

Dietitians' Views on Artificial Intelligence: An In-Depth Study*

Elif GÜNER**, Kübra YUCA***, Emel ÖZTÜRK****, Berfin BALCIOĞLU*****,
Zeynep İrem KÜÇÜKÇAKAN*****

Abstract

Aim: Today, the use of artificial intelligence technologies is becoming increasingly common in many areas from health services to nutrition planning. The aim of this study is to explore dietitians' perceptions, experiences, and professional perspectives on the role of artificial intelligence in the field of nutrition.

Method: In this qualitative study, online in-depth interviews were conducted with 29 dietitians working in different sectors between March 27 and April 28, 2025. In the interviews lasting 15-20 minutes, a semi-structured topic guide consisting of 10 questions was used. Transcripts were analyzed using the thematic analysis method.

Results: Dietitians' statements were evaluated under the themes of (1) professional transformation and the role of artificial intelligence, (2) ethics, trust and professional responsibility, (3) professional competence, education and adaptation, (4) Scientific validity, reliability and personalization. Dietitians evaluated artificial intelligence as a helpful tool that saves time and facilitates routine tasks, but emphasized that human interaction, empathetic communication, and ethical responsibility cannot be replaced by technology. Although it is thought that artificial intelligence will lead to a radical change in the field of nutrition, there are concerns about issues such as patient privacy, ethical values, and lack of scientific evidence.

Conclusion: To our knowledge, this is the first study in Türkiye to explore dietitians' perspectives on artificial intelligence in nutrition. This study shows that artificial intelligence presents both risks and opportunities in the dietitian profession, and draws attention to the fact that professionals should be equipped in terms of knowledge, ethics and digital competence in this transformation process.

Keywords: Dietetics, artificial intelligence, qualitative research, ethics, digital health.

Özgün Araştırma Makalesi (Original Research Article)

Geliş / Received: 17.03.2026 **Kabul / Accepted:** 16.06.2026

DOI: <https://doi.org/10.38079/igusabder.1782791>

* The present study was derived from a project funded by the TÜBİTAK 2209-A Undergraduate Research Support Program, entitled "Qualitative Analysis of Dietitians' Views on the Role of Artificial Intelligence in Nutrition" (1919B012467807).

** Asst. Prof., Istanbul Sabahattin Zaim University, Faculty of Health Sciences, Department of Nutrition and Dietetics, Istanbul, Türkiye. E-mail: dyt.elifemiroglu@gmail.com [ORCID https://orcid.org/0000-0003-0575-5587](https://orcid.org/0000-0003-0575-5587)

*** Graduated Dietician, Istinie University, Faculty of Health Sciences, Department of Nutrition and Dietetics, Istanbul, Türkiye. E-mail: yuca14kbr@hotmail.com [ORCID https://orcid.org/0009-0006-6533-5815](https://orcid.org/0009-0006-6533-5815)

**** Graduated Dietician, Istinie University, Faculty of Health Sciences, Department of Nutrition and Dietetics, Istanbul, Türkiye. E-mail: emelcozovic@gmail.com [ORCID https://orcid.org/0009-0008-0027-7700](https://orcid.org/0009-0008-0027-7700)

***** Graduated Dietician, Istinie University, Faculty of Health Sciences, Department of Nutrition and Dietetics, Istanbul, Türkiye. E-mail: berfinbaltciogluu@icloud.com [ORCID https://orcid.org/0009-0002-3998-6367](https://orcid.org/0009-0002-3998-6367)

***** Graduated Dietician, Istinie University, Faculty of Health Sciences, Department of Nutrition and Dietetics, Istanbul, Türkiye. E-mail: iremke@hotmail.com [ORCID https://orcid.org/0009-0007-8022-6892](https://orcid.org/0009-0007-8022-6892)

ETHICAL STATEMENT: This study was carried out with the approval of Istinie University Ethics Committee for Research on Social and Human Sciences, date 30/12/2024 and numbered 2024-12. A signed subject consent form in accordance with the Declaration of Helsinki was obtained from each participant.

