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Integrating a palliative approach into the healthcare provided by the French-African Pediatric Oncology Group's pilot units. Insights from a 3-year training program



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ABSTRACT

Working alongside local stakeholders, members of the French-African Pediatric Oncology Group developed a 3-year program to train pediatric oncology teams from 15 French-speaking countries in Africa in using analgesics and providing palliative care. This program was rolled out in three phases: initial training, in situ assessment, and advanced training in selected topics. To access this program, multidisciplinary teams had to come up with a project to improve their existing palliative care and pain management practices, and commit themselves to implementing it. All the teams invited agreed to take part in the program, which explicitly broached a subject that is often avoided in oncology teaching. The first phase was rolled out in 2017, with 65 trainees from 19 units attending one of three sessions held in Dakar, Senegal, Abidjan, Côte d'Ivoire, and Rabat, Morocco. The subsequent assessment revealed that only half the teams had started to implement their projects. The advanced training phase was therefore adjusted accordingly. A collective training session held in Marseille was attended by 15 trainees from seven teams whose projects were already underway, while in situ mentoring was provided for six other teams, through French-African twinnings in four cases. The length and openness of the program meant that we were able to identify and share the units' diverse realities, and fine-tune their projects accordingly, as well as plan ways of continuing the training both locally and collectively.

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1. Introduction

In 2014, Professor Mhamed Harif, current president of the French–African Pediatric Oncology Group (GFAOP), reminded us that "children in the developing world represent 75–80% of the world's child population. Owing to scarce resources, a shortage of qualified healthcare professionals, and dysfunctional health systems, these children continue to die in massive numbers, especially in Africa" [1].

Among the causes of pediatric mortality in low- and middleincome countries, the proportion of noncommunicable diseases such as cancer is on the rise, whether this is linked to a reduction in other causes of mortality, which is already discernible in under 5s, or whether it reflects a changing epidemiological context [2]. Whatever the reason, it is an incontrovertible reality for health professionals caring for children.

Ever since it was set up in October 2000 by Professor Jean Lemerle (Gustave-Roussy, Villejuif) and African pediatricians committed to the care of children with cancer, GFAOP has been supporting the creation and operation of pilot units (PUs) in African hospitals where these children can be treated (https:// www.gfaop.org/). In spite of documented improvements in survival curves for selected pathologies, treated according to adapted protocols [3–6], cure rates remain well below those reported by teams in wealthier countries, and symptomatic

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treatment is sometimes very limited, as is the support given to families.

In affluent countries, the concept of pediatric palliative care only came to the fore once infant and child mortality had fallen to a very low level. It soon moved away from the narrow definition of end-of-life care toward the broader aim of enhancing children's quality of life within a whole range of complex chronic conditions, by applying a broad and family-centered approach, regardless of whether children are receiving treatment directed at the disease [7].

The question is whether this move to integrate palliative care into the continuity of cancer care can be transposed in Africa, and how this approach can be applied in PUs where healthcare professionals have so far concentrated all their energy on healing patients. A further issue is whether the palliative care message can be spread beyond these units and beyond the hospital walls, to the places where most of the children who need it actually live.

To tackle this situation and provide some initial answers to these questions, GFAOP developed a palliative care training program for healthcare professionals working in pediatric oncology units in French-speaking Africa. The overall objective of the teaching program was to "enable GFAOP's PUs to adopt a multidisciplinary approach aimed at improving quality of care and pain management, and initiating or enhancing palliative care provision for children and adolescents in Africa." In the present article, we report how this program was rolled out over a 3-year period, the lessons that can be learned from it, and how it might be extended.

2. Material and methods

Entitled "Integrating palliative care in GFAOP's pediatric oncology approach... and beyond?", the program lasted from April 2016 to March 2019. It was developed with the assistance of the Sanofi Espoir Foundation, in response to a call for projects as part of its My Child Matters initiative aimed at improving the care for children with cancer in low- and middle-income countries [8,9].

