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RESEARCH ARTICLE

LEVELS OF AWARENESS, READINESS, AND ANXIETY OF PHYSIOTHERAPISTS RELATED TO ARTIFICIAL INTELLIGENCE

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ABSTRACT

Purpose: This study aimed to examine the level of awareness of physiotherapists about artificial intelligence (AI), readiness, anxiety level related to AI and barriers to AI use.
Material and Methods: 413 physiotherapists participated in an online and cross-sectional study. A custom-designed survey that focussed on the levels of knowledge, readiness, and anxiety of physiotherapists related to AI and factors limiting AI use
Results: 61% of physiotherapists had knowledge of AI in physiotherapy and rehabilitation. Mobile-based applications were reported as the most preferred approach among AI-based applications, while the cost of AI-based technological therapy applications was stated as the factor most limiting use of AI-based technological therapy applications in rehabilitation. Total score of Medical Artificial Intelligence Readiness Scale was calculated as 74.19±14.25, and total score of the Artificial Intelligence Anxiety Scale was 50.72 ±22.76. The level of readiness was lower among those with a bachelor's degree level of education compared to those with postgraduate degrees ($p<0.05$).
Conclusion: Physiotherapists have low levels of AI-related anxiety and a high degree of readiness. Physiotherapists were seen to have a positive attitude and willingness to use AI-based applications in practice. Nevertheless, the level of readiness could be increased by including AI-based applications in undergraduate curriculum.

Keywords: Physical therapist, artificial intelligence, perceptions, readiness

INTRODUCTION

Artificial intelligence (AI) technologies with subtypes, including machine learning, neural networks, and deep learning are increasingly playing a role in many health-related practices(1). Many healthcare professionals use these technologies in clinical decision-making, diagnosis, and patient management (2-5). The AI-based applications that are mainly used in physiotherapy and rehabilitation include video analysis, dexterous robotics, virtual assistant, prediction algorithms, and risk analysis (5). These approaches can potentially facilitate and improve data analysis and implementation, classification of function, and disability prediction(6).

Although AI usage in the field of healthcare has increased recently, examination of the attitude and knowledge levels of healthcare professionals towards AI shows that many professionals need more knowledge of the fundamental principles of AI systems. They are concerned about its implications in

clinical practice (7). Tajaldeen et al. stated that radiologists in residency programs and radiology departments were significantly lacking AI information because AI and its applications in radiology are increasing rapidly (8). As a result of a study by Baser et al. evaluating the concerns of family physicians about AI, it was determined that the anxiety levels of family physicians working in primary care were lower (9). Abuzaid et al. examined the perceptions and willingness of physiotherapists (PTs) to AI implementation, and they showed that although many participants appreciated AI applications, their knowledge of AI was inadequate (10). Another study investigating the knowledge and attitudes of PTs towards AI applications reported that their understanding of AI applications in rehabilitation was lower than their general knowledge about AI. In addition, it was stated that experience and educational qualifications were significant predictors of the level of knowledge (11).

The rising trend for the using of AI applications, AI applications socio-technical ignorance, and insufficient knowledge have triggered AI-related concerns (12). There are also concerns about the practical application of AI due to problems related to health data and liability, available enforcement tools, security, and ethics.

Even though studies in the literature have identified the knowledge and attitudes of PTs, there has been no evaluation of their readiness and anxiety levels using validated questionaire and the sample size of some of those studies was small. Therefore, the aim of this study was to comprehensively evaluate the AI knowledge level of PTs and their readiness and anxiety levels to the use of AI.

MATERIALS AND METHODS

This cross-sectional study was conducted using a web-based questionnaire created using Google Forms (Google, LLC), which was administered to PTs in Turkey during the period May 2022 to March 2023. This report has been prepared according to the Checklist for Reporting Results of Internet E-Surveys guidelines (CHERRIES) (13). The study was approved by Eskisehir Osmangazi University Non-Interventional Clinical Research Ethics Board. (Date: 22.02.2022, Decision Number: 24).

Subjects

The participants were invited via links from Google Forms on social media platforms (Whatsapp, Facebook and Instagram) and were informed about the aim of the survey in the preface to the questionnaire. The purpose of the study was explained, and consent to participate was given through statements at the beginning of the questionnaire. The subjects included were those who volunteered to participate, and had been working as a PTs for the last three months. The a priori sample size was calculated as 483 based on a cross-sectional studies formula for a sample size with a margin of error set at 5% and 95% confidence levels, so the questionnaire was sent online to 483 subjects.

