



Original Research / Orijinal Araştırma

Turkish Validity and Reliability of Family Eating and Activity Habits Questionnaire **Ailedeki Yeme ve Aktivite Alışkanlıkları Ölçeğinin Türkçe Geçerlik ve Güvenirlik** **Çalışması**

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Abstract

Introduction: Overweight and obesity in childhood is a serious health problem. It causes many health problems; especially cardiovascular diseases and type 2 diabetes. Family eating behaviors, habits, home eating, and physical activity environment play an important role in shaping children's behaviors and determining their weight status. Identification of these factors may be effective in the treatment and prevention of weight problems in children. In the literature review, a Turkish scale that could measure these factors could not be reached. The aim of this study was to evaluate the Turkish validity and reliability of the Family Eating and Activity Habits Questionnaire-Revised.

Method: The text of scale was translated into Turkish using group translation and back translation methods. Firstly, as a pilot study group, pre-tests and retests were applied to the parents of students from different schools in Adana with a three-week interval. Then, in the main study group, the scale was applied to the parents in schools and parents of children in outpatient clinics.

Findings: In the pilot study; Cronbach's alpha value was 0,787 showing internal consistency, and the *r* value was calculated as 0,761 ($p<0,001$) according to the Pearson correlation analysis showing the correlation between the pretest and retest. In the main study, Cronbach's alpha value was 0,780. The total scores of overweight/obese children were significantly higher than the total scores of normal-weight children. The total score of the scale was able to determine the weight status of the child with 71 % success.

Results: According to these validity and reliability values; it can be suggested that the Turkish version of the Family Eating and Activity Habits Questionnaire-Revised can be used in a similar Türkiye population.

Key words: family eating and activity habits questionnaire, childhood obesity, FEAHQ-R

Özet

Giriş: Çocukluk çağında fazla kiloluluk ve obezite, artarak devam eden ciddi bir sağlık sorunudur. Başta kardiyovasküler hastalıklar, tip 2 diyabet olmak üzere çok sayıda sağlık problemine yol açmaktadır. Ailedeki yeme davranışları, alışkanlıklar, evdeki beslenme ve fiziksel aktivite ortamı çocukların davranışlarını şekillendirip kilo durumunu belirlemede önemli rol oynar. Bu faktörlerin belirlenmesi, çocuklarda kilo probleminin tedavisi ve önlenmesinde etkili olacaktır. Literatür taramasında bu etkenleri ölçebilen Türkçe bir ölçeğe ulaşılamamıştır. Bu çalışmanın amacı Family Eating and Activity Habits Questionnaire-Revised'in Türkçe geçerlik ve güvenilirliğini incelemektir.

Yöntem: Ölçek metni, grup çevirisi ve geri çeviri yöntemi kullanılarak Türkçeye çevrildi. Öncelikle pilot çalışma grubu olarak Adana'da ilkököl ve ortaokul düzeyindeki farklı okullardan öğrencilerin velilerine üç hafta ara ile ön test ve tekrar testi uygulandı. Ardından; ana çalışma grubunda okullarda ve polikliniğe getirilen çocukların velilerine ölçek uygulandı.

Bulgular: Pilot çalışmada iç tutarlılığı gösteren Cronbach alfa değeri 0,787; ön test-tekrar testi arası uyumu gösteren Pearson korelasyon analizi sonucu *r* değeri 0,761 ($p<0,001$) olarak hesaplandı. Ana çalışmada ise Cronbach alfa değeri 0,780 olarak elde edildi. Fazla kilolu/obez çocukların toplam skorları, normal kilolu çocukların toplam skorundan anlamlı olarak daha yüksekti. Ölçek toplam skoru, çocuğun kilo durumunu % 71 başarı ile belirleyebiliyordu.

Sonuç: Elde ettiğimiz geçerlik ve güvenilirlik değerleri, Ailedeki Yeme ve Aktivite Alışkanlıkları Ölçeği'nin benzer bir Türkiye örnekleminde kullanılabileceğini düşündürmektedir.

