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Orginal article: Psychometric properties of the Turkish version of the healthy lifestyle belief scale for adolescents

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ABSTRACT

Background and purpose: Measuring the adolescent awareness of healthy lifestyle behaviors and the self-efficacy needed to change behaviors is an important step in improving the health of this population. The Healthy Lifestyle Beliefs Scale is one such instrument, and it has been used to measure the healthy behaviors of adolescents in the United States. This study aims to extend this instrument by evaluating its validity and reliability in Turkish adolescents.
Methods: This methodological, descriptive, correlational study was conducted on 843 adolescents between October 2019 and November 2019. Data were collected using a socio-demographic information form and the Healthy Lifestyle Beliefs Scale. Factor analysis, Cronbach's alpha, and item–total score analysis were used for the data analysis.
Results: The scale consisted of 16 items and three subscales. The three subscales were found to explain 57.66% of the total variance. The total factor loading was >0.30 in both exploratory and confirmatory factor analyses. In the confirmatory factor analysis, all the goodness of fit indexes were >0.91, and the root mean square error of approximation was <0.08. The Cronbach's alpha coefficient for the overall scale was 0.90, and the Cronbach's alpha values for the subscales were 0.79–0.84.
Discussion: The Healthy Lifestyle Beliefs Scale for adolescents was found to be a valid and reliable measurement tool for the Turkish sample.
Practice implications: Determining the healthy lifestyle beliefs of adolescents can contribute to the creation of healthy lifestyle behaviors.

Introduction

The foundation for healthy lifestyle choices and behavior in adulthood begins in childhood and adolescence. Adolescents make independent decisions about their healthy lifestyle behaviors, including physical activity and nutrition. The healthy lifestyle choices and behaviors of adolescents are influenced by their peers and the school environment (Diethelm et al., 2012). In a study of 878 adolescents aged 11–15, 80% of the participants watched >120 min of television a day and performed <60 min of physical activity per day. Moreover, the participants consumed more fat than five servings of fruit/vegetables per day (White, Horwath, & Conner, 2013).

The implementation of healthy lifestyle behaviors requires the complex interaction of various determinants. Cognitive factors (i.e., beliefs, intentions), barriers (consumption of fruits and vegetables including less healthy alternatives being readily available, food preferences, lack of parental/school support and modeling, etc.), behavioral skills, and the relationship between physical activity and nutritional behavior in adolescents have been examined (Dewar, Lubans, Plotnikoff, & Morgan, 2012; Ramirez, Kulinna, & Cothran, 2012).

A belief, also referred to as self-efficacy in the literature, is the conviction that the behavior required to produce results can be successfully implemented (Bandura, 1977). Self-efficacy was found to be positively correlated with physical activity, fruit and vegetable intake in adolescents (Kelly, Melnyk, & Belyea, 2012). Self-management strategies, which are similar to cognitive behavioral skills, were found to be associated with the healthy lifestyle behaviors of limiting dietary fat intake, increasing fruit and vegetable intake, and increasing physical activity in adolescents (Kelly, Melnyk, Jacobson, & O'Haver, 2011; Lubans, Morgan, Callister, Collins, & Plotnikoff, 2010).

Although multicomponent behavioral change interventions involving education and physical activity in adolescents have been associated with healthy lifestyle behaviors, and many factors are associated with short-term positive outcomes, the interventions for adolescents do not have long-term sustainable effects. Therefore, identifying the key variables that can influence healthy lifestyle choices and behaviors is important. Adolescents who think they can live a healthy lifestyle are more likely to engage in healthy behavior (O'Haver, Jacobson, Kelly, &

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Melnyk, 2014). In determining the effects on healthy lifestyle behaviors, one of the variables, adolescence, is considered to be an important period for the development of healthy lifestyle behaviors. An increased belief in a healthy lifestyle shows that adolescents can successfully implement healthy lifestyle behaviors (Kelly et al., 2011; Kelly & Melnyk, 2008). During adolescence, healthy behaviors have long-term effects in adulthood (Lee, Loke, Wu, & Ho, 2010). Determining the belief levels of healthy lifestyles among adolescents can help shed light on the issues conducted in this field. Adolescents increasing their belief intervention (healthy eating, physical activity, smoking, sun protection interventions) can be effective in the development of healthy lifestyle behaviors (Kelly et al., 2011; Kelly & Melnyk, 2008).