Data Collection Instrument

The questionnaire was developed based on the purpose of the study and was created using Google Forms. The questionnaire included demographic characteristics and questions about AI knowledge, AI readiness level and anxiety regarding AI. Based on previous studies (7,8,10,11) in the literature,

Table 1. Knowledge of AI

Q1. Do you know about the applications of AI in physiotherapy and rehabilitation?
Q2. How did you obtain this information ?
Q3. Have you been informed about AI- based applications in your curriculum?
Q4.Would you like to be informed about AI-based applications in Physiotherapy and Rehabilitation curriculum?
Q5. Have you attended any training, congresses or symposia about AI outside of the traditional curriculum?
Q6. Have you taken part in research on AI?
Q7. Do you include AI-based applications in physiotherapy and rehabilitation practices?
Q8. Which of the AI-based technological therapy applications do you use?
Q9. Which of the following factors do you think limits the use of AI-based technological therapy applications in rehabilitation?
Q10. Are AI-based applications as effective as traditional physiotherapy and rehabilitation approaches?
Q11. Are you happy with the inclusion of AI in your life?
Q12. Are you worried about the inclusion of AI in your life?

AI: Artificial intelligence

Table 2. Demographic characteristics of the participants

Variables	**n=413**
Age (years) median (IQR)	28.00 (5.00)
Duration of experience (years) median (IQR)	5.00 (5.00)
Gender	**n (%)**
Male	119 (28.8)
Female	294 (71.2)
Education degree	**n (%)**
Bachelors	208 (50.4)
Master	141 (34.1)
Doctorate	64 (15.5)
Employment sector	**n (%)**
Hospital	213 (51.6)
Rehabilitation centre	98 (23.7)
Academician	102 (24.7)
Speciality field	**n (%)**
General	125 (30.3)
Cardiopulmonary	34 (8.2)
Musculoskeletal	88 (21.3)
Neurological	166 (40.2)

IQR: Interquartile range

questions related to AI knowledge were created by adding our academic-professional field experience. In addition, the comprehensibility of the questions related to AI knowledge outside the questionnaires and whether they reflect their purpose was determined through a pilot study. This initial draft was sent to 35 PTs with clinical experience (mean years of experience: 8.6 years), and following feedback related to the wording and relevance of the questions, a final version was produced. This questionnaire consisted of questions in four sections of demographics and clinical characteristics, knowledge of AI, readiness and anxiety regarding AI.

Demographic and clinical characteristics

The gender, age, education level and years of practice experience were recorded. The duration of experience was categorised as '0-5 years', '5-10 years', '10-15'years and 'more than 15' years.

AI knowledge level

AI knowledge level was determined using questions about AI usage in research and practice, AI-based applications, and the factors affecting the inclusion of these applications in rehabilitation (Table 1).

AI Readiness Level

The AI readiness level was evaluated using the Medical Artificial Intelligence Readiness Scale (MAIRS). This questionnaire developed by Karaca has 22 items in four subgroups: cognitive factors (items 1-8), skill factors (items 9-16), foresight factors (items 17-19) and ethics factors (items 20-22). Each item is scored on a 5-point Likert-type scale (1= strongly disagree to 5= strongly agree). The scale total score in the range of 22-110 points is obtained as the total of the subgroup scores, with a higher score representing good AI readiness (14).

Anxiety Regarding AI

The level of anxiety regarding AI was assessed with the Artificial Intelligence Anxiety Scale (AI-AS). The scale consists of 21 items in four sub-dimensions of learning (items 1-8 items), job replacement (items 9-14), sociotechnical blindness (items 15-18) and AI configuration (items 19-21). Each item is scored on a 7-point Likert type scale (1 = never through 7 = completely), providing a total score in the range of 35-175 points. Higher scores indicate an increased level of anxiety. This scale was translated into Turkish by Terzi et al.(15, 16).