Anahtar kelimeler: ailedeki yeme ve aktivite alışkanlıkları ölçeği, çocukluk çağı obezitesi, FEAHQ-R

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Introduction

Overweight and obesity in childhood is a common and severe health problem worldwide. Obesity prevalence in childhood has increased compared to the previous years. According to World Health Organization data, over 390 million people aged 5-19 are overweight or obese.¹ A meta-analysis of prevalence studies from different regions in Türkiye published in 2000-2020 showed that children's obesity prevalence increased from 2,9% to 13,5%.² With the increase in obesity prevalence in children, many health problems of adulthood have started to emerge in children.³ The primary health problems obese children may face are cardiovascular diseases (high blood pressure, dyslipidemia, left ventricular dysfunction), insulin resistance, asthma, and being obese in adulthood.⁴ Additionally; obese children have a worse quality of life and a higher risk of premature death.^{5,6}

The nutritional circumstances at home significantly determine the child's nutritional habits and weight status.⁷ Parents affect the development of children's eating behaviour through the eating environment they provide at home, the foods they allow, and the way they feed their children.⁸ It was demonstrated that environmental and behavioural factors such as home food environment, visibility and availability of foods, eating pace, eating while watching television, and eating with family or alone play a role in developing dietary patterns and obesity in childhood.^{3,7,9,10,11,12} Although there are valid and reliable questionnaires about childhood obesity in Türkiye, a questionnaire that can evaluate parents and children together in terms of environmental and behavioural factors about eating and physical activity can't be reached in our literature search.

Golan and Weismann developed the Family Eating and Activity Habits Questionnaire (FEAHQ) in 1998 to define the factors that cause childhood obesity and monitor environmental changes in weight loss and behavioural modifications of the family. After fifteen years, its revised version (Family Eating and Activity Habits Questionnaire-Revised) was published.^{13,14}

Family Eating and Activity Habits Questionnaire-Revised (FEAHQ-R) is a 32-item self-reported instrument that aims to evaluate obesogenic factors in a home environment, each of the family members' dietary and physical activity patterns, and stimulus control related to eating. The researchers conducted the original study of the questionnaire with parents of children aged 6-12. The responding parent is asked to answer the items referring to themselves, their spouse, and the child. Thus, it allows us to assess families rather than just a child. FEAHQ-R consisted of four scales: Leisure time activities (items 1-4), eating habits and style (items 5-16), hunger and satiety cues (items 17-19), and stimulus exposure and control (items 20-32). The questionnaire is scored by summing up the scores of all items. Two items about physical activity (items 2 and 3) were scored reversely. Higher questionnaire scores signify more obesogenic family environment and eating-physical activity patterns.

Since family eating and activity habits considerably influence children's obesity, we assumed that health professionals might benefit from the FEAHQ-R that can promptly evaluate the environmental and behavioural factors. This study aimed to evaluate the Turkish validity and reliability of FEAHQ-R and its applicability in the Türkiye sample.

Method

Study design

The study was designed in two steps. A pilot study evaluated whether questionnaire items are understandable and whether the questionnaire works. In the main study, the questionnaire's validity and reliability were controlled, and its suitability for the Turkish community was studied.

After receiving permission from the original author via e-mail, and institutional permission from the Türkiye Republic Adana Governorship National Education Department, the study was approved by the Cukurova University Medicine Faculty Non-Invasive Clinic Studies Ethic Committee (reference no:47, date:01/06/2018).

Translation And Cultural Adaptation

Five experts who speak fluent English and Turkish translated the original questionnaire into Turkish. The researchers obtained one Turkish version from these translations. This Turkish version was translated into English again by five different experts and was obtained one English translation from these. This English translation was compared with the original questionnaire, and no significant meaning change was detected. A different family medicine academician who studies similar topics evaluated the translation and participants of the pilot study also gave feedback. After these steps, statements that may be difficult to understand and orthographic formation were appropriately changed, and the final form of the questionnaire (shown in the Appendix) was obtained.

