

**"Aware or Not": Determining the Professional Awareness Rates of Nutrition and Dietetics Students and Identifying the Affecting Factors****Yasemin Ergül<sup>\*1</sup>, Sedat Arslan<sup>1</sup>, Nursel Dal<sup>1</sup>, Kezban Şahin<sup>1</sup>**<sup>1</sup> Bandırma Onyedi Eylül Üniversitesi, Sağlık Bilimleri Fakültesi, Beslenme ve Diyetetik Bölümü, 10200, Balıkesir, Türkiye

Yasemin Ergül, ORCID No: 0000-0001-8227-4707, Sedat Arslan, ORCID No: 0000-0002-3356-7332, Nursel Dal, ORCID No: 0000-0001-9045-4177, Kezban Şahin, ORCID No: 0000-0001-9278-9130

**ARTICLE  
INFO****ABSTRACT**Received : 22.03.2024  
Accepted : 03.06.2024**Keywords**Professionalism  
Dietetics  
Healthcare Education  
Awareness  
Career Choice**\* Corresponding  
Author**

yergul@bandirma.edu.tr

The aim of this research is to determine the professional awareness rates of Nutrition and Dietetics students and the affecting factors. This cross-sectional study was conducted with a total of 226 dietetics students studying at Bandırma Onyedi Eylül University, Faculty of Health Sciences, Department of Nutrition and Dietetics. The main outcome of the research is to determine rates of professional awareness and affecting factors. Study data were evaluated with descriptive statistics and thematic analysis. Students shaped their career plans according to their wishes for health promotion and family guidance. In this study, rates are presented according to whether students are aware of each duties of the dietitian professions. In the duties descriptions, responses such as 'I am aware' were received at a rate of at least 71.7% or above. In the study supported by qualitative data, individual factors (professional love, being interested and willing in the profession), availability of practices, social influences and trends of the profession were listed among the important factors affecting awareness. Determining the factors affecting their professional awareness may guide the development of undergraduate education policies and enable students to understand the aspects that need to be improved.

**“Farkında Olmak Ya Da Olmamak” Beslenme ve Diyetetik Öğrencilerinin Mesleki Farkındalık Oranlarının Belirlenmesi ve Etkileyen Faktörlerin Tanımlanması****MAKALE  
BİLGİSİ****ÖZ**Geliş: 22.03.2024  
Kabul: 03.06.2024**Anahtar Kelimeler**Profesyonellik  
Diyetetik  
Sağlık Eğitimi  
Farkındalık  
Kariyer seçimi**\* Sorumlu Yazar**

yergul@bandirma.edu.tr

Bu araştırmanın amacı Beslenme ve Diyetetik öğrencilerinin mesleki farkındalık oranlarını ve etkileyen faktörleri belirlemektir. Kesitsel tipte olan bu çalışma, Bandırma Onyedi Eylül Üniversitesi, Sağlık Bilimleri Fakültesi, Beslenme ve Diyetetik Bölümü'nde öğrenim gören toplam 226 diyetetik öğrencisi ile gerçekleştirilmiştir. Araştırmanın ana çıktısı mesleki farkındalık oranlarını ve etkileyen faktörleri belirlemektir. Çalışma verileri tanımlayıcı istatistikler ve tematik analiz ile değerlendirilmiştir. Öğrenciler kariyer planlamalarını sağlığın geliştirilmesine yönelik isteklerine ve aile yönlendirmelerine göre şekillendirmiştir. Bu çalışmada öğrencilerin diyetisyenlik mesleğinin her bir görev tanımına ilişkin farkında olup olmama durumlarına göre oranlar sunulmuştur. Görev tanımlarında en az %71,7 oranla ve üzeri olacak şekilde 'farkındayım' şeklinde yanıtlar alınmıştır. Nitel veriler ile desteklenen çalışmada bireysel etmenler (meslek tutkusu, mesleğe ilgili ve istekli olma), uygulamalı eğitim alanlarının olması, sosyal etkiler ve mesleğin popülerliği farkındalığı etkileyen önemli faktörler arasında sayılmıştır. Mesleki farkındalıklarını etkileyen faktörlerinin belirlenmesi lisans eğitim politikalarının geliştirilmesine rehberlik edebilir ve öğrenciler için geliştirilmesi gereken yönlerin anlaşılmasına olanak sağlayabilir.

## INTRODUCTION

Professionalism is an expression of competence in any field. It is also considered an essential component of minimum qualification standards for healthcare professionals. The professionalism of healthcare professionals, in particular, provides the community's confidence in healthcare and forms the basis of safe and ethical healthcare (1). Therefore, graduates in the health field are expected to have the necessary skills and qualifications to compete and collaborate in a rapidly changing work environment (2). The dietitian profession, which has come to the fore in the field of health in recent years, has many career opportunities and the number of graduates is increasing (3). Teaching professionalism and awareness of professionalism is also an important component of nutrition and dietetics education. It is very important in curriculum planning and design, in teaching, learning, and evaluating students, and in supporting the continuing professional development of educators or practitioners (4). Thus, it is stated that the awareness of professional awareness and the continuity of professional development are important keys to success (5).

