week was a key strength for shared learning beyond the awareness week, relationship strengthening and sustainability of the collaborative.

Postgraduate sessions

The equally successful postgraduate sessions adopted a different approach, and aimed to focus on a specific topical aspect of breast cancer management which facilitated deeper exploration of practice, policies and evidence-based guidelines. A key strength of these sessions as identified by the Kenyan audience, was the ability to explore current evidence-based practice and guidelines and compare these with current Kenyan

practice as described by Kenyan stakeholders. In the ViRCoED-modelled discussions, the benefit of discussing UK evidence-based practice was questioned by a member of the UK faculty, in fear this might not be practical or beneficial for the Kenyan audience. This concern was dismissed by members of the Kenyan faculty - an exemplar of the vital importance of the collaborative roundtable. This is important to highlight, due to the concern of many collaborative global education programmes regarding the suitability of discussing technologies and processes not available or feasible in resource-constrained settings. It is reflective of the fact that heterogeneity exists within all health systems and that it is important to know international best practice and contextualise to one's environment. Importantly, facilitator-led discussion must also centre to what is possible and safe for patients given the context, and a faculty must be built that can deliver this pragmatism. This learning was bidirectional, with the UK faculty discovering the barriers to application of international guidelines in real-world practice in LMICs, and increasing awareness of the global health challenge of breast cancer. Similarly, to the undergraduate sessions, each postgraduate session ended in unprompted discussion of the need for future collaborative research.

Patient and public awareness session

The patient and public awareness session was available to all members of the public and was livestreamed on Facebook and contributing NGO websites. This comprised a 'lay' breast cancer education talk given by both a Kenyan clinician and a UK clinician firmly invested in the understanding of global breast cancer practice. This summarised the themes of the three undergraduate sessions and was delivered to ensure that the messages were clear and relatable to the 'patient and public' audience. This was followed by short talks given by five breast cancer survivors from Kenya and one from the UK. As part of the advice by the patients and survivors at the ViRCoED roundtable, it was agreed that this session would be non-structured to allow for the Kenyan audience to ask any questions they felt appropriate. The ViRCoED engaged NGOs and Kenyan stakeholders involved in addressing the myths and misconceptions of breast cancer in Kenya.

The involvement of patients and patient advocates broke down a perceived barrier and power dynamics between those in the 'clinical-world' and those in the 'general public'. The session commenced with numerous questions asking, 'is breast cancer a death sentence?' Anticipating this misconception from the ViRCoED roundtable, the cancer support charities had volunteered breast cancer survivors at various post-treatment stages—1 year, 5 years and 10 years. The patients were able to address this misconception and shared their experiences of their journey. Another prominent misconception raised was 'is breast cancer sexually transmitted?' Several participants highlighted that this belief may lead to women avoiding medical attention and to them subsequently becoming outcasts within the community.

In a specific example, a member of the forum detailed that her husband had abandoned her due to this belief, which had further compounded the financial constraints to seeking breast cancer treatment. This experience was echoed by other women in the forum. The success in dispelling these myths for participants in this session was largely due to the Kenyan survivors' narratives. We suggest that future education collaboratives should look to build on this example and should aim to include patients/survivors to deliver important public health messages. There is a clear need to circumvent misconceptions and encourage access to standard care pathways, which may be driven by an apprehension or mistrust towards medical professionals. This was a powerful addition to the KUKBCAW programme, and by displaying a joint effort, unified the voices of clinicians and patients. Clearly, our collaborative only reached a small minority of the population and we believe this session highlights the need for public health campaign programmes in addressing the breast cancer challenge in Kenya.

RESOURCES, SUSTAINABILITY AND TRANSLATABILITY

Due to the extent, scope and complexity, the Breast Cancer Awareness Week required significant human, financial and technical resources. We detail these to inform the sustainability of this endeavour as well as the translation of this format to future collaboratives within global health.