Data Collection

After statistical analysis, the pilot study was planned to apply the questionnaire to parents of 40 children (20 parents of normal-weight children and 20 parents of overweight/obese children). In the main study, it was aimed to reach parents of 300 children (150 parents of normal-weight children and 150 parents of overweight/obese children).

Participants were selected from 6-12-year-old children's parents who voluntarily participated in the study. Participants were chosen from mothers or fathers of children who are not on systemic steroids or do not have any metabolic diseases, or hormonal disorders. Children whose parents don't live together on a special nutrition treatment, BMI-for-age at less than the 5th percentile, parents who could not answer the questionnaire because of a psychiatric or mental problem, and immigrants were not included in the study.

The pilot study participants were chosen from parents of ages 6-12 children who study in three different schools (primary or secondary schools) in Adana from three different neighbourhoods with low, average, or high socioeconomic status. Parents were invited to the school; the questionnaire was applied to the ones who accepted to participate in the study and signed informed consent forms. Then, feedbacks were taken, and the same participants were invited to retest after three weeks. The participants were informed about healthy eating and physical activity behaviours and informative brochures were distributed after the retests. Parents of children who detected problems were notified and invited to Cukurova University Medicine Faculty Family Medicine Department's outpatient clinic.

Participants of the main study were chosen from both parents of children who study in primary and secondary schools in different regions of Adana, and parents of children aged 6-12 who come to University Hospital Pediatrics outpatient clinic in February-March 2019. In the schools, parents were invited to the school and informed about the study. The ones who agreed to participate in the study filled out the questionnaire after signing informed consent forms. The researchers shared knowledge on healthy eating and physical activity behaviours, and informative brochures were distributed. In the hospital, parents of children were informed about the study, and those who agreed were included. After the completion of the questionnaires, informative brochures were also provided for the participants in the hospital. All the participants who had problems were informed and invited to the Family Medicine outpatient clinic.

According to their body mass index (BMI), the children were grouped as normal-weight and overweight/obese. According to Turkish children's BMI reference values defined by Neyzi et al. in 2008¹⁵; children whose BMI-for-age was at the 5-84th percentile were accepted as normal-weight, at the 85-94th percentile as overweight, greater than the 95th percentile as obese. In schools that had already taken the height and weight measures of children, the values were used. In schools that had not taken the measurement, the values we measured were used. In the hospital, the values measured during the physical examination were used.

Statistical Analysis

Categorical variables were expressed as numbers and percentages, whereas continuous variables were summarized as mean and standard deviation. A Chi-square test was used to compare categorical variables between the groups. The normality of distribution for continuous variables was confirmed with the Shapiro Wilk test. For the comparison of questionnaire scores (total and sub-scores) between the groups, the Student's t-test was used. To evaluate the correlations between questionnaire scores and other variables, Pearson's Correlation Coefficient was used. Internal consistency was measured using Cronbach α . Binary logistic regression analysis was applied to calculate the variation in the groups explained by the questionnaire. A receiver operator characteristic (ROC) curve analysis was used to measure the performance of FEAHQ-R in the classification of the groups. All analyses were performed using the IBM SPSS Statistics Version 20.0 statistical software package (IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp. 2011). The statistical level of significance for all tests was 0.05.

Results

The pilot study was performed on 64 participants; 30 were normal-weight children's parents, 11 were overweight children's parents, and 23 were obese children's parents. 45 of 64 participants (n=25 were normal-weight children's parents and n=20 were overweight/obese children's parents) completed both pretest and retest in full. 19 participants had at least one missing data in the pretest, the retest, or both. During analysis, conjectural values were not given to the missing data; each item was analyzed from answered values without considering the missing data. Participants were divided into two groups: normal-weight children's parents and overweight/obese children's parents. No significant differences were noted for age, income, and sex between normal-weight and overweight/obese groups ($p=0,77$, $p=0,18$, $p=0,178$, respectively).

The item score was obtained from the arithmetic sum of each item's answer for mother, father, and child while calculating the test score. 2nd and 3rd items, which reflect physical activity, were valued negatively. 29th, 30th, 31st, and 32nd items were calculated reversely and completed to four. The questionnaire score was obtained by adding scores of all items. Higher scores were considered as "more obesogenic" eating and activity patterns.

