

The NOMA track module on nutrition, human rights and governance: Part 1. Perceptions held by Master's students

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Background. A module on nutrition, human rights and governance was developed and presented jointly by academic institutions in Norway, South Africa and Uganda, under the NORway MAsters (NOMA) programme, for their respective Master's degree programmes in nutrition. Consisting of three study units, it was presented consecutively in the three countries, with each study unit building on the previous one.

Objectives. To document the perceptions of participating students on various aspects of the module, informing future curriculum endeavours.

Methods. A mixed methods approach was followed. A module evaluation form completed by students for each study unit was analysed. In-depth telephonic interviews were voice recorded and transcribed. Through an inductive process, emerging themes were used to compile a code list and content analysis of the unstructured data.

Results. An overall positive module evaluation by 20 participants (91% response rate) can be ascribed to the module content, enlightening study visits, expertise of lecturers and an interactive teaching style. Logistical issues regarding time management and administrative differences among the academic institutions caused some concerns. Students experienced some resistance against qualitative research in natural science faculties. Students benefited from being exposed to different teaching styles and education systems at universities in different countries. Constructive alignment of teaching and learning activities could be optimised through involvement and empowerment of all relevant lecturers.

Conclusion. Successful implementation of the module not only provides nutrition Master's students with knowledge to operationalise a human rights-based approach during future interactions in their professional practice, but also serves as an example of the benefits and challenges of interdisciplinary and transnational collaboration in module development.

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A lack of democratic governance and failure to respect human rights contribute to persistent food insecurity and malnutrition in many African countries.^[1] Health professionals need to make concerted efforts to change the current prevalence of malnutrition and alleviate its long-term consequences. To strengthen the link between human rights and nutrition, tertiary education institutions need to provide human rights-orientated education to equip graduates to operationalise the concepts, standards and principles of human rights.^[2-7]

Scholars at the University of Oslo, Norway; Oslo and Akershus University College for Applied Sciences, Norway; Stellenbosch University, South Africa (SA); and Makerere University, Uganda proposed to develop and deliver a transnational and interdisciplinary track module (henceforth referred to as 'the module') focusing on these links. Funding was obtained from the Norwegian government under the NORway MAsters (NOMA) programme, through the Centre of International Cooperation in Education (SIU), to strengthen universities in the south, supporting two cohorts of students from the universities in Africa, each for a period of 2 years (2011 - 2012 and 2012 - 2013).^[8] Norwegian students were also accepted for the module but they supported themselves financially.

The module was approved by all four institutions for incorporation into their respective Master of Nutrition curricula for the participating students. The module was presented through a 6-week study unit in each country, the content of each building upon the others, totalling 18 weeks (April - August). Participating students from all three countries attended every study unit in each country, first in Norway, followed by SA and lastly Uganda. The focus was on the theoretical and institutional background to international human rights, and the responsibilities of State and civil

society to implement, through democratic governance, measures towards enjoyment of the rights of all to adequate food and nutritional health and to be free from hunger (Fig. 1). An additional objective was to provide a model that could raise the interest of other universities in Africa.

To introduce a transnational module posed challenges to the institutions, given several seemingly incompatible administrative differences (Table 1). Through close collaboration and good will, some compromises regarding academic calendars and accreditation systems were accommodated.

The objective of this article is to document the perceptions of the students enrolled in the module. Understanding how students experienced the module could inform future efforts to embed a human rights-based approach (HRBA) into nutrition curricula.

Methods

The sampling frame consisted of all students ($N=22$) participating in the two cohorts of the module (2011 - 2012 and 2012 - 2013). Data were collected during October and November 2012, using a mixed methods approach. Firstly, data were extracted from a quantitative evaluation by students for each study unit. The evaluation form consisted of eight categories of statements investigating various aspects of the module. Students anonymously responded to statements relevant to each category by using a 7-point Likert-type scale, ranging from 'strongly disagree' to 'strongly agree'. For reporting the results, positive or negative responses were added together for ease of reading.

