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ELHAM ALJAALY

Benchmarking of academic studies of dietitians at King Abdulaziz university using the European Dietetic Benchmark Statement (EDBS)

The Clinical Nutrition Department,
Faculty of Applied Medical Sciences,
King Abdulaziz University,
P.O. Box 54539, Jeddah 23132,
Saudi Arabia
Tel No: +00-9665-0569-2467
Fax: +00-9662-6863-932
E-mail: ealjaaly@kau.edu.sa
E-mail: aljaalydiet@gmail.com

ABSTRACT

Purpose: To assess the standards and comparability of the King Abdulaziz University (KAU) first cycle dietetics qualification in comparison with European standards.

Design/methods: The KAU curriculum content and methods for delivering the programme was compared with European countries, based on the 2005 European Federation of the Associations of Dietitians (EFAD) Benchmark statement.

Findings: In meeting the EFAD criteria, the KAU Clinical Nutrition (CLN) programme leads to a BSc, delivered in the English language, and gives a qualification as a clinical dietitian. European dietetic programmes should be under the Faculties for Health programmes. Equally, the KAU CLN programme is particularly in the curricula of the Faculty of Applied Medical Sciences. KAU delivers a programme over 120 weeks for the theoretical part and senior students practice for 60 days per year, which is within





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the range for European countries. Similar to European countries, the KAU Awarding Institution requires dietetic senior students to submit a report of their research projects and to conduct a one-year practical placement. The duration of the KAU project is 30 weeks and the range for European countries is (2.3–40 weeks). Graduation is connected with registration in most of European programmes, which is the same for KAU. The programme does not use the European Credit Transfer and Accumulation System (ECTS) but uses a KAU Credit System, which is 137 credit hours \approx 342.5 ECTS.

Practical implications: For KAU dietetics students to internationally confirm the use of their qualifications, competencies and skills, particularly throughout the European Higher Education Area.

Originality/value: The first study to benchmark a Saudi dietetic programme with European Dietetic Benchmark Statement (EDBS).

Keywords: European Federation of the Associations of Dietitians; EFAD; European; Saudi; Clinical Nutrition; CLN; education; competencies; benchmarking; 1st cycle degree.

INTRODUCTION: BACKGROUND AND AIMS

All over the world nutrition is not only important for food supply and food accessibility, it is also important to ensure that people receive and have access to an adequate nutrient intake and to realise human potential. The role of the dietitian is as a multifaceted professional positioned at the boundary of numerous sectors of activity. This includes nutrition, food science, management, food technology, food promotion and communication. The profession of dietetics is categorised among the paramedical professions.

Most European countries are moving towards becoming integrated into the economic and educational structures of Europe. The education of a dietitian in Europe is mainly unified and organised by the European Federation of Associations of Dietitians (EFAD) (EFAD, the Voice of European Dietitians, 2015a). EFAD was established in 1978 and includes 34 National Dietetic Association members. EFAD's currently registered members number a total of more than 35,000 dietitians, which are included in 27 European countries (EFAD, history, 2015b).

Benchmarking is an organisational attitude for employing best practices at best cost. It is an important process for improving the performance of a company, public organisation, programme or a university. The process needs to continuously identify, understand, and adapt outstanding practices and processes inside and outside an organisation (Kelessidis, 2000). The attitude is a current concept in the healthcare system (Ettorchi-Tardy et al., 2012).





The European Dietetic Benchmark Statement (EDBS), as defined by EFAD, is

“an initiative undertaken under the aegis of the Quality Assurance Agency (QAA) to describe the nature and characteristics of higher education programmes in a specific subject, while representing general expectations about the standards for an award of qualifications at a particular level and articulating the attributes and capabilities that those possessing such qualifications should be able to demonstrate” (EFAD, 2010).

The statement was recommended by EFAD to be used by national organisations providing education concerning curriculum planning and/or development. The benchmark could be used to internally and externally declare quality and standards.

The European Academic and Practitioner Standards for Dietetics were issued in 2005 (EFAD, 2005). This benchmark accomplished a vision across Europe concerning the sharing of a programme that led to a qualification required for dietitians to work in a specific country as a skilled specialist. Higher Education Institutes that teach dietetics in Europe require a period of 30 European Credit Transfer and Accumulation System (ECTS) credit points¹ (European Commission, 2009) or semi-academic year of study at least for a practice period (EFAD, 2005). Moreover, EFAD (2009), circulated European Dietetic Competencies and their performance indicators that define the level of competence to be obtained before being qualified as a dietitian. Taken together, the EFAD (2005, 2009) documents provided a clear plan for the education of a dietitian in Europe.