Diyetisyenlerin Yapay Zekâ Hakkındaki Görüşleri: Derinlemesine Bir Çalışma

Öz

Amaç: Yapay zekâ teknolojilerinin kullanımı günümüzde sağlık hizmetlerinden beslenme planlamasına kadar birçok alanda giderek yaygınlaşmaktadır. Bu çalışmanın amacı, diyetisyenlerin yapay zekânın beslenme alanındaki rolüne ilişkin algılarını, deneyimlerini ve mesleki bakış açılarını araştırmaktır.

Yöntem: Bu nitel çalışmada, farklı sektörlerde çalışan 29 diyetisyenle 27 Mart - 28 Nisan 2025 tarihleri arasında çevrimiçi derinlemesine görüşmeler gerçekleştirilmiştir. 15-20 dakika süren görüşmelerde, 10 sorudan oluşan yarı yapılandırılmış bir konu rehberi kullanılmıştır. Transkriptler tematik analiz yöntemi ile analiz edilmiştir.

Bulgular: Diyetisyenlerin ifadeleri (1) mesleki dönüşüm ve yapay zekânın rolü, (2) etik, güven ve mesleki sorumluluk, (3) mesleki yeterlilik, eğitim ve adaptasyon, (4) bilimsel geçerlilik, güvenilirlik ve kişiselleştirme temaları altında değerlendirilmiştir. Diyetisyenler, yapay zekâyı zamandan tasarruf sağlayan ve standart görevleri kolaylaştıran faydalı bir araç olarak değerlendirmiş olsalar da, insan dokunuşunun, empatik iletişimin ve etik sorumlulukların teknolojiyle değiştirilemeyeceğini vurgulamaktadırlar. Yapay zekânın beslenme alanında köklü bir değişime yol açacağı düşünülse de, hasta mahremiyeti, etik değerler ve bilimsel kanıt eksikliği gibi endişeler bulunmaktadır.

Sonuç: Bildiğimiz kadarıyla, bu çalışma Türkiye'de diyetisyenlerin beslenme alanında yapay zekâyı bakış açılarını inceleyen ilk çalışmadır. Çalışmamız, yapay zekânın diyetisyenlik mesleğinde bazı risklerin yanı sıra fırsatlar da sunduğunu göstermekte ve bu dönüşüm sürecinde profesyonellerin bilgi, etik ve dijital yetkinlik açısından donanımlı olması gerektiğine dikkat çekmektedir.

Anahtar Sözcükler: Diyetetik, yapay zekâ, niteleyici araştırma, etik, dijital sağlık.

Introduction

Artificial intelligence (AI) was first mentioned as a term in 1956, covering a variety of applications, from general applications such as learning to specific areas such as playing chess, writing poetry, or diagnosing a disease. AI was defined by American computer scientist McCarthy in 2007 as the engineering and science of making intelligent machines, including intelligent computer programs¹. In addition to this wide range of uses, the use of AI in the field of health is becoming increasingly common. There is a growing number of studies evaluating the use of AI in different fields such as assessment of fracture risk², psychiatry³, early diagnosis of neonatal sepsis⁴, perioperative medicine⁵, new drug discovery⁶, medical sensor technology⁷, nursing practices⁸, obstetric ultrasonography⁹.

In the field of nutrition and dietetics, there are studies examining the role of AI in a wide range of areas, such as the estimation of the nutrient content of meals, pediatric nutrition, weight control, oncology nutrition, nutrition in diabetes, hypertension, and metabolic syndrome¹⁰⁻¹⁸. Dietitians can use AI systems to help society eat healthily, create more effective nutrition education programs, and disseminate accurate nutritional information¹⁹. However, it is reported that AI is less researched and used in the field of nutrition and dietetics compared to fields such as medicine, that the information

provided by AI has not been sufficiently validated, that there is a need for clinical trials examining the effectiveness of interventions using AI, and that ethical violations are a major concern²⁰.

Despite the growing global interest in the use of AI in healthcare, there is a lack of research examining how dietitians in Türkiye perceive and integrate these technologies into their professional practice. Understanding the perspectives of dietitians in this context is important, as cultural, educational, and health system-related factors may shape their views differently compared to other countries. This qualitative study aimed to explore the views and experiences of dietitians on the use of AI in nutrition and dietetics.

