The Validity and Reliability of the Turkish Version of Short Questionnaire to Assess Healthcare Professionals' Perceptions of Asynchronous Telemedicine Services

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Abstract. *Study Objectives:* The purpose of this study was to translate the "Short Questionnaire to Assess Healthcare Professionals' Perceptions of Asynchronous Telemedicine Services" into Turkish, and analyze it for validity and reliability. *Methods:* A total of 80 individuals were accepted in this cross-sectional descriptive study. The original scale was translated into Turkish (forward translate, reconciliation, back translation, review, plot test, final scale). Cronbach alpha, exploratory and confirmatory factor analysis were employed to assess the reliability and validity of the measurement model. *Results*: Cronbach's alpha was obtained as 0.880 in the Quality and 0.829 in the Difficulties subscales. The overall alpha value was 0.885. ICC (95% CI) values of the scale were calculated as 0.841 (0.775 to 0.891). RMSEA=0.09 was observed below the acceptable level of 0.10; GFI=0.92, AGFI=0.81 above the acceptable threshold of 0.90. *Conclusion:* The Turkish version of the scale is valid and reliable, and can be used in studies evaluating healthcare professionals' perceptions of asynchronous telemedicine services.

Key words: Telemedicine, validation, reliability studies, health professional, perception

Introduction

Rapid advances and impressive gains in the quality of digital technologies are affecting medical practice, and occurring faster than many healthcare providers and users can comprehend. Telemedicine can be applied remotely and can supply cost-effective care, thereby attempting to keep pace with the rapidly developing technology. There are also benefits such as telemedicine using healthcare apps for scheduled follow-up visits, making doctors and patients more effective and increasing the likelihood of follow-up, reducing missed appointments, and optimizing patient outcomes. Therefore, using technology is also highly accepted by users, including healthcare professionals (1-4). In addition, it is known that telemedicine, which

has been widely used for continuity of healthcare and treatments during the Covid-19 Pandemic, has above-average usability and high satisfaction for patients and healthcare professionals (5,6). There has been a recent increase in studies on technology acceptance in the health sector (7). Telemedicine is the use of telecommunication networks to enable information exchange between geographically distant healthcare providers and patients. The two primary modes in telemedicine are real-time, which is synchronous, and asynchronous store-and-forward (8).

The technology acceptance model is a theory in information systems that describes how consumers accept and use technology. The endpoint where individuals use technology is called actual system utilization. Behavioral intent is a driving force behind people's

usage of technology. Davis (1989) developed the Technology Acceptance Model (TAM) based on the two major concepts of perceived usefulness and ease-of-use. This model consists of three dimensions: individual context, application or organizational context, and context (9). Methodologies have been adapted to generate a validated scale based on benchmarks using dimensions of the technology acceptance model. The 'Health Optimum Telemedicine Acceptance Questionnaire', developed in this way, was used in the European Union Health Optimum project (optimization through telemedicine) (10). The scale, which was created for healthcare professionals regardless of their medical specialty, focuses on physicians' perceptions of the quality of telemedicine service, technical and other challenges, their relevance, and their potential impact on the health of patients using the service. A concise, easy-to-use short version of TAM was created to assess healthcare professionals' perceptions of asynchronous telemedicine services. A comprehensive assessment is required of health professionals' perceptions of usefulness, which is a critical factor in promoting the practice of telemedicine in public and private healthcare systems. Low response rates have been reported by users of long surveys based on TAM, one of the assessment tools, so one way to improve response rates is to opt for short surveys (11). Thus this study aimed to evaluate the perspective of Turkish healthcare professionals who use telemedicine and to statistically verify the Turkish version of this "Short Questionnaire to Assess Healthcare Professionals' Perceptions of Asynchronous Telemedicine Services".

Materials and methods

Data collection tools

The "Short Questionnaire to Assess Healthcare Professionals' Perceptions of Asynchronous Telemedicine Services" is a scale of eight items. The Likert scale responses have five options for the first four items and three options for the last four items. The study included healthcare professionals who had treated patients at least once with the telehealth/telemedicine application. Using a form prepared by the researchers of Google forms, a record was made of each participant's age, gender, and duration of telehealth usage. The participants were asked to complete the form twice in order to check for temporal stability (test-retest). The study was approved by Hatay Mustafa Kemal University Ethics Committee (no: 2021/23). Permission was then obtained from the authors who developed the scale to translate it into Turkish and conduct validity and reliability analysis.

