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TÜRK FİZYOTERAPİ VE REHABİLİTASYON DERGİSİ

EVALUATION OF AMPUTEE REHABILITATION COURSE CONTENT IN PHYSIOTHERAPY AND REHABILITATION CURRICULUM ACCORDING TO INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY AND HEALTH (ICF): A CROSS-SECTIONAL STUDY

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ABSTRACT

Purpose: This study was conducted to evaluate amputee rehabilitation course content in physiotherapy and rehabilitation curriculum according to International Classification of Functioning, Disability and Health (ICF).

Methods: Academicians teaching amputee rehabilitation in the Faculty of Physiotherapy and Rehabilitation in Türkiye were included in the study. An online survey was distributed to the academicians via email. The survey includes sociodemographic characteristics and 59 ICF categories. These categories were selected by two experts experienced in research fields related to amputee rehabilitation and the ICF, considering the literature on upper and lower extremity amputee rehabilitation. Academicians were asked whether 59 ICF categories were present in the course content, and simply to answer "yes" or "no" to each question. The Cochran's Q test was used to identify differences in ICF category frequencies, with pairwise McNemar tests and Bonferroni correction applied for multiple comparisons.

Results: Seventy-three academicians (43 females, 30 males; mean age: 39.75±10.99 years) responded to the survey. The categories related to sleep functions, high-level cognitive functions, writing, handling stress and other psychological demands most of the categories about domestic life and interpersonal relationship and environmental factors were mentioned significantly less than the other categories in the course content ($p<0.001$).

Conclusion: Interdisciplinary areas such as sleep, high-level cognitive functions, stress management, domestic life, interpersonal relationships, and environmental factors are not sufficiently emphasised in the course content. The amputee rehabilitation course focuses on areas related to physiotherapy. The results revealed that contents related to interdisciplinary fields and collaborative approaches with other disciplines should be integrated into the amputee rehabilitation course.

Keywords: Amputee, Curriculum, Education, Rehabilitation

İŞLEVSELLİK, YETİYİTİMİ VE SAĞLIĞIN ULUSLARARASI SINIFLANDIRMASI'NA (ICF) GÖRE FİZYOTERAPİ MÜFREDATINDAKİ AMPUTE REHABİLİTASYONU DERS İÇERİĞİNİN DEĞERLENDİRİLMESİ: KESİTSEL BİR ÇALIŞMA

ÖZ

Amaç: Bu çalışma, fizyoterapi ve rehabilitasyon müfredatındaki ampute rehabilitasyonu ders içeriğini İşlevsellik, Yetiyitimi ve Sağlığın Uluslararası Sınıflandırması'na (ICF) göre değerlendirmek amacıyla yapılmıştır.

Yöntem: Çalışmaya Türkiye'deki fizyoterapi ve rehabilitasyon fakültelerinde ampute rehabilitasyonu eğitimi veren akademisyenler dahil edildi. Akademisyenlere e-posta yoluyla çevrimiçi bir anket dağıtıldı. Anket, sosyodemografik özellikleri ve 59 ICF kategorisini içermektedir. Bu kategoriler, ampute rehabilitasyonu ve ICF ile ilgili araştırma alanlarında deneyimli iki uzman tarafından, üst ve alt ekstremite ampute rehabilitasyonu ile ilgili literatür göz önünde bulundurularak seçilmiştir. Akademisyenlere ders içeriğinde 59 ICF kategorisinin bulunup bulunmadığı soruldu ve her soruya "evet" veya "hayır" yanıtını vermeleri istendi. ICF kategori sıklıklarındaki farklılıkları belirlemek için Cochran's Q testi kullanıldı, ikili McNemar testleri ve çoklu karşılaştırmalar için Bonferroni düzeltmesi uygulandı.

Bulgular: Anketi 73 akademisyen (43 kadın, 30 erkek; ortalama yaş: 39,75±10,99 yıl) cevapladı. Uyku işlevleri, üst düzey bilişsel işlevler, yazma, stres ve diğer psikolojik taleplerle başetme ile ilgili kategoriler, ev yaşamı ve kişilerarası etkileşimler ve ilişkiler ve çevresel faktörler ile ilgili kategorilerin çoğunun ders içeriğinde diğer kategorilere göre önemli ölçüde az vurgulandığı görülmüştür ($p<0,001$).

