

# Employers Perception on Skills and Competencies of Nutrition and Dietetics Graduates from Nigerian Universities

\*Leshi, O.O.; Ariyo O and Iweha O.M.

Department of Human Nutrition and Dietetics,  
Faculty of Public Health, University of Ibadan.

Corresponding Author: [tllesh@gmail.com](mailto:tllesh@gmail.com)

## ABSTRACT

**Background:** Education is a major channel to prepare students to acquire skills and competencies to increase their employability.

**Objective:** This study was designed to seek employers perception of skills and competencies of nutrition and dietetics graduates from Nigerian universities.

**Method:** A mixed-method approach was used to engage 65 employers of Nutrition and Dietetics graduates in this cross-sectional study. Data on the category of respondent's organizations, technical and soft skills needed by nutrition graduates, desired skills and competencies of the employers of nutrition graduates, deficit skills and competencies of Nutrition/Dietetics trainees and recommendations on addressing the shortcomings were elicited from the respondents.

**Result:** About half of the respondents had over 10 years of working experience in Nutrition, 41.3% were Heads of Nutrition Department, 37% were Nutrition Programme Officer/Advisor, and 21.7% were Project Manager/Director. About 60% indicated that graduates of Nutrition and Dietetics are not well trained and require further training prior to employment to address their knowledge and skill deficits. Respondents' ratings on the technical skills of the recently employed Nutrition and Dietetics graduates revealed that 38.6% were totally dissatisfied, 36.4% were not too satisfied and only 9.1% were very satisfied. Respondents' ratings on the soft skills showed that 43.2% were totally dissatisfied, 31.8% were not too satisfied and 9.1% were very satisfied.

**Conclusion:** This study shows a deficit in the skills and competencies of the Nutrition and Dietetics graduates in Nigeria and urgent steps should be taken to address these gaps to increase employability.

**Keywords:** Perceptions, Skills, Competencies, Nutrition and Dietetics Graduates

## INTRODUCTION

University education is an avenue through which students are equipped with the necessary technical knowledge, skills, and competencies that are meant to increase their employability (1). It is well established that higher institutions across the world have gone through many transformations over the years (2-6) and most of these transformations have been in response to new trends in career and work engagement. Despite the changes, there is still concern that the existing training programmes are not producing graduates with the kind of lifelong learning and

generic skills which are needed to be successful in their career engagement (7). The extent at which university education is capable of producing 21<sup>st</sup>-century potentially employable graduates has attracted the attention of scholars and policymakers (8) and two major concerns have emanated from this interest. First, there are signs that patterns of work are rapidly changing as a result of the emergence of new sectors with technology, globalization, and demographic changes significantly reforming the workforce (8,9). However, this change implies that it is no

longer enough for graduates to have a good degree but they should also possess the skills and attributes required to compete and collaborate in a dynamic knowledge economy and a world of work (10). Secondly, the existing university curriculum is not producing graduates with the kind of professional and lifelong learning skills that are needed to be successful in the current work space which are competitive and dynamic (9). In recent time, there has been an emerging focus on soft skills around the world and they are often imperative for organizational productivity (11). Although the employment sector perceives these skills are being imparted in the universities and higher institutions of learning, this however is not usually the case in reality (12). The paradigm shift in the 21<sup>st</sup> century has further emphasized on the importance of soft skills which has become critical even in work setting. This confirms the sentiment that equipping graduates with soft skills can make a difference in obtaining and retaining a job that they had been hired for.

The development of university education in Nigeria has brought about an increase in the theoretical content knowledge and development, however, the practice of holistic and competency education has been on the decline (13). Studies have established that the attainment of theoretical knowledge is guaranteed among students, however professional and generic skills that are of interest to the employers are often not put into consideration during the university training (2,14,15) and this leads to graduates overestimating their capability, performance or chances of success (16-18).

One of the identified avenues to address malnutrition is raising a well-trained and competent workforce that is capable of tackling malnutrition in all of its forms and in a sustainable manner (19). Unfortunately, high rate of unemployment in Nigeria has its toll on the employment of nutrition professionals who are best qualified to work as field staff, and managers of the various interventions, projects, programmes and activities targeted to address all forms of malnutrition. Furthermore, the bulk of the nutrition interventions often engage the services of personnel who lacked the basic skills and competencies needed to provide quality nutrition services (20).

Understanding the employers' desire and the underlying factors that influence graduates' successful transition into the world of work is critical to ensure that employers recruit graduates who have the requisite skills needed by their organizations to succeed in the knowledge-based economy (21). A competent nutrition graduate is expected to have the foundational knowledge of

nutrition and the ability to plan, implement, monitor, and deliver projects, working with and training others to measure and assess nutritional situations which require knowledge and skills often called 'know-how' and 'show-how' to address them (22). Although nutrition graduates had been generally rated high in competency (23) by nutrition-employing organizations, however, tend to continue to demand for higher skills. This has led to increasing demand for universities to produce graduates who are more competent and practically work-ready (24-27). In West Africa, the estimated need for nutrition professionals of 700 nutrition graduates per 5 million population is far below the output of about 250 (28). Ellahi and colleagues had previously revealed that one of the ways to adequately address the poor state of nutrition is to invest much more substantially in appropriate training of Nutrition graduates with employability skills and competencies (22). Although the higher institutions seem to have responded to this challenge, however, improvements in students' acquisition of transferable competencies still seem to be grossly inadequate (29).

