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Original Research

Cross-Cultural Adaptation and Validation of the Turkish Version of the International Hip Outcome Tool – 12

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Abstract

Objectives: The present study aims to conduct a translation and transcultural adaptation of the International Hip Outcome Tool – 12 (IHOT-12) into Turkish and evaluate the psychometric characteristics of the Turkish version of IHOT-12 (IHOT-12-TR) for validity and reliability in Turkish patients with hip joint disorders.

Methods: Following the translation and transcultural adaptation procedures, 109 patients completed the IHOT-12-TR and Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) scale. The retest was completed by 40 patients approximately one week after the initial assessments. The psychometric properties of the questionnaire were tested.

Results: Cronbach's alpha of 0.927 revealed the internal consistency to be highly satisfactory. The overall Interclass coefficient (ICC) between test and retest was 0.927 ($p<0.001$). The correlation between IHOT-12-TR and WOMAC scores was strong and statistically significant ($r=0.815$, $p<0.001$). The explanatory factor analyses revealed that IHOT-12-TR had a single factor structure, explaining 61.9% of the total variance. There was no floor or ceiling effect on the items and overall scale scores.

Conclusion: The results of the analyses in this study demonstrated that the Turkish version of the IHOT- 12 scale, the IHOT-12-TR, is a valid and reliable tool to evaluate the functionality of patients with hip pathologies.

Keywords: Hip; patient-reported outcome measures; IHOT; Turkish translation; psychometrics.

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Joint preservation surgeries are being applied to younger patients at an increasing pace. Evaluation scales that are more specifically adjusted according to age and activity types are of more value for these patients. Since the majority of the scales evaluating hip pathologies are designed for patients with total hip arthroplasty,[1] they are negatively biased by the ceiling effect and are of limited benefit for a young and active population.[2] Several scales have been developed in recent years to evaluate the hip problems of this young and active population considering their active lifestyles. These scales are the non-arthritic hip score,[3] the hip disability and osteoarthritis outcome score,[4] the modified Harris hip score,[5] the hip outcome score,[6] the Copenhagen hip and groin outcome score (HAGOS),[7] and the international hip outcome tool (IHOT-33).[2] At the time of completion of this study, only Hip Outcome Score (HOS) has been translated and validated in Turkish according to the described guidelines.[8]

A systematic review has evaluated these patient-reported outcomes (PRO) tools for their efficiency by considering

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their psychometric characteristics and benefits for users. Critical appraisal and head-to-head comparisons of these scales have revealed that the IHOT has emerged as the most promising tool to be used for PRO assessments in hip preservation surgery.[9] Currently, IHOT has two versions, the original version with 33 items and the brief version with 12 items.[2, 10] The original 33-item version of IHOT is more suitable for use in clinical research designs, and the short version with 12 items is more preferred in routine clinical applications. In this context, the present study aims to translate and make a transcultural adaptation of the IHOT-12 scale into Turkish and evaluate the psychometric characteristics in Turkish-speaking patients.

Methods

Study Design

Written permission to conduct a translation and validation study for IHOT-12 was obtained from the original developers by e-mail.[10] The study protocol was approved by the Institutional Ethics Committee (No: 48/02 and date: 02/04/2018). This study was conducted in accordance with the Declaration of Helsinki and Good Clinical Practices Guidelines. Verbal and written informed consents were obtained from all the study participants.

This study was conducted between April 2018 and January 2019. During this period, 160 consecutive patients, aged 18 to 60 years, who presented at our department with a complaint of hip and/or groin pain were informed about this study. Patients were not invited to participate if they were pregnant, had a malignancy, infection, bone fracture, inflammatory disease, or cognitive deterioration. A further eight patients who did not wish to participate or were not literate in Turkish and seven patients with reflective pain with no hip pathology were also excluded from this study. The age, sex, lateralization, and diagnoses of the remaining 109 patients who provided verbal and written informed consent were recorded, and they were asked to complete the IHOT-12-TR and Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) scales during the clinical visit at recruitment. The consensus-based standards for the selection of health measurement instruments (COSMIN) guidelines for validation studies recommend at least 100 participants, in which our study met the required sample size for initial assessments. A priori sample size estimation also revealed that 128 patients should be adequate to determine a Cronbach's alpha level of 0.95 with a confidence interval of 95%. With an additional 10% of the non-response rate, 143 patients should be adequate for the invitation to the study, which corresponds to our initial screening of 160 patients. The sample size estimations to determine a minimum of 60-to-80% correlation between two consecutive measurements under a two-tailed hypothesis testing and 5% of Type-I error level design revealed that 40 patients should be adequate to obtain a minimum power of 80% in the analyses. Thus, the retest assessments were conducted 7-10 days after the first assessments, with 40 patients who had a follow-up visit for evaluation of magnetic resonance images without any intervention. The study design is presented in (Fig. 1).