Sonuç: Uyku, üst düzey bilişsel fonksiyonlar, stres yönetimi, ev hayatı, kişiler arası etkileşimler ve ilişkiler, çevresel faktörler gibi disiplinler arası alanlar ders içeriğinde yeterince vurgulanmamaktadır. Ampute rehabilitasyonu dersi fizyoterapi ile ilgili alanlara odaklanmaktadır. Elde edilen sonuçlar, disiplinler arası alanlarla ilgili kavramların ve diğer disiplinlerle işbirliğine dayalı yaklaşımların ampute rehabilitasyonu dersine entegre edilmesi gerektiğini ortaya koymuştur.

Anahtar Kelimeler: Ampute, Eğitim, Müfredat, Rehabilitasyon

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INTRODUCTION

The International Classification of Functioning, Disability and Health (ICF) is a broad, comprehensive classification system designed by the World Health Organization (WHO) to serve in different disciplines and work sectors in the field of healthcare. The WHO recommends the use of ICF in many fields such as health, education, social security and social policy (1,2).

Studies on the use of ICF to improve the educational content of professionals who will work in the healthcare sector can be seen to have gained momentum in the last decade (3). The studies have generally focused on determining the level of knowledge of healthcare professional or students about ICF and implementing educational programmes to improve the theoretical and practical knowledge about ICF (4-6). A study on the benefits of interdisciplinary education and collaborative clinical practices highlights the importance of designing an ICF-guided curriculum to promote patient-centered care and holistic rehabilitation. It emphasizes that the first step in developing an ICF-guided curriculum is identifying learning gaps (7). There are very few studies that have aimed to evaluate the prosthetic curriculum. In the previous study, the focus areas of the prosthetic curriculum in doctor of physical therapy programs in the United States were examined; however, the ICF framework was not used in this analysis (8). The literature about curriculum development state that decisions about the curriculum content must be based on evidence (9). The aim of this study was to investigate whether the ICF categories obtained from amputee-related evidence-based literature are included in the amputee rehabilitation course content.

In the literature, ICF is widely used as a standardized measurement method to evaluate the results of treatment in the field of healthcare. Disease-specific ICF Core Sets are developed as a result of systematic reviews, qualitative studies with experts and patients, empirical studies, consensus conferences and validation studies. The disease-specific ICF Core Sets provide information about the possible needs of the relevant health condition in the management of the condition (10). ICF Core Set studies specific to lower and upper extremity amputees are ongoing in current literature (11-13). The results obtained from these studies have yielded information about the possible needs of amputees and the amputee-specific categories in body functions, body structures, activity-participation and environmental factors. It is very important that the content of the amputee rehabilitation course addresses the needs of the amputee population.

The number of amputees presenting at hospitals for rehabilitation services increased after the earthquake in south-east Türkiye in February 2023. Therefore, it has become more important that the amputee rehabilitation course content is structured to meet the needs of the amputee population. In recent years, several studies have been published in the literature examining the course and curriculum content of physiotherapy and rehabilitation faculties in Türkiye (14,15). However, no study specifically focusing on the amputee rehabilitation course has been identified. In these contexts, we aimed to evaluate amputee rehabilitation course content in physiotherapy and rehabilitation curriculum according to ICF categories. The results obtained from the study can be expected to contribute to the determination of knowledge gaps in amputee rehabilitation course content.

METHOD

Participants

The study included academicians who continued to teach amputee rehabilitation in different higher education institutions in Türkiye. Academicians who did not meet the criteria of teaching amputee rehabilitation course for at least one semester were not included in the study. In order to prevent bias, all physiotherapy and rehabilitation faculties in the country that actively carry out the amputee rehabilitation course were invited to the study by e-mail. All academics who agreed to participate in the study were included in the study. Ninety-two academics were determined to be eligible to participate in the study. Eight academics did not respond to the study invitation e-mails, and the e-mail address of 11 academics could not be reached because they left the institution (Figure 1).

This cross-sectional study was conducted between February 2024 and May 2024 with an online survey after the approval of Non-Interventional Research Ethics Committee of Hasan Kalyoncu University for research on human subjects was obtained (2023/91, 12.12.2023). The research was carried out in accordance with the Declaration of Helsinki and registered at www.clinicaltrials.gov (NCT06569979). All participants provided informed consent for their data to be used in the study.