It was stated by Mundfrom that in factor analysis, the sample size must be from 3 to 20 times the number of items, whereas according to the author and Alpar, a sample size five times the number of items is required (12,13). In this study, the sample size of 80 participants was 10 times the number of items.

Adaptation into Turkish and content validity

Translation and cultural adaptation of the questionnaire was designed according to the language translation stages (14). The language validity of the questionnaire was performed by five experts, three Turkish and two native English speakers. First, the questionnaire was translated into Turkish by the experts. After the translation, three Turkish experts identified and recorded any linguistic and cultural problems in the field. The experts then created and discussed correction notes of the questionnaire for the translations. In the second step, the Turkish version of the questionnaire was translated back into English by two native English speakers (back translate). In the third step, the consistency of the original questionnaire (Appendix 1) items and the items obtained by back-translation were checked by the native English speakers. The translation and the original questionnaire were observed to be compatible. In the last step, the Turkish form of the questionnaire to be used was administered to 20 people as a pilot study, and feedback was received on the clarity, perception, and logic of the questions. As the feedback received showed that the questions were understandable and perceptible, the questionnaire (Appendix 2) was applied to all participants.

For the content validity assessment of the scale, eight health specialists were consulted from the physical therapy and rehabilitation, infectious diseases, and internal disease branches. The specialists evaluated the

items in the scale translated into Turkish. For each item, they were asked to rate four options: 4 = highly relevant, 3 = quite relevant, 2 = somewhat relevant and 1= not relevant. Items scoring 1 or 2 were recorded as not relevant and items scoring 3 or 4 as relevant. The number of experts giving a rating of "relevant" for each item was divided by the total number of specialists to calculate I-CVI. The item content validity index (I-CVI) was then determined for each item. The I-CVI was 0.81, indicating that the items were considered to be content valid (13,15).

Reliability

For reliability analysis, internal consistency coefficient Cronbach alpha values were calculated for the scale and its subscales. The test-retest was performed two weeks after the first test, with 70 participants, thereby re-testing 87.5% of the sample. The consistency of the measurements made at this two-week interval was examined with the ICC (Intraclass Correlation Coefficient). ICC of >0.70 was considered good, and >0.90 was excellent (16).

Statistical Analyses

Exploratory and confirmatory factor analysis (CFA) was used to examine the structural validity of the properties of the scale translated into Turkish. In the exploratory factor analysis, the extraction approach was principal component analysis (PCA) with Varimax rotation. The Kaiser criterion was used to determine the number of subscales (Factors with eigenvalues higher than 1 method) (17). The measurement model, which was examined with exploratory factor analysis, was also examined with confirmatory factor analysis. Many different criteria were taken into account to evaluate the confirmatory factor analysis result. To measure model fit, multiple indices were examined with Chi-Square/df < 3. The comparative fit index (CFI > 0.90), goodness of fit index (GFI > 0.90), adjusted GFI (AGFI > 0.85), Tucker-Lewis index (TLI > 0.90), root mean square error of approximation (RMSEA < 0.10), and standard root mean square residual (RMR <0.10) cutoff points were of acceptable fit value (18,19). ICC was calculated for Temporal Stability (test-retest). All the univariate analyses and explanatory factor analysis were performed in IBM SPSS version 23 (SPSS Inc., Chicago, IL, USA) software, and confirmatory factor analysis was performed using STATA version 15/SE. A two-sided p-value <0.05 was considered statistically significant.

Results

Demographic Data

Recruitment was performed between 1 and 30 October 2021, and 80 participants completed the survey. In the study group, 72.5% of the respondents were female with a mean age of 26.60±4.72 years (range, 21-39 years). Of the total study participants, 80% had a bachelor's degree, 82% preferred Zoom application for telemedicine, and 53.8% worked in the state sector. The sociodemographic characteristics of the participants are shown in Table 1.