Pearson correlation analysis showed a high correlation between pretest and retest scores of pilot study participants ($r=0,761$, $p<0,001$). Internal consistency was calculated for pretest and retest, and the results were highly consistent. Cronbach's α was 0,787 for the pretest and 0,816 for the retest. When participants were grouped as normal-weight and overweight/obese, the pretest-retest correlation was obtained as $r=0,744$ for the normal-weight

group and $r=0,770$ for the overweight/obese group ($p<0.001$ for both). When internal consistency was examined for the pretest, Cronbach's α was 0,749 for the normal-weight group and 0,731 for the overweight/obese group. When the same examination was done for the retest, Cronbach's α was 0,851 in the normal-weight group and 0.780 for the overweight-obese group, which were highly consistent (Table 1).

Table 1. Internal consistency and Pearson correlation analysis findings for the pilot study

	Cronbach's α values		r values
	Pretest:	Retest:	
All participants	0,787*	0,81*	0,761 ($p<0,001$)**
	0,749*	0,851*	
Normal-weight group	0,731*	0,780*	0,770 ($p<0,001$)**
	0,742*	0,767*	

*Cronbach's α test

**Pearson correlation analysis (2-tailed significance)

As the result of the pilot study, it was observed that the questionnaire could be filled consistently by the participants, and then the main study was started.

In statistical analysis, the main study was aimed to be conducted with 300 participants (150 normal-weight, 150 overweight/obese children's parents) with 80% power. The study reached 240 participants. However, a post-hoc analysis of these participants revealed 99,9% power. Thus, it was decided that the sample size was sufficient.

The main study involved 240 parents; 120 were normal-weight children's parents, 48 were overweight children's parents, and 72 were obese children's parents. The children were divided into two groups of 120 each, as normal-weight and overweight/obese groups. No significant differences were noted for age and sex between groups ($p=0,67$, $p=0,61$, respectively). In both groups, 16,7% ($n=20$) of the questionnaires were completed by fathers, and mothers completed 83,3% ($n=100$) of them.

Cronbach's α value, calculated from the total scores of participants' answers in the main study, was 0,780. When each group's total scores were calculated, Cronbach's α was obtained as 0,742 for the normal-weight group, and 0,767 for the overweight/obese group. When the difference between the total scores of the two groups was examined, the mean score of the overweight/obese group ($64,28 \pm 22,82$) was significantly higher than the normal-weight group ($46,28 \pm 21,95$) ($p=0,001$). (Table-2)

Table 2. Internal consistency and test score findings for the main study

	Cronbach's α values	Mean test scores
Normal-weight group	0,742*	46,28 \pm 21,95**
Overweight-obese group	0,767*	64,28 \pm 22,82**

*Cronbach's α test

**Numerical variables were summarized as mean and standard deviation.

In the original study, the researchers divided the questionnaire into four subscales: Leisure time activities (A subscale: items 1–4), eating habits and style (B subscale: items 5–16), hunger and satiety cues (C subscale: items 17–19), exposure and availability of problematic foods and stimulus control (D subscale: items 20–32). When factor analysis was studied for values obtained from this present study, the factors were not coherent with the original study. In this study, when we examined the scores as four subscales, just like the original study, there were statistically significant differences between normal-weight and overweight/obese groups for three subscales except leisure time activities (Table 3).