The Saudi Ministry of Education (MOE) provide specific guidelines for the required content of programmes in dietetics. These include programmes under Faculties for Health programmes. At the same time, the MOE allows adequate flexibility for higher education institutions to develop the structure of their individual programmes. Dietetics is included in the curricula of Faculties of Applied Medical Sciences (FAMS) in different Saudi Universities. This includes King Saud University, Umm Al-Qura University, Taibah University, Jazan University University of Ha'il, Dammam, Najran University, Al-Baha University and Qassim University (SAU). The programme in King Abdulaziz University (KAU) is the second established dietetic programme (SAU, 2015).

Holders of bachelor's degrees in (clinical/therapeutic) nutrition from health faculties are classified as (clinical/therapeutic) nutrition

¹The European Credit Transfer System (ECTS) points system can be found at http://ec.europa.eu/education/tools/docs/ects-guide_en.pdf.





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specialists after a one-year internship (Saudi Commission for Health Specialties, 2009, 2011).

The KAU in Saudi Arabia started developing its academic curriculum in the field of Clinical Nutrition (CLN) in 2004; it introduced its bachelor's degree programme, which currently enrolls more than 114 undergraduate students. The Programme for Dietitians is one of the four programmes that are offered by FAMS. Other FAMS programmes are Medical Laboratory Technology, Physical Therapy and Diagnostic Radiology. The KAU CLN programme is offered in one branch in Jeddah city (King Abdulaziz University, 2014a,b). The first batch of female students was admitted to the BSc programme of Clinical Nutrition in 2005.

Education and nutrition are important and essential conditions and resources for improving public health. The KAU CLN programme was introduced to enhance the nutritional well-being and health of individuals in the community. The current mission of the department is "Community responsibility: Knowledge development, Research, Innovation and Entrepreneurship in Nutrition & Dietetics" (King Abdulaziz University, Clinical Nutrition Department, 2014a). Looking at the relevance of the programme to the mission and goals of the awarding institution, the KAU/FAMS lists its goals as developing programmes that produce highly qualified health professional graduates (King Abdulaziz University, 2014a,b). This is consistent with the mission and goals of CLN programme (King Abdulaziz University, Vision, Mission, Goals and Objectives, 2015c).

The primary purpose of this benchmark survey is to assess the KAU first cycle dietetics qualification standards and comparability compared with the European standards based on the 2005 EFAD approach.

The survey could help provide existing and aspiring providers of dietetic education in Saudi Arabia with guidance on the curriculum content and delivery of dietetic programmes at international level. This could facilitate its use in planning and developing programmes, and for the (re)validation of existing programmes. It is a call for a unified Saudi curriculum content and a decrease in existing differences in delivering and standardising education programmes in the field of nutrition and dietetics, which could help in establishing national/regional higher education structures for the dietetic education and programme in a convergent way. This is in order to ensure the quality and maintain the sustainability of these education programmes when compared to the European situation.

DESIGN/METHODS

A benchmark survey was designed and conducted to define and critique current KAU dietetic education. The study consisted of conducted





information from the FAMS Clinical Nutrition Department website/s, and the FAMS Programme administration.

In order to conduct this study, an ethical clearance from the Ethics and Research Committee at the Faculty of Medical Applied Sciences at King Abdulaziz University was obtained.

Further approval was attained from the head of the Clinical Nutrition Programme.

The benchmark was set with a European dimension for curriculum content (modules, courses, learning methods used for teaching, for example, Lectures, group discussions, laboratory assignments/training), the use of the ECTS, division of hours over contact and self-study, and methods of assessment of students' proficiency against the set objectives of the programme. The comparison is made based on the 2005 European Federation of the Associations of Dietitians (EFAD) benchmark survey, and the questions used to compare basic education programmes.

RESULTS

The present study assesses facts on the KAU dietetic education programme and compares the situation with European countries.

The KAU Clinical Nutrition Programme is a bachelor's programme in higher education. The study programme belongs to the domain of the Bachelor of Applied Medical Sciences (Figure 1 shows the latest organisation chart of the department). The KAU CLN programme leads to a BSc, is delivered in the English language and gives a qualification as a clinical dietitian. The programme was established in 2005. Similar to all KAU study programmes, the CLN programme is a requisite to accreditation by an international accreditation agency, and was recently accredited by the Accreditation Agency in Health and Social Sciences (AHPGS). The AHPGS is a European Agency that is based in Germany and has specific criteria for providing accreditation (AHPGS, 2012). The KAU CLN programme was positively recommended by the expert AHPGS group during their on-site visit (on the 9th and 10th November 2015) to be accredited by AHPGS (personal contact with FAMS Dean, Vice-Dean for Development and Head of CLN programme).