There are certain standards developed in many countries regarding the professional fields and duties of dietitians (6-10). Standards such as these define the expectations for entry-rate practice for dietitians, as well as guide curriculum development and training for dietitians (4). It has been reported that undergraduate education in nutrition and dietetics guides the awareness of professionalization and professional awareness, and the necessity of gaining this awareness in the undergraduate education process has been emphasized (4,11). For the development of professional identity, dietetics students' meeting with dietitians who are actively working in the field and being together frequently in their first year, the inclusion of evidence-based simulation-based learning methods, which are widely used in the education of health professionals, in dietetics education, and academics and instructors encourage students to build trust-based relationships and positive learning cultures. It has been reported that it is important to provide an educational environment based on learning (12-15). In this context, the creation of official mentoring programs has been closely associated with the ethical rules of the dietitian profession (12). There are a several studies on professionalization and professional awareness in fields such as nursing and physiotherapy in the field of health (16-19). However, as far as is known, limited research has been conducted on professionalization and professional awareness in the field of nutrition and dietetics (4,12,14). Based on the assumption that teaching professionalism awareness contributes significantly to the professional development process, the primary outcome of this study was to determine the professional awareness of dietetics students and the factors affecting them (4,11). Secondly, it is the identification of the sociodemographic characteristics of the group and the determination of their knowledge of their professional titles. This study aimed to determine whether the students of the nutrition and dietetics department are aware of their professional duties and to define the factors affecting their professional awareness.

## MATERIALS AND METHODS

This research was planned as cross-sectional with a mixed method combining quantitative and qualitative research.

### Study Population

This research was conducted with students studying at the Department of Nutrition and Dietetics, Faculty of Health Sciences, xxxxxxxx xxxxxx xxxxxx University in 2022. Our research population is limited only to students studying in this period. It was planned to reach all students for whom no sample selection was made. All students who volunteered to participate in the study and were not foreign students met the inclusion criteria.

## Data Reduction

The research was aimed to reach students other than foreign students (n=65) from the Department of Nutrition and Dietetics (n=334) studying in 2022. However, 226 students agreed to participate in the study voluntarily and the study was completed with a participation rate of 84.0%. In the qualitative part of the research, the data that was described as psychological and environmental factors (n=3), and that was missing (n=14) were not evaluated within the scope of the research. Questionnaire results were analyzed using an interactive qualitative model with three stages: data reduction, data presentation, conclusion, and validation. The data reduction phase begins with collecting all the necessary information from the questionnaire responses, followed by data grouping. Next, the Data Display phase displays data related to the survey. The third stage of analyzing research data is the formulation and validation of results, followed by evaluation based on the theme discovered (20).

## Data Variables

Independent variables of the study; age, gender, class, type of high school attended, the person(s) who received support in university preferences, the state of knowing what his/her title will be when he/she graduates, the reason for choosing the profession of the dietitian, the state of choosing the department voluntarily, the departments that he thinks will need the most while being a dietitian. Studies in the literature were used to determine the variables (4,13,14,17,18). The dependent variables of the study are the awareness rate of dietitians about their duties according to the definitions of the Republic of Turkey Ministry of Health, the awareness rate of dietitians' duties according to the definitions of the Republic of Turkey Social Security Agency, the rate of participation in the professional awareness of the education-training processes and the rate of participation that individual factors reduce their professional awareness.

## Data Collection

Before the study, the students were informed about the content of the study with an informed consent form. After the consent was obtained, the data collection form was applied with a hybrid method online with using Google Forms and face-to-face. The participants were invited to the computer laboratories with a capacity of forty people, and they participated in the research in an environment where they could communicate face-to-face with the responsible researchers in case of questions they did not understand. To prevent the waste of paper, such a method has been followed.

In the data collection form consisting of 43 questions in total, questions about individual characteristics and factors likely to affect professional awareness were prepared by making use of similar studies in the literature (4,12-14,17,18). In this context, the form included 9 questions containing the individual characteristics and introductory information of the students. To evaluate their professional awareness, the articles related to the job and job descriptions of dietitians in the Regulation of the Republic of Turkey Ministry of Health dated 22.05.14 and numbered 29007 on the Labor Descriptions of Healthcare Professionals and Other Professionals Working in Health Services are listed (13 items) and "I am aware of the professional duty". or "I am not aware of the professional duty" (21). In addition, items (10 items) related to professional duties based on title, revised by the Republic of Turkey Social Security Agency in 2017, were listed and answered as "I am aware of the professional duty" or "I am not aware of the professional duty" (22). In addition, to determine the factors affecting the rates of professional awareness, a total of 11 questions were answered as "I have no idea", "I do not agree", "I do not agree", 3 questions about education-teaching processes, 6 questions about individual factors, and 2 open-ended questions about other factors.

## Data Analysis

The statistical software SPSS, version 21 (SPSS, Inc., Chicago, IL, USA) and Microsoft Excel was used to analyze the responses from the close-ended questions. Responses to the awareness were recorded as 'agreed', 'no agreed' and "no idea" because there were few responses at the extreme ends of the ratings. Descriptive statistics in the form of frequency tables were used. A qualitative thematic analysis approach was used to analyze the answers to the last two open-ended questions on other factors affecting professional awareness in the data collection form. Two researchers independently evaluated the data to gain an idea of its integrity. A pre-category list was developed for the codings, and after the pre-codes were discussed, the themes indicating the experience of the individuals were coded. The themes that were coded independently of each other were compared to represent the data correctly and were schematized to reflect the original data (23).