The Healthy Lifestyle Beliefs Scale, developed by Melnyk and Small, has been tested in the United States (Jacobson & Melnyk, 2011; Jacobson & Melnyk, 2012; O'Haver et al., 2014). There is no existing Turkish scale developed to examine Turkish adolescents' beliefs about healthy lifestyles. Therefore, this study aimed to adapt the Healthy Lifestyle Beliefs Scale for adolescents and make appropriate cultural and developmental changes to make it applicable to Turkish adolescents culturally and developmentally. A tool that is culturally and developmentally appropriate, valid, and reliable can help health care providers, researchers, educators, and policy makers to assess the views of Turkish adolescents about healthy lifestyles. To solve this critical public and child health problem, identifying the problem and implementing effective strategies and policies are necessary. For this purpose, Chan, Melnyk, and Chen (2017) conducted a validity and reliability study on a healthy lifestyle beliefs scale for Taiwanese adolescents and found that it could be used to gather information on Taiwanese adolescents' beliefs about healthy lifestyles, which could assist in developing culturally and developmentally relevant interventions (Chan et al., 2017). To determine the healthy lifestyle beliefs of Turkish adolescents, the psychometric properties of scale that determine the problems are needed.

The use of these scales and the cross-cultural comparison between the results and the scales to gather information on a large sample of healthy lifestyle beliefs are important. The validity and reliability of the scale in studies measuring the beliefs in healthy living for adolescents have not been found in Turkey.

Purpose

This study aimed to extend the Healthy Lifestyle Beliefs Scale by evaluating its validity and reliability for Turkish adolescents.

Methods

Study design

This methodological, descriptive, correlational study examined the validity and reliability of the Healthy Lifestyle Beliefs Scale for adolescents.

Sample population and sampling

This study was conducted between October 2019 and November 2019 on adolescents from two high schools in the western region of Turkey. According to the literature, a sampling size for scale development and validity and reliability studies is insufficient up to 100, medium up to 200, good up to 300, very good up to 500, and excellent up to 1000 (Aksayan & Gözüm, 2002; Özdamar, 2005; Şencan, 2005; Şimşek, 2010). For this reason, 873 adolescents aged 14–18 who were in the first, second, third, and fourth grades of two high schools in the 2019–2020 academic year and who voluntarily accepted to participate in the study and filled out the forms were included in the study. A pilot study was administered to 30 adolescents who consented to participate in the study, and this group was excluded from the sampling.

Ethics committee approval

To use the Healthy Lifestyle Beliefs Scale for adolescents, this study asked the permission of Bernadette Mazurek Melnyk and Stephanie Kelly, two of the researchers who developed the scale, through email. To use the scale, the researchers received permission from Bernadette Mazurek Melnyk and Stephanie Kelly by mail. Ethics approval of the Ethics Committee of Non-Interventional Research was obtained at the outset (Date: September 16, 2019 and Issue: 4990-GOA-2019/23-04). Written permission from the Director of Education for the implementation of the study in two schools in the western part of Turkey was obtained. The adolescents who participated in the study were informed about the aim of the study. Participation in the study was voluntary. Verbal and written consent of the adolescents was obtained.

Data collection tools

Data were collected using a personal information form and the Healthy Lifestyle Beliefs Scale between October 2019 and November 2019. The personal information form consisted of six questions used to obtain descriptive data about the adolescents, such as age, gender, and education status of parents.