To ensure coordination of the team, smooth running of the ViRCoED model, event registration, set up and execution, this endeavour required dedicated health-care professionals committed to addressing the global health challenge of breast cancer. Although there were three core members (BR, CR and RD) overseeing the processes above, this was co-led by all collaborating faculty and required a dedicated coordinator (CR) who in this instance was an academic trainee working within the National Health Service/Health Education England academic foundation programme. Due to the 'good-will' of the faculty, minimal financial resources were required and instead were used to enable Kenya medical students' participation, by fully subsidising the internet data costs, as well as funding the technical resources required for the collaborative such as fully licensed zoom accounts and cloud-based data collection systems. Future collaborations should carefully plan resources to ensure sustainability and translatability of any future educational endeavours.

REFLECTIONS ON STRATEGY AND APPROACH

We demonstrate the utility of the ViRCoED roundtable for the design and implementation of a collaborative education/awareness-building programme which champions the exchange of ideas and cultures and promotes a virtuous cycle of future collaboration both in an educational and research context. Further, we have evidenced the ability to use an online educational platform which

engages stakeholders from Kenya and the UK. The programme saw a high turn out with high levels of engagement and reported satisfaction in follow-up surveys.

The ViRCoED roundtable was used to disrupt the typical power imbalances seen in global health curricula design, however, we did not expect to reach ‘equal’ status for all collaborators.³² This constitutes a perennial limitation of global health curricula collaboratives and deeply entrenched power capitals. Despite the commitment to collaboration between the Kenyan and UK stakeholders with leadership by the Kenyan stakeholders, this remained challenging. This limitation exists within the collaborative due to the power capitals such as differences in professional and academic prestige, experience of curricula design, experience within a global health context, remuneration and job security and indeed a perception of advanced disease-specific expertise in those practicing in advanced health systems. Thus, these particulars may have contributed to the perpetuation of power imbalances however still yielded a productive ‘Awareness week’ which was primarily designed, implemented and owned by Kenyans with direct and lived experience of breast cancer. We believe the practice paper highlights that recognition and discussion of power dynamics at the onset of collaborations is vital to dismantling these power dynamics and ensuring an effective and equitable use of knowledge. We also suggest that the demonstration of power equity in the curriculum delivery (not formally investigated in feedback, however) between Kenyan and UK faculty, led to an appreciation of local expertise by those participating in the week.

Technological resources presented a challenge throughout the process. In ViRCoED roundtable, there were technical challenges with regard to reliable internet connections, and the ability to participate given other competing commitments. These were addressed by having more than one ViRCoED roundtable. Further, due to these challenges faced by some, we asked that presentations were prerecorded, in the event that a speaker could not establish reliable internet connection to deliver a live talk. However, no speaker was unable to attend due to technological challenges, and only one could not establish consistent connection which was addressed by sharing the recorded presentation. Technological constraint was also a reason for engaging the THET and using their online platform ‘Pulse’, which uses a low-bandwidth and is specifically designed to address these constraints in education collaboratives.

Third, prior to the COVID-19 pandemic, this programme was to be in-person and using a virtual delivery as an adjunct. Unfortunately, due to travel restrictions, we had to use a fully virtual means of delivery. The main limitation of this method is the inability to teach and observe clinical examinations reliably and effectively. We were unable to teach breast examination which was seen as a limitation of this programme. However, the delivery of a fully virtual ‘Awareness Week’ provides evidence for the success of other such virtual programmes, which

enable broader reach and participation with minimal resources and low environmental impact, particularly important within the context of international collaboration. Deliberate in country investment in supporting these platforms will contribute to sustainability of these models. The final limitation was that the KUKBCAW was conducted in English. The official languages of Kenya are English and Swahili. During subsequent international research collaboration discussions, medical students discussed the possibility of the electronic databases being in both English and Swahili. Future research and initiatives as part of the KUKHA will seek to overcome this limitation by providing both primary Swahili discussions and Swahili translations.