## Ethical Approval

The cross-sectional study was conducted following the ethical principles of the Declaration of Helsinki and approval was obtained from the Bandırma Onyedi Eylül University Health Sciences Non-Interventional Research Ethics Committee (11.04.2022/2022-39). In addition, permission was obtained from the Dean's of the Faculty of Health Sciences for the study.

## Limitations

The research was carried out with the students of xxxxxxxx xxxxxx xxxxx University, Faculty of Health Sciences, Department of Nutrition and Dietetics. For this reason, the findings cannot be generalized to different institutions and different regions in our country. Since it is also possible that individuals answered the questions in a way that is incomplete, biased, error due to remember, or socially acceptable. Since the questions evaluating individual characteristics and professional awareness were questioned at the same time in the research, the order in the cause-and-effect relationship is unclear and the opportunity to comment on causality is limited. On the other hand, our study evaluates the profession of dietitians both in terms of legal definitions and from the perspective of dietetics students. In addition, the fact that the students expressed themselves better as a result of the methodological use of the qualitative study technique is the strength of the study.

## Acknowledgements

This study was supported by Bandırma Onyedi Eylül University, Turkey. The authors wish to thank the study participants and the Department of Nutrition and Dietetics.

## RESULTS AND DISCUSSION

The characteristics of the study sample in the cross-sectional analyses are shown in Table 1. The sample group consisted mainly of female and peer students close in age. In terms of class distribution, the number of fourth-grade students is relatively lower than in other grades. The majority of the participants received support from their families in choosing a career, and volunteering is dominant to being a healthcare professional. The answers of the participants regarding the title they will receive after graduation and the data about the disciplines they frequently require in their education processes are given in Table 1. It was observed that one out of every four participants misunderstood their professional title. Nutritional science is one of the disciplines they frequently require. Half of the participants reported that disciplines related to medical sciences are also consequential. The answers of the participants regarding the title they will receive after graduation and the data about the disciplines they frequently require in their education processes are shown in Table 1. It was observed that one out of every four participants

misunderstood their professional title. Nutritional science is one of the disciplines they frequently require. Half of the participants reported that disciplines related to medical sciences are also consequential.

**Table 1. General Characteristics**

Characteristics	n (%) or mean±SD
Age	
18-20	100(44.3)
21-23	115 (50.9)
≥24	11(4.8)
Age, y	21±2,2
Sex	
Male	11(4.9)
Female	215(95.1)
Grade	
First	73 (32.3)
Second	61 (27.0)
Third	66 (29.2)
Fourth	26 (11.5)
Type of graduated high school	
Standard	179 (79.2)
Science	26 (11.5)
Technical and others	21 (9.3)
Resources consulted in career choice <sup>1</sup>	
Family	169 (74.8)
High school educators	127 (56.2)
Friends, Fellows	67 (29.6)
Social media	38 (16.8)
University advertisements	2 (0.8)
Reason for choosing the profession of dietitian <sup>1</sup>	
Willingness to work in healthcare	178 (78.8)
Achievement equivalent to a college score	80 (35.4)
Neighborhood request	30 (13.3)
Job guarantee	20 (8.8)
Trend	45 (19.9)
Prestige	57(25.2)
Other <sup>2</sup>	13 (5.75)
Willingly prefer the dietitian profession	
Yes	203 (89.8)
No	16(7.1)
Not exactly <sup>3</sup>	7(3.1)
Title after graduation	
Dietitian	160 (70.8)
Misunderstanding title <sup>4</sup>	53(23.4)
Unanswered	13 (5.8)
The disciplines of science that you think will require frequently when you are a profession	
Nutrition	208 (92.0)
Dietetics	190 (84.1)
Public Health Nutrition	171 (75.7)
Food Services Systems	165 (73.0)
Medical Sciences	116 (51.3)
Others <sup>5</sup>	10 (4.4)

<sup>1</sup>Participants were allowed to give more than one answer.

<sup>2</sup>Respectively: Being a healthcare professional in another field and wanting to alter to an area where there is less physical contact with the patient; Desire to become an academic in dietetics; Suitability for abilities

<sup>3</sup>Had to choose because of the family effect or success score effect.

<sup>4</sup>Misunderstanding answers: Nutrition and Dietetics Undergraduate Specialist, Expert Dietitian, Nutrition and Diet Specialist, Nutrition and Diet Consultant, Nutrition and Dietetics Specialist, Dietitian Bachelor's Degree, Expert Doctor Dietitian  
Doctor of Nutrition

<sup>5</sup>Gastronomy, Psychology, Social Sciences, Foreign Languages, Culture, Anthropology, Epidemiology, Sports

Participant responses to the researcher's questions about factors that are believed to influence professional factors are shown in Table 2, in numbers and percentages. According to the results of the survey, the participants reported that they generally agree on the importance of practical courses in education-related programs. More than half of the group answered “Agree” with the statement that profession anxiety decreased awareness in the questions asked about individual factors.