Translation and Cross-cultural Adaptation

To achieve maximum concordance between the original and the Turkish versions of the IHOT-12 scale, the five steps recommended by the American Academy of Orthopedic Surgeons were followed.[11] First, two native Turkish-speaking translators with a good command of English translated the IHOT-12 into Turkish. One of the translators was a healthcare professional and was informed about this study, while the other was neither informed about this study nor a healthcare professional. Then, these translations were combined based on the comments of a language editor. The backward translation of the draft into Turkish was conducted by two Turkish, English- native

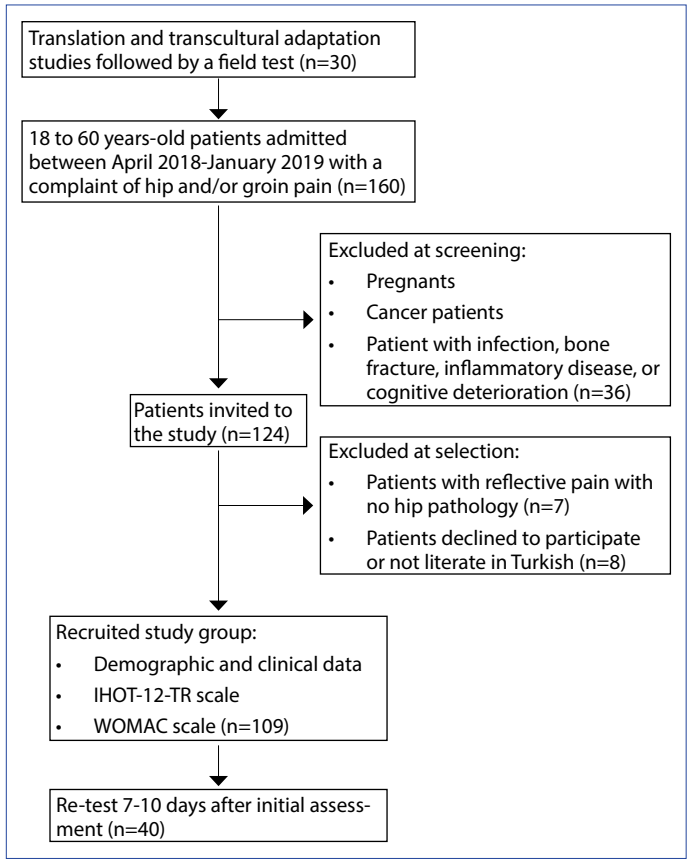

Figure 1. Flowchart of the study.

speaking professionals. Based on the outcomes of these stages, a semi-final draft of the Turkish translation of IHOT-12 was prepared for a field test by a methodologist, two healthcare professionals, the language editor, and the forward and backward translators. This expert committee put significant effort into maximizing the semantic and notional equivalence between the original and translated versions of the IHOT-12 scale.

A 6th-grade school student evaluated the scale with respect to the clarity of the language used and gave feedback to the authors. A field test was conducted with 30 patients to evaluate patient feedback about the ease or difficulty of comprehensibility of the questions. Based on the feedback from the 6th-grade student and the field test, the committee revised the Turkish translation of IHOT-12, and the final version, IHOT-12-TR (available as supplemental material), was established for validity and reliability analyses.