Reliability Analysis

Cronbach's alpha coefficient is an important measure of internal consistency. Internal consistency is accepted as supplied if the coefficient is >0.80 (13). Cronbach's alpha was obtained as 0.880 in the Quality and 0.829 in the Difficulties subscales. The other side's overall alpha value was 0.885. The Cronbach's alpha coefficient revealed that none of the items had a substantial impact on the instrument's consistency. For temporal stability, another reliability criterion, the scores at test-retest were assessed using the intraclass correlation coefficient. The ICC (95% CI) value of the scale was calculated as mean 0.841 (0.775 to 0.891), which was above the acceptable level of 0.70.

Content Validity, explanatory and confirmatory factor analysis

With the evaluations of the health specialists, the I-CVI was calculated for each item. The I-CVI of the total eight items was obtained as over 0.80 points. With these results, it was seen that the content validity values of all the items were above the acceptable limit.

Table 1. Socio-demographic characteristics of the participants

Characteristics (n=80)	n (%)
Sex	
Female	58 (72.5)
Male	22 (27.5)
Age	
18-25 years	45 (56.3)
25-40 years	35 (43.8)
Education level	
Bachelor's degree	64 (80)
Master degree	11 (13.8)
PhD	5 (6.3)
Trained in telemedicine	
Yes	57 (71.3)
No	23 (28.7)
Which application did you use for Telemedicine?	
Zoom	66 (82.5)
WhatsApp	8 (10)
Skype	4 (5)
Other applications	2 (2.5)
Employment information	
State agency	43 (53.8)
Private sector	30 (37.5)
Not working	7 (8.8)

Construct validity was first investigated by exploratory factor analysis. The Kaiser-Meyer-Olkin sampling adequacy score was 0.83, indicating excellent item inter-correlation for factor analysis. Bartlett's sphericity test indicated statistical significance (χ^2 = 378.29; p<0.001), that the inter-correlation matrix is collinearly coming from a population in the variables. There were two factors with eigenvalues greater than 1. As in the original scale, the number of subscales of the Turkish version of the scale was obtained as two (Kaiser Criterion: Eigenvalues higher than 1 method) (17). It was determined that 74.17% of the total variation was explained by two subscales identified by exploratory factor analysis. The first sub-dimension was Quality which had five items (items 1-5), and the second sub-dimension was Health which had three items (items 6-8) (Table 2).

Confirmatory factor analysis (CFA) was another construct validity phase of the scale's adaptation to Turkish. As a result of CFA, the fit index values of the measurement model were compared with the limits reported by Doğan and Özdamar (2017). RMSEA=0.09 was observed below the acceptable level of 0.10, GFI=0.92, and AGFI=0.81 above the acceptable value of 0.80; and TLI=0.93 and NFI=0.94 values were higher than the acceptable threshold of 0.90. Finally, the SRMR =0.06 value was found to be less than 0.10.

Table 2. Exploratory factor analysis (EFA), Variance extracted, and factor loading matrix

Measures	mean±sd (M)	Factor Loads	Cronbach α	Eigenvalues	VE
Factor I (Quality)	17.63±3.55 (18)		0.880	3.16	56.56
Item I	3.85±0.90 (4)	0.859			
Item 2	3.76±0.88 (4)	0.707			
Item 3	3.35±0.96 (3)	0.824			
Item 4	3.97±0.90 (2)	0.642			
Item 5	2.68±0.67 (3)	0.795			
Factor II (Difficulties)	6.36±1.52 (6)		0.829	1.70	16.61
Item 6	2.01±0.49 (2)	0.860			
Item 7	2.13±0.54 (2)	0.891			
Item 8	2.25±0.71 (2)	0.763			
Total Scale	23.98±4.60 (24)		0.885	5.95	74.17
Test Re-test ICC (95% CI): 0.841 (0.775 to 0.891)[*]					