Statistical analysis

Data were analyzed using SPSS software (version 25.0; IBM). The assumption of normality was examined using Skewness- kurtosis values. Distribution was accepted as normal when the skewness-kurtosis values were -2 to +2. Normally distributed continuous data were expressed as mean ± standard deviation values and categorical data as frequency and percentage. Chi-square tests were used to investigate the level of AI knowledge in physiotherapy and rehabilitation and the demographic characteristics of the study participants. The Independent Samples t-test was used to compare two groups of data, and One- way ANOVA was applied to three groups. Bonferonni adjustment was performed for the post hoc test. When the power of the study is calculated according to the readiness level of the study, the effect size was large (Cohen d= 1.159, 0.05, Power 0.99).

RESULTS

A total of 413 PTs (413/483, response rate: 85 %) participated in the study, comprising 29 % males and 71 % females with a mean age of 29 ± 5 years. The majority of PTs had bachelor's degrees and were working in hospitals. Most of the participants worked in neurological rehabilitation. The duration of experience was mean 6 ± 5 years, with 57% of the respondents reporting experience of <5 years, 30%

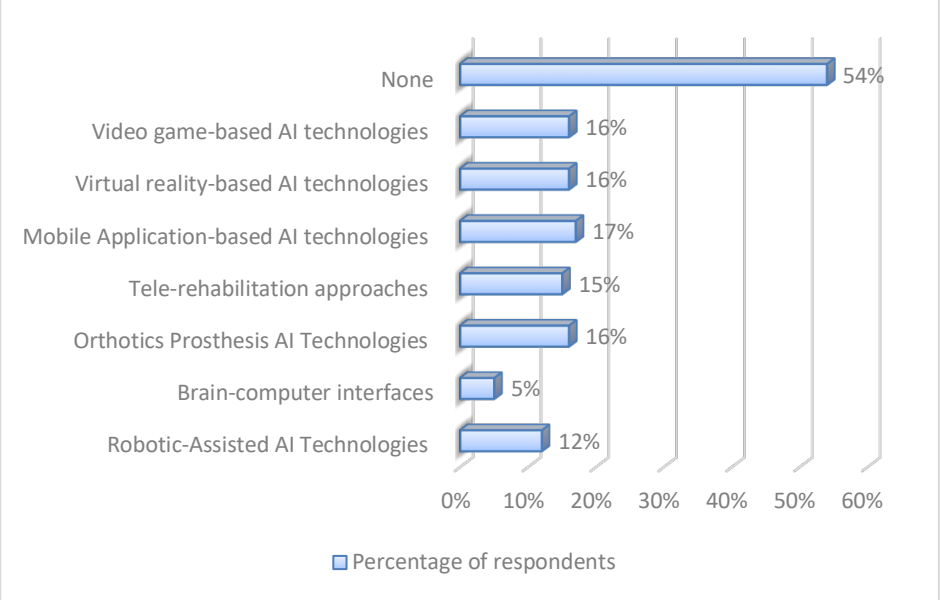

Figure 1. AI-based technological therapy applications used by physiotherapists

had <5-10 years, 9% had 10-15 years, and 4% had 15-20 years. The demographic and characteristic variables of the study participants are shown in Table 2.

Of the total study participants, 61% had knowledge about AI in physiotherapy and rehabilitation. The ratio of PTs knowing about AI in physiotherapy and rehabilitation was higher in the group with doctorate level qualifications ($p<0.001$) and in the academicians group ($p<0.001$). There was determined to be no difference in knowledge about AI in physiotherapy and rehabilitation according to the duration of experience ($p=0.568$), gender ($p=0.246$), or speciality field ($p=0.113$). This information had been obtained by 51% of the respondents from publications, by 43 % from attendance at a scientific meeting, by 35 % from social media, and by 31% during education. It was stated by 33% of PTs that training on AI was included in their physiotherapy and rehabilitation curriculum. All participants thought that information about AI applications was given in the physiotherapy and rehabilitation curriculum. Training sessions, congresses or symposia about AI outside the traditional curriculum had been attended by 19% of the respondents. Only 15 PTs had participated in research related to AI in physiotherapy and rehabilitation. AI- applications were included in their rehabilitation applications by 36% of the respondents. Mobile-based applications were reported to be the most preferred approach among AI-based