Material and Methods

Study Design

This qualitative study was designed to explore dietitians' views on the role of AI in nutrition. In this context, the study aimed to better understand and make sense of dietitians' perceptions, experiences and perspectives on AI.

Sample

Participants were selected from among the dietitians who graduated from the Departments of Nutrition and Dietetics in Türkiye and are actively working. Participants who volunteered for the study were selected by the maximum diversity sampling method. Participants were selected from different professional experience and age groups. Thus, the study aimed to obtain comprehensive and rich data with different experiences and perspectives.

In qualitative research, data saturation is defined as the inability to add a new theme, concept or finding to the analysis process when new data is collected. In this study, when the number of participants reached twenty, repetitions in themes, sub-themes and codes began to be seen intensively, and the data obtained from the new participant did not contribute to the existing themes. Thus, data saturation was considered to have been reached. At the end of the coding process, it was determined that the existing themes were sufficient and rich enough to meet the research questions.

In-Depth Interviews

Interviews were conducted via online platforms between March 27 and April 28, 2025, on the pre-planned day and time according to the availability of the participants. During the interviews, audio recordings were taken with the permission of the participants. The interviews lasted between 15 and 20 minutes.

In the study, a data collection form consisting of 6 questions and a semi-structured interview guide consisting of 10 questions were used as data collection tools. The data

collection form includes questions about the dietitian's age, gender, sector, experience level, educational level and graduation year. The semi-structured interview guide includes the following questions:

- 1. Are you taking advantage of AI? If so, can you explain in which areas and for what purpose you use it?*
- 2. What do you think are the advantages and disadvantages of using AI?*
- 3. Do you think AI can replace dietitians, or do you think that the observation and experience of dietitians will always be needed?*
- 4. What are your thoughts on the claim that AI can provide more accurate and personalized recommendations in the field of nutrition and dietetics?*
- 5. How can dietitians improve themselves to work with AI?*
- 6. What do you think about the ethical use of AI?*
- 7. How will the integration of AI into nutrition and dietetics practices impact your daily workflow and patient management processes?*
- 8. What do you think about the effects of the possibility of carrying out nutrition counseling processes with AI-based systems on dietitians in the future?*
- 9. How can the spread of AI-based nutrition guides and mobile applications affect dietitians?*
- 10. Is there anything else you want to say?*

Ethical Statement

Participant responses were anonymized in a way that did not contain any personal data, taking into account ethical principles, and codes (P1, P2, etc.) were assigned to each participant. All participants were informed and their consent was obtained before the interviews. The study was carried out in accordance with the Declaration of Helsinki. Ethics committee permission was obtained from Istinye University Social Sciences and Humanities Ethics Committee (Meeting No: 2024-12, Meeting Date: 30.12.2024).

Data Analysis

Descriptive statistics (mean, standard deviation, minimum, maximum) were calculated for participant characteristics.

Thematic analysis approach was used in the analysis of qualitative data. Thematic analysis is a scientifically accepted qualitative analysis technique that allows certain patterns, meanings and themes to be systematically revealed from answers to open-

ended questions. The thematic analysis was conducted following the phases proposed by Braun and Clarke. Accordingly, the analysis involved (I) repeated reading of the transcripts to achieve data familiarization, (II) open coding of meaningful units, (III) grouping similar codes into categories, and (IV) organizing these categories into overarching themes. An inductive, data-driven approach was adopted in the development of themes, and the consistency between codes and themes was checked iteratively throughout the analysis process²¹. MAXQDA software (VERBI Software, Berlin, Germany) was used to facilitate the systematic coding of transcripts, organization of codes, and development of themes during the thematic analysis process. The coded data were organized into main themes and sub-themes, taking into account the similarity of content and repeated patterns. An inductive approach was adopted in the creation of themes. In order to ensure reliability in the coding and theming process, the obtained codes and themes were constantly checked. In the Results section, citations are included for each main theme and sub-theme. Thus, the verifiability of the findings was increased. Care has been taken to ensure researcher impartiality in order to prevent possible biases during the analysis process. The coding process was carried out by one researcher. This decision was based on the fact that the same researcher was involved in the development of the interview guide, data collection, and analysis, which helped preserve contextual coherence and interpretive consistency.