Secondly, an interpretative methodological approach was used to elicit narrative accounts of students' perceptions of the module through in-depth

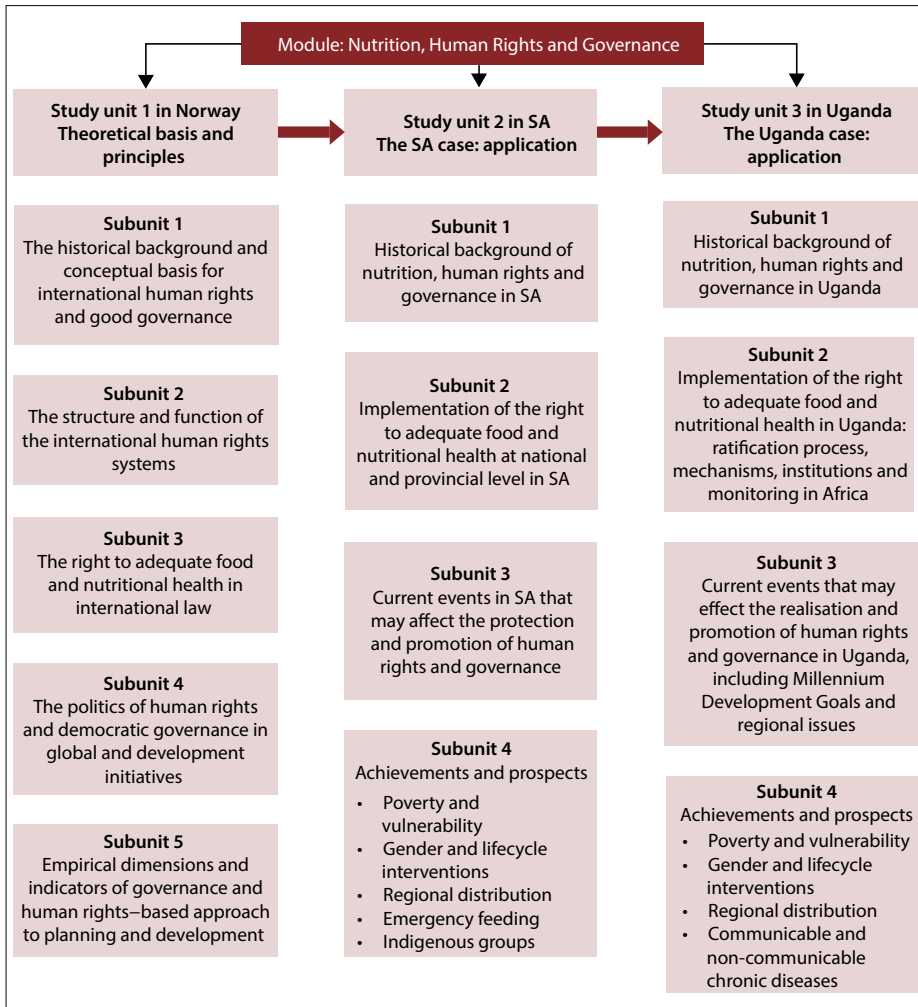


Fig. 1. Framework for the NOMA track module on Nutrition, Human Rights and Governance (2011 - 2012 and 2012 - 2013).

interviews. Two research assistants conducted the research to minimise potential bias, as the researcher was also the study co-ordinator in SA. As students resided in different countries, the assistants conducted interviews (35 - 125 minutes) telephonically. Interviews were conducted in English using a discussion guide based on probes relevant to the module, e.g. positive and negative aspects of the module as well as students' view on the incorporation of an HRBA in nutrition curricula.

Interviews were transcribed and checked to ensure accuracy. A systematic approach was used to analyse unstructured data, and constant comparison of texts ensured that the themes reflected the original data. Through an inductive process, a code list was compiled from emerging themes and used to code the transcribed text, using a text analysis computer programme (ATLAS.ti version 6, Germany). To ensure that

all emerging themes were identified and to check for inconsistencies and contradictions, the text was reread several times. One set of themes emerged related to the categories used in the evaluation form and are presented as such.

Ethics and legal aspects

Approval for the research project was obtained from the Health Research Ethics Committee of the Faculty of Medicine and Health Sciences, Stellenbosch University (ref. no. N12/08/044). Informed written consent for both voluntary participation and voice recording of interviews was obtained from all participants. Each participant received a signed electronic copy of the completed consent form. Anonymity and confidentiality was maintained by assigning participant codes during the transcription of interviews and whenever direct quotes were used. All transcripts and voice recordings were

stored in protected files and the voice recordings were destroyed.

Results

Background information about participants

Twenty NOMA students (16 female and 4 male), enrolled at the different universities, with a mean (standard deviation (SD)) age of 30.2 (6.0) years, provided consent to participate in the study (91% response rate). Some participants had no work experience and had only been registered students; others had between 1 and 18 years experience in various professions (including community dietitian, nutritionist, research scientist and cook (Table 2)).