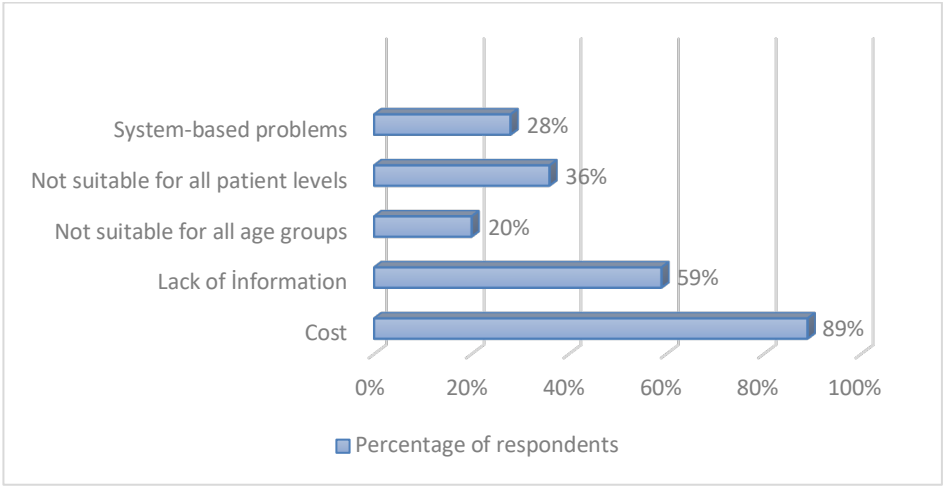

Figure 2. Factors limiting the use of AI-based technological therapy applications in physiotherapy and rehabilitation

Table 3. AI readiness and anxiety level of the physiotherapists

AI Readiness	**Mean±SD**	**IQR (Min-Max)**
Cognitive factor (8-40 points)	23.71±6.30	32 (8-40)
Ability factor (8-40 points)	29.42 ± 5.74	32 (8-40)
Vision factor (3-15 points)	9.93 ±2.49	12 (3-15)
Ethics factor (3-15 points)	11.12 ±2.06	12 (3-15)
Total MAIRS (22-110 points)	**74.19±14.25**	**88 (22-110)**
Anxiety Level		
Learning (9-63 points)	14.43 ±7.13	44 (8-52)
Job replacement (4-28 points)	16.13 ±8.98	36 (6-42)
Sociotechnical Blindness (4-28 points)	12.60 ±6.12	24 (4-28)
AI configuration (3-21 points)	7.55 ±5.23	18 (3-21)
Total score (35-175 points)	**50.72 ±22.76**	**120 (21-141)**

AI: Artificial Intelligence, AI-AS: Artificial Intelligence Anxiety Scale, *MAIRS: Medical Artificial Intelligence Readiness Scale, IQR: Interquartile Range, SD: Standart deviation*

applications. The AI-based technological therapy applications used by the PTs are shown in Figure 1. The cost of AI-based technological therapy applications was stated to be the factor most limiting the use of AI-based technological therapy applications in rehabilitation, followed by a lack of information on using AI-based technological therapy applications in rehabilitation (Figure 2). AI-based applications were thought to be as effective as traditional physiotherapy and rehabilitation approaches by 49% of the PTs, while 39 % had no idea. It was stated by 388 respondents that they were happy to include AI in their lives, and 26% were worried about the inclusion of AI in their lives.

The Level of Readiness and The Level of Anxiety Regarding AI

When the readiness level was examined, scores of MAIRS are shown in Table 3. The total score and subdimension scores of MAIRS were higher than the maximum average score obtained from the scale.

The findings of AI-AS are given in Table 3. The job replacement points of the AI-AS were higher than the maximum average score of the subdimensions point, while the total AI-AS score and other subgroup scores were lower than the highest average score. The comparisons of AI readiness and anxiety level according to demographic characteristics and AI knowledge are shown in Table 4 and Table 5.

DISCUSSION

This study investigated the level of AI knowledge and readiness, and the AI-induced anxiety level of PTs working in rehabilitation field. Although one-third of the participants included AI-based applications in their rehabilitation programs, more than half had knowledge about AI. Furthermore, mobile applications-based AI Technologies were the most preferred applications, and the cost of AI-based technological therapy applications was found to be the factor most limiting the use of AI in rehabilitation. While the readiness level for AI was high among PTs, they were particularly worried about AI replacing their jobs.