Results

In this study, which aimed to explore dietitians' perceptions, experiences and professional perspectives on the role of AI in the field of nutrition, in-depth interviews were conducted with a total of 29 (female= 24, male= 5) dietitians. 37.93% of the participants have a bachelor's degree, 58.62% have a master's degree and 3.45% have a doctoral degree. The ages of dietitians ranged from 23 to 48 years, with a median age of 28.14 ± 6.08 years. The graduation years of the participants are distributed between 2012 and 2024. The years of professional experience of dietitians vary between 1 and 13 years, and the average years of professional experience is 4.14 ± 3.40 (Table 1).

Table 1. Characteristics of participants

Participant	Age	Gender	Educational Level	Graduation Year	Years of Professional Experience	Institution
P1	24	Female	Master's Degree	2023	1	Online Counseling
P2	32	Male	Master's Degree	2014	10	Counseling Center
P3	25	Female	Bachelor's Degree	2023	1	Catering
P4	28	Female	Master's Degree	2020	4	University

P5	23	Female	Bachelor's Degree	2024	1	Catering
P6	23	Female	Master's Degree	2023	2	Counseling Center
P7	26	Female	Bachelor's Degree	2021	4	Private Hospital
P8	24	Male	Bachelor's Degree	2024	1	Online Counseling
P9	25	Female	Bachelor's Degree	2021	4	Catering
P10	24	Female	Bachelor's Degree	2024	1	Private Hospital
P11	26	Female	Master's Degree	2024	4	Private Hospital
P12	27	Female	Master's Degree	2020	4	University
P13	38	Male	Master's Degree	2015	9	State Hospital
P14	25	Female	Master's Degree	2022	3	Counseling Center
P15	33	Female	Master's Degree	2016	9	Private Hospital
P16	23	Female	Bachelor's Degree	2024	1	Online Counseling
P17	25	Female	Master's Degree	2021	3	Catering
P18	37	Female	Doctoral Degree	2012	13	Counseling Center
P19	27	Female	Master's Degree	2020	5	Private Hospital
P20	24	Female	Bachelor's Degree	2022	3	Counseling Center
P21	26	Female	Bachelor's Degree	2022	2	Private Hospital
P22	26	Female	Master's Degree	2022	3	Private Hospital
P23	25	Female	Master's Degree	2022	3	Private Hospital
P24	48	Male	Master's Degree	2021	4	Private Hospital

P25	35	Female	Master's Degree	2023	2	Counseling Center
P26	36	Female	Master's Degree	2014	10	Municipality
P27	23	Female	Master's Degree	2023	2	Counseling Center
P28	23	Female	Bachelor's Degree	2024	1	Counseling Center
P29	35	Male	Bachelor's Degree	2015	10	Counseling Center

P: Participant.

The answers given by the participants to the semi-structured questions were evaluated by thematic analysis method and four main themes and eight sub-themes in Table 2 were created.

Table 2. Themes and sub-themes

Themes	Sub-themes
1. Professional Transformation and the Role of AI	1.1. The Future of the Dietitian Profession and Role Change
	1.2. Automation of Routine Work and Time Management
2. Ethics, Trust and Professional Responsibility	2.1. Data Security and Patient Privacy
	2.2. Limits of Liability in Decision Support Systems
3. Professional Competence, Training and Adaptation	3.1. New Competencies and the Need for Continuous Training
	3.2. Professional Adjustment, Resistance, and Fears
4. Scientific validity, Reliability and Personalization	4.1. Scientific Basis and Application Reliability
	4.2. Personalized Counseling

AI: Artificial Intelligence

Theme 1. Professional Transformation and the Role of AI

Sub-theme 1.1. The Future of the Dietitian Profession and Role Change

The vast majority of dietitians agree that AI-based systems will radically transform the dietitian profession. Some dietitians have emphasized that while AI can provide significant convenience in routine tasks, it is not possible to completely eliminate the human factor.

“I think there will always be a need for the observation and experience of dietitians, because AI cannot account for all variables.” (P1)

“I think we can be like extras. However, human contact is always needed. No technology can fully replace humans in decision-making.” (P3)

“AI may reduce demand for dietitians, but one-on-one human relationships are still important for some clients.” (P4)

Sub-theme 1.2. Automation of Routine Work and Time Management

Saving time and streamlining workflow (as one of AI's most prominent contributions) has often been emphasized.