The steering committee was made up of French pediatric oncologists and pain management/palliative care specialists, along with African leaders who had expressed an interest or had expert knowledge in these areas (Appendix 1). The plan was for the committee to spend the 1st year constructing a teaching program based on scientific and educational data, factoring in the teams' dynamism, but also possible disparities in their rate of progress. In the 2nd year, this program would be implemented, and in the 3rd and final year, the committee would monitor the outcomes.

We began by forming a cohort of trainees. A letter of intent, followed by the actual program, was sent to the heads of all 19 of GFAOP's PUs, spread across 15 African countries. Each PU was invited to set up a multidisciplinary team of three or four healthcare professionals, to take part in the two planned training sessions on a strictly voluntary basis. As a precondition, each team had to present a project for improving the unit's practices in the area of pain management or palliative care. This project would allow them to apply the knowledge they gained from the training. A guide stated that the project description had to include one main goal, a calendar for implementing it, and a plan for communicating not just with colleagues within the unit, but also with hospital management and the political authorities.

To gain a clear picture of the current situation, we sent a twopart questionnaire to all the PUs. For pain management, semistructured questions probed pain management practices and methods, focusing on the availability and use of morphine, regarded as the analgesic of choice in this context. For palliative care, the teams were asked how they defined it and at which point in the disease course it should be offered. In both parts, respondents were asked to describe any relevant previous training they had had, as well as any external resources that were available to them.

We planned to hold two collective teaching sessions in the form of two physical seminars, the first providing initial training, the second more advanced training. The teaching staff included local teachers, and participatory teaching methods were used wherever possible. Table 1 sets out the main features of the initial training program, rolled out in sessions in three separate venues. During the session, participants responded to a satisfaction questionnaire every day, as well as one at the end.

The original plan was to conduct an assessment after the teams had undergone both the initial and advanced training phases. However, the steering committee later decided to carry out an interim assessment 6–12 months after the initial training sessions, to gain a clearer idea of how each pediatric palliative care project was being implemented. Subsequent training was tailored to the individual PUs, depending on how far they had taken their project, with some units being invited to a collective advanced training session, and others being offered additional time and support via in situ mentoring.

3. Results

3.1. Current situation

Independently of the date they joined GFAOP, all 19 PUs we contacted agreed to send teams of three or four to the sessions, despite their small size, ensuring that the team members

Table 1

Training program: pain and palliative care in pediatrics.

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Overall objective
Enable GFAOP units to adopt a multidisciplinary approach aimed at
improving the quality of care and pain management, and initiating or
enhancing palliative care provision for children and adolescents in Africa
Training objectives
For each context and medical facility, define a care project that focuses on
children's quality of life
Improve quality of care by considering the needs expressed by each child
and family group
Improve quality of care through a more joined-up approach to the medical
dimensions and social contexts
Initiate quality of care approaches that take account of the technical and
social dimensions of each facility
Specific objectives
Learn about children's representations of pain and palliative care in order to
use them in care practices
Learn to recognize how children express different types of pain and promote
the right of children and adolescents to express their pain
Assess the different types of pain
Promote pain management methods and treatments
Put an end to avoidable treatment-induced pain
Promote the introduction of palliative approaches adapted to local ethical
norms
Construct a multiprofessional and interdisciplinary approach
Improve links between healthcare professionals and different populations
Analyze the risk factors for burnout and identify possible solutions
Target audience
Doctor and nurse from each PU \pm another person involved in children's care
(psychologist, social worker, care assistant, youth worker, etc.)
These participants undertake to construct a collective project to improve pain
management and palliative care in their PU
Training methods
Participatory methods wherever possible
Case studies
Theoretical contributions and discussions
Sharing of experiences

Exercises and work in small groups

GFAOP: French-African Pediatric Oncology Group; PU: pilot unit.

Table 2

Table 3

Responses to questionnaire.

Calendar, locations, local coordinator, and healthcare professionals from GFAOP units who attended the initial training session.