The high unemployment rate and employers' dissatisfaction with graduates' training have substantiated the need for information on the topmost skills and competencies that employers consider invaluable to their organizational mandate (23). One of the ways to get to the root cause of unemployment of nutrition graduates is by knowing the employers' perceptions regarding the gap in skills and competencies and then incorporate the desired skills into the universities curriculum so that nutrition graduates will be more qualified to adapt to the future jobs. This study, therefore, set out to seek the perception of employers on the relevance and application of skills and competencies of Nutrition graduates in their career engagement.

## **METHODOLOGY**

### **Study Design**

This study was cross-sectional in design and engaged a mixed-method approach which comprises of quantitative and qualitative.

### **Study Location**

The study was carried out at various organizations where graduates of Nutrition are employed in Oyo, Ogun, Lagos, Enugu, Ondo, Kano, Abia states and Federal Capital Territory.

### **Study Participants**

Participants were Heads of Nutrition Departments or Division, Chiefs of Nutrition

Division, Council Members of the Nutrition Society of Nigeria, Directors of Nutrition and Dietetics, Senior Program Officers in Nutrition, and Human Resource Managers. A total of 110 potential participants were contacted to participate in the study and only 65 respondents representing a response rate of 59% (46 for quantitative and 19 for qualitative) consented and participated in the study.

### Research Instruments

For the quantitative data, a pretested, self-administered questionnaire was developed. The questionnaire comprises sections which covered the categories of the organizations, staff strength of Nutrition graduates, technical and soft skills needed by nutrition graduates to get job placement in the organization, desired skills and competencies of the employers of nutrition graduates, perceived deficits in the skills and competencies of Nutrition/Dietetics trainees and recommendations on how to address the deficits. An electronic version of the questionnaire was created and scripted on the Google Form platform with the access link

<http://bit.ly/nutritiongraduatesperceptionstudy>.

Qualitative data was obtained through in-depth interviews with nineteen (19) employers of Nutrition and Dietetics graduates representing about 30% of the study participants. The aim of the interviews were to corroborate the findings on skills and competencies of Nutrition and Dietetics graduates obtained quantitatively.

### Data Collection

A database of organizations with Nutrition and Dietetics graduates as employees was compiled through the Secretariat of the Nutrition Society of Nigeria (NSN). Also, Nutrition-related Organizations that participated in the 49<sup>th</sup> Annual General Meeting and Scientific Conference of Nutrition Society of Nigeria (NSN) were engaged and details of their respective Heads of Nutrition Division, Nutrition managers, and Human Resource managers were obtained in the compilation of the database. The information collated for the development of the database are Name, Email Address, name of the Organization, Phone Number, and Position in the organization. Thereafter, the employers in the database were contacted between 19<sup>th</sup> November 2019 and 15<sup>th</sup> February 2020 via email, phone calls, SMS, and WhatsApp chats to introduce the study and its aim and also to seek their consent to participate in the study. They were also requested to suggest potential participants that could be enlisted for the

study. Consenting employers were sent the link to the questionnaire through their preferred channel.

### Data Processing and Analysis

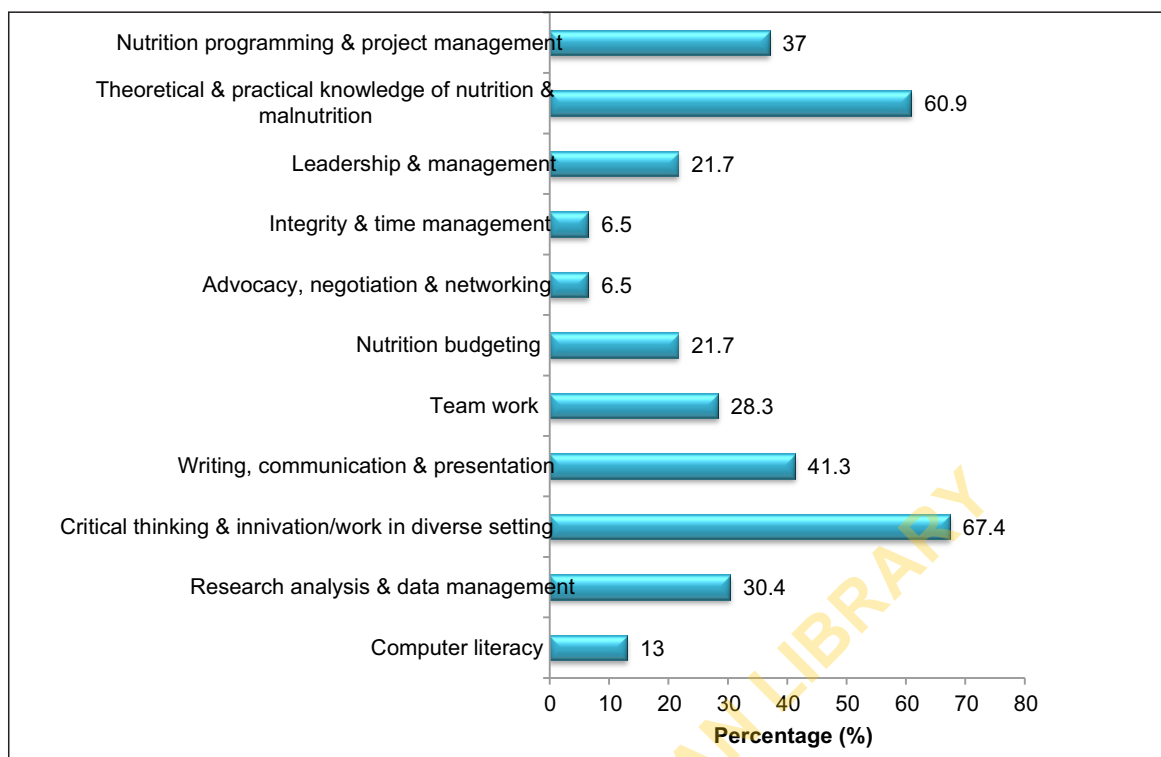
The quantitative data was downloaded in Microsoft excel format and cleaned before analysis. Open-ended questions were coded and categorized. The cleaned data set was exported to IBM/SPSS version 20 for descriptive analysis. The qualitative data conducted through the in-depth interview was recorded through audiotape and Phone recorder. The in-depth interview was transcribed verbatim and the content analysis was carried out.