“Thanks to AI, dietitians can spend more time with their clients and get rid of unnecessary workload.” (P7)

“Yes, AI makes diet program creation easy. However, the human factor is still required for detailed evaluation and follow-up.” (P5)

Theme 2. Ethics, Trust and Professional Responsibility

Sub-theme 2.1. Data Security and Patient Privacy

A significant portion of dietitians noted that data privacy and patient privacy are critical risks in AI applications. It was emphasized that ethical sensitivities are one of the core values of the profession and that it is imperative to uphold these values in AI applications.

“This is a really important issue. Much more care should be taken, especially regarding the confidentiality of patient information.” (P1)

“Data privacy is a must. One of my biggest fears is that AI applications may violate patient privacy.” (P18)

“The biggest ethical risk is that data falls into the wrong hands and patients are harmed.” (P11)

Sub-theme 2.2. Limits of Liability in Decision Support Systems

Some dietitians have pointed out uncertainties about who will be responsible for the negativities that may arise as a result of the decisions made by AI-powered systems.

“Who will be responsible if there is a mistake? Dietitian, app developer, AI system?” (P15)

“If AI is given carte blanche, we may lose our professional responsibilities. That's why the boundaries need to be drawn clearly.” (P20)

Theme 3. Professional Competence, Training and Adaptation

Sub-theme 3.1. New Competencies and the Need for Continuous Training

Dietitians stated that technology literacy and digital competencies should be developed in order to survive professionally in the age of AI. It was also suggested that university curricula should be updated and continuing education programs should be organized.

"Since AI is developing every day, I think a dietitian profile that follows innovations and receives continuous training is essential." (P3)

"It is important for dietitians to receive a basic education on AI, at least to understand how algorithms work." (P9)

"These subjects must be taught as courses in universities." (P17)

Sub-theme 3.2. Professional Adjustment, Resistance, and Fears

Some of the participants stated that they experienced anxiety and resistance to technological transformation. Some participants stated that professional adaptation would only be possible with the right training and guidance.

"Sometimes I'm scared because I feel like my profession is going to go away." (P13)

"You have to be open to every innovation, but it still takes time to get used to it." (P22)

"I strive to improve myself. But some of my friends are very nervous." (P6)

Theme 4. Scientific Validity, Reliability and Personalization

Sub-theme 4.1. Scientific Basis and Application Reliability

A significant portion of dietitians have expressed skepticism about the compatibility of AI-based systems with current scientific knowledge and guidelines. The importance of personalized applications in dietetics was emphasized, and it was stated that standard algorithms may not be suitable for every individual.

"From a scientific point of view, AI is still very new. More evidence and research are needed." (P1)

"The diet should be personalized. AI helps to a certain extent, but it can't detect all the differences." (P21)

Sub-theme 4.2. Personalized Counseling

Some participants highlighted that while AI applications can be particularly beneficial for simple follow-ups, the dietitian's role is indispensable in complex cases.

"For simple follow-ups, yes, but in complex cases, the human eye is essential." (P8)

"AI helps with routine tasks, but professional knowledge is essential for a detailed nutrition plan." (P10)

"Every individual is different; A single suggestion would not be healthy for everyone." (P25)

Discussion

The science of Nutrition and Dietetics has traditionally been based on clinical trials and observational studies. However, AI's capabilities include uncovering complex relationships in large datasets, making it widely applicable to personalized dietary recommendations and disease prediction. Integrating AI-based applications into nutrition and dietetics is thought to reshape nutrition interventions, facilitating technological advancements²². In this study, dietitians' views on this growing role of AI in nutrition and dietetics were explored.