Participants' curiosity was raised by the unique content and nature of the module. The NOMA scholarship not only enabled students to register for a Master's degree in nutrition, but also provided them with the opportunity to study abroad. There were some logistical issues pertaining to the conditions of the scholarship, which was a cause of concern for some students, but these were mostly due to different administrative systems at the universities and were largely resolved during the first cohort. Despite careful planning, students were concerned that the difference between the various universities' credit allocations was to the disadvantage of some students as the workload was not always aligned with the number of credits (Table 1).

Data from the quantitative module evaluation indicated that, overall, students were very positive about the module (98% of respondents agreed and strongly agreed). Students were impressed with the planning and content of the module as well as the choice of lecturers (85% agreed and strongly agreed). The largest variation in responses was with regard to the organisation and time allocation (67% agreed and strongly agreed; 15% disagreed and strongly disagreed (Fig. 2)).

Reasons for this variation became apparent during the in-depth interviews, which revealed nuances of students' perceptions about the module (Table 3). Emerging themes from the in-depth interviews are presented according to the categories in the evaluation form.

General assessment of the NOMA track module

'I was so glad that they set up the NOMA track module, if I jumped out of the programme right now, I can never remain the same person ...' (Male student, Uganda)

Table 1. Summary of relevant academic information pertaining to the NOMA track module presented by universities in Norway, SA and Uganda^[8]

	Norway	SA	Uganda
Institutional information			
Participating university and department	Department of Nutrition, Faculty of Medicine and Centre for Human Rights, Faculty of Law, University of Oslo (M Nutrition) Oslo and Akershus University College of Applied Sciences (M Food, Nutrition and Health)	Division of Human Nutrition, Faculty of Health Sciences, Stellenbosch University	School of Food Technology, Nutrition and Bio-engineering; Faculty of Agriculture – Applied Nutrition Programme; together with Human Rights Programme, Department of Philosophy, Faculty of Arts, Makerere University
Master's programme offered	M Nutrition M Food, Nutrition and Health	M Nutrition	MSc Applied Human Nutrition
NOMA module's contribution to credits	8.33% contribution to Master's programme	25% contribution to Master's programme	4.5% contribution to Master's programme
Academic year	January - November	January - November	August - May
Module organisation			
Number of contact sessions	3 afternoons per week	2 - 3 full days per week	5 full days per week
Duration of contact sessions per day	3 sessions of 45 minutes 15-minute breaks	6 - 7 sessions of 45 minutes 15-minute breaks 1 hour lunch	6 sessions of 1 hour 2 hours lunch
Field trips	None	1 day per week and 1 week of visits only	2 field trips of 1 day each
Module conduct			
Teaching style	Lectures informal and flexible time schedule	Some lectures informal, mostly inflexible time schedule	Lectures formal and inflexible time schedule
Presenters of lectures	Lecturers with expertise in human rights, nutrition and/or governance, (n=4)	Various presenters from different departments and institutions (n=28)	Various presenters from different departments and institutions (n=25)
Presenters' place of employment	University departments (n=3)	University departments (n=3) Government (n=15) Non-governmental (n=10)	University departments (n=12) Government (n=9) Non-governmental (n=4)
Format of literature	Printed core documents Electronic links Textbook	Printed core documents Electronic links Articles relevant to SA on CD	Printed core documents Electronic links Reading lists

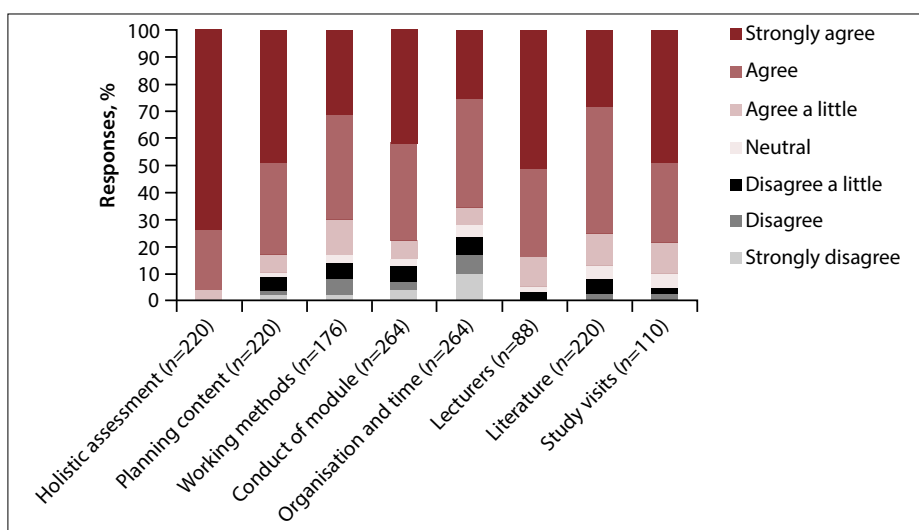


Fig. 2. Summary of students' quantitative evaluation of the NOMA track module according to the number of responses per category.