The EFAD compares if there is a national requirement for the content of dietetics' programmes, and whether, in Saudi Arabia, universities should include their dietetic education programmes under Faculties for Health programmes, particularly in the curricula of FAMS. The responsible body is the Saudi MOE.

Based on the EDBS, choices about approaches and techniques for teaching, learning and assessment are for educational institutions to





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define, however, they should match the learning outcomes associated with the health profession programmes. The teaching and learning methods of the KAU CLN study programme were defined by the department² (King Abdulaziz University, Teaching Materials, 2015b). Their match the learning outcome was evaluated internally using different techniques such as students' feedback evaluation surveys, course instructors' reflections on each course, and the feedback reports from the departmental advisory committee members. Moreover external evaluation and feedback was also made by the AHPGS.

Based on the EDBS, academic and practical elements are required for qualification as a dietitian. The KAU CLN programme integrates Dietetic Education and Practice³ (King Abdulaziz University, Study Plan, 2015a)

The EFAD suggests that students follow a first cycle course that carries a minimum of 210 ECTS (180 ECTS points for the theoretical part and 30 ECTS points for the practical part). The total ECTS points was recommended to match programme periods for about three and half years of study. The KAU programme does not use ECTS but uses a KAU Credit System. The programme qualifies students for a Bachelor degree in CLN when they successfully complete 137 credit hours during a time frame of four years.

A 137 Credit hours \approx 342.5 ECTS. This is calculated as the KAU programme (137 Credit hours) \rightarrow 137 \times 2.5 = 342.5 ECTS. This means that the KAU programme teaches more credit hours in comparison to the EFAD accredited programmes.

In addition, students must also complete one obligatory year of supervised clinical/community practice (internship programme), with the exception of a one-month elective rotation. Therefore, the total length of the dietetic course is five years including the theoretical and practical fieldwork; this is within the range for the total length of the European countries' degree programmes.

Clinical placements take place in hospitals, organisations and community centres. In the internship year, interns practice for 40 hr per week from Sunday to Thursday. The programme begins in August and ends in July of the following year.

Students study for 45 hr per week. Methods of study comprise lectures, seminars and practical work and students are expected to do private study for an additional 15 hr per week. However, when the weeks or hours are calculated, KAU delivers a dietetic education programme

²Teaching Materials and Methods for the KAU CLN study programme can be found at: <http://nut.kau.edu.sa/Pages-Teaching.aspx>.

³Study Plan is available at: <http://nut.kau.edu.sa/Pages-Study.aspx>.



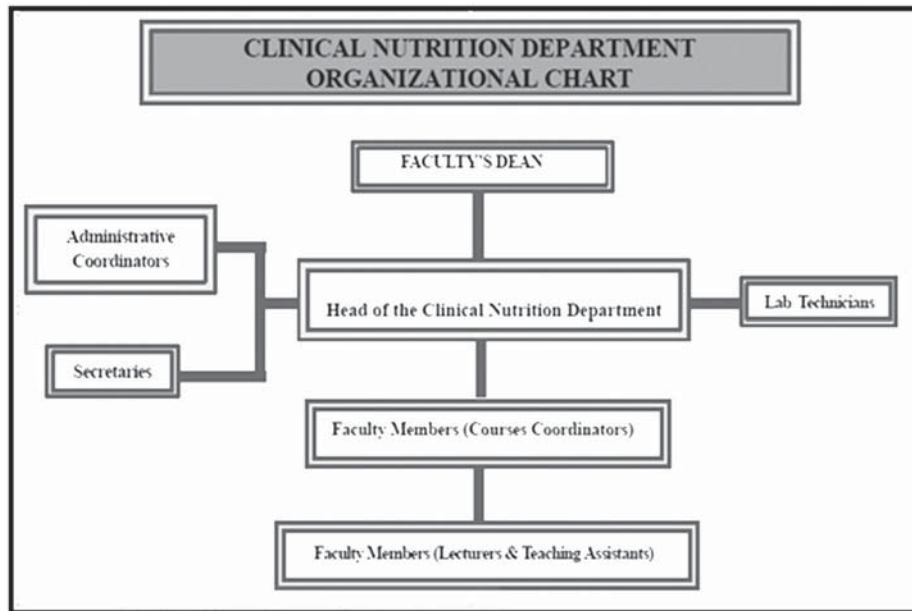


Figure 1 The organisation chart of the KAU CLN Department (2015–2016)

Source: DeVised by author (the Head of the Clinical Nutrition Department).

in 120 weeks, and students practice for 60 days per year (fieldwork in the 4th year). Therefore the number of weeks for practice during the four years of study is $60/7=8.5$ week, which is within the range of other European countries. The fifth year is allocated for the internship programme, and placements take place in different hospitals in the city, country or even outside the country.