Healthcare professionals can benefit from AI to improve healthcare operations, reduce errors, ease the burden on hospitals, and increase quality and sustainability¹. In nutritional science, AI-based systems can be used as an aid in areas such as screening, disease risk prediction, supporting workflow and management, assessment and intervention²³. The findings obtained in the in-depth interviews in this study show that dietitians see AI as an aid that provides convenience in routine tasks and reduces unnecessary workload. However, some dietitians have expressed concerns about the growing role of AI in the field of nutrition. Despite its role as an assistant and a facilitator of routine tasks, there are dietitians who believe that AI will bring about a fundamental change in nutritional science. These views are consistent with some other studies that question whether AI can replace different healthcare professionals (dietitians, psychiatrists, etc.) in the future^{24,25}. However, it is an undeniable fact that for AI to be successful in clinical use, the expertise of professionals is primarily needed. In particular, the lack of logic in some questions asked or the excess of missing data will make the solutions offered by AI inadequate²⁶. The impact of AI on healthcare quality is related to the quality of data entry. Therefore, it is very important for dietitians to participate in the development of AI²⁷. For this purpose, integrating the subject of AI into undergraduate education curricula will make a significant contribution to organizing continuing education programs and increasing the knowledge level of dietitians about the limits and functions of AI. In this study, some dietitians emphasized the need for education on AI.

Despite the opportunities, there are also a number of threats to the use of AI systems in the field of nutrition. Failure to consider individual variables, difficulties in dealing with complex scenarios, and lack of transparency of the source of information are some of these threats²³. AI systems are expected to think and act in a human-like manner, behave rationally, and achieve the best possible outcome. While the integration of AI into healthcare is expected in the future, it must first undergo ethical scrutiny and gain societal acceptance²⁸. In this study, some dietitians expressed resistance to the use of AI

systems. These insights align with the existing literature, which suggests that the use of AI in nutrition and dietetics is lagging behind compared to fields like medicine. This may be due to dietitians' lack of knowledge on the subject, or it may be a result of their professional and ethical concerns.

Concerns about the use of AI in the field of nutrition can be examined under the following categories: impact on the patient, impact on the patient-dietitian relationship, impact on the dietitian, impact on the dietitian profession. One of the most frequently reported concerns with AI-based systems is the protection of patient privacy and sensitive information. In order to protect patient privacy, it is necessary to make the consent process a routine practice and not to allow unauthorized use of data²⁹. The World Health Organization's 'Ethics and Governance of Artificial Intelligence for Health' guide also clearly states that for AI to be used in the healthcare field, ethical concerns and human rights must be central to the design, development and deployment of AI technologies³⁰. The dietitians interviewed clearly expressed their concerns about patient privacy and data confidentiality. In the use of AI in the field of nutrition, it is necessary to pay attention to the ethical principles in the guide published by the World Health Organization.

AI's behavior towards humans is sometimes not in line with human expectations and judgments. Studies have been carried out to develop artificial empathy in order to improve the empathic appearance. However, artificial empathy can also have antisocial effects. Developing full emotional empathy involves some concerns (such as prioritizing the well-being of individuals over the well-being of society)³¹. Also, how AI will protect human values is an issue. Aligning AI with human values requires integrating value judgments such as patient rights, societal norms, and ethical guidelines with AI³².

One of the concerns about the widespread use of AI is the possible impact of AI on human intelligence. Two theories emerge on this subject. Will AI improve human intelligence, or will over-reliance on AI technologies make people less intelligent? Nyholm seeks to answer this question in his article published in 2024³³. The purpose of dietitians' use of AI suggests that AI can have individual effects not only on the dietitian profession but also on dietitians. In this context, it should be clearly determined where the role of AI begins and ends, and who is responsible. It should be noted that AI is an aid in this process. In this study, dietitians also expressed their questions about 'who is responsible' in the interviews.

Patient privacy and effects on the dietitian are not the only areas of concern. There are also concerns about how AI will affect the patient-dietitian relationship. While several studies have reported that AI systems used as an assistive tool could benefit the patient-healthcare professional relationship, the majority argue that an AI-led approach would harm this relationship³⁴. In this study, several dietitians emphasized that AI can be an important helper, but human contact and human relations are indispensable. The inadequacy of AI in the previously mentioned areas such as empathy and human values is the basis for this view.

One of the points emphasized by dietitians in the study is the insufficient evidence for AI. Although the number of studies estimating the potential of the use of AI in the field of nutrition is increasing, it has also been reported that AI can provide erroneous recommendations on health protection and nutritional treatment of diseases²⁵. Therefore, research dietitians need to contribute to the proliferation of evidence on AI.