### RESULTS

The respondents were senior staff of nutrition-related organizations in Nigeria and occupied positions that could influence the employment of graduates of Nutrition and Dietetics. The affiliations of the respondents revealed that 30.4% were government organizations, 39.1% were Non-Governmental Organizations, 19.6% were development partners and 10.9% were private organizations. It was revealed that 15.2% had been working in the nutrition landscape for five years and below, 30.4% for 6-10 years and 54.3% for at least 10 years. About 40% were Heads of Nutrition, Nutrition Programme Officer/Advisor and 21.7% were Project manager/Director in their respective organizations. Three out of five respondents indicated the availability of specific role for graduates of Nutrition and Dietetics in their organizations including Nutrition Programme Officer (39.1%), Technical Advisor (28.3%), Clinical role (17.4%), and Research and fieldwork (6.5%). Only 4.4% of the respondents' organizations did not have a graduate of Nutrition and Dietetics in the list of employees, 13% had 1-5 graduates, another 13% has 6-10 graduates and 69.6% had at least 10 graduates of Nutrition and Dietetics. One out of ten respondents reported that the last recruitment of graduates with Nutrition and Dietetics degree was before 2015, 76.1% recruited graduates between 2015 and 2019 and 10.9% could not remember their last recruitment of Nutrition and Dietetics graduates. Seven out of ten revealed the intention of their organization to employ Nutrition and Dietetics graduates in the next two to five years, and 13.0% could not categorically indicate if graduates of Nutrition and Dietetics would be employed.

Table1: Category of Organization and experience of the Respondents

Variable	Frequency	Percentage
<b>Category of Organizations</b>		
Government	14	30.4
Private Organization	5	10.9
Development Partner	9	19.6
NGO	18	39.1
<b>Years of experience</b>		
5 years and below	7	15.2
6 – 10 years	14	30.4
10 years and above	25	54.3
<b>Current Position at the Organization</b>		
Nutrition programme officer/advisor	17	37
Head of Nutrition	19	41.3
Project manager/Director	10	21.7
<b>Availability of Specific Role for Nutrition Graduates in the organization</b>		
Yes	28	60.9
No	18	39.1
<b>Identified roles of Nutrition and Dietetics Graduates</b>		
Technical advisor	13	28.3
Nutrition programming	18	39.1
Research and fieldwork	3	6.5
Clinical role	8	17.4
Others	4	8.7
<b>Number of Nutrition and Dietetics Graduates Working in the Organizations</b>		
No graduate of Nutrition and Dietetics	2	4.4
1-5 graduates	6	13.0
6-10 graduates	6	13.0
>10 graduates	32	69.6
<b>Year of last employment of nutrition graduates</b>		
Before 2015	6	13.0
2015 – 2019	35	76.1
Not remembered	5	10.9
<b>Organization's intention to employ in 2 – 5 years</b>		
Yes	33	71.7
No	7	15.2
Don't know	6	13.0
Total	46	100



**Figure 1:** Desired Skills and Competencies from the Nutrition and Dietetics graduates by the Employers

### Satisfaction on Technical and Soft Skills of Recently Interviewed Nutrition and Dietetics Graduates

Table 2 presents the technical and soft skills required for Nutrition and Dietetics graduates to get job placement. Majority (80.4%) require BSc degree, 13.0% indicated MSc degree and 6.5% accepted Diploma certificate in Nutrition and Dietetics for job consideration. About half (52.2%) preferred additional qualifications in different disciplines relevant to Nutrition and Dietetics to increase the chances of job placement. Majority (60.9%) of the organizations conducted further trainings for employed Nutrition and Dietetics graduates before assumption of duties. A quarter (25%) of respondents expressed satisfaction with the technical and soft skills of the recently interviewed graduates. Less than half of the respondents rated the soft skills of the recently employed graduates to be outstanding.