**Table 2. Factors Affecting the Rate of Professional Awareness**

Factors	n(%)		
	Agree	No idea	Not Agree
<b>Education and training programs</b>			
Courses that combine theory and practice courses increase my professional awareness.	214(94.7)	7(3.1)	5(2.2)
Theoretical courses more increase professional awareness than practical courses.	177(78.3)	23(10.2)	26(11.5)
Practical courses more increase professional awareness than theoretical courses.	215(95.1)	4(1.8)	7(3.1)
<b>Individual factors</b>			
Not being interested in the field of Nutrition and Dietetics reduces professional awareness.	65(28.8)	22(9.7)	139(61.5)
Finding the profession too complex reduces professional awareness.	45(19.9)	21(9.3)	160(70.8)
Concern about the inadequacy of the skills required by the profession reduces professional awareness.	99 (43.8)	20 (8.8)	107(47.3)
Not feeling ready-yourself for the dietitian profession reduces awareness.	71(31.4)	17(7.5)	138(61.1)
Anxiety about finding a job after graduation reduces professional awareness.	145(64.2)	17(7.5)	64(28.3)
Not choosing the profession voluntarily reduces professional awareness.	46(20.4)	22(9.7)	158(69.9)

Some examples of open-ended comments on professional awareness are presented in Table 3. Responses included “..sports, cooking, healthy eating... personality..”, “..inner circle...”, “..role play training...”, “...information pollution...to prevent...”, “....dream...wishes” draw attention as expressions that increase professional awareness. On the other hand, “...untrue news in media...., presence of people...”, “...social media,...act like dietitians...”, and “...economic crisis,... not be able to reach health food...and anxiety of finding a job...” are exemplified as expressions that reduce professional awareness.

**Table 3. Examples of free-text comments about professional awareness**

*“My love for sports, cooking, and healthy eating has led me to choose this department and the suitability of my personality has increased my professional awareness.”*

*“The fact that there are people in the inner circle that I think need a dietitian and they are very interested in my profession, my desire to inspire people related to this profession, and the thought of being able to add something to their lives increase my professional awareness.”*

*“The facilities of our university, the academics, the opportunities and the materials offered to us increase my professional awareness. In particular, I found the role-play training method made by some of our instructors very useful. What our teachers tell us about the field of study increases my awareness.”*

*“The information pollution that society has been exposed to recently, the field of nutrition is a very comprehensive area where everyone can express their opinion, and everyone is very prone to doing whatever they hear, and I want to try to prevent this situation as much as possible. These factors make me more willing and increase my awareness.”*

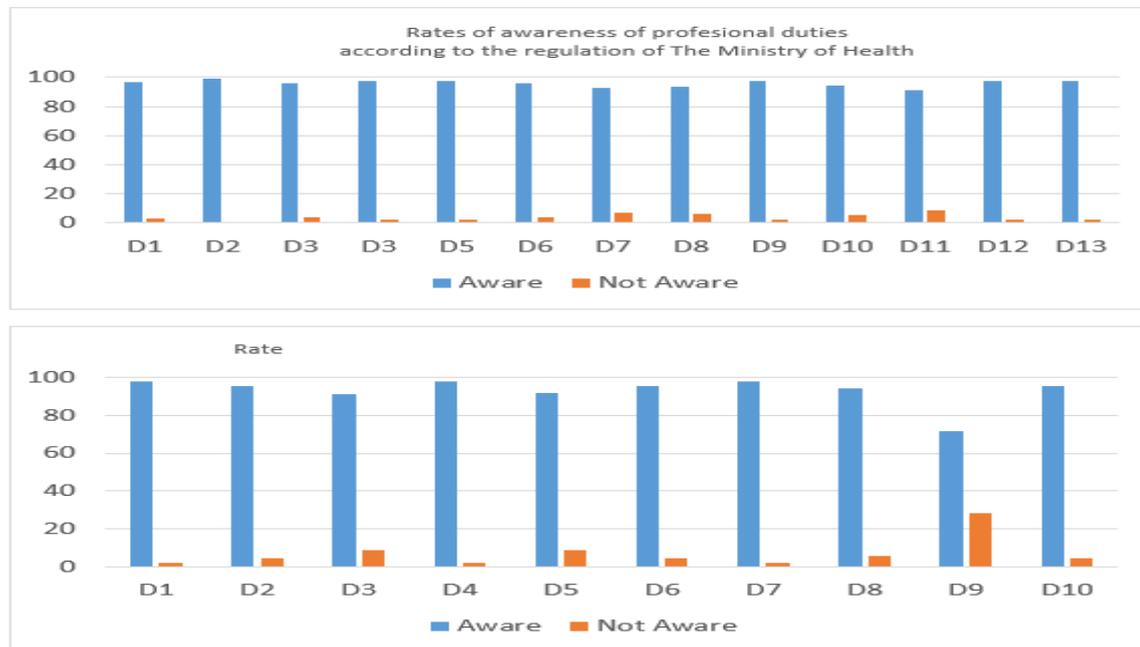
*“It increases my awareness of where I want to see myself, my wishes, my dream career and life, and my feelings of conscientious responsibility. My desire to take the profession further plays a role in increasing my awareness of my roles in the profession.”*