The original version of the IHOT scale includes 33 items that evaluate Symptoms and Functional Limitations, Sports and Recreational Activities, Job-Related Concerns, and Lifestyle Concerns of patients with a variety of hip pathologies.[2] The overall internal consistency (Cronbach's alpha) of the original scale was 0.99. As it is rather a long survey to be easily adapted into routine clinical practice, the need arose for a shorter version, and a 12-item version of the scale was developed.[10] The scale uses a 100 mm visual analog scale that ranges between "significantly impaired" and "no problems at all" as the responses to each item, with corresponding scores ranging between 0 and 100. The total score is calculated as the simple mean of the scores of each question (total of all the scores divided by 12). The shorter version of the tool provides more than 96% of the variation of the original full version, test-retest reliability was good, with an intra-class correlation coefficient of 0.89.[10]

The WOMAC scale includes 24 items, which evaluate the three domains of pain (5 items), stiffness (2 items), and physical functions (17 items). These items can be assessed on a 5-point Likert scale or a visual analog scale ranging between 0 and 100.[12] In the current study, the 5-point Likert scale was used. WOMAC scale was shown to be a valid and reliable tool in a Turkish patient population by Tuzun et al., who showed that internal consistency (Cronbach's alpha) of the scale was over 0.70, subscales had negligible floor and ceiling effects, and pain and physical function subscales had were the most responsive subscales.[13] The WOMAC scores were reversed to obtain a positive correlation with IHOT-12-TR since these two scales are oriented in opposite directions.

Statistical Analysis

The statistical analyses were performed using SPSS 20 (SPSS Inc., Chicago, IL, USA) software. The statistical significance level was considered to be a p-value ≤0.05. Descriptive statistics were presented using mean and standard deviation for numerical variables, and frequency and percentage for categorical variables.

Floor and ceiling effects were calculated as the percentage of the lowest and highest scores of the participants, respectively. Floor and ceiling effects >15% were considered to be significant. The reliability of the IHOT-12-TR scale was evaluated using test-retest reliability and internal consistency analyses, and agreement between two assessments was analyzed using Bland-Altman analysis. The retests were completed by 40 patients one week after completing the first tests. The scores of both assessments were compared using the intra-class correlation coefficient (ICC), an excellent correlation was defined as a value >0.9, acceptable correlation as >0.8, weak correlation as >0.6, and no correlation as <0.6.[14] The internal consistency of the scale was evaluated using Cronbach's alpha, which a level >0.7 was regarded as acceptable.[13] Moreover, the standard error of measurements (SEM) and minimal detectable changes (MDC) were analyzed to evaluate the variability.

The structural validity of the IHOT-12-TR was evaluated by comparing its score with the WOMAC score. The Spearman's correlation coefficient was used for the correlation analyses, and the coefficients were interpreted as excellent (≥0.9), strong (0.7-0.89), moderate (0.5-0.69), weak (0.26-0.49), or no correlation (≤0.25).[15] The structural validity of the IHOT-12-TR was also assessed using explanatory factor analysis (EFA). The EFA was conducted using principal axis factoring.[15]

Results

The final translated version of IHOT-12-TR is presented in the Appendix. During forward and backward translation and adaptation steps, the major discrepancy detected between translators who were and were not aware of this study was that the Turkish meaning of the hip corresponded to both "hip" and "buttock". To avoid this discrepancy, the Turkish meaning of "hip joint" was used on the entire scale. In the 6th question, the term "recreational activity" was explained as recreational activities, such as dancing because of the misunderstandings in the field test.

The patients comprised 50.5% females and 49.5% males with a mean age of 49.4±8.7 years. The diagnoses were determined as femoro-acetabular impingement (FAI) syndrome in 43.1%, coxarthrosis in 23.9%, avascular necrosis (AVN) in 19.3%, and hip dysplasia as 13.8%. The affected hip

was left side in 50 (45.9%) patients and the right side in 59 (54.1%). The general demographic and clinical features of the patients are presented in (Table 1). The IHOT-12-TR assessments revealed that the median overall scores in the test and retest assessments were 72.6 and 66.8, respectively, and the median WOMAC score was 33.6 [IQR: 27.4–42.1] (Table 2).

The internal consistency of the IHOT-12-TR scale was analyzed using Cronbach's alpha, which revealed an alpha level of 0.927, which showed that the scale was highly satisfactory. The test-retest validity assessed by the ICC coefficients of the items (except item 7) ranged between 0.841 to 0.994, which were all strong and statistically significant correlations (p<0.001) (Table 3). Only item 7 (How much pain do you experience in your hip after activity?) had no correlation (ICC=0.109, p=0.252) between the test and retest assessments. The overall evaluation revealed an ICC level of 0.927 (p<0.001), which corresponded to a strong correlation and adequate reliability. A Bland-Altman analysis also revealed that there was an overall agreement between the initial and re-test assessments of the IHOT-12-TR scale (Fig. 2).