CONCLUSIONS

The KUKBCAW provides a platform, precedent and playbook to guide professionals from other specialties in the design and implementation of similar global collaborative ventures, with minimal cost and efficient and balanced collaboration while dismantling typical power dynamics seen in international global health collaboratives. We have evidenced the utilisation of the ViRCoED roundtable model to ensure Kenyan stakeholder design, implementation and ownership of a breast cancer global health curricula. We have used this approach to continue to advocate for global health curricula design change, so that those with lived experiences of global health challenges in their contextualised professional and personal environments are given leadership, reward and ownership of their curricula, to ensure knowledge is used equitable, efficiently and effectively and further to highlight breast cancer as a global health priority.

Twitter Rajiv V Dave @RVDSurgeon

Acknowledgements We acknowledge the contributions of the clinical faculty and patient representatives involved in the codesign and codelivery of the programme including Dr Maryam Badway, Dr Indrani Bhattacharya, Dr Keith Brennan, Professor Ged Byrne, Miss Leena Chagla, Dr Daniel Ojuka, Mr Dayalan Clarke, Miss Denise Coates, Professor Charlotte Coles, Professor Richard Cowan, Miss Kathryn Ellis, Miss Hiba Fatayer, Dr Toral Gathani, Mr Ashu Gandhi, Dr Victoria Harmer, Mr Ciaran Hollywood, Dr Sacha Howell, Dr Eric Hungu, Dr Aidah Kenseko, Professor Cliona Kirwan, Miss Anne Korir, Dr Trupti Kulkarni, Miss Ruth James, Dr Suzanne Johnson, Miss Jane Macaskill, Professor Jana Macleod, Mr Yazan Masannat, Miss Juliet Mbugua, Dr Karen Mbaabu, Dr Angela McLigeyo, Ms Masinde Muiiro, Professor Alice Musibi, Dr Hilda Mubisi, Dr Helen Musau, Dr Moki Mwendwa, Dr Rose Ndumia, Mr Danson Njenga, Dr Njoki Njiraini, Dr Priscilla Njenga, Dr Mary Nyangasi, Dr Raymond Oigara, Miss Judygrace Ombati, Dr Marilynn Omondi, Dr Jesse Opakas, Mr Marek Ostrowski, Miss Claire Robinson, Dr Shahin Sayed, Professor Ronald Wasike, Ms Pamela Were and Professor Russel White.

Contributors The article and initiative was conceptualised by BR, CR, MM and RVD who secured support from the Kenya-UK Health Alliance and set up research and writing team. All authors contributed equally to manuscript writing, revisions and final approval. All authors took full responsibility for the contents of the article.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement All data relevant to the study are included in the article or uploaded as online supplemental information.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

