

Examining the Clinical Nutrition Internship Effectiveness from Interns' Perceptions

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Abstract

Through internship programs, students can acquire practical experience while learning from experts. Students can gain hands-on experience while combining theory and practice. This study examines the clinical nutrition internship program at the University of Hail in Saudi Arabia. Another objective of this study is to examine how interns perceive the internship program. Clinical nutrition students were surveyed online using social media platforms and specialized groups. This study involved 40 clinical nutrition interns in 2022/3/7. All of the interns were from the University of Hail. In this study, interns indicated that the internship positively impacted their learning, interpersonal, and personal skills and their employment prospects. For instance, 50% reported the availability of site supervisors when needed. Furthermore, 90% of the respondents indicated having the ability to persevere in complex tasks. Moreover, 90% illustrated that they acquired knowledge from the job duties. Further research is required to identify the barriers associated with this issue. According to the researchers, clinical nutrition, and other departments in the college of applied medical sciences curriculum should integrate soft skills. The supervisor should have a thorough understanding of the clinical nutrition field and the intern's responsibilities. This will enable them to help the intern put what they learned in class into practice. The findings of this study can be used to study clinical nutrition internships in greater depth. We strongly recommend conducting a comparative study with more participants from diverse institutions.

Keywords: clinical nutrition, internship effectiveness, student's perspectives, evaluation.

1. Introduction

With advancements in medical and healthcare, clinical nutrition significantly improved human health at multiple levels. As clinical nutrition is considered a field of medicine, there has been a development in this area globally, especially in Saudi Arabia. For instance, many universities have developed undergraduate and graduate programs with high-quality standards to provide a great workforce. Nutrition nowadays plays a crucial role in health promotion and disease prevention (Slawson et al., 2013). As evidence-based medicine advances, it is becoming increasingly clear that lifestyle choices, including nutrition and physical activity practices, significantly impact health and disease in the United States (Mozaffarian et al., 2012). An emphasis on dietary recommendations has been developed based on observational, experimental, and controlled clinical trials aimed at preventing and treating chronic diseases such as diabetes, cancer, and cardiovascular disease (Jensen et al., 2014). Additionally, there are numerous examples of how nutrition practices have contributed to positive patient outcomes in hospital, outpatient, and community settings. There is evidence that best nutrition practices can improve patient outcomes and reduce health care costs in acute care settings (Rosen et al., 2013). The development and integration of strategies into the education and training programs of health care providers will offer a positive impact on the prevention of disease, the outcome of treatment, and the health of the population (Kris-Etherton et al., 2014). Regardless of what career path an individual chooses, internships can provide intellectual and

emotional development. In recent decades, internship programs have increasingly been evaluated and developed. Some disciplines need to evaluate their internship programs comprehensively to assess how well they work and determine their strengths and weaknesses.

2. Literature Review

In general, internships can contribute to an individual's intellectual and emotional growth, regardless of the career path they will choose in their future. Recent decades have seen an increase in the evaluation of internship programs. In order to identify the strengths and weaknesses of the internship programs of certain disciplines, it is necessary to assess their effectiveness. At a global level, the field of clinical nutrition is considered one of the most important. A clinical nutrition internship requires intensive evaluation and investigation because it is an interdisciplinary discipline. According to Abeysekera (2006), an internship is an experience where students are closely monitored, have specific learning goals, and reflect upon the experience (Abeysekera, 2006).

Internships provide insight into the world of work. An internship allows students to learn and internalize the norms and values encountered in the workplace. (Royse et al., 2016). In addition to developing connections between theoretical and practical knowledge, internships allow students to develop a deeper understanding of both (Sgroi & Ryniker, 2002). Problem-solving skills and teamwork are vital at home, at work, and in the community (Glass, 2008). Students at colleges and universities should acquire the necessary knowledge, skills, perspectives, and values prior to entering the workforce and engaging in civic responsibilities on a national level (Moment, 2012). Participants interns in seminars have the opportunity to share their experiences and learn from each other, thus imparting valuable knowledge. Students may also discuss problems and concerns with faculty (Sweitzer & King, 2013). Employers are increasingly interested in soft skills, like adaptability, critical thinking, emotional intelligence, and interpersonal skills (Truong & Laura, 2015). According to Sweitzer & King, internships are divided into five developmental stages: anticipation, exploration, competency, and culmination. The current study investigates the clinical nutrition students' perceptions of their internship at the University of Hail. The researchers provided recommendations for future improvements.