Dates	Place	Coordinator	Doctors	Nurses	Others	Total
20–24 February 2017	Dakar	Claude Moreira	8	10	3	21
	(Senegal, Cameroon, Mali, Guinea, Niger, DRC, Togo)					
27–31 March 2017	Abidjan (Câta d'Iuciro, DBC, Control African Bonublic	Jean-Jacques	9	9	1	19
	(Cole divolle, DRC, Celifial Afficali Republic, Madagascar, Burkina Faso)	Alleby 140				
11–15 September 2017	Rabat	Laila Hessissen	12	11	2	25
	(Morocco, Tunisia, Mauritania, Algeria)					
		Total	29	30	6	65

GFAOP: French-African Pediatric Oncology Group; DRC: Democratic Republic of the Congo.

represented at least two different professions and were all volunteers (Table 2). The economic heterogeneity of this group was matched by the heterogeneity of the responses to the two parts of the questionnaire (Table 3), as well as the choices of project (titles and authors listed in Appendix 2), and revealed a clear division between sub-Saharan countries and those of the Maghreb (Table 4).

Responses to the questions about pain management revealed that North African healthcare professionals had access to all the different classes of analgesics, including opioids. Written prescribing protocols were available, and pain assessments were frequent, if not systematic. Nevertheless, there were still shortages. In Morocco in particular, morphine was difficult to access outside the hospital and was still underprescribed. A study conducted in the

Country (15) Responses (16) Availability of Written protocols Pain assessment Palliative care UP (19) analgesics Algeria 0 Tunisia Doctor Paracetamol, tramadol, Yes Systematic Care intended to improve children's quality of life if treatment morphine fails Morocco Casablanca Doctor Paracetamol, tramadol, Yes Chemotherapy, pain management and supportive care in a Frequent morphine On request noncurative setting (treatment failure or relapse) Fez Doctors (2) Paracetamol. A comprehensive approach to persons in an advanced or Yes Frequent morphine, other On request terminal phase who can no longer benefit from curative treatment for various reasons Marrakesh 0 Doctors (2) Provide the patient and his/her family with physical, material. Rabat Paracetamol, morphineYes Frequent On request and spiritual relief, sometimes at admission. Mostly in the event of progression or relapse Mauritania Doctor Paracetamol, tramadol, No Rare Care that can give relief to the patient in advanced stages of a morphine On request Nurse disease at any time Paracetamol, tramadol, No Treatment intended for the terminal stage of a disease, at end Burkina Faso Doctor Rare morphine On request of life Paracetamol, tramadol, Yes As soon as an incurable pathology is discovered Cameroon Doctor Systematic morphine Paracetamol, tramadol Yes/No Systematic Central African Republic Doctor Care that improves the patient's comfort, both in hospital and Once daily Nurse at home Rare On request Guinea Doctor Surgeon Paracetamol, tramadol, Yes Care aimed at relieving a patient with a poor prognosis, at end Rare other On request of life Doctor Paracetamol, tramadol, Yes Systematic Failure of curative treatment, complications of curative Mali morphine treatment, patient who immediately has a poor prognosis Paracetamol, tramadol No Niger Doctor Frequent Care for accompanying patients at end of life On request Cote d'Ivoire Doctor Paracetamol, tramadol, Yes Frequent Care provided with a noncurative goal, especially at end of life morphine On request Doctors (2) Paracetamol, tramadol, No Senegal Systematic Active and comprehensive care that takes account of the morphine Once daily physical, psychological, social, and spiritual aspects of Rare patients with chronic pathologies, as well as their families On request At diagnosis, during treatment, during relapse, and at end of life Care administered to children with a poor prognosis but to Doctor Paracetamol, tramadol, Don't know Frequent Togo nefopam On request improve their quality of life, for the rest of the time, in a situation of treatment failure or for patients we cannot treat Madagascar Doctors (2) Paracetamol, tramadol, No Systematic Care for patients whose care outcome will not be curative. morphine 2-3 times per dayeven at diagnosis Rare On request DRC Doctor Paracetamol, tramadol No What we must do when there is no more curative treatment Rare Lubumbashi to make the patient comfortable, after treatment failure, or on On request admission if a curative treatment is unavailable or does not exist DRC Kinshasa 0

PU: pilot unit; DRC: Democratic Republic of the Congo.