Table 1. The demographic and clinical characteristic of the patients

Characteristics	All Patients (n=109)
Age, year, mean±SD	49.4±8.7
Sex, n (%)	
Male	54 (49.5)
Female	55 (50.5)
Diagnosis, n (%)	
Femoro-acetabular impingement	47 (43.1)
Coxarthrosis	26 (23.9)
Avascular necrosis	21 (19.3)
Hip dysplasia	15 (13.8)
Lateralization, n (%)	
Left	50 (45.9)
Right	59 (54.1)

SD: Standard deviation.

Table 2. Scores of the IHOT-12-TR assessments

Item scores	Test Median [IQR]	Retest Median [IQR]
Item 1	78 [68-89]	71 [51-81]
Item 2	69 [51-80]	61 [38-70]
Item 3	78 [62-88]	70 [55-81]
Item 4	71 [59-80]	61 [33-78]
Item 5	70 [51-80]	70 [50-80]
Item 6	78 [51-89]	69 [50-82]
Item 7	72 [60-82]	70 [52-80]
Item 8	69 [50-80]	60 [42-80]
Item 9	61 [41-79]	50 [30-78]
Item 10	78 [60-88]	78 [42-82]
Item 11	71 [52-81]	65 [50-71]
Item 12	78 [62-88]	75 [60-80]
Overall Score	72.6 [61.2-80.3]	66.8 [54.3-79.8]

IQR: Inter-quartile range.

To evaluate the validity of the IHOT-12-TR, the overall scores were compared with the WOMAC scores, and correlation analyses revealed a correlation coefficient (Spearman's rho) of 0.815 (p<0.001), which was a statistically significant and strong correlation indicating the validity of the scale.

The EFA analyses to assess the validity of the IHOT-12-TR scale also revealed that a single factor structure of the scale explained 61.9% of the total variance, which increased to 71.4% in the 4-factor model with varimax rotation and principal axis rotation as the extraction method. When the Eigenvalues and factor loadings of the items were considered, the IHOT-12-TR scale showed a single factor structure. These results also revealed the good and satisfactory validity of the scale.

The validity of the IHOT-12-TR scale was also analyzed by comparing the scores between diagnostic subgroups. The comparisons between the diagnostic groups revealed that 7 out of 12 items showed a statistically significant difference between the groups, and the overall IHOT-12-TR score was also significantly different between groups. These results showed the discriminant validity of the scale. The SEMs and MDCs for the clinical diagnostic groups were also presented in (Table 4). Accordingly, variabilities between groups were similarly indicated by SEM and MDC values, but FAI and AVN were found to have higher variability than coxarthrosis and dysplasia groups.

The highest and lowest scores obtained by the respondents in the IHOT-12 TR assessments were 92.0 and 14.4, respectively, from the possible highest and lowest possible scores of 100 and 0, respectively. None of the participants scored the minimum or maximum possible scores, which revealed that there was no floor or ceiling effect in the IHOT-12-TR scale.

Discussion

This study evaluated the translation, transcultural adaptation, and validity and reliability of the IHOT-12-TR scale in Turkish patients. The results of the analyses showed that this scale is a valid and reliable tool that can be used to

Table 3. The results of the validity and reliability analyses

	Cronbach's alpha 0.927		**Floor and Ceiling Effects**	
	ICC	**P**	**Floor (%)**	**Ceiling (%)**
Internal consistency				
Item 1	0.987	<0.001	0.01	0.08
Item 2	0.984	<0.001	0.02	0.06
Item 3	0.98	<0.001	0.01	0.08
Item 4	0.987	<0.001	0.02	0.03
Item 5	0.994	<0.001	0.02	0.08
Item 6	0.841	<0.001	0.02	0.12
Item 7	0.109	0.252	0.01	0.05
Item 8	0.992	<0.001	0.05	0.01
Item 9	0.987	<0.001	0.07	0.01
Item 10	0.993	<0.001	0.03	0.02
Item 11	0.964	<0.001	0.02	0.02
Item 12	0.898	<0.001	0.03	0.01
Overall	0.927	<0.001	0	0
	Spearman's rho	**P**		
Structural validity (IHOT-12-TR vs. WOMAC)	0.815	<0.001		

ICC: Intraclass correlation coefficient.