The experience was described as an emotional roller coaster because students were exposed to so many different areas, issues and solutions.^[9] As much as students benefited from physically being in a developed country (Norway), going to different developing countries provided the opportunity to grapple with issues regarding the implementation of the right to food within the context of a specific country's situation. The sequence in which countries were visited was regarded as optimal. For example, the rights-based SA Constitution is widely acclaimed and the implementation thereof illustrated theoretical principles studied in Norway. One student remarked that 'if we did not go to SA first, if we went directly to Uganda, we would not have known how to implement the international human rights.' (Male student, Uganda)

Table 2. Demographic information of participants in the NOMA track module (2011 - 2012 and 2012 - 2013)

Country	Gender	Age (yrs) [†]	Marital status	Highest qualification	Occupation	Experience (yrs) [†]
Norway	F	49.3	Married	B Public Health Nutrition	Cook	18
	F	30.3	Single	B Nutrition	Student	0
	F	27.2	Single	B Nutrition	Student	0
	F	26.0	Single	B Public Nutrition	Student	0
SA	F	30.8	Single	BSc Med Hons Nutrition and Dietetics	Dietitian	6
	F	28.3	Single	BSc Dietetics	Dietitian	3
	F	25.5	Single	BSc Dietetics	Dietitian	0
	F	30.6	Single	BSc Human Nutrition, Dipl Community Nutrition	Nutritionist	9
	F	26.3	Single	BSc Dietetics	Dietitian	3
	F	25.7	Single	BSc Dietetics	Dietitian	2
	F	42.9	Married	BSc Med Hons in Dietetics	Dietitian	15
	F	26.9	Single	BSc Food Science and Technology	Research scientist	1.5
Uganda	F	29.7	Single	BSc Food Science and Technology	Nutritionist	3
	F	33.8	Single	BSc Food Science and Technology	Dietitian	8
	F	27.7	Married	BSc Food Science and Technology	Research scientist	3
	F	25.9	Single	BSc Human Nutrition and Dietetics	Assistant Nutritionist	1.25
	M	30.5	Single	BSc Food Science and Technology	Dietitian	6
	M	25.6	Single	BSc Human Nutrition and Dietetics	Dietitian	1
	M	29.6	Single	BSc Human Nutrition and Dietetics	Nutritionist	4
	M	30.9	Married	BSc in Human Nutrition and Dietetics	Dietitian	6

F = female; M = male.
[†]Mean (SD) = 30.2 (6.0) years.
[†]Mean years work experience = 4.5 years.

Matters relating to the content of the module

‘... Nutrition alone is not complete without human rights. Nutrition involves other issues like the way people grow the food, the environment and all the other factors, they all affect nutrition. To look at nutrition as only one component is not complete but if you integrate with human rights, then it brings in the other aspects like water, land, production ...’ (Female student, Uganda)

Over-arching outcomes for the module were formulated during the development of the module. Students appreciated having specific study objectives for study units offered in Norway and SA, as the outcomes provided an overview and guided them during their studies.

Participants regarded the opportunity to learn about the theoretical and institutional background to international human rights in Norway as a highlight of the module. Building on the theoretical principles, a variety of topics was included in SA and Uganda to illustrate the practical application of human rights principles (Fig. 1). A holistic approach to the incorporation of an HRBA into food and nutrition was nurtured as students came to a deeper understanding of the complexity of issues, ‘that human rights are not just about poverty but about the whole aspect of human beings.’ (Female student, Norway) One student disagreed and was uncomfortable with the impression that an HRBA should be the only way nutrition can be strengthened. She believed that any approach based on strong moral values would make an equally valuable contribution to the attainment of nutritional health and food security for all.

Regarding the study units in SA and Uganda, students from both cohorts identified the limitations of focusing on one province/region only. They

suggested that different provinces should be compared to obtain a better perspective of the national situation. As Uganda was the third country to present a study unit, students found some repetition of the theory and it was suggested that lecturers should ensure that the content of study units remains country specific. Students from outside Uganda regretted not being exposed to the positive contributions of Ugandan non-government organisations (NGOs) and civil society (Fig. 1 and Table 1).