Table 4

Team characteristics.

Countries (15)	Units (19)	National income	Projects (18 units)	Assessment modalities (16 units)	Planned advanced training
Algeria	Algiers	UMIC	Р	V	In situ
Tunisia	Tunis	LMIC	Р	V	In situ
Morocco	Casablanca	LMIC	Р	V	Marseille
	Fez	LMIC	P PC	V	Marseille
	Marrakesh	LMIC	P PC	V	Marseille
	Rabat	LMIC	P PC	V	Marseille
Mauritania	Nouakchott	LMIC	P PC	V+Q	Marseille
Burkina Faso	Ouaga	LIC	Р	V+Q	Marseille
Cameroon	Yaoundé	LMIC	Р	V	In situ
Central African Republic	Bangui	LIC	Р	0	In situ
Guinea	Conakry	LIC	Р	Q	Marseille
Mali	Bamako	LIC	Р	V+Q	In situ
Niger	Niamey	LIC	Р	V+Q	In situ
Cote d'Ivoire	Abidjan	LMIC	Р	V+Q	Marseille
Senegal	Dakar	LIC		0	
Togo	Lomé	LIC	Р	V	In situ
Madagascar	Antananarivo	LIC	P PC	V+Q	In situ
DRC	Kinshasa	LIC	P PC	V	Marseille
	Lubumbashi	LIC	P PC	0	In situ

UMIC: upper middle-income country; LMIC: lower middle-income country; LIC: low-income country; P: pain; P PC: pain and palliative care; V: home visit; Q: questionnaire; DRC: Democratic Republic of the Congo.

Fez unit showed that prescriptions of opioids doubled during the lifetime of the program. Respondents also expressed continuing dissatisfaction with their management of treatment-induced pain. All PUs in sub-Saharan Africa had analgesics corresponding to steps 1 and 2 on the WHO analgesic ladder, but only seven of them stated that they had morphine. The prescription of available analgesics did not conform to good practice. It was generally done on demand, and because there was no pain assessment, there was no adjustment of dosage. Only four teams reported having written guidelines in the ward. Treatment-induced pain was rarely taken into consideration, except that parents were encouraged to be present during these acts to reassure the child. Whereas the parents' presence was allowed in all but one of the PUs in sub-Saharan Africa, it was either forbidden or strongly discouraged in Maghrebian PUs, according to three of the five questionnaires we received for this region.

Palliative care is generally defined as total care that improves the quality of life of both children and their families, by bringing them comfort, relief, and support [7]. Seven teams, all from sub-Saharan Africa, reserved it for end-of-life and terminal-phase care, whereas the other four sub-Saharan teams and five Maghrebian teams treated it as an option from diagnosis onwards. Associations of parents or volunteers, some trained in palliative care (Mauritania, Kinshasa) were identified four times as external resources. The questionnaire did not bring up the possibility of providing it in the children's own homes, and the team from the Central African Republic was the only one to spontaneously mention it.

The project topics also varied. In sub-Saharan Africa, eight of the PUs produced projects focusing on pain management, while in the Maghreb, four teams out of seven made palliative care their priority.

3.2. Initial training session

The sessions took a conventional form, with a solemn opening in the presence of local dignitaries and health officials, an attendance sheet for participants to sign, and satisfaction questionnaires. They all went smoothly, with high levels of participation and attendance. The teams each presented a coherent project, triggering lively and sometimes contradictory discussions.

Responses to the questionnaires indicated overall satisfaction. The teachers and organizers were particularly pleased, as the trainees showed themselves to be capable of critically revising their care habits and publicly committed to changing them.

3.3. Interim assessment

The assessment was designed to provide answers to the following set of questions: were the original team members still present in the PU, had the content of the training session been relayed to the other PU members, had any effort been made to reach out to people beyond the unit, and had there been any attempts to track the progress of the project and identify any obstacles to its implementation? A total of 16 teams were assessed, via a questionnaire sent to all the PU directors, an on-site visit, or both.