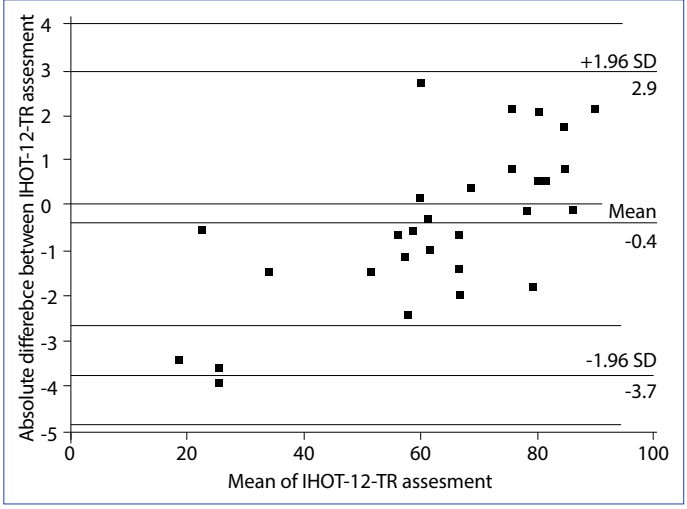

Figure 2. Bland-Altman graph for agreement between the initial and re-test IHOT-12-TR assessments.

evaluate the functional status of patients with symptomatic hip joint pathology.

The IHOT scale has been previously translated and validated into German,[16] Spanish,[17] Portuguese,[18] Swedish,[19] and Dutch.[20] except for the Swedish study, the other 4 of these validation studies included 80 to 120 patients, and the Swedish study was conducted with 256 patients. When compared with these studies, the current study sample size of 109 patients was sufficient to make conclusions about the results. Moreover, the COSMIN (Consensus-based Standards for the selection of health Measurement Instruments) study design checklist for patient-reported outcome measurement instruments guideline recommends a minimum of 100 patients for a well-designed study structure in validation and reliability analyses.[21] Likewise, the age distribution of the current study patients was comparable to the previous validation studies, and the results also confirm that IHOT-12-TR can be reliably used in young patients with hip joint disorders.

The patient group in this study was recruited from consecutive admissions to our department. No particular diagnosis was selected for inclusion in the study, so four diagnostic subgroups were formed. The original study of IHOT by Mohtadi et al.[2] included a wide variety of diagnoses, and the German study also included a large patient group of patients with various hip disorders.[16] In the current study, only patients who could confound the findings were excluded, and the results demonstrated that the Turkish version of the IHOT-12 scale could be reliably used in the diagnoses included in this study.

The reliability analyses in this study showed that the IHOT-12-TR has an excellent internal consistency, which was 0.927 in Cronbach's alpha analysis. Moreover, the overall ICC of the scale was 0.927 in the test-retest assessments. These figures

Table 4. IHOT-12-TR assessments in diagnostic subgroups

	FAI Median (IQR)	Coxarthrosis Median (IQR)	AVN Median (IQR)	Hip Dysplasia Median (IQR)	p
Item scores					
Item 1	70 [52-81]	81 [68-89]	78 [70-88]	89 [79-98]	0.001
Item 2	61 [49-72]	76 [51-80]	78 [61-89]	77 [51-89]	0.101
Item 3	72 [44-80]	81 [78-88]	79 [66-95]	88 [78-98]	0.003
Item 4	61 [31-79]	71 [63-80]	78 [62-81]	80 [71-81]	0.006
Item 5	62 [44-80]	70 [52-80]	71 [62-88]	72 [62-88]	0.117
Item 6	69 [43-88]	78.5 [52-89]	80 [71-81]	79 [69-88]	0.098
Item 7	70 [50-80]	79 [70-81]	78 [70-87]	80 [71-89]	0.080
Item 8	61 [41-80]	68 [52-78]	69.5 [59.5-80]	78 [60-87]	0.117
Item 9	52 [32-70]	70 [50-79]	70 [32-80]	78 [61-80]	0.020
Item 10	70 [32-80]	78 [70-88]	80 [60-90]	86 [78-88]	0.032
Item 11	63 [50-78]	70 [61-82]	77 [50-81]	80 [70-87]	0.049
Item 12	78 [65-87]	71 [44-80]	85 [78-92]	82 [77-89]	0.003
Overall Score	65.9 [54.1-73.9]	75.3 [68.7-81.4]	77.2 [66-80.8]	81.1 [82.8-85.2]	0.001
SEM	4.7	3.9	4.5	4.0	
MDC	10.9	9.1	10.4	9.4	