Regardless of the training type (fieldwork in the 4th year or during the internship placement), admission to training in most European programmes require five level subjects concerning natural sciences, mathematics, national language, English language and practical experience; the KAU CLN study programme will not allow students to conduct any type of training if they have not completed these five levels before conducting training (EFAD, 2005). The division of the theoretical programme follows the European one, and includes Basic Sciences, Food and Nutrition Sciences, Food Services Administration, Nutrition Education and Community Nutrition (EFAD, 2005). Similar to some European countries, the theoretical programme is designed as problem-based learning where all the five groups are integrated.

To be qualified for a BSc in CLN, it is obligatory for senior students to submit a research project report using research methods for passing the examination. The duration of the KAU project is 30 weeks while the range for European countries is 2.3–40 weeks. The Senior Research Project mainly aims to prepare students to be able to plan and implement an independent nutrition research project in the area of nutrition and dietetics, and to present and discuss its findings. The major intended learning outcomes of the project/research task is that students are





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expected to be introduced to the research process with an emphasis on using research in health sciences. In groups, students complete one of the different areas of research including experimental, clinical studies, nutrition and dietetic services/practice, and community-based. All research should relate to the nutrition/dietetics field and origin or in conjunction with a larger, ongoing research study.

Graduation is connected with registration with the professional governing body in most European programmes. This is similarly applied for graduates of the KAU programme after completing their internship period. Students should immediately register with the authorising body for all health professions, the Saudi Commission for Health Specialties (SCFHS). However, the national dietetic association, the SDA, has no influence on the national requirements of the programme.

The existing curriculum has well-defined programme outcomes, but does not have any defined competencies for the students as in the contemporary dietetics curriculum in Europe (EFAD, 2012).

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

The overall objective of the study was to benchmark the standards and comparability of the KAU first cycle dietetics programme with the European standards.

The study is the first to benchmark a Saudi dietetic programme with EDBS. It can help the Saudi MOE and other Higher Education Institutions (HIE) who offer dietetics' programmes to recognise the students' requirements and demand for a qualification that can be used effectively for the purpose of their studies and careers in comparison to European standards.

The profession of dietetics is comparatively new in contrast with other health professions that are well-known in the society. Globally dietetics has been proficient for less than a century. In 1917, the profession started in the USA. However, it did not appear in the until the mid-1930s, while in France it came on track in the middle of the 20th century (Winterfeldt et al., 2010). In some developing countries the profession is very new or still does not exist. In Saudi Arabia, the profession of dietetics was documented within two hospitals in Riyadh city. This was in the 18th Century; the working dietitians were western dietitians (Hwalla and Koleilat, 2004). The first education programme started at King Saud University in Riyadh in 1980 and the first two Saudi dietitians graduated from the programme in the academic year 1984–1985 (Personal communication with one of the first graduates, 18th December 2015). In industrialised countries, education programmes, particularly those governed by national organisations such as the British Dietetics Association (2013), has recorded a growth in the





profession. The Saudi Dietetic Association was established recently and aims to be the main reference in CLN, locally, regionally and in the Arab world (Saudi Dietetic Association, 2015).

The teaching of dietetics in Saudi Arabia remains under-evaluated in the language of specialisations offered by higher education institutes in the Kingdom of Saudi Arabia, particularly when compared with European agencies. This could be because of the absence of the role of the Saudi Dietetic Association in regulating, assessing and maintaining the profession.

Admission to dietetic training in most European programmes requires five level subjects concerning natural sciences, mathematics, national language, English language and practical experience; the KAU programme meets this European requirement. The KAU division of the theoretical programme follows the European standards and include Basic Sciences, Food and Nutrition Sciences, Food Services Administration, Nutrition Education and Community Nutrition.

Training to become a dietitian involves supervised or practical training under the guidance of a registered or authorised dietitian. Currently, and based on the CLN department experience and reports of KAU CLN advisory committee reports, there is a lack of trained dietitians employed in Jeddah hospitals, particularly the KAU hospital, which is an obstacle to completing training for senior students (fieldwork), the internship period, or for newly graduated dietitians. However, to cover this problem academic staff (registered dietitians) are involved in training senior students in their fieldwork at KAU hospital.

New relationships are established through the advisory committee for the programme and a good relationship with dietetics' professions in different clinical settings should open possibilities for the KAU CLN practical training programme and research area where dietetic students who belong to health sciences should conduct research (Stephens et al., 2009; personal contact with the CLN Head of Department).