Responses indicated that all but one of the doctors, and 31 of the 36 nonmedical trainees, were still in their original teams. In sub-Saharan Africa, the initial training content was generally shared with other colleagues at the patient's bedside, but was rarely disseminated beyond the PU, and never in the form of a written document or protocol. Only four teams there had embarked on their project. In the Maghreb, the four Moroccan teams and the team from Mauritania had all launched their projects and were committed to carrying them through. In every case, however, they had failed to meet the timetable for implementing the planned measures.

Among the factors identified as preventing or delaying project roll-out, respondents systematically cited a dearth of human or financial resources, as well as scant administrative and political support.

3.4. Advanced training session

At least two of the responses to the assessment questionnaire had to be positive for the committee to consider that the project was henceforth underway. This determined whether the teams attended the advanced training session or instead were offered in situ mentoring.

Nine teams were eligible for the collective training session, which was held in Marseille on 24–26 September 2018. Two of them were unable to attend, as they could not obtain visas (one of the two Democratic Republic of the Congo [DRC] PUs and one of the Moroccan PUs). Of the nine PUs that were offered in situ training, six received visits, one as recently as November 2019 (Kinshasa,

DRC) owing to security concerns. Two (Algiers, Algeria, and Tunis, Tunisia) were obviously not interested, so no visits were scheduled.

Analysis of the participants' open comments in the satisfaction questionnaire allowed us to plan the advanced training in greater detail, focusing on the organizational aspects of palliative care, and on treatment-induced pain, emphasizing a two-pronged approach that combined medication and behavior.

An entire day was devoted to each of these two themes in the Marseille session, which also included a critical presentation of the progress of each team project (see program in Appendix 3). These themes were included in the objectives of existing twinning missions (Tana, Madagascar; Lomé, Togo; Yaoundé, Cameroon; Abidjan, Côte d'Ivoire) and discussed during 1-day training sessions in Bamako, Mali; Niamey, Niger; and Bangui, Central African Republic. More recently, they formed the backbone of a 1-day nursing session during the pediatric surgery congress in Kinshasa, DRC, in November 2019.

3.5. Outcome indicators

During the Marseille session, the teams were encouraged to propose indicators that could be used to gauge the impact of their project. Suggestions included the number of carers trained (Conakry, Guinea; Nouakchott, Mauritania), opioid consumption (Marrakesh, Morocco; Abidjan, Côte d'Ivoire; Nouakchott, Mauritania), and the number and distribution of patients requiring palliative care (Fez, Morocco). Other teams mentioned felt effects, with responses such as "The healthcare team now pays attention to children who are in pain" (Nouakchott, Mauritania) and "All the staff are aware of the need to assess and manage pain" (Abidjan, Côte d'Ivoire).

In addition to these indicators, which provided useful milestones, we also identified several instances of genuine progress in the wake of the training program:

- launch or consolidation of collaborative activities: working jointly with an established (Ouagadougou, Burkina Faso) or newly created (Niamey, Niger) pain committee; making it easier for a pediatric palliative care team (Kinshasa University Clinics) to intervene in the oncology unit; and making greater use of volunteers and arranging for an ambulatory palliative care team to look after some children at home (Nouakchott, Mauritania);
- development of strategies based on actual cases, according to the accessibility and usability of treatments and other resources: with the assistance of pharmacists, groundbreaking work on the local production of morphine syrup [10], which could help to overcome the problem of access to this drug; an ongoing discussion about the use of ketamine as a premedication for invasive acts, which may form the subject of a collaborative project; and in Guinea, a proposal to run (joint) clinical trials to assess the safety and efficacy of traditional therapies (medicinal plants and nonmedicinal methods).