Healthy lifestyle beliefs scale

Developed by Kelly et al. (2011), the Healthy Lifestyle Beliefs Scale for adolescents is a 16-item instrument adapted from other belief scales used by Melnyk in previous studies (Melnyk et al., 2006; Melnyk & Small, 2003). The scale emphasizes the beliefs in the various aspects of maintaining a healthy lifestyle. It is a Likert-type scale, with each item in the scale scored from 1 = strongly disagree to 5 = strongly agree. A minimum of 16 and a maximum of 80 points are obtained from the scale. The increase in score indicates the increase in the healthy lifestyle beliefs of adolescents. The scale consists of two sub-dimensions. The Cronbach's alpha coefficient was found to be excellent at 0.89. The factor loadings of the items were 0.42–0.88. The scale was found to be a valid and reliable measurement tool that could be used to measure the healthy lifestyle beliefs of adolescents. The beliefs about healthy lifestyles among adolescents are significantly related to their attitude, choices (intentions), social support, and behavioral skills in living a healthy lifestyle. Therefore, as the score increases, the more that adolescents exhibit a healthy lifestyle, lifestyle attitudes, and behavioral skills.

Translation

The written consent of the scale developers was obtained at the beginning of the study. The scale was translated by two language experts from English to Turkish. The researchers reviewed the two translations and obtained a single Turkish form, which was sent to a language expert, who had not seen the scale previously and then translated it back to English.

Specialist opinions

The Turkish and English versions of the scale were sent to five experts, including those in pediatric nursing, after language equivalence was found. The language experts evaluated the final form of the scale. Expert opinions were measured based on the items and the scale with the range validity index.

Preliminary test

The scale was piloted on 30 adolescents after reaching a goodness of fit among the expert opinions. The comprehensibility of the scale was

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determined to be sufficient in the pilot and was then applied to the full sample. The validity and accuracy evaluation was conducted after the scale was applied to a large group.

Statistical analysis

The IBM SPSS Statistics 21.0 (Chicago, IL) package was used for data analysis. The percentages and mean scores were used for the descriptive statistics. In evaluating the data, the error margin was set to $p = 0.05$.

Validity

Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted to examine the validity of the Healthy Lifestyle Beliefs Scale.

EFA was used to determine the relationship between item and factor. Before conducting the EFA, the adequacy of the data for factor analysis was evaluated using the Kaiser–Meyer–Olkin (KMO) test and Bartlett's test of sphericity. The eigenvalue is the sum of the factor loading squares of the items in the scale sub-dimension. It indicates the percentage of the behavior/attitude to be measured. As the eigenvalue increases, the percentage at which the sub-dimension is explained increases. Eigenvalues >1 were used to determine the factors (Hooper, Coughlan, Michael, & Mullen, 2008; Şimşek, 2010). Pearson correlation analysis was used to assess the factor-to-factor relationship.

CFA was used to determine whether the items and subscales explained the original scale structure. Using IBM SPSS Amos version 25.0 (Corp, 2017), the researchers conducted a CFA with a full information calculation of the maximum likelihood. The model verification of the comparative fit index (CFI) was conducted on the basis of the chi-square test, degree of freedom, root mean square error of approximation (RMSEA) (normal value <0.05; acceptable value <0.08), goodness of fit index (GFI, normal value >0.95; acceptable values >0.90), CFI (normal value >0.95; acceptable value >0.90), and normal fit index (NFI, normal value >0.95; acceptable value >0.90) (Hooper et al., 2008; Şimşek, 2010). Tukey's test was used for the principle of additivity. Hotelling's T-square test was employed to determine the presence of a response bias.

Reliability

The researchers used Cronbach's alpha coefficient to determine the scale and subscale internal consistency. Pearson correlation analysis was used for the item–total score analysis (Akgül, 2003; Şencan, 2005).

Results

Sample characteristics

The mean age of the adolescents who participated in the study was 15.27 ± 1.05. Among the participants, 63.5% ($n = 535$) were girls.

Validity analysis

Content validity

In the draft scale, five expert opinions were received. The scores of the five specialists were assessed by content validity analysis. The item–content validity index (I-CVI) ranged from 0.88 to 0.99, and the scale-level content validity index (S-CVI) was 0.94, which was coherent.

Construct validity

Construct validity of the scale was tested using different approaches, such as the factor analysis. The result of the factor analysis showed that the KMO coefficient was 0.909, Bartlett's test X^2 value was 5657.298, and $p < 0.01$. The scale consisted of three sub-dimensions: the first sub-dimension (health belief sub-dimension), the second sub-dimension (physical activity sub-dimension), and the third sub-dimension (nutrition sub-dimension). The first sub-dimension accounted for 22.79% of the total variance, the second sub-dimension for 17.97%, and the third sub-dimension for 16.89%, for a total of 57.66% of the total variance.