This study, which aims to explore dietitians' views on AI, has an important place as it is the first known study in this field. Another strength is that the sample consisted of dietitians working in different fields. Thus, insights into what role AI can play in different business areas have been obtained. As with all studies, there are some limitations in this study. The fact that the majority of the sample consists of young adults is insufficient to reflect the views of older dietitians. In addition, the fact that the interviews were held online within the limits of possibility can be considered a limitation. Although appointments are scheduled in line with the availability of dietitians, face-to-face in-depth interviews can be carried out in future studies. In addition, due to its nature, there is no generalizability of qualitative study results. Therefore, qualitative studies to be conducted in different samples will further strengthen the literature.

Conclusion

This study show that the majority of dietitians believe AI will cause a radical change in the field of nutrition. The AI's features of saving time and making routine tasks easier for dietitians have been mentioned. Despite these benefits, dietitians have some concerns about the use of AI (patient privacy, data privacy, lack of scientific evidence, etc.). It has been revealed that AI can be an aid for dietitians, but it is necessary to set boundaries well in the use of AI to protect the patient-dietitian relationship, ethical principles, and human values. In addition, continuous training programs on AI should be organized in order to break the resistance of dietitians, to benefit from AI in the most accurate way, to ensure the development of AI, and to protect clients and service quality. Increased studies evaluating the effectiveness of AI applications in the future will also eliminate concerns about insufficient evidence.

Funding: The present study was derived from a project funded by the TUBITAK 2209-A Undergraduate Research Support Program, entitled “Qualitative Analysis of Dietitians' Views on the Role of Artificial Intelligence in Nutrition” (1919B012467807).

Competing Interests: The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

REFERENCES

1. Azer SA, Guerrero APS. The challenges imposed by artificial intelligence: Are we ready in medical education? *BMC Med Educ.* 2023;23:680.

2. Hans D, Shevroja E, Leslie WD. Evolution in fracture risk assessment: Artificial versus augmented intelligence. *Osteoporos Int.* 2021;32(2):209-212.
3. Monteith S, Glenn T, Geddes J, Whybrow PC, Achtyes E, Bauer M. Expectations for artificial intelligence (AI) in psychiatry. *Curr Psychiatry Rep.* 2022;24(11):709-721.
4. Sullivan BA, Kausch SL, Fairchild KD. Artificial and human intelligence for early identification of neonatal sepsis. *Pediatr Res.* 2023;93(2):350-356.
5. Maheshwari K, Cywinski JB, Papay F, Khanna AK, Mathur P. Artificial intelligence for perioperative medicine: Perioperative intelligence. *Anesth Analg.* 2023;136(4):637-645.
6. Cerchia C, Lavecchia A. New avenues in artificial-intelligence-assisted drug discovery. *Drug Discov Today.* 2023;28(4):103516.
7. Fu J, Gao Q, Li S. Application of intelligent medical sensing technology. *Biosensors (Basel).* 2023;13(8):812.
8. Pepito JA, Ito H, Betriana F, Tanioka T, Locsin RC. Intelligent humanoid robots expressing artificial humanlike empathy in nursing situations. *Nurs Philos.* 2020;21(4):e12318.
9. Horgan R, Nehme L, Abuhamad A. Artificial intelligence in obstetric ultrasound: A scoping review. *Prenat Diagn.* 2023;43(9):1176-1219.
10. Chotwanvirat P, Prachansuwan A, Sridonpai P, Kriengsinyos W. Advancements in using AI for dietary assessment based on food images: Scoping review. *J Med Internet Res.* 2024;26:e51432.
11. Ji Y, Waki K, Yamauchi T, Nangaku M, Ohe K. Using one-shot prompting of non-fine-tuned commercial artificial intelligence to assess nutrients from photographs of Japanese meals. *J Diabetes Sci Technol.* 2025;19322968241309889.
12. Lee C, Kim S, Kim J, Lim C, Jung M. Challenges of diet planning for children using artificial intelligence. *Nutr Res Pract.* 2022;16(6):801-812.
13. Haman M, Školník M, Lošťák M. AI dietician: Unveiling the accuracy of ChatGPT's nutritional estimations. *Nutrition.* 2024;119:112325.
14. Buchan ML, Goel K, Schneider CK, Steullet V, Bratton S, Basch E. National implementation of an artificial intelligence-based virtual dietitian for patients with cancer. *JCO Clin Cancer Inform.* 2024;8:e2400085.