IQR: Inter-quartile range; FAI: Femoro-acetabular impingement; AVN: Avascular necrosis; SEM: Standard errors of measurements; MDC: Minimal detectable change.

were also in accordance with the previous validation studies of IHOT, which suggests that the scale has transcultural stability between diverse populations. As in reliability analyses, the validity assessments also confirmed that IHOT-12-TR is valid and reflects patient functionality, as suggested by the strong correlations with the WOMAC scale. Previous validation studies have used different comparative scales to validate the scores obtained in IHOT. For example, Baumann et al.[16] used HOS, mTAS (Modified Tegner Activity Scale), and EQ5D (EuroQol-5D) since these measures were validated in German. The Spanish validation study used WOMAC for comparison, as in the current study,[17] and the Swedish validation study used EQ5D and HAGOS (The Copenhagen Hip and Groin Outcome Score).[19] The WOMAC scale used in this study is a valid and reliable tool to evaluate the pain, stiffness, and physical functions of the patients, and the satisfactory correlation with this scale suggested considerable validity of the IHOT-12-TR. The discriminant validity of the scale was also satisfactory. The overall validity of the IHOT-12-TR was also supported by the EFA in the current study. The results obtained showed a single factor structure in the Turkish version and the total variance explained by a single factor was adequate to conclude that the scale was valid to use in a Turkish patient population with hip pathologies. EFA has also been applied in previous validation studies. The Swedish version revealed a two-factor structure of the physical function domain and symptoms domain in EFA analyses.[19] The factor structure may vary between populations, but the explanatory feature of the factors determined for the total variance explained supports the validity of the scale. Another finding in the current study that supported the validity and reliability was the absence of a floor and ceiling effect since these might confound the results obtained in validity and reliability analyses.[22]

To summarize our study, our results confirmed the validity and reliability of the IHOT-12-TR scale to evaluate the functionality of patients with hip pathologies. The favorable psychometric characteristics of the scale and the relatively short time for application suggest that it can be effectively used in the daily clinical practice. However, our study has also several limitations that necessitate careful interpretation of our results. First, the distribution of diagnostic subgroups may not reflect true distribution in the general population and may affect our general inference on the diagnostic validity of the scale. Second, the patient characteristics may vary in different clinical settings or populations and should be confirmed in case of a distinct sociodemographic or clinical background. And finally, confirmation of the results in larger sample-sized studies should allow stronger generalizability for relevant populations.

Conclusion

The results of the analyses in this study demonstrated that the Turkish version of the IHOT-12 scale, the IHOT-12-TR, is a valid and reliable tool to evaluate the functionality of patients with hip pathologies.

Disclosures

Acknowledgement: We would like to thank to all translation team.

Ethics Committee Approval: The study protocol was approved by the Institutional Ethics Committee (No: 48/02 and date: 02/04/2018).

Peer-review: Externally peer-reviewed.

Conflict of Interest: None declared.

Authorship Contributions: Concept – H.A.A., M.A.; Design – H.A.A., M.A.; Supervision – H.A.A., M.A.; Materials – H.A.A.; Data collection &/or processing – M.A.; Analysis and/or interpretation – H.A.A.; Literature search – H.A.A.; Writing – H.A.A., M.A.; Critical review – H.A.A., M.A.

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IHOT 12 INTERNATIONAL HIP OUTCOME TOOL

UKDA 12 -TR

ULUSLARARASI KALÇA (EKLEMİ) DEĞERLENDİRME ANKETİ- Türkçe

ADI SOYADI

TC KİMLİK NO

DOĞUM TARİHİ

TARİH

BU ANKETİ HANGİ KALÇA EKLEMİNİZ İÇİN DOLDURUYORSUNUZ?
Biz hangi tarafı belirttiysek o tarafı işaretleyin, taraf belirtmediysek en çok sıkıntınız olan tarafı işaretleyin.