### Technical and Soft Skills Deficits of Nutrition and Dietetics Graduates

The expressed technical and soft skills deficits of Nutrition and Dietetics graduates by the employers are in the knowledge of recent trends, findings, and global issues in nutrition (54.3%), research analysis and data management (43.5%), communication skill (30.4%), nutrition programming and project management (28.3%),

report writing (21.7%), computer literacy (21.7%), advocacy and negotiation skill (19.6%), interpersonal and leadership skills (17.4%), ability to work in diverse settings and under pressure (17.4%) and nutrition budgeting (13%).

About half of the respondents (52.2%) alluded to having difficulties in the recruitment of graduates of Nutrition and Dietetics due to inadequate skills and lack of competencies, lack of experience and exposure, as well as organizational influence on employment. Recommended strategies to address these deficits included regular review of teaching curriculum in line with global standard (63.0%), the need for sector-based teaching for better career engagement (23.9%), prioritization of soft skills transfer (21.7%), creation of a platform for personal development (17.4%), provision of platform for volunteering and internships (17.4%), and review of Industrial Training (IT) programme (15.2%) such that students are attached to different sector of nutrition such as food industries, hospitals, non-governmental organizations, international agencies and government agencies. Furthermore, 13% raised the need for a strong partnership between employers and the Universities as a synergy to provide a solution that will bridge the deficits in skills and competencies of Nutrition and Dietetics graduates seeking job

placement while 2.2% identified adoption of student exchange programme with other institutions and organizations within and outside the country.

The skills and competencies that the respondents expected from the Nutrition and Dietetics graduates to be well-positioned for job placement and better career engagement are; critical thinking, innovation and problem-solving skills, basic knowledge of concept notes, proposal and report writing, training in technical

knowledge of recent trends and findings in Nutrition, basic knowledge of research analysis and data management, nutrition programming and project management, nutrition budgeting and budget analysis. Other are; leadership and interpersonal skills, sound knowledge and proficiency in computer software skills, and foundational knowledge of entrepreneurship in nutrition.

Table 2: Satisfaction on Technical and Soft Skills of Nutrition and Dietetics Graduates

Variable	Frequency (n)	Percentage (%)
<b>Level of Academic Qualification Required for job placement</b>		
Diploma	3	6.5
BSc	37	80.4
MSc	6	13.0
<b>Additional qualification to increase chances of job placement</b>		
Yes	24	52.2
No	22	47.8
<b>Satisfaction on technical skills of interviewed Nutrition Graduates (n=44)</b>		
Totally dissatisfied	17	38.6
Not too satisfied	16	36.4
Satisfied	7	15.9
Very satisfied	4	9.1
<b>Satisfaction on soft skills of interviewed Nutrition and Dietetics graduates</b>		
Totally dissatisfied	20	43.2
Not too satisfied	15	31.8
Satisfied	7	15.9
Very satisfied	4	9.1
<b>Training of employed Nutrition and Dietetics Graduates before assumption of duties in the Organization</b>		
Yes	28	60.9
No	18	39.1
<b>Rating of the Soft Skills of Nutrition and Dietetics graduates upon employment</b>		
Very poor	1	2.3
Poor	2	4.5
Average	7	15.9
Good	16	34.1
Very good	14	29.5
Excellent	6	13.6
Total	46	100



Figure 2: Technical and Soft Skills Deficits of Nutrition and Dietetics Graduates

#### Interaction between the Universities and Nutrition-related Organizations

Proposed avenues to foster partnership between the employers and the Universities are through joint workshops and symposia, Industrial Training attachment and field experience to the organizations, internship programmes, and volunteering. Others include; involvement of the nutrition-related organization in the review of Nutrition and Dietetics curriculum in the Universities as well as research collaboration between the organizations and universities. The indicated roles of the nutrition-related organizations to increase the employability of Nutrition and Dietetics graduates are; provision of industrial training attachment and field experience, creation of internship and volunteering opportunities, exposure to short courses on the organizational self-study platforms and establishment of mentorship platform for students. The Majority (82.6%) expressed the willingness of their organization to sponsor students' research within the organizations' mandate and 93.5% indicated willingness to accept students for academic tours.

#### Findings from the In-Depth Interviews

The focus of the qualitative in-depth interviews was to corroborate the quantitative findings from the study respondents on the skills and competencies of graduates of Nutrition and Dietetics from the Nigerian Universities. It was revealed that many of the graduates have the technical knowledge of Nutrition and Dietetics but the practical application of the theoretical knowledge is grossly inadequate. Lack of passion by the students in the course of their programme hinders acquisition and application of needed technical and soft skills hence making them unemployable.