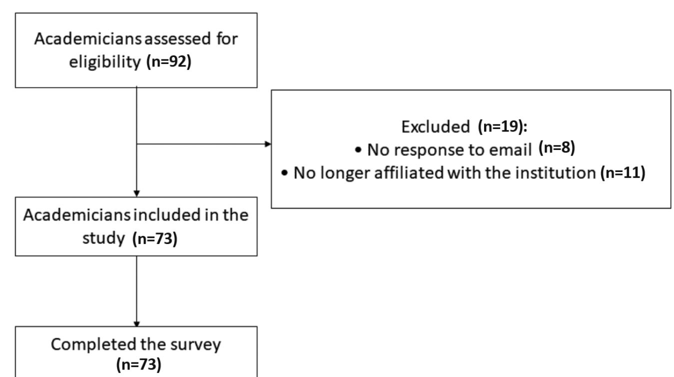

Figure 1. Flow diagram of the study.

Instrumentation

The survey was developed using the Google Forms platform for this study. The first part of the survey consisted of descriptive information such as age, gender, and duration of academic experience, and included information related to the status of use of the ICF in any field. The second section of the survey consisted of a total of 59 questions; 16 related to body functions, 3 related to body structures, 30 related to activity and participation, and 10 related to environmental factors. The academicians were asked to reply with simply "yes" or "no" to each question to indicate whether these categories are present in the amputee rehabilitation course content. These categories were selected by two experts experienced in research fields related to amputee rehabilitation and the ICF. The ICF categories in the survey were derived by considering the ICF categories that were highly linked in Core Set preperatory studies conducted on the upper and lower limb amputee population (11-13). The survey items were specifically developed for this study by the authors based on the content of publicly available ICF categories provided by the WHO (16).

Statistical Analysis

The data were analyzed statistically using SPSS for Windows, version 25.00 software. Descriptive analyses were presented as mean ± standard deviation values for continuous data and as number (n) and percentage (%) for categorical variables. The Cochran's Q test was used to test for differences between the frequencies of ICF categories in each domain of body functions, body structures, activity-participation and environmental factors. The pairwise comparison values likely represent p-values from statistical tests (Cochran's Q test) assessing if there is a significant difference in response proportions between ICF categories. Typically, a p-value <0.001 indicates a statistically significant difference. Significant values were adjusted with Bonferroni correction for multiple comparisons.

A post-hoc power analysis was performed for each ICF domain using G*Power 3.1. to evaluate the achieved statistical power based on the observed chi-square values and effect sizes (Cohen's w) derived from the Cochran's Q test results. Post-hoc power $1-\beta$ was calculated as 1.00 for the body functions domain [n=73, α: 0.05, and effect size (w): 2.37], as 1.00 for activities domain [n=73, α: 0.05, and effect size (w): 2.15], as 0.99 for participation domain [n=73, α: 0.05, and effect size (w): 0.78], and as 1.00 for environmental factors domain [n=73, α: 0.05, and effect size (w): 1.54]. In contrast, the body structures domain yielded a small effect size (w: 0.29) with a moderate power estimate of 0.59. These findings indicate that the sample size (n=73) was sufficient to detect differences in most domains, providing moderate to excellent sensitivity depending on the magnitude of the observed effects.

RESULTS

The data were evaluated from a total of 73 participants (30 males, 43 females; mean age: 39.75±10.99 years; range, 26 to 77 years). The participating academicians were predominantly from the Marmara (n=19, 26.0%) and Central Anatolia (n=19, 26.0%) regions, followed by the Aegean (n=13, 17.8%) and Mediterranean (n=11, 15.1%) regions. The Southeastern Anatolia and Black Sea regions each contributed 4 academicians (5.5%), while the Eastern Anatolia region was represented by 3 academicians (4.1%). The mean duration of academic experience of the participants was 13.40±11.57 years. Most of the participants (83.6%) used ICF in some fields and only 16.4% did not use ICF in any fields such as in research, in clinics, or in education.

According to the Cochran's Q test results, there was no significant difference between the proportions among the three categories of body structures [$\chi^2(2, n=73)=6, p=0.05$]. All the categories were included in the amputee rehabilitation course content with a low "no" response frequency (Table 1).

For the body functions domain, the Cochran's Q test indicated differences between the proportions among the 16 categories ($\chi^2(15, n=73)=410.95, p<0.001$). The Table 2 includes a pairwise comparison for responses in different body functions categories, together with the number and percentage of "no response" instances for each category. Body functions such as *b134 Sleep functions* and *b164 Higher-level cognitive functions* were seen to have higher percentages of "no" responses, indicating fewer reported categories in the course content (Table 2).