*ICC(intraclass correlation coefficient); SD, standard deviation; VE, variance extracted
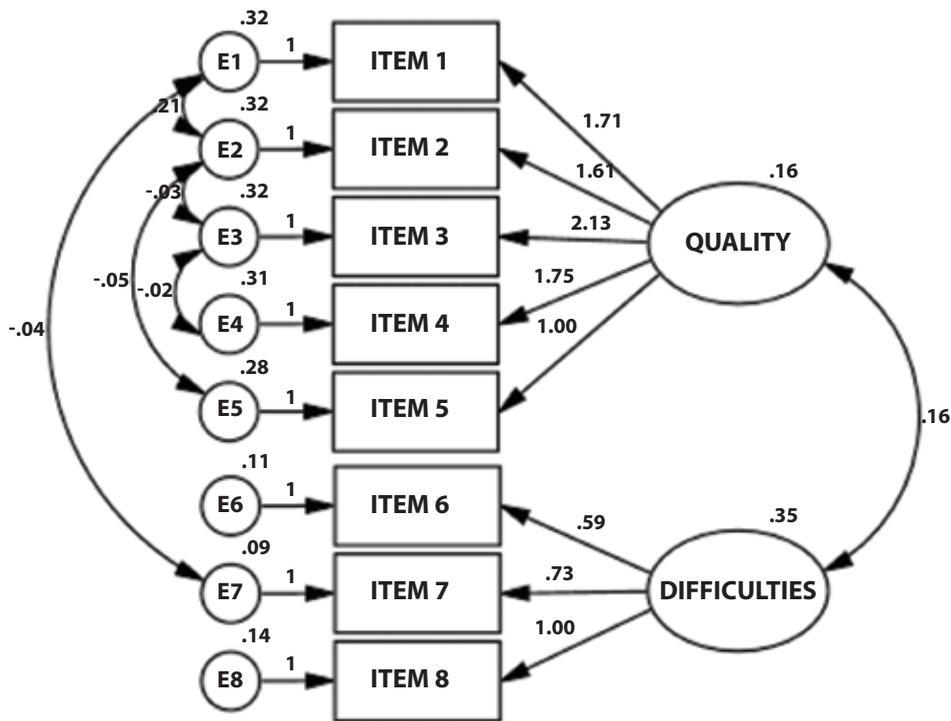
Figure 1. Path diagram for the Turkish version of the Short Questionnaire to Assess Healthcare Professionals' Perceptions of Asynchronous Telemedicine Services

As a result of these evaluations, it was seen that the fit index values were at an acceptable level and the second stage of the construct validity was at a sufficient level (Figure 1). The fit outcomes of the CFA for the Turkish version of the scale were found to be acceptable, indicating that the second stage of construct validity had been met.

Discussion and Conclusion

Telemedicine involves the use of telecommunications networks to exchange information between healthcare providers and geographically separated patients. Telemedicine is currently advocated as a necessity because of its potential to reduce inequalities in service delivery and improve access to care. Recent studies have shown that many patients are satisfied with the service provided by telemedicine (20). In the

light of these developments, the adaptation of healthcare professionals to telemedicine practices in countries is of critical importance. Therefore, the authors adapted the "Short Questionnaire to Assess Healthcare Professionals' Perceptions of Asynchronous Telemedicine Services" scale into Turkish and performed validity and reliability analyses.

The validity of the scale was examined with content validity (I-CVI), Explanatory and confirmatory factor analyses. It was observed that all items in the original scale received sufficient scores in the content validity analysis. No items were removed from the scale as a result of the content validity analysis.

Explanatory factor analysis showed that the scale consists of two sub-dimensions of quality and difficulties. When the Catalan validation was examined, it was observed that the scale had two sub-dimensions (11). The results of the current study showed that 74.14% of the total variance obtained for factor analysis in the

scale consisting of two sub-dimensions was sufficient for explanatory factor analysis (Table 2). It has been stated in the literature that an acceptable level to explain change is between 40% and 60% in explanatory factor analyses (21).

It was stated that the variance explained in the Catalan validation of the scale was 61.2%. When the CFA results of the scale were examined, the structure detected in the explanatory factor analysis was confirmed. The χ^2/df value, which is an important criterion showing model fit from the CFA results of the scale adapted into Turkish, was found to be below the acceptable limits of 3 (18).