Through critical observations in the foreign countries, students also became aware of various aspects pertaining to the right to food in their own country, ‘learning about where we are, what has been our past, how we have gotten to where we are now.’ (Female student, SA) Some felt honoured to visit places they had never been to before and being allowed to go into people’s houses:

‘Whatever could have been covered, was covered as much as possible in the module in a very short format.’ (Female student, SA)

Students from the second cohort thoroughly enjoyed an introductory lecture about the political history of SA and Uganda and how it has impacted on the right to food. Notwithstanding this, students requested more information about the governmental structure in each country, including Norway. One student confessed that the course was ‘definitely emotionally draining when it comes to the history ... [it] is something that I wished we did not have to go through.’ (Female student, SA)

One of the conditions of participating in the module was the inclusion of an HRBA in students’ research design. Co-ordinators tried to encourage students to start with ideas for their theses as early as the first study unit.

Table 3. Quotes from Master of Nutrition students describing various aspects of the NOMA track module, grouped according to the categories in the quantitative questionnaire

Category	Quotes
An overall assessment of NOMA track module	<p>'I was so glad that they set up the NOMA track module, if I jumped out of the programme right now, I can never remain the same person ... that can be attributed to the programme.' (Male student, Uganda)</p> <p>'I don't think any of us could have done it if it wasn't funded.' (Female student, SA)</p> <p>'It has been wonderful in general and it was more than what I expected it to be. It has been beyond my expectations in every way.' (Female student, Norway)</p> <p>'It was generally a good course, especially the exposure I got to the different countries: Norway, Uganda and SA ... I'm finding it quite hard to really bring out one particular highlight.' (Male student, Uganda)</p> <p>'The best part was that we moved from country to country. You could see the differences in economic status, culture ... just how different the country had developed ... You could see, this is a country that's just beginning, like Uganda ... Then you had SA, which is somewhere in between. It's like ... a midway transition from being a developing country, to being a developed country. Then you had Norway, which is the most developed of the three. It was nice to see that unfold, as you moved from country to country. You could also identify negatives about this development.' (Female student, SA)</p> <p>'When you have been away and then at home again and knowing you need to catch up and you have a certain amount of time and get ready to go away again. It was actually very hard to have the dual studying and getting ready for exams and try and catch up and being home ... that was hard.' (Female student, SA)</p> <p>'Of course I missed my family and friends ... But I did not work with that in my mind. I was trying very hard to learn. I thought of them after studying.' (Female student, Uganda)</p>
Matters relating to the planning and content of the module	<p>'I feel that since this was the very first time that the course was run, this was a fantastic effort, and I feel that not much could have been changed or improved. It was obvious that a lot of hard work, preparation and consideration went into the planning of this module, and I think that every one of the students would have benefited from this. Thank you very much for a very stimulating, challenging and well-organised course.' (Female student, SA)</p> <p>'Whatever could have been covered, was covered as much as possible in the module in a very short format.' (Female student, SA)</p> <p>'[The module] should be planned with a collective mind. The module was incorporated into ongoing Master's programmes but when you go back [to your country], you get into the Master's programme and then there is no mention of human rights; and until you get to your research, you will not find it anywhere. I think in the future they need to streamline the programme to become uniform across the three countries and we get the same qualifications to do that ... Because now after studying that long, I get a transcript from the university for three credit units.' (Male student, Uganda)</p> <p>'The NOMA team has the regulation that we are supposed to do research on human rights and the right to food. And then you choose this supervisor and you draw up your proposal on the thing which suits the context very well and how you are incorporating it into your proposal. Personally, I have changed my entire topic [after working on it for a year] because of the department saying you are doing a Master's of Science in Applied Human Nutrition ... So they are saying, issues of human rights shouldn't be the one to dominate in your proposal. Of course I am saying, it is issues of human rights, so there is this kind of confusion. So how do I meet the expectations of the university and the requirements of human rights?' (Male student, Uganda)</p> <p>'The NOMA course increased my understanding of the world and especially with SA and its history and the problems and, hopefully, how to increase, improve the situation there and the same with Uganda. It has just been excellent.' (Female student, Norway)</p> <p>'We had a chance to analyse the politics of the three different countries. In that, I found a good basis for comparison, and generally understood the world, and how it is. The interactions between the three different countries were good.' (Male student, Uganda)</p>
Matters relating to working methods in the module	<p>'You don't just get knowledge about things ... you see what you are learning.' (Female student, SA)</p> <p>'These universities, they have their way of learning and teaching that was unique.' (Male student, Uganda)</p> <p>'I think, that the three universities involved gave it a different character, I would say. I found Norway was a new experience ... in Oslo. Then when we go to Stellenbosch – it was a different environment ... Method of lecturing and teaching ... and come to Uganda it was a different thing. It gave us insight, an idea of how different products from different universities was.' (Male student, Uganda)</p> <p>'It has so many different dimensions and it is also a very individualistic way of experiencing learning, what I hear is different from what someone else hears; and what I understand is not the same as what other people understands; so it is just a mixture and you must really be ready to engage.' (Female student, SA)</p>

continued ...