EFA and CFA

The factor loading was 0.56–0.76 for the first sub-dimension, 0.40–0.79 for the second sub-dimension, and 0.60–0.84 for the third sub-dimension (Table 1). The CFA results showed that the RMSEA values were high (RMSEA = 0.106) and that the fit indices were low in the two sub-dimensional model of the scale (Table 2, Fig. 1). A three-factor model was used for the healthy lifestyle beliefs items (Fig. 2). For the three sub-dimensional models, the CFA results showed the following fit indices: $X^2 = 399.942$, df = 96, X^2 / df = 4.166, RMSEA = 0.061, GFI = 0.95, CFI = 0.95, IFI = 0.95, NFI = 0.93, TLI = 0.93, and RFI = 0.91. The factor loading was 0.50–0.76 for the first sub-dimension, 0.49–0.71 for the second sub-dimension, and 0.58–0.86 for the third sub-dimension (Table 2, Fig. 2).

The additivity of the scale was determined by Tukey's test of additivity as $F = 0.169$ and $p = 0.681$. The scale was found to be summable (additivity). Hotelling's T-square value was 763.362, $F = 50.045$, and $p < 0.01$. No reaction bias was found in the scale.

Reliability analysis

The Cronbach's alpha coefficient of the entire scale was 0.90. The Cronbach's alpha values of the three sub-dimensions were 0.84, 0.79, and 0.81, respectively. According to the two halves analysis, the Cronbach's alpha value of the first half was 0.85, the Cronbach's alpha value of the second half was 0.80, the Spearman–Brown coefficient was 0.80, Guttman's split-half coefficient was 0.88, and the correlation coefficient between the two halves was 0.78 (Table 3). The items-scale total score correlation was 0.46–0.67, and the item–the sub-scale total score was 0.41–0.69 (Table 4).

Table 1
Results of the explanatory factor analysis ($n = 843$).

Items	Sub-scale		
	First sub-dimension (health belief sub dimension)	Second sub-dimension (physical activity sub-dimension)	Third sub-dimension (nutrition sub-dimension)
1			0.607
2		0.793	
3			0.849
4	0.607		
5	0.653		
6	0.700		
7		0.551	
8			0.691
9		0.406	
10			0.770
11	0.723		
12	0.769		
13	0.609		
14		0.783	
15		0.770	
16	0.564		
Eigenvalue	40.264	9.476	7.928
Explained variance (%)	22.795	17.977	16.896

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Table 2
Model goodness of fit indices of the Healthy Lifestyle Beliefs Scale for adolescents.

	X^2	DF[a]	X^2/DF	RMSEA[b]	GFI[c]	CFI[d]	IFI[e]	RFI[f]	NFI[g]	TLI[h]
Two factor model	1082.920	103	10.514	0.106	0.85	0.83	0.83	0.78	0.81	0.80
Three factor model	399.942	96	4.166	0.061	0.95	0.95	0.95	0.91	0.93	0.93

[a] Degree of freedom.
[b] Root mean square error of approximation.
[c] Goodness of fit index.
[d] Comparative fit index.
[e] Incremental fit index.
[f] Relative fit index.
[g] Normed fit index
[h] TLI (NNFI): Trucker–Lewis Index.

Discussion

Validity analysis

Content validity of the scale

The content validity of the scale was evaluated by five experts, and I-CVI and S-CVI were used in evaluating the expert opinions. Both I-CVI and S-CVI should be above 0.80 to indicate agreement among expert opinions (Polit, Beck, & Owen, 2007; Terwee et al., 2007). In this study, both the I-CVI and S-CVI levels were found to be above 0.80. The results of the I-CVI and S-CVI showed agreement among the experts, the scale measured the subject adequately, and the content validity was ensured.