*"...the recent graduates or fresh nutrition graduates have the basic knowledge of nutrition but the application of it is not up to speed"*

Nutrition Specialist, Development Organization

*"...(nutrition) graduates in our organization often lack good knowledge of current and recent happenings in nutrition around the world"*

*that can help them to proffer solutions to nutritional problems in Nigeria. Secondly, they also lack relevant soft skills...."*

Nutrition Manager, a Food Company

*"...recent graduates know the theoretical aspects of nutrition but not practically equipped...."*

Head of Nutrition, Development Partner

Skills and competencies of the graduates of Nutrition and Dietetics can be associated with the training curriculum being implemented across Nigerian universities. The shortcomings in the structure of the curriculum that need to be addressed as identified by the participants

include; regular curriculum review, alignment of curriculum to the global standard and recent advancements in nutrition, the platform for e-learning, statistical software in nutrition, more emphasis on International Nutrition as a course, adoption of a practical approach to teaching beyond theoretical, infrastructural deficit hindering teaching and learning, platform for internship for students as well as opportunities for volunteering.

*"Nutrition is an emerging issue but unfortunately the course curriculum is not meeting up with such emergence...Nutrition is not History, it is not a theoretical issue, it is a practical issue for real-life experience"*

**Table 3: Addressing skills and competencies deficit of Nutrition and Dietetics Graduates**

Variable	Frequency (n)	Percentage (%)
<b>Difficulties in the recruitment of Nutrition and Dietetics graduates (n=46)</b>		
Yes	24	52.2
No	22	47.8
<b>Common difficulties in recruitment of graduates (n=24)</b>		
Inadequate skills and competencies	11	23.9
Lack of experience and exposure	9	19.6
Organizational influence	4	8.7
<b>Recommendations to address the deficit in skills and competencies</b>		
Review of Industrial Training programme	7	15.2
Prioritization of soft skills transfer	10	21.7
Creation of platform for personal development	8	17.4
Adoption of sector-based teaching	11	23.9
Provision of a platform for volunteering and internships	8	17.4
Regular review of the curriculum	29	63.0
Student exchange program	1	2.2
Strong partnership between employers and the universities	6	13.0
<b>Skills and competencies expected to be imparted from the Universities</b>		
Critical thinking, innovation & problem solving	9	19.6
Concept note, proposal and report writing	4	8.7
Technical knowledge of recent trends in nutrition	10	21.7
Research analysis and data management	9	19.6
Communication	4	8.7
Nutrition programming & project management	7	15.2
Nutrition budgeting and budgeting analysis	1	2.2
Leadership and interpersonal	7	15.2
Computer literacy	5	10.9
Nutrition entrepreneurship	3	6.5

Table 4: Fostering partnership between the Universities and Nutrition-related organizations

Variable	Frequency (n)	Percentage (%)
<b>Difficulties in the recruitment of Nutrition and Dietetics graduates</b>		
(n=46)		
Yes	24	52.2
No	22	47.8
<b>Common difficulties in recruitment of graduates (n=24)</b>		
Inadequate skills and competencies	11	23.9
Lack of experience and exposure	9	19.6
Organizational influence	4	8.7
<b>Recommendations to address the deficit in skills and competencies</b>		
Review of Industrial Training programme	7	15.2
Prioritization of soft skills transfer	10	21.7
Creation of platform for personal development	8	17.4
Adoption of sector-based teaching	11	23.9
Provision of a platform for volunteering and internships	8	17.4
Regular review of the curriculum	29	63.0
Student exchange program	1	2.2
Strong partnership between employers and the universities	6	13.0
<b>Skills and competencies expected to be imparted from the Universities</b>		
Critical thinking, innovation & problem solving	9	19.6
Concept note, proposal and report writing	4	8.7
Technical knowledge of recent trends in nutrition	10	21.7
Research analysis and data management	9	19.6
Communication	4	8.7
Nutrition programming & project management	7	15.2
Nutrition budgeting and budgeting analysis	1	2.2
Leadership and interpersonal	7	15.2
Computer literacy	5	10.9
Nutrition entrepreneurship	3	6.5

Executive member, NSN

*“Without compulsory internship program in our curriculum, there will always be a gap between academia and the field and it will be difficult for Nutrition and Dietetics graduates to practice in different sectors of nutrition”*

Fomer Director, Nutritional Service, A State in South West Nigeria

## DISCUSSION

Researches have shown that investing in nutrition training as one of the strategies for strengthening the human resource in nutrition and building a critical mass of nutrition professionals across the globe (30-32) There has been dearth of highly qualified nutrition professionals in the planning, implementation and evaluation of nutrition programmes in West Africa (31) and specifically in Nigeria (33). A recent study by Leshi and Ogundero (34) revealed that many Nutrition and Dietetic trainees lack the knowledge of expected

skills and competencies needed for career engagement. These findings by Leshi and Ogundero (34) were further affirmed in the current study and this could be responsible for the justification for placing graduates on further training upon employment so as to address the identified knowledge and skill deficits. This further supports the position submission of Nicholson and Arnold (35) that employers are being forced to provide in-house trainings for the recruited graduates because of lack of some basic technical and soft skills trainings of the employees.

Preference of employers is to engage graduates who can easily adapt to workplace culture, use their skills and competencies to advance the organization and innovatively engage in teamwork. Employers are known to value critical thinking which is a skill needed for innovation and change (36). From this study, employers indicated that graduates of Nutrition and Dietetics are well grounded only in the theoretical knowledge of nutrition but lack core competencies in knowledge application. This conforms with an earlier assessment of nutrition training in West Africa (37), which indicated that Bachelors and Masters programmes are mainly theoretical. Dunbar *et al.*, (38) found that employers placed

greatest emphasis on soft skills and discussed technical skills to a lesser extent. Apart from technical knowledge of nutrition, employers in this study indicated soft skills to be one of the critical considerations for employment. This finding conforms with soft skills requirement by employers of graduates in the study by Archer and Davison (39).