At the time, students thought that this was too far in advance. Eventually, students realised that research is a time-consuming process. Thinking back to discussions about research ideas held in Norway and again in SA, students remembered the challenges faced by everyone in this regard. Because students were continually receiving new information about human rights in each study unit, they felt they had to complete the full module before they had the 'big picture'. Only then did they feel equipped to 'cement a research topic'. Other students found it difficult to focus on research per se, and preferred to focus on the information relevant to each country and the subsequent examinations:

'During the module there was no time to even consider working on a literature review or anything ... other than just thinking about it' (Female student, SA)

Another example of the challenges emanating from interdisciplinary collaboration was the discrepancy between the expectations of a science faculty and the NOMA module requirements regarding interdisciplinary research combining human rights and the right to adequate food and nutrition. On presentation of the research protocol using an HRBA, some

Table 3. (continued) Quotes from Master of Nutrition students describing various aspects of the NOMA track module, grouped according to the categories in the quantitative questionnaire

Category	Quotes
Matters relating to the conduct of the module	<p>'I was probably expressing things that I only express to people that I was close with. I do hope it means something to someone because I don't want it to just be feedback and then it sits on a piece of paper somewhere. It is nice to do a post mortem of what you have been through.' (Female student, SA)</p> <p>'I think the evaluation was good ... it was good to explain how you experienced the situations. And in SA, because we had different lecturers and we could get the evaluation directly after the lecture. It was good to say how you see the lecturer, his method of teaching. And for them to ask us how we feel about the course and the modules and how we experienced it, so evaluation was good.' (Female student, SA)</p> <p>It [the module] was good, because it was interactive and basically it was good that it was put together by three different universities; because by interacting and exposure to the outside – we were able to meet different people, different cultures and different norms. The course basically, was so good, because like these people of Norway – is from a developed country ... and how the situation is in this underdeveloped country. Because of that, and also because we are from different regions, the focus of facilitators were interesting to understand basically what the norms are and how things are and why the evaluation is from country to country.' (Male student, Uganda)</p> <p>'In SA ... just to see what we do right ... it was not just the theory but we had to apply the practical part also. What and how can I apply what I learned in the workplace, what can I do to incorporate human rights. The practical application ... that was a big positive.' (Female student, SA)</p>
Assessment of the lecturers	<p>'In SA I think it was extremely important that we also evaluated every lecturer and lecture, which we did not do either in Norway nor Uganda, so that is actually something I think should have been done also in the other two countries. This interview here, maybe for me it would have been better to have it written, as it is very difficult with the poor line, but I think it is extremely important because I want the NOMA course to continue.' (Female student, SA)</p> <p>[Students valued the input of experts with practical experience]: '... people who can think on ground level ... are involved in integration, implementation, monitoring and evaluation. They understand it very well and bring it in a way that is very relevant to the students. They see it every day in their lives, and they appreciate it.' (Male student, Uganda)</p> <p>'We had great lecturers and it was very good because we had different lectures from different fields and we got different perspectives of things. I really loved the visiting of institutions and we had lectures there as well which was great.' (Female student, Norway)</p>
Matters relating to organisation of the module and allocation of time	<p>'There was quite a lot happening around that time ... We were travelling back, we had written exam in Norway, came back [to SA], wrote an exam here, started lectures, and all of that.' (Female student, SA)</p> <p>'It was difficult, it was too close. We were flying from Norway to SA, you did not have time to settle in; and from SA to Uganda. You fall in there, you begin with classes. The time was so, so, so close to each other.' (Male student, Uganda)</p> <p>'I mean we did not get the information until the very last minute, in all three countries ... we are used to getting the information about a course at least one month before.' (Female student, Norway)</p> <p>'As soon as we arrived, for example in SA, everything was sort of already organised. The whole program was all in place, we did not have any difficulties, all we had to do was get down and study and work and so on.' (Female student, Norway)</p> <p>'For us, we never used to take time seriously, but we also learnt through Norway, because everything was on schedule ... So you agree on a time and you keep within that time [limit].' (Male student, Uganda)</p>
Matters relating to the literature	<p>'The other positive was the resources, that we got exposed to, and we got textbooks, readings, articles that I hadn't seen before, websites.' (Female student, SA)</p> <p>'The readings also ... the fact that we couldn't get to all of them. I still got them as resources. I could still go and use them if I wanted to. I don't think the readings should have necessarily been cut down' (Female student, SA)</p>
Matters relating to the study visits	<p>'We saw with our own eyes what the situation is, what is being done about it and then discussed how those situations could be remedied, looking at how the country is progressing towards realisation of the right to food.' (Male student, Uganda)</p> <p>'If you read about it in a book you don't get the same as if you see it with your own eyes ... like the field trips.' (Female student, Norway)</p> <p>'We heard from people who were directly involved in the actual activities regarding the right to food, that also was a new experience. We went directly to the fields talking to the different farmers and people who are suffering and people that were currently misplaced and talking about it.' (Female student, Uganda)</p>