REFERENCES

- 1 Svadzian A, Vasquez NA, Abimbola S, *et al*. Global health degrees: at what cost? *BMJ Glob Health* 2020;5:e003310.
- 2 Herzig van Wees S, Holmer H. Global health beyond geographical boundaries: reflections from global health education. *BMJ Glob Health* 2020;5:e002583.
- 3 Abimbola S. The information problem in global health. *BMJ Glob Health* 2016;1:e900001.
- 4 WHO. *World Health organization: latest world cancer statistics*, 2013: 2012–4.
- 5 WHO. *WHO- breast cancer*, 2020.
- 6 Strother RM, Asirwa FC, Busakhala NB, *et al*. The evolution of comprehensive cancer care in Western Kenya. *J Cancer Policy* 2013;1:e25–30.
- 7 Coleman MP, Quaresma M, Berrino F, *et al*. Cancer survival in five continents: a worldwide population-based study (Concord). *Lancet Oncol* 2008;9:730–56.
- 8 Akram M, Iqbal M, Daniyal M. Awareness and current knowledge of breast cancer. *Biol Res* 2017:1–23.
- 9 Sayed S, Ngugi AK, Mahoney MR. *Breast cancer knowledge perceptions and practices in a rural community in coastal Kenya*, 2019: 1–13.
- 10 Sung H, Ferlay J, Siegel RL, *et al*. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA A Cancer J Clin* 2021;71:209–49.
- 11 Antabe R, Kansanga M, Sano Y, *et al*. Utilization of breast cancer screening in Kenya: what are the determinants? *BMC Health Serv Res* 2020;20:228.
- 12 Sayed S, Moloo Z, Wasike R, *et al*. Is breast cancer from sub Saharan Africa truly receptor poor? Prevalence of ER/PR/HER2 in breast cancer from Kenya. *Breast* 2014;23:591–6.
- 13 GLOBOCAN. *Global cancer Observatory*. International Agency for Research on Cancer, 2019.
- 14 Subramanian S, Gakunga R, Jones M, *et al*. Financial barriers related to breast cancer screening and treatment: a cross-sectional survey of women in Kenya. *J Cancer Policy* 2019;22:100206.
- 15 Otieno ES, Micheni JN, Kimende SK, *et al*. Delayed presentation of breast cancer patients. *East Afr Med J* 2010;87:147–50.
- 16 Makanga W, Wasike R, Saidi H. A profile of female breast cancer patients in a Kenyan urban private hospital. *Ann African Surg* 2013;10:3–7.
- 17 Anderson BO, Shyyan R, Eniu A. *Breast Cancer in Limited-Resource Countries : An Overview of the Breast Health Global Initiative 2005 Guidelines*, 2006.
- 18 Department for International Trade. Memorandum of understanding between the UK and Kenya.
- 19 Donetto S. Talking about power in medical education. *Med Educ* 2012;46:1141–3.
- 20 Shiffman J. Knowledge, moral claims and the exercise of power in global health. *Int J Health Policy Manag* 2014;3:297–9.
- 21 Hanefeld J, Walt G. Knowledge and networks - key sources of power in global health: Comment on "Knowledge, moral claims and the exercise of power in global health". *Int J Health Policy Manag* 2015;4:119–21.
- 22 Levine RE. Power in global health agenda-setting: the role of private funding Comment on "Knowledge, moral claims and the exercise of power in global health". *Int J Health Policy Manag* 2015;4:315–7.
- 23 Shiffman J. Global health as a field of power relations: a response to recent commentaries. *Int J Health Policy Manag* 2015;4:497–9.
- 24 Abimbola S. The uses of knowledge in global health. *BMJ Glob Health* 2021;6:e005802.
- 25 Horton R. Surgical research or comic opera: questions, but few answers. *The Lancet* 1996;347:984–5.
- 26 Lerner DJ, Kannel WB. Patterns of coronary heart disease morbidity and mortality in the sexes: a 26-year follow-up of the Framingham population. *Am Heart J* 1986;111:383–90.
- 27 Sbaiti M, Streule MJ, Alhaffar M, *et al*. Whose voices should shape global health education? curriculum codesign and codelivery by people with direct expertise and lived experience. *BMJ Glob Health* 2021;6:e006262.
- 28 Maudsley G, Strivens J. Promoting professional knowledge, experiential learning and critical thinking for medical students. *Med Educ* 2000;34:535–44.
- 29 Biswas S, Douthit NT, Mazuz K, *et al*. Implementing a practical global health curriculum: the benefits and challenges of patient-based learning in the community. *Front Public Health* 2020;8:283.
- 30 Tropical Health and Education Trust. Experts in our midst. Available: https://www.thet.org/wp-content/uploads/2021/08/Experts-in-Our-Midst_2021Report.pdf
- 31 Atun R, de Jongh T, Secci F, *et al*. Integration of targeted health interventions into health systems: a conceptual framework for analysis. *Health Policy Plan* 2010;25:104–11.
- 32 Kapadia SJ. Perspectives of a 2nd-year medical student on 'Students as Partners' in higher education - What are the benefits, and how can we manage the power dynamics? *Med Teach* 2021;43:478–9.