*“The emergence of untrue news in the media and the presence of people around me who only look at our profession to weaken it, simply and unconsciously, professional criticism, news, and concerns about finding a job reduce my professional awareness.”*

*“He/she did not graduate from the nutrition and dietetics undergraduate department of the universities but did not work on social media, etc. People who act like dietitians in places reduce my professional awareness.”*

*“The economic crisis that affects the whole world makes me feel like I cannot do my job useful enough because it reduces the quality of collective nutrition and the diet quality of the individual. The fact that society will not be able to reach the healthy food and diet models that I will recommend affects me negatively. In addition, the anxiety of finding a job exacerbates this.”*

The rate of awareness of the participants about their professional duties is shown in Figure 1. The awareness of the professional duties attributed to dietitians according to the legal regulations of the Republic of Turkey Ministry of Health was tested, and it was concluded that the majority of the definitions of the profession were aware of them (approximately above 90%). Furthermore, the awareness of the professional duties attributed to dietitians according to the legal regulations of the Republic of Turkey Social Security Agency was questioned, and it was concluded that the majority of profession definitions were aware of them. The lowest awareness is reported for duty number 9. This definition of the profession has an open-ended expression such as "doing other duties given in the field of health" and the awareness rate of the participants about this situation was found to be approximately 70%.



**Fig 1. Rates of Awareness of Professional Tasks According to the Regulation of the Republic of Turkey Ministry of Health and the Ministry of Labor**

Content analysis of other factors related to awareness of the profession is given in Figure 2. In the content analysis, three main themes emerged from the sub-themes. Other increasing factors related to individuals, education, and the environment were reached. The desire to be useful in the inner circle, and the desire to promote health and raise awareness among people were evaluated as the most obvious answers among the individual increasing factors. Under the heading of health promotion, there is the desire to make people happy, the desire to cure chronic diseases, and the desire to create social awareness. In addition to these, liking to do research, is interested in sports science, finding a job, and earning income are among the individual increasing factors. Secondly, under the title of factors related to education, the attitudes of the academicians, the facilities of the university, laboratory conditions and physical conditions and infrastructural conditions are

reported. Third, active dietitians, especially influencer dietitians, are among the trends, a promising profession, the popularity of the relationship between health and nutrition and the nature of the profession, including more than one information from life, and the fact that it has a wide working field themes were achieved among the increasing factors. On the other hand, decreasing factors that decrease awareness are gathered under the inner main theme. Under the individual theme, unemployment concerns and low professional satisfaction. It has been reported that there is insufficient time and space to be allocated for practical courses and practices to be carried out for large groups. Environmentally, the presence of social media, social disregard with information pollution, social ignorance, fear of mobbing from colleagues or other health professionals, and exposure to inadequate legal regulations have been reported as factors that reduce awareness.

Regarding the factors affecting the professional awareness of the participants, the quantitative data obtained with the answers given to the questions asked by the researchers in Table 3 and the qualitative results obtained by asking open-ended questions of other influencing factors presented in Figure 2, and the factors affecting the professional awareness rates of nutrition and dietetics students. A conceptual framework dealing with it is presented in Figure 3. Regarding the factors affecting the professional awareness of the participants, the quantitative data obtained from the answers given to the questions asked by the researchers in Table 3 and the qualitative results obtained by asking open-ended questions of the other influencing factors presented in Figure 2 are synthesized. It is possible to say that the factors affecting the professional awareness rates of nutrition and dietetic students are mostly related to their individual predispositions.

To the best of our knowledge, this is the first descriptive study to evaluate the determine whether the students of the nutrition and dietetics department are aware of their professional duties and to define the factors affecting their professional awareness in Turkey. Our results revealed that the majority of the students received support from their families in choosing a career, and volunteering is effective to be a health worker, and they were aware that the majority of the definitions of the profession. In addition, it was concluded that many individual, educational, and environmental factors that increase and decrease the professional awareness of students are effective.

Career choice which has the power to personal growth, income, determine social status, social groups, etc., is an issue a point to ponder over and complex. Especially making a career choice for students is an important stage for future life planning (24). In a study conducted with undergraduate students in Nigeria, it was reported that students' family has a major influence on their career decisions with the second highest share coming from the media (25). A study investigating the factors affecting the career decisions of university students showed that the parental influence was most significant, followed by influence from peers, gender, media, economic reasons, and interest (26). A recent systematic review of 28 studies reported that family and academics were the most influential factors in career decisions and that skills, gender, interest, and personality were also influential in decision-making (27). In this study, it was also seen that the female students mainly chose the profession of the dietitian and the family was the most dominant in the choice of profession, followed by the influence of high school educators, friends, and social media. The findings of our study are compatible with the literature.