Cronbach's alpha and test re-test methods were used to examine the reliability level of the scale. The Cronbach's alpha value was calculated as 0.88 for the Quality sub-dimension of the scale, 0.829 for the Difficulties sub-dimension, and the overall Cronbach's alpha value was 0.885. These results were observed to be slightly higher values compared to the Cronbach alpha values (0.79-0.84) obtained from the original scale. A test-retest methodology was used to measure the intra-observer reliability value of the scale. The results obtained were observed to be ICC (CI 95%) 0.841 (0.775 to 0.891) 0.75 higher than the ICC value reported for the original scale (11).

Telemedicine applications have been widely used in the last 2 years because of the Covid-19 pandemic. Inventions are born out of necessity. Due to the problems experienced by patients in reaching hospitals during the pandemic, healthcare professionals tried to reach their patients using telemedicine (22). Technology literacy is associated with generation. While the younger generation has higher technology literacy, it can be seen that the older generation is less familiar with technology, which is not an integral part of their lives. Therefore, while some healthcare professionals quickly adapted to telemedicine applications, it is known that some healthcare professionals resist this issue and are not happy while using it.

Telerehabilitation applications have not been used in every center in our country, which may be related to the level of being comfortable with the technology of physiotherapists and their patients. It has been observed that the rate of use of telerehabilitation applications in big cities is higher than in small cities, which could be due to the fact that clinicians and patients living in big cities are more familiar with the technology.

The widespread use of telemedicine applications in recent years has increased the need for scales in which telemedicine is questioned. Özden et al. conducted The Reliability and Validity of the Turkish Version of the Telehealth Usability Questionnaire and the Telemedicine Satisfaction Questionnaire in Patients with Multiple Sclerosis (23). Although there have been Turkish validity and reliability studies of scales questioning the telemedicine experiences of patients, it was determined that there is no Turkish scale to question the clinicians' experience or a scale that has been translated into Turkish. This caused an important limitation in assessing how clinicians perceive telemedicine as an emerging method of providing treatment. Therefore, this study can be considered to close an important gap in this field.

This study has a few potential limitations. It was observed that 23 (28.7%) of the study participants had not received telemedicine training, whereas it was thought that the fact that 57 (71.3%) had been trained may have affected their perception of telemedicine. The inclusion of homogeneous groups in terms of telemedicine training in future studies will provide better results. In addition, differences in education levels may also affect the results. Individuals with a Ph.D. level of education are expected to be more intertwined with technology and to accept telemedicine applications more easily. In future studies, homogenous participant groups in terms of education will provide more robust results.

When users encounter new technology, some factors affect their decisions. These include the belief that it will increase the performance of the user and the ease-of-use. The acceptance rate of technology is extremely important as it will affect the supply-demand balance. Therefore, evaluating the acceptance rate of telemedicine is extremely important as it will determine the amount of investment by researchers and investors in the field of telemedicine (24,25). With this scale, which was found to be valid and reliable, the acceptance rate of telemedicine will be analyzed for Turkey and will guide those who want to work in this field.

Davis conducted a study to develop a scale for predicting user acceptance of computers. In that study,

measurement was developed to detect perceived usefulness and perceived ease-of-use. A total of 152 users were included in the study and it was found that the perceived usefulness scale attained Cronbach alpha reliability of 0.97 for both the electronic mail and XEDIT systems, while perceived ease-of-use achieved reliability of 0.86 for electronic mail and 0.93 for XEDIT (24). When observations were pooled for the two systems, the alpha value was 0.97 for usefulness and 0.91 for ease of use. In the current study, the Cronbach alpha level was determined to be between 0.83 and 0.89. This level is compatible with the literature.

After translation and adaptation to Turkish, the "Short Questionnaire to Assess Healthcare Professionals' Perceptions of Asynchronous Telemedicine Services" was examined for reliability and construct validity, and it was determined to be a valid tool for usage in Turkey. This short form of 8 items will provide researchers with a valid tool to measure asynchronous telemedicine in terms of quality, difficulties, and general perceptions of healthcare professionals in Turkey.