3. Research Method

3.1 Data collection and study group

The researchers conducted a cross-sectional study, and the chosen survey has been validated with expertise in the field. Jackel's (2011) questionnaire was adapted for data collection. All clinical nutrition students' interns (40) at the University of Hail have been surveyed electronically. Various demographic information, including gender and age, was collected from diverse participants. Six sections of the questionnaire will be composed of 18 items; questions 1 and 2 will cover demographic details, while items 3 and 4 will relate to the characteristics of the internship. The Personal Impact questions ranged from 5 to 7. The interpersonal (social) impact questions ranged from 7 to 11. Academic (learning) impact questions ranged from 11-14. Those items (14-18) were included in the final section regarding employment (job-specific) impacts. Using a 5-point Likert scale from 1 to 5, 'strongly disagree' to 'strongly agree', the survey was sent to the interns a week before their internship ended. The researcher used SPSS (Version 27.0) for the statistical analysis. Various statistical functions were used to obtain the results of the study. Researchers computed means, standard

deviations, frequencies, and percentages in this study. Below is a graph illustrating gender distributions.

3.2 Research data analysis

In this study, the clinical nutrition internship at the University of Hail, Saudi Arabia, is evaluated in order to help develop and enhance this internship. This study utilized the SPSS 26 statistical package to analyze the collected data for the social sciences.

3.3 Missing data

In distributing the survey questionnaire to all clinical nutrition interns at the University of Hail, responses were collected, but not all were completed, so only 40 of 43 questionnaires were valid. The following table represents our analysis's main variables (gender, age, university) and indicates no missing values.

4. Findings and Discussions

The following table illustrates the participants' demographics, including their age and gender. The total number of participants is forty, with 37 females and three males. Furthermore, the majority of participants (93%) are between the ages of 21 and 24.

Table 1. The frequency of the demographic data

Variable	Categories	Frequency	Per cent
Gender	Male	3	8
	female	37	93
	Total	40	100.0
Age	from 21 to 24	37	93
	from 25 to 27	3	8
	Total	40	100.0
University	University of Hail	40	100
	Total	40	100.0

Table 2: Participants' perceptions of the internship effectiveness in clinical nutrition

No.	Item	Scale					Median
Characteristics Of the Internship							
		1(%)	2(%)	3(%)	4(%)	5(%)	
1	Was your site supervisor available to meet when needed?	25	25	37.5	7.5	5.0	2.50
	Was your internship coordinator available to meet when needed?	30	22.5	30	12.5	5	2
Personal Impact							
3	I believe in my ability to make a difference.	63.2	23.7	10.5	2.6	0	1
4	I can recognize my personal strengths	61.5	23.1	12.8	2.6	0	1
5	I have the ability to persevere in difficult tasks	65	25	7.5	2.5	73.5	1
Interpersonal (Social) Impact							
6.	I can be understanding and appreciative of people with diverse backgrounds.	57.5	25	15	0	2.5	1
	I have the ability to work cooperatively with others	62.5	20	15	0	2.5	1
7	I have the ability to communicate effectively (listen and articulate ideas).	53.8	23.1	17.9	5.1	0	1
8	I have increased my ability to be a leader	52.2	35	10	2.5	0	1
Academic (learning) Impact							
9	I have acquired knowledge from the job duties I performed	50	40	7.5	2.5	0	1.50
10	I have broadened my critical thinking skills (reasoning, problem solving)	50	32.5	15	0	2.5	1.50
Employment (Job Specific) Impact							
12	I broadened my future employment possibilities.	50	25	15	10	0	1.50
13	I developed realistic ideas about the work world	47.4	34.2	10.5	7.9	0	1
14	I developed specialized technical skills	55	27.5	12.5	2.5	2.5	1.50
15	I narrowed my future possible career choices	43.6	28.2	23.1	5.1	0	2

Note: 1: strongly agree, 2: agree, 3: neutral, 4: disagree, 5: total disagree, f=frequency

4.1 Internship Characteristics

Is the clinical nutrition internship at Hail University effective? As part of answering the main research question, this section identifies the characteristics of internships. Results of this question were derived from mean scores and standard deviations (see Table 3).