15. Naja F, Taktouk M, Matbouli D, et al. Artificial intelligence chatbots for the nutrition management of diabetes and the metabolic syndrome. *Eur J Clin Nutr.* 2024;78(10):887-896.
16. Kenger EB, Karahan TÖ. Artificial intelligence-generated diet plans for hypertension and dyslipidemia: Adherence and nutritional insights. *Iranian Journal of Public Health.* 2025;54(6):1243.
17. Karahan TÖ, Kenger EB. ChatGPT-4o for weight management: Comparison of different diet models. *Food Science & Nutrition.* 2025;13(7):e70639.
18. Bayram HM, Arslan S, Ozturkcan A. Evaluating AI-generated meal plans for simulated diabetes profiles: A guideline-based comparison of three language models. *Journal of Evaluation in Clinical Practice.* 2025;31(7):e70295.
19. MacMillan Uribe AL, Patterson J. Are nutrition professionals ready for artificial intelligence? *J Nutr Educ Behav.* 2023;55(9):623.
20. Sosa-Holwerda A, Park OH, Albracht-Schulte K, Niraula S, Thompson L, Oldewage-Theron W. The role of artificial intelligence in nutrition research: A scoping review. *Nutrients.* 2024;16(13):2066.
21. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology.* 2006;3(2):77–101.
22. Theodore Armand TP, Nfor KA, Kim JI, Kim HC. Applications of artificial intelligence, machine learning, and deep learning in nutrition: A systematic review. *Nutrients.* 2024;16(7):1073.
23. Atwal K. Artificial intelligence in clinical nutrition and dietetics: A brief overview of current evidence. *Nutr Clin Pract.* 2024;39(4):736-742.
24. Brown C, Story GW, Mourão-Miranda J, Baker JT. Will artificial intelligence eventually replace psychiatrists? *Br J Psychiatry.* 2021;218(3):131-134.
25. Güner E, Ülker MT. Can artificial intelligence replace dietitians? A conversation with ChatGPT. *Toros University Journal of Food, Nutrition and Gastronomy.* 2024;3(1):49-56.
26. Cleland JGF, Li C, Jones Y. Artificial intelligence needs clinical intelligence to succeed. *JACC Heart Fail.* 2020;8(7):588-591.
27. Bond A, Mccay K, Lal S. Artificial intelligence & clinical nutrition: What the future might have in store. *Clin Nutr ESPEN.* 2023;57:542-549.
28. Giansanti D. Artificial intelligence in public health: Current trends and future possibilities. *Int J Environ Res Public Health.* 2022;19(19):11907.

29. Singer P, Robinson E, Raphaeli O. The future of artificial intelligence in clinical nutrition. *Curr Opin Clin Nutr Metab Care*. 2024;27(2):200-206.
30. World Health Organization. Ethics and governance of artificial intelligence for health: WHO guidance. Geneva: World Health Organization; 2021. Available from: <https://iris.who.int/server/api/core/bitstreams/f780d926-4ae3-42ce-a6d6-e898a5562621/content>.
31. Christov-Moore L, Reggente N, Vaccaro A, et al. Preventing antisocial robots: A pathway to artificial empathy. *Sci Robot*. 2023;8(80):eabq3658.
32. Yu KH, Healey E, Leon TY, Kohane I, Manrai AK. Medical artificial intelligence and human values. *The New England Journal of Medicine*. 2024;390(20):1895–1904.
33. Nyholm S. Artificial intelligence and human enhancement: Can AI technologies make us more (artificially) intelligent? *Camb Q Healthc Ethics*. 2024;33(1):76-88.
34. Sauerbrei A, Kerasidou A, Lucivero F, Hallowell N. The impact of artificial intelligence on the person-centred, doctor-patient relationship: Some problems and solutions. *BMC Med Inform Decis Mak*. 2023;23(1):73.