4. Discussion

One of the strengths of this training program was its collaborative nature, providing a common learning framework for teams already bonded by GFAOP's other training initiatives. These initiatives have been given added impetus by the opening of the African School of Pediatric Oncology in Rabat, Morocco, in 2012 [11], and, more recently, the Pediatric Oncology Training Institute in Dakar, Senegal, in 2017. It is via cooperative North–South groupings such as these that the greatest strides have been made in

countries with limited resources, and over time their objectives have become broader and more complex [12,13]. Mutual trust, built up over time as a result of learning together, must form the bedrock of North-South, but also South-South cooperation, and it is worth remembering that the effectiveness of any training program relies on a complex network of relations, where "the length of the partnerships, memories of previous activities, and interpersonal trust can be decisive, even if they are not spontaneously mentioned" [14]. Despite the heterogeneity in the teams' make-up, the division revealed by the questionnaires and by the nature of the projects, not to mention disparities in project implementation, the sense of belonging to the same community genuinely enhanced exchanges during the initial session, and the sharing of experience during the Marseille session, which was attended by three Moroccan teams, three sub-Saharan teams, and one Mauritanian team. It should be noted as a limit of the study that the decision to offer either advanced training or in situ mentoring, depending on the results of the assessment, was not unanimously approved by the steering committee, as some members disliked the notion of hierarchy, which went against the resolutely collective nature of the original program.

The program described herein was designed to tackle the under-reported problem of pediatric palliative care in Africa, especially French-speaking countries, by integrating this approach into what have been exclusively curative care practices inside pediatric oncology units. The ambition was to bring about an improvement in overall care, by placing the emphasis on symptom management and adapting therapeutic intentions according to available resources. Cancers, especially pediatric ones, are becoming a reality in Africa [15]. Regarding individual nation states, some now include this disease in their nationwide public health strategies, even if childhood cancers are often ignored, cited in just seven of the 18 national cancer control plans analyzed by Weaver et al. [16]. At the same time, the focus has shifted away from overall survival rates, so that guality of care now takes account of the patient's quality of life, both during and after treatment, as well as equitable access to care, for both the children and their parents [17].

Despite this commitment from governments, and despite the increasing experience of specialized teams, mortality rates remain high, and we urgently call for pediatric oncology specialists to spare a thought for those children who will not be cured¹ [3–6,18]. The WHO has echoed this plea, by ruling that palliative care should not be confined to patients in the terminal phase, but be a "component of integrated treatment throughout the life course," and that "palliative care is an ethical responsibility of health systems" [19]. Moreover, in a recent study advocating a stepwise approach to developing pediatric oncology in sub-Saharan Africa, based on experience gained in Malawi, palliative care is identified as one of the key priorities [20].

It may make sense to integrate a palliative care approach into the habits of units already up and running. However, in the highincome countries where it was first developed, it took longer for it to become embedded in medical practices than either intensive care or cancer treatments, even though these are more recent. All too often, the term "palliative" is associated with giving up on patients, and remains very negatively valanced. This limits its application, even though it has been shown to improve patients' quality of life, especially if it is begun at an early stage. In the United States, for example, in a tertiary cancer center, simply changing the name from "palliative" to "supportive care" significantly increased the number of palliative care consultations, which were also made at an earlier stage [21].

¹ Pamelyn Close. Mentor in pediatric palliative care for My Child Matters projects.

We encountered this same reticence in the course of the program. Most of the teams in sub-Saharan countries produced a project aimed at improving pain management. When we directly broached this choice with our African colleagues, most of the reasons they gave were material, citing a lack of human resources ("There are already not enough of us, we can't devote ourselves to children in palliative care") or the high cost ("Why take on palliative care when we can't even afford curative care?"). These very basic reasons – and counter-arguments can be made [22], even in Africa [23] – have sociocultural roots that are difficult to combat, as is the case for pain. As early as 2010, a survey of GFAOP's then eight PUs highlighted serious problems with the availability of morphine, pain assessment, and the management of treatment-induced pain [24]. Without denying training shortfalls and economic barriers, the survey's authors suggested that "it is above all the acceptance of pain as being inevitable, bearable, and even secondary to the treatment of sick children that is problematic." This observation remains partially true today, despite the comprehensive changes that were made to care codes when HIV arrived in this region. In North Africa, attitudes toward pain are more proactive, thanks to the joint efforts of health organizations, which have produced and disseminated guidelines and protocols [25], and political and administrative authorities, which have ensured that the major analgesics are now available in hospitals, and are easier to prescribe.