○ SOL

○ SAĞ

Kalça Eklemi Sorunları Olan Genç, Aktif Hastalar İçin Yaşam Kalitesi Anketi

TALİMATLAR:

- Aşağıdaki sorular kalça ekleminizde yaşadığınız problemleri, bu problemlerin hayatınızı nasıl etkilediğini ve bu problemlerden dolayı hissedebileceğiniz duyguları araştırmaktadır.
- Lütfen sıkıntınızın şiddetini aşağıdaki düz çizgiler üzerinde işaretleyerek belirtin.
  - İşareti ne kadar **sola** yakın koyarsanız tarif edilen durumun **sizi o kadar şiddetli etkilediğini** belirtmiş olursunuz. Örneğin;

    Ciddi Derecede Etkilenme /——————————— **Hiç Sorun Yok**

  - İşareti ne kadar **sağa** yakın koyarsanız tarif edilen durumun **sizi o kadar az şiddetli etkilediğini** belirtmiş olursunuz. Örneğin;

    Ciddi Derecede Etkilenme ———————————/ **Hiç Sorun Yok**

  - Eğer tam ortayı işaretlerseniz tarif edilen durumun sizi orta seviyeli etkilediğini belirtmiş olursunuz. Durumunuzu tam olarak uç noktalar tarif ediyorsa en baş veya en sonları işaretleyin..

İPUCU: Eğer bir aktiviteyi yapmıyorsanız, bu aktiviteyi yapmayı denediğinizde nasıl bir etki oluştururdu onu düşünüp işaretleyin.

- Soruları cevaplarken **son bir ay** içindeki durumunuzu göz önünde bulundurun.

……..

SORU 1 Kasığınızda veya kalçanızda genel olarak ne kadar ağrınız var?

AŞIRI AĞRI ——————————— HİÇ AĞRI YOK

SORU 2 Yere veya zemine oturup kalkmak sizin için ne kadar zor?

AŞIRI ZOR ——————————— HİÇ ZOR DEĞİL

SORU 3 Uzun mesafe yürümek sizin için ne kadar zor?

AŞIRI ZOR ——————————— HİÇ ZOR DEĞİL

SORU 4 Kalça ekleminizde sürtünme, takılma, klik gibi hisler sizde ne kadar sıkıntı oluşturuyor?

AŞIRI SIKINTI _____ HİÇ SIKINTI YOK

SORU 5 Ağır cisimleri veya eşyaları itme, çekme , kaldırma veya taşıma ile ilgili ne kadar zorluk yaşıyorsunuz?

AŞIRI ZOR _____ HİÇ ZOR DEĞİL

SORU 6 Spor ve dans gibi eğlenceli aktiviteler esnasında ani ve keskin dönüşler yapmaktan ne kadar çekiniyorsunuz?

AŞIRI _____ HİÇ

SORU 7 Aktivite sonrası kalçanızda ne kadar ağrı hissediyorsunuz?

AŞIRI _____ HİÇ

SORU 8 Kalça ekleminiz yüzünden çocuk kaldırma veya kucaklama sizi ne kadar zorlar ?

AŞIRI ZORLAR _____ HİÇ ZORLAMAZ

SORU 9 Kalça ekleminiz yüzünden cinsel aktivite sırasında ne kadar zorluk yaşıyorsunuz?

AŞIRI ZORLUK _____ HİÇ ZORLUK YAŞAMIYORUM

SORU 10 Kalça ekleminizin sizde meydana getirdiği engellilik size gün içerisinde ne kadar süre kendisini hatırlatıyor?

HER ZAMAN _____ HİÇ BİR ZAMAN

SORU 11 Arzu ettiğiniz form seviyenizi koruyabilmekle ilgili ne kadar endişelisiniz?

AŞIRI _____ HİÇ

SORU 12 Kalça ekleminizdeki sorun dikkatinizi ne kadar dağıtıyor?

AŞIRI _____ HİÇ

Anketi Tamamladınız Teşekkürler.