Table 3. Subscale scores of normal-weight and overweight/obese groups

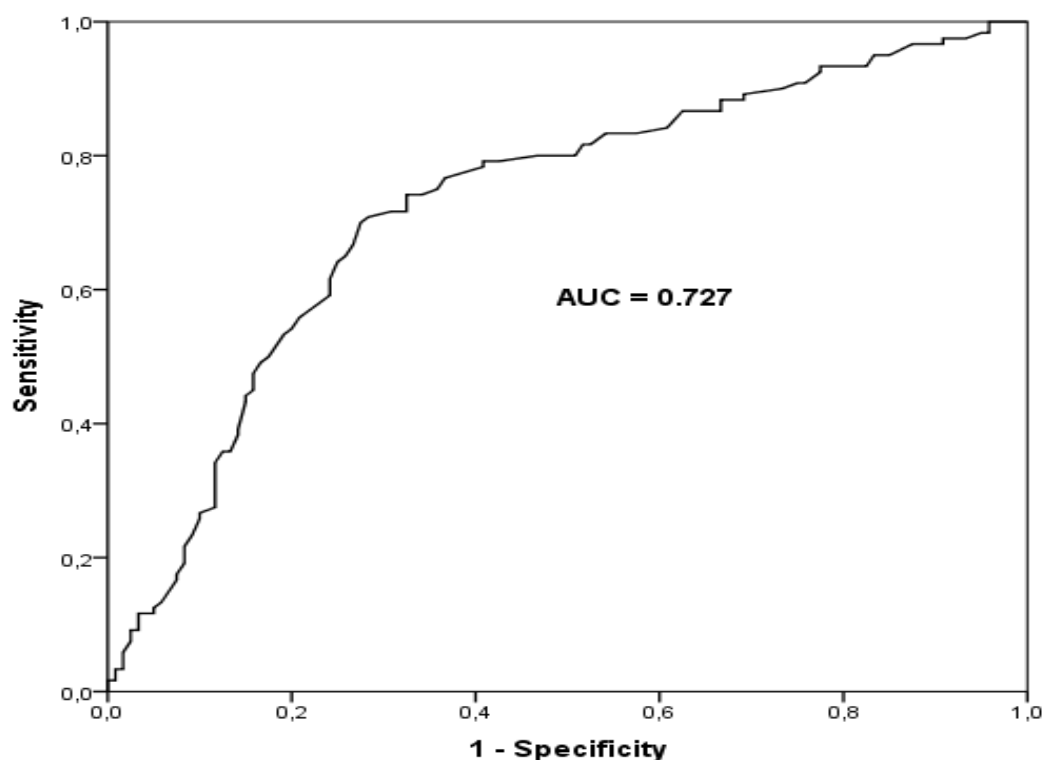
Subscale	Normal-weight group subscale score	Overweight-obese group subscale score	p value
A subscale (items 1-4)	0,34 \pm 10,84*	2,21 \pm 10,25*	0,170**
B subscale (items 5-16)	26,19 \pm 14,23*	35,88 \pm 15,46*	0,001**
C subscale (items 17-19)	5,60 \pm 3,74*	6,82 \pm 4,02*	0,016**
D subscale (items 20-32)	14,15 \pm 4,98*	19,38 \pm 6,75*	0,001**

*Numerical variables were summarized as mean and standard deviation.

**Independent samples T-test

Binary logistic regression analysis was studied to evaluate the questionnaire's validity, and it was demonstrated that the total score could classify being overweight/obese status with 71% success (accuracy: 71%, $R^2=0,14$). One point increase in total score caused a 3,7% increase in being overweight/obese risk. Correct classification success of the subscale score was found as 72,5% ($R^2=0,20$). After item-based regression analysis, the 2nd, 5th, 8th, 20th, 24th, and 31st items were determined as the most decisive items in estimating whether the child is overweight/obese. In the classification of these items, the success rate was 75,4% ($R^2=0,28$). The highest R^2 value was obtained from the item-based analysis.

Receiver operating characteristic (ROC) analysis was applied to determine a cut-off for the total questionnaire score to determine the child's overweight/obesity. After analysis, it was assigned that when the cut-off was received as 50, it demonstrated 74% sensitivity and 67% specificity (Figure 1).



*Receiver operating characteristic analysis

Figure 1. ROC* analysis graphic for the main study

Discussion

A questionnaire that can analyze the factors that affect childhood obesity as the family environment, home food environment, and family activity habits, may help prevent and treat weight problems in children. In this study, studying Turkish validity and reliability of a present questionnaire was preferred rather than developing a new questionnaire because of the limited project period. Furthermore, it was considered that studying a questionnaire in a foreign language can enable to make comparison with other studies from different populations. When questionnaires used worldwide were perused, FEAHQ-R was considered appropriate for the project aim and was chosen as a potentially useful questionnaire in the Turkish community.