Factors in the decision-making of the profession are very important for success in education and professional life. Available literature shows that personality, interest, skills, financial factors, job information, social environment, opportunities, and challenges are effective in the career decision of students (27,28). On the other hand, there is little interest in career choice and decision-making in nutrition and dietetics research (29). Skrzypek et al. (2021), it was reported that the personality traits of adaptability, conscientiousness, and openness to change were effective in choosing this profession, which requires dietetics students to work with patients (30). In a study,

motivational factors for the choice of dietitian profession have been reported cooking with the family during childhood, personal interest in nutrition, parental influence, social media, and the desire to help others (31). Our study found that, on the other hand, volunteering for healthcare and its college score, neighborhood request, being a trend and prestigious profession, and job guarantee factors were effective in the choice of profession of nutrition and dietetics students.

It is indicated that members of a profession must adhere to the principles and definitions of ethics and professionalism (32). Although there are many studies on professionalization and professional awareness in fields such as nursing and physiotherapy in the field of health (16-19), it is very limited in nutrition and dietetics (4,12,14). On the other hand, these studies did not reveal results for the awareness of professional definitions and duties of nutrition and dietetics students. In our study, it has been determined that the majority of the students are aware of the duties and definitions of the dietitian profession of the Republic of Turkey Ministry of Health and the Republic of Turkey Social Security Agency The fact that the majority of the students (89.8%) chose the profession willingly and were interested in the profession, as well as having the opportunity to get to know the profession better during their education may be effective in this result. In addition, this result might be supported by extensive studies on awareness of professional definitions and duties in the field of nutrition and dietetics.

In studies conducted with dietetics students; skills such as high-rate communication, organization, suitability for multidisciplinary work, empathy, cultural competency, desire for professional development and continuous learning, conducting independent research, staying up-to-date based on evidence-based guidelines, and having knowledge about popular diets were considered as the requirements of professional competency (33,34). Our findings revealed that students' desire for research increased their professional awareness. Nutrition counseling includes behavioral change processes such as motivational interviewing, problem-solving, goal setting, and self-monitoring. It is very important for a dietitian to have high-rate communication skills in the management of this process (35). One study among dietetic students stated that communication problems with healthcare professionals and patients in the clinic were challenging for them and their professional competencies were insufficient (36). In our study, consistent with the literature, the concern about inadequacy in professional skills reduced the professional awareness of approximately half of the students (43.2%). Increasing the sharing of students with experienced dietitians who can guide their professional development, being in the working environment in earlier classes, and providing an environment for observation and discussion can prevent this situation. Thus, the rate of awareness can be increased by providing an environment for the development of professional skills for students.

Practices are crucial for dietetics students. Swanepoel, Tweedie and Maher (2016) reported that practical clinical experience was effective in the self-confidence and professional identity development of dietetics students (37). Palermo et al., (2009) also highlighted that practical clinical experience in the dietetics curriculum may be important in terms of professional skills (38). Dietetics students in our study also emphasized the need for more practical training and stated that the inadequacy of applied training is a factor that reduces their professional awareness. In this direction, practical courses should be given more importance in the nutrition and dietetic curriculum. Besides, having field experience during their student years can positively affect students' perceptions of the profession and give them a realistic perspective. According to a study, the theoretical training received by dietetics students was insufficient in evaluating the nutritional status of complex medical cases (36). This situation is not limited to clinical practice only. In a multicenter study conducted with nutrition and dietetics students in three different countries, it was concluded that the students did not have sufficient knowledge about food safety (39). In another study, it was determined that students had low occupational awareness about public health

nutrition (33). Dietetics students should gain the ability to synthesize the outcomes of theoretical and practical courses. This skill is one of the most important factors in the development of professional identity.

According to our findings, the attitudes and professional practices of academicians are a factor that increases students' professional awareness. Similarly, it has been emphasized in the literature that educators' providing an environment based on trusting relationships and encouraging positive learning cultures while accustoming students to the dietetic practice environment will support the development of professional identity (14). In addition, educators should help reveal the current leadership behaviors of dietetics students and encourage them for new leadership behaviors. Because leadership behaviors and actions are important in dietetics and classroom activities by educators can strengthen the leadership skills of future dietitians (40).

### CONCLUSION

According to the authors' perspective, this is the pioneer study about Turkish nutrition and dietetics students' professional awareness that combines qualitative and quantitative methods. By identifying the factors that affect dietetics students' professional awareness, this research provided academicians the insight to critically assess the educational program. The points to note from our results might direct the design of programs, the implementation of professional policy, and future research studies. A critical point in increasing professional competence is spreading awareness by minimizing the factors that adversely impact future dietitians' professional awareness.