Table 3. Characteristics of the internship

Item	N	Mean	Std. Deviation
1. Was your site supervisor available to meet when needed?	48	2.42	1.107
2. Was your internship coordinator available to meet?	48	2.40	1.19
Valid N (listwise)	48		

A quarter of respondents strongly agree with the statement that a site supervisor is available for meetings if required. The standard deviation of the data is 1.107, and the mean is 2.42. Nevertheless, only 2.50 % of respondents strongly disagree with the site supervisor's availability statement. Furthermore, 30% strongly agree with the following statement: Was your internship coordinator available to meet with you? According to statistical analysis, the average was 4.40, and the standard deviation was 1.19.

4.2 Personal Impact of the Internship

The first item in this section is "I believe I can make a difference." Participants reported a 2.6% total disagreement with a mean score of 1.53 and a standard deviation of .797. On the item "I have the ability to recognize my own strengths," 61% and 23.1% of respondents indicated total agreement and agreement, with a mean score of 1.56 and standard deviation of .821. "I am capable of persevering in challenging situations," which was the last item on this list. 65.1% of the participants rated themselves as completely agreeing, with a mean score of 1.48 and a standard deviation of .750.

Table 4. Personal impact

Item	N	Mean	Std. Deviation
3. I believe in my ability to make a difference.	48	1.53	.797
4. I can recognize my personal strengths.	48	1.56	.821
5. I have the ability to persevere in difficult tasks	48	1.48	.750
Valid N (listwise)	48		

4.3 Interpersonal (Social) Impact

In the section on interpersonal impact, participants were asked four items. 57.5% of participants strongly agreed with the statement "I am understanding and accepting of people from diverse backgrounds," with a mean score of 1.65 and standard deviations of .921. According to the

second statement, “I have the ability to work cooperatively with others,” 62.5% of the respondents agreed; the mean score was 1.60, and the standard deviation was .929. In the third item of this item, participants indicated that they are able to communicate effectively (listen to and articulate ideas), with 0% strongly disagreeing with a mean score of 1.74 and standard deviations of 0.938. The last item in the survey was that “I had increased my abilities as a leader,” and 52.2% of respondents agreed with the statement, while 35% of respondents agreed completely, resulting in a mean score of 1.63 and a standard deviation of .774.

Table 5. Interpersonal (social) impact

Item	N	Mean	Std. Deviation
1. I can be understanding and appreciative of people with diverse backgrounds.	48	1.65	.921
2. I have the ability to work cooperatively with others	48	1.60	.928
3. I have the ability to communicate effectively (listen and articulate ideas).	48	1.74	.938
4. I have increased my ability to be a leader	48	1.63	.774
Valid N (listwise)	48		

4.4 Academic Impact

Participants are asked to complete three items for the academic (learning) impact section. The first item was that “I gained knowledge from my job duties.” 0% of the respondents strongly disagreed, and 50% strongly agreed, representing a mean score of 1.63 and a standard deviation of .740. For the second item, “I have developed my critical thinking skills (reasoning and problem-solving),” 32.5% of respondents agreed with the mean score of 1.73 and the standard deviation of .905. Last but not least, “I believe I can connect academic subject matter with real-world situations.” 92% of participants agreed, and no one disagreed, with a mean score of 1.54 and a standard deviation of .790.

Table 6. Academic (learning) impact

Item	N	Mean	Std. Deviation
1. I have acquired knowledge from the job duties I performed	48	1.63	.740
2. I have broadened my critical thinking skills (reasoning, problem-solving)	48	1.73	.905
3. I have the ability to connect academic subject matter to the real world	48	1.54	.790
Valid N (listwise)	48		

4.5 Employment Impact

Respondents to the section on employment impact are asked to respond to four statements. “I broadened my future employment possibilities.” Based on a mean score of 1.85 and a standard deviation of 1.027, it demonstrated that 50% of respondents strongly agreed. Another item was “I developed realistic views of the work environment. 34.2 per cent of respondents agreed, and the mean score was 1.79, and the standard deviation was .935. The third item in this section, the development of specialized technical skills, received a mean score of 1.7 and a standard deviation of 0.966 from 55% of the participants. Lastly, they indicated that 28.2% of respondents agreed, and 43.6% were totally in agreement with the statement “I narrowed my career options.” It is based upon a mean score of 1.90 and a standard deviation of .940.