As dietetics cannot be learned exclusively in teaching institutes, the professional practice of dietetics requires that the student validates their skills (EFAD, 2010). This requires practical experience and clinical attachments in institutes that provide a good place for a standardised practice in different areas (EFAD, 2010). In contrast with some other European countries where areas of practice were defined by national dietetic organisations following EFAD recommendations, Saudi Arabia is not following any standards of practice by an organising body (Aljaaly and Khalifa, 2015). For example, lessons can be learned from the European Standards for Practice Placements in Dietetics, which were defined to maintain the future of dietetic professionals. This could be achieved by involving organising bodies such SCFHS and SDA to standardise the dietetic practice in all areas (EFAD, 2010).





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The field of dietetics is constantly evolving and competencies should be kept high (European Commission, 2012). Thus it is important for dietetics' students to keep updated in the ever expanding scope of dietetic practice, including new data on different areas of practice (Aljaaly, 2015). The KAU dietetic students are involved in many clinical-based and community-based activities. The method of teaching used in the programme keeps students searching the field for new ideas, and attending conferences and workshops even while undertaking their dietetics course (King Abdulaziz University, Teaching Materials, 2015b).

The department is looking to meet the accreditation process at a high standard, and be the leader of the CLN departments all over the country⁴ (King Abdulaziz University, Vision, Mission, Goals and Objectives 2015c). It also looks to compete nationally, regionally and internationally with other departments with regards to the quality of graduates working in the field of nutrition and dietetics.

Accreditation is important to ensure sustainability of quality for higher education programmes (Brence and Rivža, 2011). The KAU CLN department has worked to be accredited nationally by the National Commission for Assessment and Academic Accreditation (NCAAA), and internationally by AHPGS accreditation. In 2015, the KAU dietetics programme was evaluated and accredited by the AHPGS European Agency following an agreement between the FAMS and the AHPGS to evaluate three programmes, including CLN. The assessment process included the teaching process and methods used for teaching, administrative staff, teaching staff, taught theory and practical courses including classes, laboratories and equipment, students' achievement in all courses and the will for improvement. Other assessment methods included assessment of practical training, for example, fieldwork training for senior students and the internship programme. Achievements, limitations and strengths points for the programme were also assessed, for example, workforce and clinical placements for graduates.

Comparable qualifications were recommended by EFAD (2005) to support the European labour market, and enable dietitians to study and work more easily throughout the European Union. It is also expected that students need and demand qualifications that can be used effectively for the purpose of studies and careers all over Europe (EFAD, 2005).

The results of the present benchmark for the KAU Clinical Nutrition Programme with EFAD ascertained that KAU students will have no difficulty in taking further education and/or professional practice, or even work in European countries, especially since the programme is currently accredited by a European Institute.

⁴Vision, Mission, Goals and Objectives are available at: <http://nut.kau.edu.sa/Pages-mi.aspx>.





It is expected that the study will be used as a reference document by the Saudi MOE, Saudi Legislatures of the Health and Care Professions Council, the Saudi Commission for Health Specialties (SCFHS) and other Professional Constitutional Governing Bodies such as the Saudi Dietetic Association (SDA), which are recommended to be involved in the validation, revalidation, quality assurance and review of health programmes.

It could also assist and facilitate dietetic programme providers such as teachers in academic institutions, practice educators in practice placements, and employers to support and assist dietetic students to give an overview of the expectations of the scope and depth of their learning and preparation for future practice.

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BIOGRAPHICAL NOTES

Dr. Elham Aljaaly is a Saudi national. She is an Assistant Faculty for Applied Medical Sciences and the Head of the Clinical Nutrition Department at the Medical Applied College, King Abdulaziz University in Jeddah, Saudi Arabia. She is the first graduate Saudi dietitian from the Clinical Nutrition Programme in SA. She is the Chairperson of the Commission for Academic Accreditation for the Clinical Nutrition Programme. She is also a Consultant Editor in the International Journal of Food, Nutrition and Public Health (IJFNPH) and an Editorial Member in the Arab Journal of Nutrition and Exercise (AJNE). She holds an MSc in Human Nutrition from the University of Sheffield, and a PhD in Community Nutrition and Environmental Health from UCL, London, two post-doctoral programmes in the UK. She has been nominated by the World Association for Sustainable Development (WASD) as a track chair in different conferences related to WASD including tracks for the medical sciences and public, food nutrition and public health and public policy and higher education. health, food nutrition and public health and public policy and higher education has been an invited speaker at many national, regional and international conferences since 1986.

**Benchmarking
of academic
studies of
dietitians**