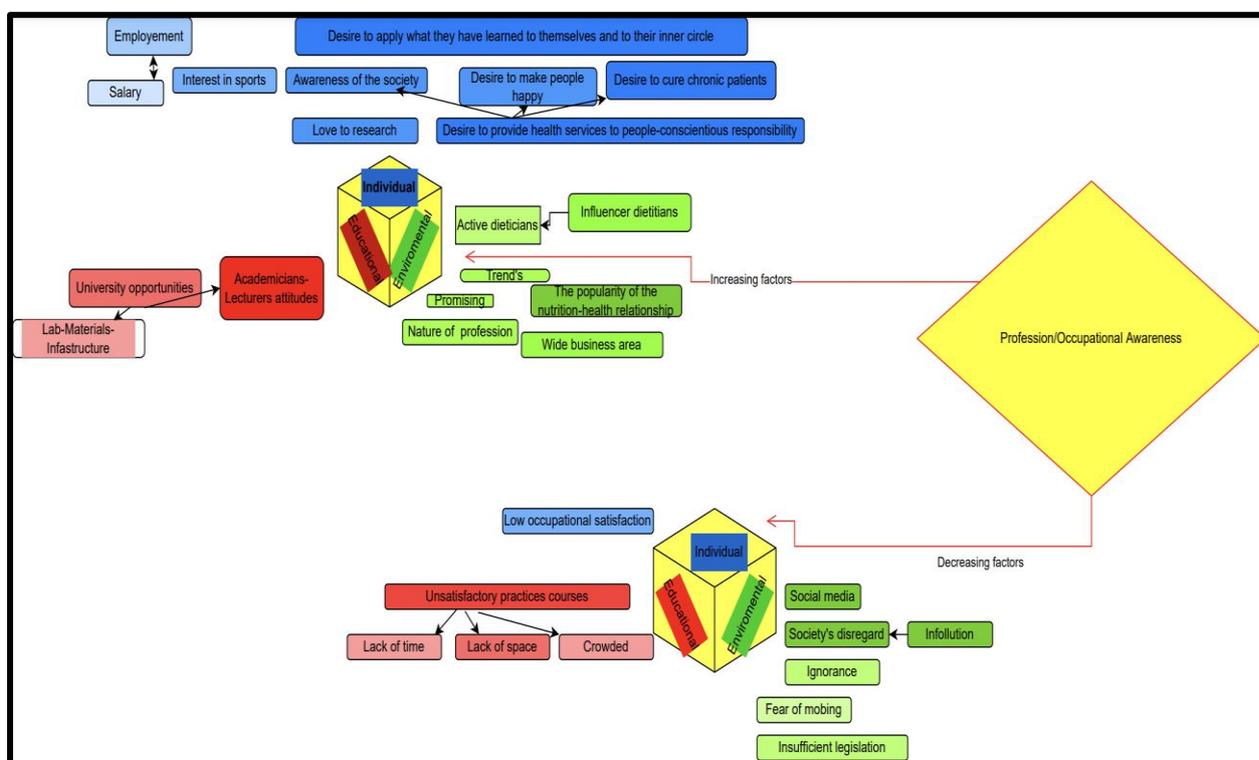


Fig 2. Content Analysis of the Other Factors Related to the Awarenesses of the Profession

## REFERENCES

1. Monrouxe LV, Rees CE. Healthcare professionalism: improving practice through reflections on workplace dilemmas. John Wiley & Sons; 2017.
2. Oluwatosin L, Ogundero AF. Career and work readiness of nutrition and dietetics trainees in nigerian universities. *World Nutrition*. 2021;12:92-102.
3. Dietetic Careers. Academy of Nutrition and Dietetics. <https://www.eatrightpro.org/about-us/become-an-rdn-or-dtr/dietetic-careers>.
4. Dart J, McCall L, Ash S, Blair M, Twohig C, Palermo C. Toward a global definition of professionalism for nutrition and dietetics education: a systematic review of the literature. *J Acad Nutr Diet*. 2019;119:957-971.
5. Morris A. Professional development and volunteerism can go hand in hand. *J Nutr Educ Behav*. 2019;51:1.
6. Eisenbraun, C., 2013. - The Integrated Competencies for Dietetic Education and Practice, Dietitians of Canada. Canada. Retrieved from <https://policycommons.net/artifacts/2234168/the-integrated-competencies-for-dietetic-education-and-practice/2992101/> on 11 Jun 2023. CID: 20.500.12592/jqthrb.
7. Worsfold L, Grant BL, Barnhill GC. The essential practice competencies for the Commission on Dietetic Registration's credentialed nutrition and dietetics practitioners. *J Acad Nutr Diet*. 2015;6:978-984.
8. European Federation of the Association of Dietitians. Revised Dietetic Competence and the Six Domains of Dietetic Competency in Europe. Statement by the European Federation of the Association of Dietitians (EFAD) (2016). <http://www.efad.org/media/1418/revised-dietetic-competence-and-6-domains-of-competency.pdf>.
9. Associations ICoD. International Competency Standards for Dietitian-Nutritionists. International Confederation of Dietetic Associations. 2016.
10. Board D. Professional Competencies & Standards for Dietitians. Wellington: Dietitians Board. 2017.
11. Atkins J, Gingras J. Coming and going: dietetic students' experience of their education. *Can J Diet Pract Res*. 2009;70:181-186.
12. MacLellan D, Lordly D. Dietetic students' understanding: of what becoming a dietitian means. *Can J Diet Pract Res*. 2013;74:96-97.
13. O'shea M-C, Palermo C, Rogers GD, Williams LT. Simulation-based learning experiences in dietetics programs: a systematic review. *J Nutr Educ Behav*. 2020;52:429-438.
14. Dart J, Ash S, McCall L, Rees C. "We Are Our Own Worst Enemies": A qualitative exploration of sociocultural factors in dietetic education influencing student-dietitian transitions. *J Acad Nutr Diet*. 2022; 122(11), 2036-2049.
15. O'Shea MC, Palermo C, Rogers GD, Williams LT. Development of affective learning in dietetics graduates: A qualitative longitudinal study. *J Hum Nutr Diet*. 2022;122(11),2036-2049.
16. Horata ET, Erel S. Evaluation of professional awareness in physiotherapy and rehabilitation students of Afyon Kocatepe University. In *SHS Web of Conferences*; 2017.
17. Poorchangizi B, Borhani F, Abbaszadeh A, Mirzaee M, Farokhzadian J. The importance of professional values from nursing students' perspective. *BMC Nurs*. 2019;18:1-7.
18. Kurunsaari M, Tynjälä P, Piirainen A. Stories of professional development in physiotherapy education. *Physiother Theory Pract*. 2021:1-14.
19. Park, H.-K.; Jeong, Y.-W. Impact of nursing professionalism on perception of patient privacy protection in nursing students: mediating effect of nursing informatics competency. *MPDI Healthcare*. 2021;9,1364.