For the activity sub-domain, the significant test statistic (337.64) and degrees of freedom (21) at $p<0.001$ further support significant differences in the distributions of the 22 categories. Especially, categories such as *d170 Writing* (60.3%) and *d240 Handling stress* and *other psychological demands* (54.8%) had the highest rates of "no" responses (Table 3).

In the participation sub-domain, the Cochran's Q significant test statistic (43.94) and degrees of freedom (7) at $p<0.001$ further support significant differences in the distributions of these categories. From this analysis, the most significant differences were consistently found when comparing *d920 Recreation and leisure* (31.5%) with several other categories. This indicated that *d920 Recreation and leisure* had a significantly lower "no" response rate compared to *d650 Caring for household objects*, *d630 Preparing meals*, and *d760 Family relationships categories* (Table 4).

Table 1. A pairwise comparison of body structures based on the percentage of "no" responses		
Categories of body structures domain	**Number of "no" response (%)**	**p***
s730 structure of upper extremity	1 (1.4)[a]	0.05
s750 structure of lower extremity	1 (1.4)[a]	
s810 structure of areas of skin	4 (5.5)[a]	
[a]Categories with the same letter showed no significant difference, *Cochran's Q test.		

Table 2. A pairwise comparison of body functions based on the percentage of "no" responses of academics		
Categories of body functions domain	**Number of "no" response (%)**	**p***
b126 temperament and personality functions	21 (28.8)[a]	<0.001
b130 energy and drive functions	20 (27.4)[a]	
b134 sleep functions	58 (79.5)[b]	
b152 emotional functions	18 (24.7)[a, d]	
b164 higher-level cognitive functions	47 (64.4)[b]	
b180 experience of self and time functions	16 (21.9)[a, c]	
b265 touch function	1 (1.4)[c]	
b270 sensory functions related to temperature and other stimuli	9 (12.3)[a, c]	
b280 sensation of pain	3 (4.1)[a, c]	
b455 exercise tolerance functions	7 (9.6)[a, c]	
b710 mobility of joint functions	1 (1.4)[c, d]	
b730 muscle power functions	0 (0)[c, d]	
b755 involuntary movement reaction functions	6 (8.2)[a, c]	
b760 control of voluntary movement functions	9 (12.3)[a, c]	
b770 gait pattern functions	0 (0)[c, d]	
b810 protective functions of the skin	1 (1.4)[c, d]	
[a-d]Categories with the same letter showed no significant difference, *Cochran's Q test.		

For the environmental factors domain, the Cochran's Q test indicated that there were differences between the proportions among the 10 categories [$\chi^2(9, n=73)=172.02$, $p<0.001$). According to the Cochran's Q test results, the significant test statistic (172.02) and degrees of freedom (9) further support significant differences in the distributions of these environmental factors. Pairwise comparisons of environmental factors based on the percentage of "no" responses are shown in Table 5. The environmental factors of *e115 Products and technology for personal use in daily living* and *e120 Products and technology for personal indoor and outdoor mobility and transportation* were determined to be significantly different from most other factors, indicating that they represent unique environmental conditions with low "no" response rates. The categories of *e150 Design, construction and building products and technology of buildings for public use, e155 Design, construction and building products and technology of buildings for private use, e160 Products and technology of land development, e320 Friends*, and *e570 Social security services, systems and policies* were found to be statistically similar with less pronounced differences (Table 5).

DISCUSSION

Receiving education according to biopsychosocial perspective across all disease conditions and recognizing the biopsychosocial needs of these conditions is crucial for physiotherapy students. The biopsychosocial educational model enhances rehabilitation success (17). In this study, frequently coded ICF categories reflecting the biopsychosocial needs of amputees were obtained from evidence-based literature and used for the content analysis. Analyzing course content based on ICF categories provides a standardized approach to identifying gaps and implementing necessary improvements. This study identified knowledge gaps in amputee rehabilitation course content regarding sleep functions, higher-level cognitive functions in the body functions domain, writing and handling stress in the activity sub-domain, most categories in the participation sub-domain, and environmental factors. Knowledge gaps

Table 3. A pairwise comparison of activity subdomain based on the percentage of "no" responses of academics