Firstly, in the pilot study, the pretest was found highly consistent (Cronbach's $\alpha=0,787$, for retest= $0,816$), and there was a high correlation between pretest and retest ($r=0,761$, $p<0,001$). In the main study with a broader sample, Cronbach's α value was obtained as 0,780, demonstrating the questionnaire's reliability. Accuracy, which shows the questionnaire's validity, was 71%, and it was a high value.

In the pilot study, there were missing data in 30% of questionnaires. These data were considered to determine which items were overlooked. It was determined that item 16 was mostly left blank. When the 16th question's typesetting changed (the parents were asked to mark the appropriate choice instead of writing the answer to the box on the right), the problem was resolved. Thus, in the main study, there were no missing data.

Before the main study, in statistical analysis, the aim was to reach 300 participants (150 normal-weight, 150 overweight/obese children's parents) with 80% power. The aimed sample size could not be obtained because of

various causes, as participants could not meet the participation criteria or did not accept participation in the study. Nevertheless, a post-hoc power analysis was done with answers from 240 participants, and it was found as 99,9%. Therefore, the sample was determined as satisfactory.

In this study, the most significant effect on determining a child's weight status was demonstrated in the item-based analysis. The 2nd, 5th, 8th, 20th, 24th, and 31st items were stated as the most determining items. Especially the 20th and 24th items showed a very high correlation. In the second item, leisure time activities, in 5th item eating while standing, in 8th item eating when bored, in the 20th and 24th items snacks at home, in the 31st item eating snacks with children were examined. It can be considered that the factors examined in these items play an essential role in developing weight problems in children of our population, and these areas should be taken care of in struggling with obesity.

FEAHQ is an evaluation tool that can measure the obesogenic environment at home in some weight control programs in England, the United States of America, and Israel.¹⁴ The questionnaire was used to measure eating behaviors in children and home environments in many studies from different countries. In a systematic review that evaluates measuring tools used for childhood obesity interventions, FEAHQ was mentioned as "has strong results for responsiveness, but needs further testing because of showing poor reliability in a small sample and cross-cultural validity not clear".¹⁶ In the literature review of Rendina et al. about evaluation methods of the obesogenic environment in children and adolescents; FEAHQ was evaluated as vital for being a standard questionnaire, being brief and easy to apply, having appropriate questions to the objectives, being used in European countries; and it was evaluated as limited for being slightly used and making generic and/or particular data analysis.¹⁷

In this study, FEAHQ-R, a revised form of FEAHQ, was used. Erdem, Engin, and Kuşuoğlu studied Turkish validity and reliability of FEAHQ within the scope of a thesis study under the name of "Aile Yeme ve Aktivite Alışkanlıkları Anketi" in 2012.¹⁸ In Erdem et al's study, only internal consistency, content validity, and test-retest reliability were studied. In subscales, Cronbach's α values were calculated between 0,23–0,73; r values in the test-retest reliability were calculated between 0,43–0,74. Except for the relevant thesis study, any other study this questionnaire used could not be found in our literature search. In Erdem et al's study, Cronbach's α and correlation values were found relatively low. Discrimination power was not calculated; regression analysis was not studied. In 2014, an updated version of FEAHQ (FEAHQ-R) was published. Because of these reasons, in our study, the Turkish validity and reliability of FEAHQ-R were studied.

The questionnaire will reflect the truth to the extent that it is correctly completed as it evaluates based on the person's statement completing it. Since the information obtained in the study includes recent information due to the individual's recall factor, it may be too assertive to say that these are direct risk factors for obesity. However, since the content of the questions asked consists of features that are not thought to change depending on time and development, it can be assumed that the recent information is the result of a long-standing habit in the person.