According to Hughes and colleagues (40), competencies of nutrition graduates are essential for the current and future nutrition science workforce. Previous studies had indicated interpersonal, communication, team work as well as nutrition knowledge and counselling skills as core competencies required for employment in the field of Nutrition and Dietetics (41,42). Three of these skills and competencies were among the top desired skills and competencies by the employers of Nutrition and Dietetic graduates in this study. Other desired skills and competencies are critical thinking and innovation skills, application of the theoretical knowledge of nutrition, and presentation skills.

Employers of Nutrition and Dietetics graduates in this study alluded that technical knowledge and skills of Nutrition and Dietetics are relevant and applicable to the assigned duties given to their employees however essential soft skills were found to be inadequate and this often reflects in their inability to deliver on assigned responsibilities. Theoretical and practical knowledge of nutrition, nutrition programming and project management, interphase between agriculture, food systems and nutrition, recent advancement in nutrition as well as research analysis and data management were the identified technical skills needed by the employers of nutrition graduates. The identified soft skills needed by the employers such as critical thinking and innovation to work in diverse settings, writing, communication and presentation skills, leadership and management skills, team work, nutrition budgeting, computer literacy, data management as well as advocacy, negotiation and networking skills align with the findings of Haselberger et al., (43). Possible solutions to bridge these deficits as suggested in this study also coincide with the suggestions from similar study aimed at enhancing university graduates employment in Nigeria (8).

As nutrition continue to gain momentum and relevance in sub-Saharan Africa especially in Nigeria, the competencies of the workforce will continue to be a challenge. Leshi and Ogundero (34) reported that many trainees are still not familiar with the skills and competencies as desired by the employers of Nutrition and Dietetics graduates. Meanwhile the need for

graduates to effectively drive the various nutrition processes, step into the leadership and management roles, and influence development agenda in the direction of nutrition had been highlighted (34). This therefore, calls for the graduates to be equipped with cross-cutting skills and competencies that go beyond theoretical knowledge of nutrition. The recommendation of Sodjinou et al.,(31) on the need for graduates of Nutrition to be competent in the areas of leadership, management, communication, and advocacy conforms with the submission as obtained in this study. The need to promote graduate employability to satisfy the skills and attributes as required by the employers of graduates is essential to build a workforce that will bring about lasting solutions to current nutritional challenges. This study indicated employers' dissatisfaction with the level of soft skills of nutrition and dietetics graduates and this finding is similar to an earlier the study by Shury et al.,(44) on employers' dissatisfaction with graduates' skills and competencies. This study further corroborates the findings by Sodipo (45) who indicated complaint that graduates though professionally qualified, are often unemployable due to lack of requisite skills and competencies needed to function at workplace. Transitioning from the university to work setting has become one the greatest life huddles of many graduates. In time past, there exist direct linkage between the Universities and employers of the university graduates. Although these links have become weak and less explored in recent time, yet a lot of old collaborations and linkages can still be strengthened and new one being facilitated purposively for employability of the graduates. Mourshed et al., (46) reported that universities now have either very little or no contact with the world of work, so the transition from university to workplace needs to be well facilitated by both universities and organizations to ensure smooth and successful transition. Fanzo et al., (32) revealed that engaging students through practical, fieldworks, internships and exposure to work-settings, contribute immensely to the translation of their theoretical knowledge of nutrition into practical skills and with further experiential engagement hence making them to be more competent as Nutrition and Dietetics professionals. Sodjinou and colleagues (31) had earlier indicated the many benefits resulting from collaboration and partnership in the training of nutrition graduates thus making them to be more competent and exposed to several opportunities for career engagement and incentives for universities to engage in external collaboration for nutrition training. According to this study, a

number of avenue through which employers may partner and strengthen the collaboration with the universities in the training of competent Nutrition and Dietetics graduates include; Industrial Training attachment and field experience, joint workshop and symposia, contribution to curriculum review, research collaborations, internship, volunteering and exposure to short course and online course.

There are few limitations of this study. First, many potential participants did not respond to the invitation to participate in the study. Second, there was limit to the extent through which the exact performance of the nutrition graduates that could be obtained due to organizational policy of the respondents. Despite these limitations, our study has several strengths. This is the first assessment of the perception of the employers on the skills and competencies of Nutrition and Dietetics graduate in Nigeria. The study provides useful information on the preferential skills and required competencies by nutrition workforce in the country, provide basis for the alignment of nutrition training curriculum in the country, it also provide useful guide how best to address the deficits in skills and competencies of the graduates. Furthermore, the qualitative data presented in this study was obtained through direct interviews with stakeholders.

### CONCLUSION

This study has provided insights into the perceptions of employers on skills and competencies of Nutrition and Dietetics graduates from Nigerian universities for career engagement. It identified the technical skills, soft skills and competencies required for employability in the current nutrition world of work. It also established the existence of deficits in the skills and competencies of the Nutrition and Dietetics graduates in Nigeria and urgent steps should be taken to address these gaps among students before graduation so as to increase their employability.