Categories of activity subdomain	Number of "no" response (%)	p*
d170 writing	44 (60.3)[a]	<0.001
d230 carrying out daily routine	19 (26)[b, c, d]	
d240 handling stress and other psychological demands	40 (54.8)[a]	
d360 using communication devices and techniques	33 (45.2)[a, b, d]	
d410 changing basic body position	5 (6.8)[c]	
d415 maintaining a body position	4 (5.5)[c]	
d420 transferring oneself	4 (5.5)[c]	
d430 lifting and carrying objects	11 (15.1)[c]	
d440 fine hand use	11 (15.1)[c]	
d445 hand and arm use	5 (6.8)[c]	
d450 walking	3 (4.1)[c]	
d455 moving around	19 (26)[b, c, d]	
d460 moving around in different locations	7 (9.6)[c]	
d465 moving around using equipment	5 (6.8)[c]	
d470 using transportation	32 (43.8)[a, d]	
d475 driving	35 (47.9)[a, d]	
d510 washing oneself	31 (42.5)[a, d, e]	
d520 caring for body parts	20 (27.4)[b, c, d]	
d530 toileting	36 (49.3)[a, d]	
d540 dressing	13 (17.8)[c, e]	
d550 eating	11 (15.1)[c]	
d560 drinking	13 (17.8)[c, e]	

[a-e]Categories with the same letter showed no significant difference, *Cochran's Q test.

Table 4. A pairwise comparison of participation subdomain categories based on the percentage of "no" responses of academics

Categories of participation subdomain	Number of "no" response (%)	p*
d620 acquisition of goods and services	36 (49.3)[a, b, c]	<0.001
d630 preparing meals	45 (61.6)[a, c]	
d640 doing housework	34 (46.6)[a, b, c]	
d650 caring for household objects	49 (67.1)[a]	
d760 family relationships	42 (57.5)[a, c]	
d845 acquiring, keeping and terminating a job	31 (42.5)[b, c]	
d850 remunerative employment	38 (52.1)[a, b, c]	
d920 recreation and leisure	23 (31.5)[b]	

[a-c]Categories with the same letter showed no significant difference, *Cochran's Q test.

were paricularly evident in interdisciplinary fields, such as psychology and occupational therapy. The findinds contribute to the literature on using the ICF conceptual framework as a foundation for assessing course content, informing the future development of comprehensive curricula that address amputees' biopsychosocial needs.

Upper and lower-extremity structural impairments form the baseline for amputee rehabilitation. Therefore, it is expected that their inclusion rates in course content are similar. Additionally, skin structure, a key body structures, was frequently included due to its role in postoperative rehabilitation.

Table 5. A pairwise comparison of environmental factors based on the percentage of "no" responses of academics

Categories of environmental factors domain	Number of "no" response (%)	p*
e115 products and technology for personal use in daily living	4 (5.5)[a]	<0.001
e120 products and technology for personal indoor and outdoor mobility and transportation	11 (15.1)[a]	
e150 design, construction and building products and technology of buildings for public use	45 (61.6)[c]	
e155 design, construction and building products and technology of buildings for private use	45 (61.6)[c]	
e160 products and technology of land development	50 (68.5)[c]	
e310 immediate family	38 (52.1)[c, d]	
e320 friends	43 (58.9)[c]	
e460 societal attitudes	20 (27.4)[a, b, d]	
e570 social security services, systems and policies	44 (60.3)[c]	
e580 health services, systems and policies	35 (47.9)[b, c]	

[a-d]Categories with the same letter showed no significant difference, *Cochran's Q test.

In the body functions domain, the underemphasis on sleep and higher-level cognitive functions suggests these areas are neglected in amputee rehabilitation courses. Poor sleep exacerbates psychological distress, such as anxiety, depression, and post-traumatic stress disorder, which are common among amputees (18). Raising students' awareness of sleep impairments and promoting a multidisciplinary approach, including cognitive-behavioral therapy and sleep management, could address this gap. Traumatic peripheral lesions may cause cognitive impairments in attention, memory, and other areas (19). Course content should include sleep hygiene and dual-task exercises, which support cognitive functions (20). Moreover, assessing cognitive demands in amputees can evaluate prosthesis training effectiveness or their ability to use prostheses (21). The literature underscores the importance of including cognitive functions in course content as both a rehabilitation strategy and an outcome measure.

In activity sub-domian, course content is expected to prioritize mobility-related activities and activities of daily living, which align closely with physiotherapy's professional scope. Survey responses indicated that categories like handling stress and other psychological demands had higher "no" response rates, suggesting inadequate coverage. Psychological stress management is critical for amputees' societal reintegration (22). Although not directly related to physiotherapy treatment methods, stress management should not be overlooked, as it influences acute and long-term recovery after amputation (23,24). This gap can be addressed by incorporating stress evaluation methods and information on interdisciplinary collaboration. Updated content can increase students' awareness of this activity limitation. Although d170 writing (producing written records) is rarely included, basic activities like fine hand use and hand and arm use, which support writing, are emphasized in the course content.