The results of this study were consistent with those of previous studies that have examined the AI knowledge of PTs, and showed that the majority used their knowledge of AI in the physiotherapy and rehabilitation field (10, 11). Alsobhi et al. assessed the relationships between AI knowledge and multiple factors, including sex, experience, employment sector, and educational qualifications. It was found that PT knowledge of AI differs according to sex, and that experience, time and educational qualifications are predictive factors of their knowledge (11). When the AI knowledge of the PTs in this study was examined according to characteristic features, it was seen that individuals with masters and doctorate qualifications had higher levels of AI knowledge, which was consistent with the findings of Alsobhi. However, the current study results showed that PTs working in the academic sector had more AI knowledge than PTs working in non-academic positions, in contrast to the findings of Alsobhi. The results of the current study showed no difference in AI knowledge according to gender or duration of experience. Alsobhi et al. (11) and Pinto dos Santos et al.(17) reported that male participants had more AI knowledge than females. As the number of females in the current study population was approximately twice that of male participants, this may have affected the comparison results. Alsobhi et al.(11) found that

Table 4. Comparisons of the demographic characteristics, AI readiness, and anxiety level

Groups	Total MAIRS	p-value; MD (95 % CI)	Total AI-AS	p value; MD (95 % CI)
Gender				
Female, mean± SD	73.59±15.00	p=0.063 Female/Male 2 (-1 to 5)	52.65±22.92	**p= 0.002*** Female/Male: -7 (-12 to -2)
Male mean ±SD	73.59±13.92		45.97±21.75	
Education degree				
Bachelors, mean±SD	72.13±15.00	**p=0.003*** Bachelors / Master -3 (-7 to -1) Bachelors / Doctorate: -6 (-11 to -1) Master / Doctorate: -3 (-8 to 2)	51.43±23.02	p =0.806 Bachelors / Master -1 (-7 to 5) Bachelors/ Doctorate: 2 (-6 to 9) Master / Doctorate: 0 (-9 to 8)
Master, mean±SD	75.38±13.93		50.11±22.93	
Doctorate, mean±SD	78.33±11.11		49.80±21.84	
Employment sector				
Hospital, mean±SD	73.42±13.94	p=0.106 Hospital /Rehabilitation centre 0 (-4 to 4) Hospital/Academician -3 (-7 to 1) Rehabilitation centre, Academician -3 (-8 to 2)	51.88±22.98	p=0.422 Hospital /Rehabilitation centre 3 (-3 to 10) Hospital/Academician 1 (-5 to 7) Rehabilitation centre, Academician -2 (-10 to 6)
Rehabilitation centre, mean±SD	73.44±14.86		48.41±22.67	
Academician, mean±SD	76.55±12.80		50.55±22.47	
Speciality field				
General mean±SD	71.79±14.57	p=0.082 General/Cardiopulmonary -6 (-13 to 1) General/Musculoskeletal -4 (-9 to 1) General/ Neurological -3 (-7 to 2) Cardiopulmonary/ Musculoskeletal 2 (-6 to 9) Cardiopulmonary/ Neurological 3 (-4 to 10) Musculoskeletal/ Neurological -1 (-6 to 3)	53.54±23.99	p=0.177 General/ Cardiopulmonary 7 (-5 to 18) General/Musculoskeletal 1 (-7 to 9) General/ Neurological 5 (-2 to 12) Cardiopulmonary/ Musculoskeletal -5 (-18 to 7) Cardiopulmonary/ Neurological -2 (-13 to 10) Musculoskeletal/ Neurological -4 (-12 to 4)
Cardiopulmonary mean±SD	77.65±15.16		46.91±21.33	
Musculoskeletal mean±SD	75.78±13.59		52.41±24.97	
Neurological mean±SD	74.46±14.00		48.50±20.65	

AI: Artificial Intelligence, AI-AS: Artificial Intelligence Anxiety Scale, CI: Confidence Interval, MAIRS: Medical Artificial Intelligence Readiness Scale, MD: Mean difference, SD: Standart deviation.