20. Miles MB, Huberman AM, Saldaña J. *Qualitative data analysis: A methods sourcebook*. Sage publications 2018.
21. The Republic of Turkey Ministry of Health. Regulation on job and job descriptions of healthcare professionals and other healthcare professionals. Ankara Türkiye. 2014:20140522-14.
22. Job/Duty Definitions on the Basis of Title of the Republic of Turkey Social Security Agency. Website: <http://www.sgk.gov.tr/wps/wcm/connect/e82dcd35-1f4e-49f9-9927-567fac013f62/Unvan+Baz%C4%B1nda+%C4%B0%C5%9F+G%C3%B6rev+Tan%C4%B1mlar%C4%B1+Kitab%C4%B1.pdf?MOD=AJPERES>.
23. Carpenter CM, Suto M. *Qualitative research for occupational and physical therapists: A practical guide*. Wiley; 2008.
24. Nie M, Xiong Z, Zhong R, Deng W, Yang G. Career choice prediction based on campus big data—mining the potential behavior of college students. *Appl Sci*. 2020;10:2841.
25. Yunusa S, Jaafar W, Ismail A, Othman W. A Study on the Relationship between Family Peer Group Media and Career Decision Making among Undergraduates in Nigeria. *nt. J Acad Res Prog Educ Dev*. 2022;11:319-330.
26. Kazi AS, Akhlaq A. Factors Affecting students' career choice. *Journal of research and reflections in education*. 2017;11(2).
27. Azman F, Abdul Ghapar A, Ahmad Faudzi M, Baskaran H, Rahim FA. Systematic review of common factors used to measure individuals' career choice. *International Visual Informatics Conference*. 2021;111-126.
28. Zulfikarijah F, Mohyi A. Career choice of the students, what is important? *Journal of Career and Entrepreneurship*. 2022;1:44-58.
29. Lordly D. University students' reservations: about dietetics as a career choice. *Can J Diet Pract Res*. 2013;74:42-45.
30. Skrzypek M, Turska D, Ostrowska L, Szostak-Węgierek D, Krzyszycha R, Szczygieł K. Personality profile of dietetics students from medical universities in the context of efficacy of prospective dietetic counseling—a Polish study. *Ann Agric Environ Med*. 2021;28:639-644.
31. Linsenmeyer W, Rahman R. Career motivations and aspirations of dietetic students: applying the social cognitive career theory. *Internet Journal of Allied Health Sciences and Practice*. 2021;19:2.
32. Marais D, Marais M, Visser J, Boome C, Taylor D. What do dietetics students think professionalism entails? *Afr J Health Prof Educ*. 2012;4:28-33.
33. Hughes R, Desbrow B. Aspiring dietitians study: a pre-enrolment study of students motivations, awareness and expectations relating to careers in nutrition and dietetics. *Nutr Diet*. 2005;62:106-109.
34. Plint H, Ball L, Hughes R, Desbrow B. Ten-year follow up of graduates from the aspiring dietitians study: Implications for dietetic workforce development. *Nutr Diet*. 2016;73:241-246.
35. Schwartz VS, Rothpletz-Puglia P, Denmark R, Byham-Gray L. Comparison of standardized patients and real patients as an experiential teaching strategy in a nutrition counseling course for dietetic students. *Patient Educ Couns*. 2015;98:168-173.
36. O'Kane G. Developing pre-clinical skills in nutrition and dietetics' students from a NSW rural university in an acute care private hospital. *Focus on Health Professional Education: A Multi-Disciplinary Journal*. 2010;11(2):60-75.
37. Swanepoel E, Tweedie J, Maher J. Building dietetic student confidence and professional identity through participation in a university health clinic. *Nutr Diet*. 2016;73:229-234.

38. Palermo C, Walker KZ, Brown T, Zogi M. How dietetics students like to learn: Implications for curriculum planners. *Nutr Diet.* 2009;66:108-112.
39. Evans EW, Redmond EC, Alwan N, Ilic S. Awareness and attitudes of student dietitians in Lebanon, UK and USA towards food safety. *Foods.* 2021;10:1875.
40. Arendt SW, Gregoire MB. Dietetics students perceive themselves as leaders and report they demonstrate leadership in a variety of contexts. *J Acad Nutr Diet.* 2014;114:S20-S25.