In participation sub-domain, recreation and leisure were more extensively covered than other participation categories. Participation in sports, exercise, and recreational activities post-amputation improves health and quality of life (25). As recreational activities fall within physiotherapy's scope, this finding is expected. However, participation sub-domains like family relationships, preparing meals, and caring for household objects are underemphasised compared to recreation and leisure. Participation reflects community integration and the social impact of the condition (26). Addressing amputees' social needs is as critical as addressing biological needs. Actions by family to support the amputee physically, emotionally and intellectually have significant consequences for physical and psychological rehabilitation (27). Family relationship is not the focus of physiotherapy and rehabilitation practices. Although family relationships are not a focus of physiotherapy, including this topic in course content would highlight the family's facilitating role as an environmental factor. While the course content emphasizes hand and arm use activities, which are easily assessed in controlled settings, participation limitations in real-life tasks like preparing meals and caring for household objects are insufficiently addressed. As participation limitations require evaluation within physical and social contexts, they are challenging to assess in standardized clinical settings. Therefore, participation is a crucial but complex construct in rehabilitation and disability fields (28). The high frequency of "no" responses for participation categories beyond recreation and leisure underscores the need to broaden the scope of participation limitations in course content. Given occupational therapy's focus on participation restrictions, collaboration with this discipline should be encouraged.

The emphasis on environmental factors like prosthetics and mobility aids reflects their critical role in promoting independence and accessibility (29,30). While these areas are

well-covered, incorporating environmental considerations such as building design, family and friend support, and health and social security services could enhance rehabilitation outcomes (31,32). A balanced focus on environmental factors, including building design and technology, helps students identify barriers or facilitators, improving their ability to address key rehabilitation areas.

These findings highlight the need for more balanced and comprehensive amputee rehabilitation course content. Emphasizing under-addressed areas such as sleep functions, higher-level cognitive functions, writing and handling stress, participation issues, and environmental factors can foster holistic rehabilitation practices. Studies indicate that physiotherapy faculties excel in clinical expertise (33,34) but lack interdisciplinary education (35,36). This study found that underrepresented topics in amputee rehabilitation course content align with disciplines such as psychology and occupational therapy. These findings highlight the need for a multidisciplinary approach, supported by the literature, which emphasizes addressing physical, cognitive, psychological, and environmental aspects to improve quality of life and functional outcomes for individuals with disabilities (37). Updating course content to address these ICF-identified gaps could improve students' ability to provide holistic, patient-centred care in future practice. However, the study has limitations. The items used in this study were derived from the ICF categories. The selection of which ICF categories to include in the survey was determined by consensus between two experts with clinical and educational experience in amputee rehabilitation, based on relevant literature. The ICF Core Set studies specific to lower- and upper-limb amputations are not yet finalized, limiting the specificity of the categories used. Additionally, the survey is not a standardized tool with established validity and reliability analyses. In future research, once an ICF Core Set specific to individuals with lower limb amputation is developed, the content of amputee rehabilitation courses could be evaluated using a more standardized, valid, and reliable method. The implementation of these Core Sets in education can enhance the training of physiotherapists and multidisciplinary team members in amputation rehabilitation, fostering more comprehensive training programs (38).

CONCLUSION

This study identifies knowledge gaps in amputee rehabilitation course content and underscores the importance of interdisciplinary education. Addressing these gaps with ICF-based training, such as case scenarios, and updating course content could improve the quality of amputee rehabilitation and students' collaborative practices. Future studies could explore whether updating course content according to the ICF framework improves students' skills in patient assessment, goal setting, clinical decision-making, and collaborative practices.

Ethics: This cross-sectional study was conducted between February 2024 and May 2024 with an online survey after the approval of Non-Interventional Research Ethics Committee of Hasan Kalyoncu University for research on human subjects was obtained (2023/91, 12.12.2023).

Informed Consent: All participants provided informed consent for their data to be used in the study.

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Conflict of Interest: The authors declare that they have no conflict of interest.

Author Contributions: Concept- HG; Design- HG, KB; Supervision- KB; Resources and Financial Support- HG, KB; Materials- HG, KB; Data Collection and/or Processing- HG; Analysis and/or Interpretation- HG, KB; Literature Search- HG, KB; Writing Manuscript- HG, KB; Critical Review- HG, KB.

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