Several key ingredients of palliative care, including interdisciplinary work, symptom management, and institutional support, mean that a country's entire healthcare system may have to be rethought and operated in a different way, which can take time [9,26]. Often in Africa, especially in French-speaking countries, "the medical model remains that of high-tech, high-performance medicine, even though the local economic and political obstacles, together with the lack of resources, greatly hinder its application" [27]. In the present study, the depth of political commitment to healthcare policies was clearly illustrated in Morocco, where a royal decree in 2015 imposed a framework for the provision of palliative care in hospitals, especially for cancer patients, such that three of the four Moroccan teams focused their project on this topic.

More time is needed to gauge the impact of this 3-year program, but we can already state that it allowed us to gain a better grasp of local realities. It may seem surprising and quite disappointing that even with a very lenient threshold, half the teams that had undergone the initial training had yet to start implementing their projects, even though they had undertaken to do so and had presented these projects with conviction. However, the picture is less black and white than it might seem. In many cases, *something* did change in their practice, especially in the way they considered pain, though not necessarily immediately, and without our being able to "distinguish the direct effects of a given project from the effects of synergies with other interventions, or else catalytic effects leading to new efforts by other stakeholders" [9].

It is right to point out that the advances we have credited to the training program solely concerned symptom management and sub-Saharan Africa. This may mean that palliative care, even in the broadest sense, cannot be provided there in subspeciality hospital units, which are constantly striving to strike a balance between their scant resources and the flow of patients (many of whom no longer consult traditional practitioners first, meaning that the latter cannot be blamed for late diagnoses). It may also mean that we should think more about how it is organized. To provide decent palliative care, the focus needs to shift to community health centers, as has already been done in English-speaking Africa [28]. Redirecting training efforts to these peripheral centers would bring several benefits. First, it would relieve pressure on hospital units by allowing them to discharge patients without making them feel abandoned. Second, it would help spread basic notions of cancer treatment, leading to earlier diagnosis. Third, it would be a step toward the "beyond" of oncology referred to in the title of our program, and its extension to other areas of pediatrics. Fourth and last, it might also mean that good-quality palliative care would become available beyond the walls of major hospitals, in centers where future students of the African School of Pediatric Oncology could go to observe or gain work experience.

5. Conclusion

We were able to bring this collaborative training program to a successful conclusion by adapting its initial format. It allowed us to explicitly discuss pain treatment and palliative care within GFAOP's PUs. By encouraging each PU to develop a project and think about its practices and ways of improving them, we were able to establish a clear picture on which to base present and future initiatives, providing we accept the lengthy timescale that goes with research and stable change. This process also allowed us to identify coherent, thematic or geographical subsets, opening up avenues for future collegial work.

In the future, we will need to shift from very large-scale training projects to more targeted initiatives, in order to adapt as best as possible to the complexity of local systems. Possible extensions could take the form of mentoring within the units themselves, possibly via twinnings, as this would allow common and/or shared values to be truly taken on board. We will also need to extend our action to community health centers, in order to promote the flow of knowledge and patients in systems that are still too compartmentalized.

If we think about it, our training program was in itself essentially palliative, given that it was rooted in different or unknown realities, and sought to make use of modest resources to develop a coordinated and realistic project-based strategy, pitting pragmatic efficacy against a seemingly inevitable situation. This rich and singular experience also provided an opportunity to highlight three well-known and still difficult to overcome factors inherent to the establishment of an effective North–South partnership for health: the definition of the right care in the right context, the construction of shared knowledge, and the joint assessment of the partnership's initiatives.

Disclosure of interest

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Appendix A. Supplementary data

Supplementary data (Appendices 1–3) associated with this article can be found, in the online version, at https://doi.org/10. 1016/j.arcped.2020.12.002.

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