Strength Of The Study

The questionnaire we used is unique in evaluating parents and children while determining children's weight status and measuring home environment, eating patterns, and physical activity habits altogether. The participants who reflect the sample population were chosen from different socioeconomic statuses; the questionnaire was applied to the individuals who may reflect society according to its purpose. The translations of the experts were used in the language equivalence. However, the feedback was also taken from the pilot study participants, and expressions were revised understandably for different individuals in society. The similarity between children's age and gender in the pilot and main studies supports that the results are valid and reliable regardless of these factors. The questionnaire text was prepared as a single duplex page and in a simple appearance. Further, during the study, steps were taken to treat and prevent childhood obesity.

Limitations Of The Study

The original study examined whether the questionnaire was appropriate for monitoring the behaviors and habits of obesity (predictive validity). FEAHQ-R was administered to families with overweight/obese children included in the weight control program at the beginning and end of the program. It was stated that the improvement in questionnaire scores was associated with the child's weight loss. However, in this study, the monitoring power of the questionnaire could not be evaluated. In factor analysis, the subscales we obtained were not congruent with the subscales in the original study. The number of subscales we found was higher than in the original study. While some of the schools where the study was conducted measured height and weight, others did not. In the schools that did not take the measurement, the researchers took height and weight measurements; in the schools that took the measurement, the school's values were used. Re-measurement might lead to resistance development and sensitization about their weight, especially in children with a weight problem. So, it was considered that taking the values at the school without repeating the measurement was more appropriate.

Conclusion

When the questionnaire was evaluated generally, it can be assumed that it is consistent, reliable, valid, and understandable. The questionnaire seems to be ready to use with the validity and reliability values we demonstrated.

Repeating this study in larger populations and with different ethnicities can reflect Turkish society better. Validity and reliability studies can be reproduced for different age groups. Behavior monitoring power should be studied to demonstrate the predictive validity of the questionnaire.

The questionnaire can be considered a practical assessment tool administered in primary care and filled in by the parents. It can give the physician information about which areas are disrupted, especially in children with weight problems.

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Appendix: Turkish version of Family Eating and Activity Habits Questionnaire-Revised

A. Boş zaman etkinlikleri	Anne	Baba	Çocuk
1. Günde toplam kaç saatini televizyon izleyerek ya da bilgisayar oyunu oynayarak geçirirsiniz?			
2. Haftada kaç kez boş zaman değerlendirme için veya hobilerinizle ilgili aktivite programlarına (sosyal ortamlar veya kurslara) katılırsınız?			
3. Haftada ortalama kaç saat fiziksel aktivite yaparsınız? (bisiklete binmek, yürüyüş yapmak, yüzmek, jimnastik, toplu oynanan oyunlar, dans, tenis, diğer)			
4. Yalnızken ve bir işle meşgul değiken sıklıkla ne yaparsınız? 0- hiçbir zaman 1- çok nadiren 2- bazen 3- sıklıkla 4- her zaman			
B. Yeme alışkanlıkları ve tarzı			
Her biriniz, aşağıdaki davranışları ne sıklıkta yaparsınız? 0- hiçbir zaman 1- çok nadiren 2- bazen 3- sıklıkla 4- her zaman	Anne	Baba	Çocuk
5. Ayakta durarak yemek			
6. Doğrudan tencere/tavanın içinden yemek			
7. Televizyon izlerken, okurken, çalışırken yemek			
8. Can sıkıntısından yemek			
9. Sinirliken ya da kötü bir ruh halindeyken yemek			
10. Öğünler arasında düzensiz bir şekilde bir şeyler yemek			
11. Akşam geç saatte ya da gece yemek			
12. Oturma odası/ televizyon odası/ çalışma odasında yemek			
13. Yatak odasında yemek			
14. Yemekten ikinci tabağı ne sıklıkta istersiniz ya da abırsınız?			
15. Sizinle aynı yaştaakilere kıyasla yeme hızınızı nasıl değerlendirirsiniz? 1- Yavaş 2- Orta 3- Hızlı			
16. Genellikle ailecek (aynı evde yaşayan aile bireylerinin çoğunun katıldığı) ne sıklıkla yemek yersiniz? Lütfen daire içine alınız 0) günde bir kezden fazla 1) neredeyse her gün 2) haftada üç kezden fazla 3) haftada bir ya da iki kez 4) daha az			
C. Açlık ve tokluk belirtileri	Anne	Baba	Çocuk
17. En çok hangi durumda yersiniz; (lütfen anne, baba ve çocuk için ayrı ayrı yanıtlayınız) 0- Acıkınca ya da yemek vakti gelince 1- Camı yemek istediğinde 2- Sevilen bir yiyeceği görünce veya kokusunu alınca			
18. Çocuğunuz bir şey yemek istediğinde ona "gerçekten aç olup olmadığını" sorar mısınız? 0- her zaman 1- bazen 2- nadiren 3- hiçbir zaman			