PTs with less than 10 years of experience had favourable attitudes toward AI. The fact that approximately three-quarters of the current study participants had less than ten years of experience may have affected the finding of no change in the level of AI knowledge according to years of experience in this study. In the study by Abuzaid et al.(10), 25.0% of the subjects obtained knowledge about AI only from news and media, while the majority of the respondents in the current study stated that information sources such as scientific organizations and schools could be more reliable. Only one-third of PTs in the current study had received training on AI in the bachelor's degree curriculum, which showed that the physiotherapy and rehabilitation curriculum is insufficient in terms of AI. However, all the respondents thought that AI should be included in the physiotherapy and rehabilitation curriculum. This finding supports that it may be important to provide AI knowledge together with the traditional physiotherapy and rehabilitation curriculum(5). Srivastava et al.(18) reported that AI should be included in medical education curricula to realize its full potential in healthcare.

AI-based applications are widely used in physiotherapy and rehabilitation and in different populations for evaluation and treatment (19-21). In the current study, mobile applications were the AI-based applications most used by PTs. Noblin et al. (19) showed that PTs believe mobile applications can

Table 5. Comparisons of the knowledge of AI, AI readiness, and anxiety level

Group	Total MAIRS	p-value MD (95 % CI)	Total AI-AS	MD (95 % CI)
Q1.				
Yes	79.09±11.17	***p<0.001****	50.29±21.77	*p=0.798*
No	64.01±14.61	-15 (-18 to -13)	51.63±24.77	1 (-3 to 6)
Q3.				
Yes	70.84±14.70	***p<0.001****	51.58±22.12	*p=0.473*
No	80.82±10.59	-10 (-13 to -7)	50.29±23.12	-1 (-6 to 3)
Q5.				
Yes	82.99±10.61	***p<0.001****	49.19±21.90	*p=0.517*
No	72.18±14.23	-10 (-14 to -8)	51.08±22.98	2 (-4 to 8)
Q7.				
Yes	80.82±10.23	***p<0.001****	47.21±21.93	***p=0.013****
No	70.53±14.84	-10 (-13 to -8)	52.67±23.03	5 (1 to 10)
Q10.				
Yes	77.54±12.98	***p<0.001****	48.81±21.88	*p=0.329*
No	78.02±14.84	Yes/No	49.60±19.08	Yes/No
Unknown	68.81±14.00	0 (-5 to 6) Yes/Unknown	53.48±24.69	1 (-8 to 9) Yes/Unknown
		9 (5 to 12) No/Unknown		-7 (-10 to 1) No/Unknown
		9 (4 to 15)		-4 (-13 to 5)
Q11.				
Yes	74.98±13.72	***p<0.001****	49.46±21.55	**p<0.001***
No	61.96±16.93	-13 (-19 to -7)	70.32±31.37	21 (8 to 34)
Q12.				
Yes	70.23±16.08	***p=0.004****	71.23±23.33	***p<0.001****
No	75.62±13.28	5 (2 to 8)	43.38±17.48	-28 (-33 to -23)

AI: Artificial Intelligence, AI-AS: Artificial Intelligence Anxiety Scale, CI: Confidence Interval, MAIRS: Medical Artificial Intelligence Readiness Scale, MD: Mean difference, SD: Standart deviation.

improve their work and increase efficiency and productivity. It was also stated that cost and the clinician's knowledge, skills and experience are major barriers to applications, which is in line with the current study findings. The current findings also support the results of the Alsobhi et al.(22) study, which showed that the cost and resources of AI are the major factors limiting the use of AI-based technologies in rehabilitation. Almost half of the current study respondents thought that AI-based applications are as effective as traditional physiotherapy approaches. Castagno et al.(7) found that the majority of healthcare staff, including medical doctors, nurses, therapists, and managers, believe AI can be a useful tool in their field.

When focusing on the publications examining the attitudes of healthcare professionals towards AI, Oh et al.(23) reported that positive opinions of AI in the field of medicine are shared by doctors and medical students. A systematic review investigating attitudes toward AI among physicians and medical students found that most participants appeared to be aware of clinical AI (24). European Society of Radiology reported that radiologists on average have favourable attitudes to AI systems (25). Castagno et al. reported agreement on the usefulness of AI in the field of healthcare (7). A study conducted among PTs found that AI-based technologies were integrated into physiotherapy practices by PTs, and they had positive perspectives on AI approaches (11). In another study of PTs, it was shown that PTs appreciated the inclusion of AI applications in physiotherapy and rehabilitation implementation (10). The majority of PTs in the current study were satisfied with the inclusion of AI in the rehabilitation field, which was consistent with the findings of previous research, although 26.4% of the respondents were worried about AI. Abuzaid also reported that, as in the current study, PTs were worried that they may only cause confusion in their work (10). The findings of the current study also showed that PTs, like most healthcare professionals (7, 22, 26) were not worried that AI would replace them. Contrary to popular belief, AI-based applications were acceptable to PTs as they would improve clinical decision-making, analysis, evaluation and application areas.