Construct validity of the scale

Bartlett's sphericity test and KMO were used to evaluate the suitability and sufficiency of the data for factor analysis. According to the literature, Bartlett's sphericity test value should be statistically significant, and the KMO value should be at least 0.60 to conduct the factor analysis (DeVellis, 2012; Hayran & Hayran, 2011; Jonhson & Christensen, 2014; Terwee et al., 2007). In this study, Barlett's sphericity test value was $p < 0.05$, and the KMO value was >0.60. The database and sampling size were suitable for factor analysis (DeVellis, 2012; Hayran & Hayran, 2011; Jonhson & Christensen, 2014; Terwee et al., 2007). The sampling size and data sets in this study were similar to those of Melnyk et al. (2011), who developed the original scale.

The eigenvalue was accepted as 1 and above to determine the number of factors (Çam & Baysan-Arabacı, 2010; Hayran & Hayran, 2011; Şencan, 2005), and the scale was found to consist of three subscales. In this study, the three-factor scale explained 57.66% of the total variance. Generally, the explained variance in multidimensional scales should be above 40%, and the higher the total variance is, the stronger the construct validity (Çam & Baysan-Arabacı, 2010; Hayran & Hayran, 2011; Şencan, 2005). The total variance obtained in this study was over 50%, and the scale had a high explained variance. These findings supported the construct validity of the scale.

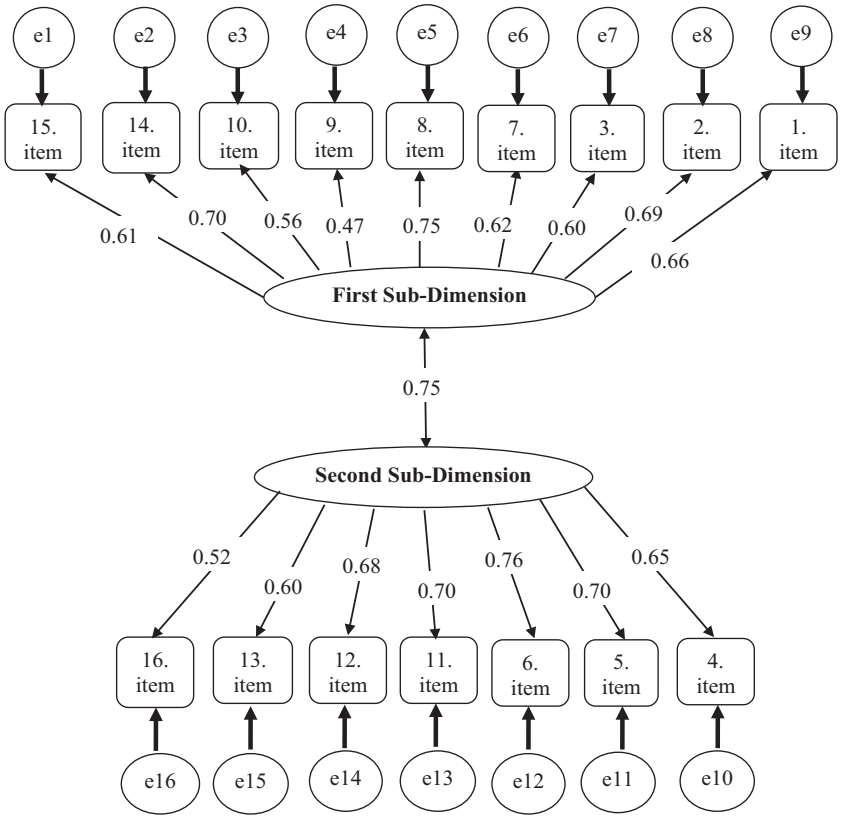

Fig. 1. Confirmatory factor analysis of the two-factor model.