Lütfen arka sayfaya

	Anne	Baba	Çocuk
19. Diyelim ki yemek zamanı geldi ama henüz aç değilsiniz / çocuğunuz aç değil. Siz ne yaparsınız ve çocuğunuza ne önerirsiniz?			
0- yemeği erteler, sonra yersiniz 1- diğerleriyle birlikte oturur ama yemezsiniz 2- diğerleriyle birlikte oturur ama az yersiniz 3- diğerleriyle birlikte oturur ve her zamanki gibi yersiniz 4- Bu uygun olmayan bir soru; (ben/çocuğum zaten her zaman açtır)			
D. Sorun oluşturabilecek yiyeceklere maruz kalma, ulaşabilme ve uyaran kontrolü			
20. Aşağıdaki atıştırmalıklardan kaç tanesi genellikle evinizde bulunur? Cheetos, Tuzlu Kraker, Patates Cipsi, Ruffles, Patlamış Mısır, Çekirdek, Yer Fıstığı, Badem, Antep Fıstığı, Diğer.....			
21. Evinizde genellikle kaç çeşit şekerleme bulunur? (çikolata, çikolatalı bar, şeker, gofret, kurabiye, şekerli sakız, şekerli içecekler, diğer)			
22. Evinizde genellikle kaç çeşit hamur işi/unlu mamül/kek bulunur?			
23. Evinizde genellikle kaç çeşit dondurma/ buzlu dondurma bulunur?			
24. Haftasonları, 20-23. Maddelerde bahsedilen yiyecekleri arttırır mısınız? 0- Arttırmam 1- Birkaç adet arttırırım 2- Çok arttırırım			
25. Aileniz ne sıklıkta restoranda yemek yer ya da hazır fast-food ürünleri tüketir? 0- ayda bir kezden az 1- yaklaşık haftada bir kez 2- haftada en az iki kez 3- hemen her gün 4- günde bir kez ya da daha fazla			
26. Çocuğunuz sizin izniniz olmadan ne ölçüde atıştırmalık ya da şekerleme tüketebilir? 0- hiçbir zaman 1- nadiren 2- bazen 3- sıklıkla 4- her zaman			
27. Atıştırmalıkları veya şekerlemeleri genellikle evinizin neresinde bulundurusunuz? 0- gizli bir yerde 1- bilinen fakat göz önünde olmayan bir yerde 2- ulaşılabilir bir yerde			
<i>Ne sıklıkta: 0-hiçbir zaman 1-çok nadiren 2-bazen 3-sıklıkla 4-her zaman</i>			
28. Çocuğunuz ne sıklıkta kendi şekerlemelerini satın alır?			
29. Siz ya da eşiniz ne sıklıkta çocuğunuzla birlikte kahvaltı yaparsınız?			
30. Siz ya da eşiniz ne sıklıkta çocuğunuzla birlikte öğle yemeği yersiniz?			
31. Siz ya da eşiniz ne sıklıkta çocuğunuzla birlikte öğleden sonra ara öğün yersiniz?			
32. Siz ya da eşiniz ne sıklıkta çocuğunuzla birlikte akşam yemeği yersiniz?			