Readiness indicates the degree of mental and behavioural readiness of individuals for technological

change, and it is divided into two areas of individual and organizational (27). In a study of PTs assessing whether their institutes were ready to integrate AI into practice, Abuzaid et al. found that the majority of respondents stated that there were no personnel or units specialized in AI preparation and integration in practice, while 45.8% of the PTs stated that their institution had a strategy regarding AI in the future. Abuzaid et al. evaluated only the readiness of institutions and did not examine the readiness of individual PTs in that study (10). The level of AI readiness was examined in the current study with a valid and reliable scale that has been previously used to evaluate the readiness of medical students for AI technologies and applications. When the AI readiness level of PTs was examined individually, the results showed a high level of readiness for AI of the PTs, similar to the findings reported by Karaca et al. These results supported that PTs have an attitude of adaptation to developing technology and fulfilling their requirements (5). The readiness level was also examined according to having AI awareness and previous training in AI (undergraduate or scientific activities), and the readiness levels of individuals who had AI knowledge and training were found to be higher. From these results, it can be thought that the level of readiness can be improved with education and awareness.

With the inclusion of AI applications in the field of health, negative thoughts against the scientific, professional and social effects of this technology, its application to current practice and ethical considerations can trigger AI-induced anxiety (28, 29). Baser et al.(9) studied the concerns of family doctors related to AI, and found that their anxiety level in the total score and sub-dimensions was close to the median value. In the current study evaluating the anxiety levels of PTs regarding AI by PTs, the anxiety level was seen to be low, in parallel with the study by Baser (9). Factors such as the fact that PTs do not think that AI will take over their jobs, the younger age of the participants, and the high level of education may have contributed to the low level of AI-related anxiety of PTs. In this study, the low level of anxiety related to AI of PTs shows that they do not have prejudices against the need for technology and the reflection of AI applications on their practices. In addition, in our study, unlike the findings of Baser et al. the anxiety score was higher in women. Sinderman et al. (30) stated in their study that neuroticism, which indicates the level of anxiety and worry, may affect the fear of AI, and neuroticism is higher in women. The fact that the level of AI-induced anxiety is higher in women may be due to the fact that attitudes and changes towards technology are more easily acceptable by men. To reduce AI-induced anxiety, the effect of gender should be taken into consideration in the algorithms to be developed. Furthermore, according to our results, PTs who included these applications in their physiotherapy and rehabilitation practices had lower levels of anxiety caused by AI. This supports that AI-induced anxiety may be caused by prejudice. We think that including AI-based applications in educational programs and exposing them to these applications at the undergraduate level may increase compliance with AI and reduce AI-related anxiety.

This is the first study of AI readiness, and anxiety associated with AI using a validated questionnaire and investigating the use of applications of PTs working in the field of physiotherapy and rehabilitation, where AI-based applications are becoming more and more widespread. Another strong aspect of this study was that it included a large number of PTs with different training who were working in different fields throughout the country. However, there were also some limitations, primarily that the online design may have limited a detailed discussion of the barriers. Semi-structured qualitative studies are needed to examine the barriers affecting the use of AI-based applications in more detail. In addition, the online delivery of electronic surveys may have led to sample selection bias.

CONCLUSION

In conclusion, physiotherapists have low levels of AI-induced anxiety and high readiness. It was seen that AI-based applications are willingly applied in clinical practice by physiotherapists. The cost of AI-based applications is the most important barrier limiting the use of these approaches. Despite the positive attitudes of PTs towards AI-based approaches, there is a need for undergraduate-level training to be better applied in clinical practice. It can be considered that the adoption of AI-based approaches by PTs may be considerably increased with the future elimination of limitations such as lack of knowledge, infrastructure, and cost.

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Conflict of interest: There are none.

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