students were instructed to change their topic, as an HRBA was not deemed appropriate for a research proposal in a natural science faculty (Table 3).

Matters relating to working methods used in the module

Students benefited from being exposed to different teaching styles and education systems at universities in different countries. They enjoyed the interaction with foreign students and learnt from one another. Overall, students were very positive about the participative nature of the module: 'You don't just get knowledge about things ... you see what you are learning.' (Female

student, SA) Students rated highly the integrated and reflective assignments that were compiled on all field trips, as they needed to 'incorporate their knowledge and all [they] had been learning.' (Female student, Uganda)

It is important for a module of this integrated nature to allow students enough time for self-study. Students found it challenging at times to balance everything, i.e. completing assignments, studying for the examinations and, also, visiting tourist attractions. In Norway, students were grateful that the lectures and workload were timetabled to provide adequate time to read and study for the examination.

Matters relating to the conduct of the module

In spite of the overall positive response to the module, some issues were raised that could have negatively affected students' learning experiences. It was felt that some lecturers discussed irrelevant information, didn't pitch their lectures at an appropriate level or did not adequately link nutrition and human rights. It was suggested that lecturers should receive adequate orientation regarding the objective of the module and the content of all study units.

The reason why the teaching style in Uganda was perceived as less interactive than in Norway could be ascribed to the perception of lecturers as elders/authority figures and '... in our African culture you don't talk back to your elders ... and in terms of educational qualifications, it is sort of like a parent-child relationship.' (Female student, SA)

Students found 'it was so inclusive' to evaluate each study unit and make recommendations for improvement:

'[Giving feedback] felt good ... people in charge will know what went wrong.' (Male student, Uganda)

One student was concerned about the confidentiality of the interviews due to the sensitive nature of the information conveyed.

Assessment of lecturers

One of the main themes that emerged was the appreciation students expressed for the privilege of learning from people who were experts in their fields of practice. The lecturers in Norway in particular were acclaimed for their patience, and ability to explain unfamiliar human rights concepts clearly and incorporate legal terminology.

It was very beneficial to have a variety of presenters sourced from different institutions and departments: 'One person wouldn't have all the knowledge that those people had.' (Female student, SA) It provided students with a broader understanding of the implementation of human rights instruments and violations of the right to food.

Matters relating to the organisation of the module and allocation of time

With the invaluable assistance of resident students in Norway and the international office at the host universities, foreign students were able to settle in within a few days:

'We did not worry about general arrangements.' (Female student, SA)

Students were appreciative because the module was well co-ordinated and they were timeously informed about changes in the programme, although they requested that they might receive information concerning a study unit earlier than a week before the time.

The way lectures were scheduled in Norway allowed for time to reflect and ask questions; however, students would have preferred longer lectures. Some students found the schedule in SA and Uganda (Table 1) overwhelming and inflexible, with students needing more time to interact with lecturers. The long days with inadequate breaks were tiring and affected their studies, as they had little time to process information. This was considered unnecessary at a Master's level. Despite the full schedule, students still enjoyed it 'because we learned so much and we were exposed to so much ... it was great.' (Female student, SA)

Matters relating to the literature

Mastering unfamiliar concepts such as human rights principles, meant that students immersed themselves in literature provided in print, on CD or as

internet sources. Comprehensive reading lists were provided in the relevant countries' study guide, yet much of the literature was not country specific. Students struggled to obtain access to some of the recommended sources due to poor internet connectivity and unstable electricity supply, and in some instances documents were only available as hard copies, thus difficult to obtain.