Conflict of interest: The authors declare no conflict of interest

References

1. MacNeill V, Sanders C, Fitzpatrick R, et al. Experiences of front-line health professionals in the delivery of telehealth: a qualitative study. Br J Gen Pract 2014;64(624):401-407.
2. Haleem A, Javaid M, Singh RP, et al. Telemedicine for healthcare: Capabilities, features, barriers, and applications. Sensors International. 21;2:100117.
3. Khoja S, Durrani H, Scott R, et al. Conceptual humanizing technology for a sustainable society, conference proceedings framework for development of comprehensive e-Health evaluation tool. Telemed E-Health 2013;19(1):48-53.
4. Waller M, Stotler C. Telemedicine: a primer. Current allergy and asthma reports. Curr Allergy Asthma Rep 2018;18(10):18-54.
5. Zhang S, Brown T, Weiss S, et al. Telemedicine has acceptable usability and high satisfaction in patients with sickle cell disease. Blood 2021;138:2982.
6. Xu J, Hamadi H, Hicks-Roof K, et al. Healthcare Professionals and telehealth usability during COVID-19. Telehealth Med Today 2021;6:3.
7. Nguyen M, Fujioka J, Wentlandt K, et al. Using the technology acceptance model to explore health provider and administrator perceptions of the usefulness and ease of using technology in palliative care. BMC Palliative Care. 2020;19(1):1-9.
8. Serrano CI, Shah V, Abràmoff MD. Use of expectation disconfirmation theory to test patient satisfaction with asynchronous telemedicine for diabetic retinopathy detection. Int J Telemed Appl 2018;2018:1-14.
9. Davis FD, Granić A, Marangunić N. The Technology Acceptance Model: 30 Years of TAM: Springer International Publishing; 2022.
10. Schug S, Atzori W, Lange M, et al. REgioNs of Europe WorkINg toGether for HEALTH. Report. European Comission; Brussels, Belgium; 2012 17.May.2012. Report No.: 250487.
11. Vidal-Alaball J, Flores Mateo G, Garcia Domingo JL, et al. Validation of a short questionnaire to assess healthcare professionals' perceptions of asynchronous telemedicine services: the Catalan version of the health optimum telemedicine acceptance questionnaire. Int J Environ Res Public Health. 2020;17(7):2202.
12. Mundfrom DJ, Shaw DG, Ke TL. Minimum sample size recommendations for conducting factor analyses. Int J Test 2005;5(2):159-168.
13. Alpar R. Applied statistics with examples from the sports, health and education science and validity-reliability. 5th ed. Ankara: Detay Publishing.(in Turkish); 2014:20-55.
14. Beaton DE, Bombardier C, Guillemin F, et al. Guidelines for the process of cross-cultural adaptation of self-report measures. Spine. 2000;25(24):3186-3191.
15. Polit DF, Beck CT. The content validity index: are you sure you know what's being reported? Critique and recommendations. Res Nurs Health 2006;29(5):489-497.
16. Ware Jr JE, Gandek B. Methods for testing data quality, scaling assumptions, and reliability: the IQOLA Project approach. J Clin Epidemiol 1998;51(11):945-952.
17. Kaiser HF. A revised measure of sampling adequacy for factor-analytic data matrices. Educ Psychol Meas 1981;41(2):379-381.
18. Hu Lt, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Struct Equ Model 1999;6(1):1-55.
19. Doğan İ, Özdamar K. The effect of different data structures, sample sizes on model fit measures. Commun Stat Simul Comput 2017;46(9):7525-7533.
20. Mair F, Whitten P. Systematic review of studies of patient satisfaction with telemedicine. Bmj 2000;320(7248):1517-1520.
21. Gorsuch RL. Exploratory factor analysis: its role in item analysis. J Pers Asses 1997;68(3):532-560.
22. Bersano A, Kraemer M, Touzé E, et al. Stroke care during the COVID-19 pandemic: experience from three large European countries. Eur J Neurol. 2020;27(9):1794-800.

23. Özden F, Özkeskin M, Sarı Z, et al. The reliability and validity of the Turkish version of the telehealth usability questionnaire and the telemedicine satisfaction questionnaire in patients with multiple sclerosis. Neurol Sci 2022;43(3):1921-1927

24. Davis FD. Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS quarterly 1989:13(3):319-340.

25. Georgantzi N, Gheno I. ICT PSP–Accessibility, Ageing and Social Integration Programme. Retrieved from Bruxelles, Belgium https://ec.europa.eu/information_society/activities/ict_psp/documents/ICT%20PSP%20WP2009%20-%20v21nov08.pdf.