### RECOMMENDATIONS

The deficit in the skills and competencies of Nutrition and Dietetics graduates could be addressed by expanding the scope of early exposure to work settings through industrial attachment, field experience, volunteering and internship in; hospitals, food Industries, Government parastatals, research institutions, non-governmental organisations, international agencies and development agencies, and other related organisations where services of Nutritionists and Dietitians are required within and outside the country. There is also the need to

advocate for a-five year curriculum for Nutrition and Dietetics so as to make sufficient room for the trainees students to be well trained and equipped with needed skills and competencies. In addition, collaboration and partnership between the universities and the employers in curriculum design and training of students should be encouraged.

### REFERENCES

1. Pitan, O.S. (2015). An assessment of generic skills demand in five sectors of the Nigerian labor market. *Public and Municipal Finance*, 4(1), pp. 28-36.
2. Bagwasi, M.M. (2019). The major educational policies, models and ideas that have influenced Botswana's education system. *Policy Futures in Education* 17(3), pp. 370-382.
3. Bordoloi, R. (2018). Transforming and empowering higher education through open and distance Learning in India. *Asian Association of Open Universities Journal* 13(1), pp. 24-36.
4. Hawkins, J.N. (2008). Higher education transformation: Some trends in California and Asia. *Policy Futures in Education* 6(5), pp. 532-544.
5. Masino, S. and Nino-Zarazu, M. (2016). What works to improve the quality of student learning in developing countries? *International Journal of Educational Development* 48: pp. 53-65.
6. Pitan, O.S. (2017). Graduate employees' generic skills and training needs. *Higher Education, Skills and Work-Based Learning* 7(3), pp. 290-303.
7. De la Harpe, B., Radloff, A. and Wyber, J. (2000). Quality and generic (professional) skills. *Quality in Higher Education* 6(3), pp. 231-243.
8. Pitan, O.S. (2016). Towards enhancing university graduate employability in Nigeria. *Journal of Sociology and Social Anthropology* 7(1):1-11.
9. Oliver, B. (2015). Redefining graduate employability and work-integrated learning: Proposals for effective higher education in disrupted economies. *Journal of Teaching and Learning for Graduate Employability*, 6(1), pp. 56-65.
10. Newton, J. (2015). Learning and Teaching: Enhancing Student Achievement through Employability. Thailand European Policy Dialogue Support Facility. Available at: <<http://knit.or.th/th/sites/default/files/uplo ad/13/4>> (Retrieved on 9 October 2019).

11. Nealy, C. (2005). Integrating soft skills through active learning in the management classroom. *Journal of College Teaching and Learning*, 2(4), pp. 1-6.
12. Sparks, E., and Waits, M. J. (2011). Degrees for What Jobs? NGA Centre for Best Practices.
13. Okolie, U.C., Igwe, P.A. and Elom, E.N. (2019). Improving graduate outcomes for technical colleges in Nigeria. *Australian Journal of Career Development* 28(1), pp. 21-30.
14. Hassan, A., Maharoff, M., Abiddin, N.Z. and Ro'is, I. (2015). Teacher trainers' and trainee teachers' understand towards the curriculum philosophy regarding soft skills embedment in the Malaysian Institute of Teacher Education. *Policy Futures in Education* 14(2), pp. 164-175.
15. Okunuga, R.O. and Ajeyalemi, D. (2018). Relationship between knowledge and skills in the Nigerian undergraduate chemistry curriculum and graduate employability in chemical-based industries, *Industry and Higher Education* 32(3), pp. 183-191.
16. Anderson, C., Brion, S., Moore, D.A. and Kennedy, J.A. (2012). A status-enhancement account of overconfidence. *Journal of Personality and Social Psychology* 103: pp. 718-735.
17. Bi, Y., Dang, Q., Li, S., Guo, J. and Zhang, B. (2016). The effect of overconfidence on persistent behaviour: The mediation effect of 'I think I can do it' rather than 'I'm attracted to it.' *Psychological Reports* 118(1), pp. 138-153.
18. Johnson, D.D. and Fowler, J.H. (2011). The Evolution of Overconfidence. *Nature* 477: pp. 317-320.
19. Gillespie, S., Fanzo, J.C., Grazioplene, M.M., Kraemer, K., Johnston, J.L. de Pee S, et al. (2015). Educating and training a workforce for nutrition in a post-2015 world. *Adv Nutr.* 6(6), pp. 639-47.
20. Shrimpton, R., du Plessis, L.M., Delisle, H., Blaney, S., Atwood, S.J. and Sanders, D, et al. (2016). Public health nutrition capacity: assuring the quality of workforce preparation for scaling up nutrition programmes. *Public Health Nutr.* 19(11), pp.2090-100
21. Finch, D., Hamilton, L., Baldwin, R., and Zehner, M. (2013). An exploratory study of factors affecting undergraduate employability. *Education+ Training*, 55(7), pp. 681-704.
22. Ellahi, B., Annan, R., Sarkar, S., Amuna, P. and Jackson, A.A. (2015). Building systemic capacity for nutrition: training towards a professionalised workforce for Africa. *Proceeding of the Nutrition Society*, 74(4), pp. 496-504
23. Stewart, C. and Wall, A. (2016). Mixed Signals: Do College Graduates Have the Soft Skills That Employers Want? *Competition Forum* 14(2), pp. 276-281.
24. Alhelalat, J. (2015). Hospitality and non-hospitality graduate skills between education and industry. *Journal of Business Studies Quarterly* 6(4), pp. 46-55.
25. Jackson, D. (2010). An international profile of industry-relevant competencies and skill gaps in modern graduates. *International Journal of Management Education* 8(3), pp. 29-58.
26. Low, M., Botes, V. and Dela Rue, D. (2016). Accounting employers' expectations – the ideal accounting graduates. *E-Journal of Business Education & Scholarship of Teaching* 10(1), 36-57.
27. Poon, J. (2014). Do real estate courses sufficiently develop graduates' employability skills? *Perspectives from multiple stakeholders. Education & Training* 56(6), pp. 562-581.
28. Brown, K.H., McLachlan, M., Cardoso, P., Tchibindat, F. and Baker, S.K. (2010). Strengthening public health nutrition research and training capacities in West Africa: report of a planning workshop convened in Dakar, Senegal, 26-28 March 2009. *Glob Public Health*;5(6), Suppl 1:S1-19.
29. Chiara S. and Magali C. (2020). Soft skills to enhance graduate employability: comparing students and employers' perceptions, *Studies in Higher Education*. 45(9), 1834-1847.
30. Pelletier DL, Frongillo EA, Gervais S, Hoey L, Menon P, Ngo T, Stoltzfus RJ, Ahmed AM, Ahmed T. (2012) Nutrition agenda setting, policy formulation and implementation: lessons from the Mainstreaming Nutrition Initiative. *Health Policy Plan*, 27:19-31
31. Sodjinou, R., Delisle, H., and Bosu, W.K. (2015). University – level nutrition training in West Africa: Cost and financing issues. *Global Health Action*, 8: 29415
32. Fanzo, J.C., Grazioplene, M.M., Kraemer, K., Gillespie, S., Johnston, J.L, de Pee S, et al. (2015). Educating and training a workforce for nutrition in a post-2015 world. *Adv Nutr.* 6(6):639-47.
33. Oyewole, O.E. and Amosu, A.M. (2013). The Nutrition Profession in Africa: Meeting the Current and Future Challenges. *International journal of Advanced Nutritional and Health Science*, 1(1): 18-26.