Students were concerned about the amount of reading material as the sheer volume encouraged superficial reading. Others regarded it in a positive light:

'We got textbooks, articles and websites that I hadn't seen before ... and I could keep it for future reference.' (Female student, SA)

Matters relating to the study visits

'If you read about it in a book you don't get the same as if you see it with your own eyes ... like [during] the field trips.' (Female student, Norway)

The highlights of the module were the study visits to various government departments, and to national and international organisations in the two African countries (Table 1). The study visits necessitated a substantial amount of travelling that required 'early mornings' to ensure arrival in good time at the relevant institutions. On the positive side, students used the time spent in the buses to reflect and debrief.

Not all the expectations of students were met in SA, as some wanted to observe the implementation of programmes in deeper rural areas. Students also expressed their regret that 'we did not really see the aspects of those living at the grassroots [in Norway]'. (Female student, Uganda) The two field trips in Uganda were valued as unique opportunities that should be extended and combined with lectures presented at these sites.

Students' opinions of the incorporation of a human rights-based approach in curricula

Even though both nutrition and human rights principles form part of a holistic approach to client care, students were aware that very few lecturers in nutrition currently have training in human rights. They felt that incorporation of an HRBA in a holistic manner from an early point in one's academic career should be encouraged in all academic institutions to empower graduates to use an HRBA should they become involved in policy-making and programming:

'It is not an add-on – it is more a way of doing things ... it is not only for the community dietitians or government dietitians or NGO dietitians.' (Female student, SA)

Students argued that the integration of an HRBA could be achieved if nutrition departments adopt the principles of an HRBA and understand the links to health and nutrition. It will then become easier for lecturers to incorporate human rights principles where relevant.

Discussion

'Human rights education and training is a lifelong process.'^[4] Globally, the need for more fully comprehensive courses in human rights has been identified by academics,^[4] as short courses and seminars are regarded as inadequate in equipping healthcare professionals to operationalise the HRBA in all spheres of their individual professions.^[9] Although these courses should be based on human rights law, procedures and principles, they should be responsive to the context within which they are offered

and according to various societies' own ideals.^[4,10] The interactive and participative approach followed in the NOMA track module offered this group of nutrition professionals the unique opportunity to learn how they, as health professionals, could use an HRBA to make a contribution to the realisation of the human right to be free from hunger and achieve nutritional health for all. The way the module affected students' professional competence was reported by Marais *et al.*^[9] and indicated an enhanced awareness of their roles as nutrition practitioners.

Lessons learnt from this experience are applicable at both undergraduate and postgraduate level and are useful during the development of transnational and/or interdisciplinary modules. To create successful modules, it is crucial to follow all steps of curriculum development,^[12] from the needs assessment to feedback and critical reflection upon completion of the module. Commitment from all partners and thorough planning during the initial phases are essential, as the academic and institutional requirements must be reconciled.

Participants expressed great appreciation for the way that the module was structured, the sequence in which countries were visited and the content of the curriculum. Suggestions for improvement mainly focused on logistical issues, with some additional lecture themes. Comments on the differences between various academic institutions firstly concerned the individual systems of awarding credits to a module and the corresponding workload. The substantial differences in the approach to the concept of credits was also a major hurdle during the development phase of the module. Even though the negotiated solution to the problem was acceptable to the postgraduate committees and senates of the participating universities, the unequal credit load caused some friction and students requested that the matter be reassessed in future.

Secondly, students perceived prejudice against qualitative research methods in natural science faculties, which according to the literature have been only recently introduced in the health sciences.^[13] Students were faced with this dilemma and needed to defend or even change their research proposals, after spending several months on planning research topics to which qualitative research was better suited.

Limitations of the module were identified by students. Specific learning outcomes were sometimes lacking, the relevance, amount and availability of reading material was questioned, and there was some unnecessary repetition of information. Constructive alignment of the curriculum objectives as well as the teaching and learning activities is of paramount importance for facilitating students' performance at the desired cognitive level.^[14,15] It is of even greater importance when using an interdisciplinary approach^[16] and when different parts of the same module are developed and presented in

different countries. To ensure that all lecturers from the different institutions and departments are fully aware of the predefined scope of the lectures and to minimise repetition, it is recommended that several workshops, dedicated to the alignment of module objectives and content, are presented by the collaborating institutions and/or departments.

Evaluation and feedback is an essential part of the curriculum development cycle.^[14] It was encouraging to see students keen to participate in the evaluation, and their input will be invaluable during future development of transnational and interdisciplinary modules.

Conclusion

The NOMA track module succeeded in providing a group of nutrition professionals with the knowledge to operationalise the principles of an HRBA in an appropriate manner. The interactive teaching style proved effective in enhancing students' comprehension of unfamiliar human rights concepts. The module serves as an example of transnational and interdisciplinary collaboration in module development, which requires commitment to the cause and a willingness to share expertise.

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