Table 7. Employment (job specific) impact

Item	N	Mean	Std. Deviation
1. I broadened my future employment possibilities.	48	1.85	1.027
2. I developed realistic ideas about the work world	48	1.79	.935
3. I developed specialized technical skills	48	1.70	.966
4. I narrowed my future possible career choices	48	1.90	.940
Valid N (listwise)	48		

The results pointed to different interpretations of the effectiveness of the University of Hail's clinical nutrition internship. Most respondents reported satisfaction with the internship. Nonetheless, there were micro-groups of participants who disagreed with the results. There were five areas of investigation in this study. To begin with, we assessed students' internship experiences based on their internship characteristics. As the second area of assessment, we examined the impact students felt while participating in the program. The interpersonal (social) impact was the third area. Assessment of the academic (learning) impact was the fourth area.

Evaluation of employment (job-specific) impact was the fifth area. Regardless of their worksite, most respondents fall between strongly agreed or agreed that their internship was efficient. Only 25% and 30% of respondents strongly agreed that the supervisor and internship coordinator were available when needed, respectively. The supervisor on the job site plays a crucial role in students' success during the internship (Park, 2019).

Many participants said they were able to appreciate and understand people from diverse backgrounds. A study conducted by researchers in 2010 found that students completing internships rated themselves higher because they were more confident and motivated. No one claimed that they had learned from their internship. By participating in internships, students can develop leadership skills, leading to improved productivity, economic independence, and flexibility at work, according to Gault, and Redington. The site or academic supervisor must provide immediate comments and advice to the interns. (Callanan & Benzing, 2004) Mentor feedback is highly effective at increasing learning. The respondents rated improving their

technical knowledge between agreeing and strongly agreeing in 82.5% of the cases. Students can construct their knowledge based on their own experiences in real-life settings (Piaget, 1976). In addition, a study published in 2012 advised that schools should teach collaboration and problem-solving skills better (Nilsson & Ellström, 2012).

5. Conclusion

As chronic diseases such as ageing, obesity, and unhealthy lifestyle habits become more prevalent, it is imperative to improve clinical nutrition internships to effectively enable future clinical nutritionists to deliver suitable care across different settings to improve population health. Interns in clinical nutrition need more training in addressing nutritional issues using best practices. The primary aim of the current study was to evaluate the effectiveness of the clinical nutrition internship. Furthermore, this paper offers suggestions for improving the clinical nutrition internship program at the University of Hail. Interns recognize that internships are essential for their employee development and personal, academic, and interpersonal development. The interns also encountered some challenges when attempting to meet with the internship supervisor. Accordingly, further investigation should be conducted to identify the barriers associated with this issue. The researchers believe that soft skills should be emphasized in the curriculum for clinical nutrition. It has been shown that incorporating employability skills training into the curriculum can help students develop skills that can contribute to their employment prospects (Saunders et al., 2009).

Further, young workers must be taught soft skills since they require technical and noncognitive competencies (Darche & Stam, 2012). In order to apply some of the skills learned during classes, the site supervisor must be knowledgeable about the clinical nutrition field and the interns' responsibilities. Edwards and McKechnie (2002) examined the "pedagogies of engagement" and strategies that have proved successful in increasing engagement rates. Their findings indicate that traditional classroom instruction is shifting to contextualized learning. Problem-based learning, collaboration, and service learning constitute the three crucial elements of a successful internship (Dras & Miller, 2002). According Gault et al. (2000), internships provide individuals with leadership experience, leading to greater productivity, economic independence, and employment flexibility.

University policymakers must address the challenges associated with clinical nutrition internships and maximize interns' potential. Using the results of this study, clinical nutrition internships can be studied in greater depth. A similar study should be conducted with a larger group of participants from multiple institutions.

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