34. Leshi, O.O. and Ogundero, A.F. (2021). Career and Work Readiness of Nutrition and Dietetics Trainees in Nigerian Universities. *World Nutrition*, 12(1):92-102
35. Nicholson, N. and Arnold, J.A. (1989) Graduate early experience in a multinational corporation. *Personnel Review*, 18(4): 3-14.
36. Harvey, L. (2001). Defining and measuring employability. *Quality in Higher Education*, 7(2): 97-109.
37. Sodjinou R, Fanou N, Deart L, Tchibindat F, Baker S, Bosu W, Pepping F, Deslisles H and The Regional Nutrition Working Group (2014) Region-wide assessment of the capacity for human nutrition training in West Africa: current situation, challenges, and way forward. *Global Health Action* 2014;7:23247.
38. Dunbar, K., Laing, G., and Wynder, M. (2016). A content analysis of accounting job advertisements: skill requirements for graduates. *E-Journal of Business Education & Scholarship of Teaching* 10(1):58-72.
39. Archer, W. and Davison, J. (2008) Graduate employability: the view of employers. London: Council for Industry and Higher Education. Available from: <http://www.cihe.co.uk/about/contact/search-results>. Accessed February 2021.
40. Hughes, R., Begley, A., and Yeatman, H. (2015). Aspirational competency expectations for public health nutritionists in Australia: A consensus study. *Nutr Diet.*, 72: 122-31.
41. Hughes R. (2004) Competencies for effective public health nutrition practice: a developing consensus. *Public Health Nutrition*, 6: 839-47.
42. Phillips S, Ash S, Tapsell T. (2000). Dietitians' views on the current competency standards for entry level dietitians. *Aust J Nutr Diet*; 57: 190-97.
43. Haselberger, D., Oberhuemer, P., Pérez, E., Cinque, M. and Capasso, F. (2012). Mediating Soft Skills at Higher Education Institutions. Guidelines for the design of learning situations supporting soft skills achievement. Accessed February, 2021, <http://www.modesproject.eu/en/the-modes-handbook.aspx>.
44. Shury, J, Winterbotham, M. Davies, B and Oldfield K with Spilsbury, M. and Constable, S. (2010) National Employer Skills Survey for England 2009: Main report: Evidence Report 23. IFF Research and UK Commission for Employment and Skills
45. Sodipo, O.O. (2014). Employability of Tertiary Education Graduates in Nigeria: Closing the Skills-Gap. *Global Journal of Human Resource Management*, vol.2, No.3, pp. 28-36.
46. Mourshed M, Farrell D, Barton D. (2012), "Education to employment: Designing a system that works", McKinsey & Company. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/education-to-employment-designing-a-system-that-works>. Accessed February, 2021.