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Appendix 1

Original EU Project Health Optimum Telemedicine Acceptance Questionnaire

1. **How do you rate the overall quality of the telemedicine consultation?**

   [ ] Very Poor
   [ ] Poor
   [ ] Average
   [ ] Good
   [ ] Excellent

2. **How would you rate the technical quality of the telemedicine consultation?**

   [ ] Very Poor
   [ ] Poor
   [ ] Average
   [ ] Good
   [ ] Excellent

3. **How do you rate the quality of care delivered by the telemedicine service when compared to the quality of traditional care?**

   [ ] Worse
   [ ] Much worse
   [ ] About the same
   [ ] Better
   [ ] Much better

4. **Were you comfortable during the telemedicine consultation?**

   [ ] No, very uncomfortable
   [ ] No, somewhat uncomfortable
   [ ] Neither comfortable nor uncomfortable
   [ ] Yes, somewhat comfortable
   [ ] Yes, very comfortable

5. **Do you feel that the telemedicine consultation service may influence the health status of your patients?**

   [ ] Negative effects on health
   [ ] No change
   [ ] Improved health

6. **Did you experience technical difficulties that might affect the quality of care delivered by the telemedicine service?**

   [ ] Often
   [ ] Sometimes
   [ ] Not at all

7. **Did you experience organisational or other difficulties that might affect the quality of care delivered by the telemedicine service?**

   [ ] Often
   [ ] Sometimes
   [ ] Not at all

8. **Would you continue to use the telemedicine service?**

   [ ] No.
   [ ] Yes, but with improvements
   [ ] Yes, in the same way as the service has be deployed

Appendix 2

Türkçe Versiyonu: Sağlık Profesyonellerinin Asenkronize Teletıp Hizmetlerine Yönelik Algılarını Değerlendirmek İçin Kısa Anketi

1. **Teletıp danışmanlığının genel kalitesini nasıl değerlendiriyorsunuz ?**

   [ ] Çok kötü
   [ ] Kötü
   [ ] Orta
   [ ] İyi
   [ ] Mükemmel

2. **Teletıp danışmanlığının teknik kalitesini nasıl değerlendirirsiniz ?**

   [ ] Çok kötü
   [ ] Kötü
   [ ] Orta
   [ ] İyi
   [ ] Mükemmel

3. **Teletıp hizmetinin sunduğu sağlık hizmetinin kalitesini geleneksel sağlık hizmeti kalitesine kıyasla nasıl değerlendirirsiniz ?**

   [ ] Daha kötü
   [ ] Kötü
   [ ] Aynı
   [ ] İyi
   [ ] Daha iyi

4. **Teletıp danışmanlığı sırasında rahat mıydınız ?**

   [ ] Çok rahatsızdım
   [ ] Rahatsızdım
   [ ] Kararsızım
   [ ] Rahattım
   [ ] Çok rahattım

5. **Teletıp danışmanlık hizmetinin, hastalarınızın sağlık durumunu ne yönde etkileyeceğini düşünürsünüz?**

   [ ] Hastaların sağlığını olumsuz yönde etkiler
   [ ] Bir değişiklik olmaz
   [ ] Hastaların sağlığını olumlu yönde etkiler

6. **Teletıp servisi tarafından sunulan sağlık hizmetinin kalitesini etkileyebilecek teknik zorluklar yaşadınız mı ?**

   [ ] Sıklıkla
   [ ] Bazen
   [ ] Asla

7. **Teletıp servisi tarafından sunulan sağlık hizmetinin kalitesini etkileyebilecek organizasyonel zorluklar veya başka zorluklar yaşadınız mı ?**

   [ ] Sıklıkla
   [ ] Bazen
   [ ] Asla

8. **Teletıp hizmetini kullanmaya devam eder misiniz ?**

   [ ] Hayır
   [ ] Evet fakat geliştirilmeli
   [ ] Evet