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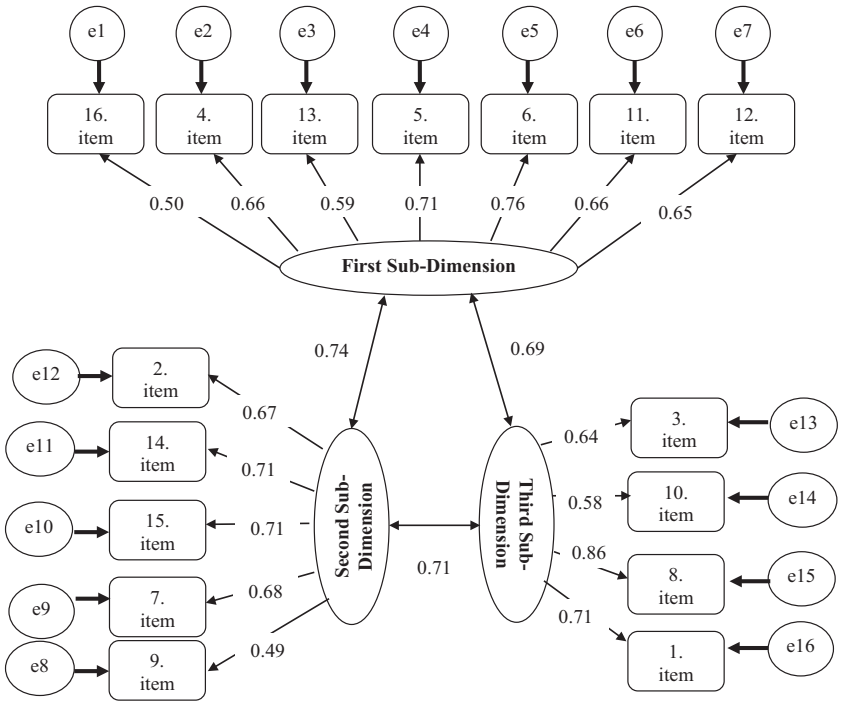

Fig. 2. Confirmatory factor analysis of the three-factor model.

EFA and CFA

The EFA results showed that the factor loadings of the three subscales were 0.40–0.84. Generally, the minimum factor load should be 0.30 and above, and the items under this value should be excluded from the scale (DeVellis, 2012; Hayran & Hayran, 2011; Jonhson & Christensen, 2014; Terwee et al., 2007). In this study, the factor loadings of all the sub-scales were >0.30. In Melnyk et al. (2011), the factor loadings of the items in the one-dimensional scale were 0.42–0.88. The factor loadings in the original scale and those in this study were similar. In this study, the fact that the factor loadings obtained from each subscale were >0.30 showed that the scale had a strong factor construct.

The construct obtained by the EFA should be analyzed by the CFA (Hooper et al., 2008; Şimşek, 2010). Unlike the original scale, the proposed scale consisted of three subscales. This study aimed to determine the best and close-to-original construct by comparing the results of the scales with two and three subscales. Thus, two- and three-factor CFAs were performed. The results of the two analyses showed that the goodness of fit indexes of the two-factor construct were low, the RMSEA was >0.08, and the division of the chi square by the degree of freedom was >5. These findings indicate that the two-factor constructs were not suitable for the Turkish sampling. For the three-factor CFA, the factor loadings of all the subscales were >0.30, the goodness of fit indexes (GFI, NFI, RFI, CFI, and IFI) were >0.90, and the RMSEA was <0.080. The division of the chi square value by the degree of freedom was <5. A strong and significant relationship was found between the scale and its subscales. In the literature, a model fit indicator of >0.90, X^2/DF of <5, and RMSEA value of <0.08 are considered good fit indicators (Hooper et al., 2008; Şimşek, 2010). The results of the CFA in this study were consistent with the criteria specified in the literature. In Melnyk et al. (2011), the general goodness of fit indexes were >0.90, and the RMESA was <0.08. The results of the CFA indicate that the data were consistent with the model, the three-factor construct was confirmed, the subscales were associated with the scale, and the items in each subscale adequately defined their factors. The results of the EFA and CFA in this study supported the construct validity of the scale, suggesting that the scale is a valid tool.

Reliability analysis of the scale

Internal consistency analysis of the scale and its sub-dimensions

The Cronbach's alpha coefficient indicates whether the items measure the same property and whether the items are related to the subject to be measured. This value is expected to be as close to 1 as possible. A value of 0.60–0.80 indicates that the scale is reliable, and a value of 0.80–1.00 shows that the scale is highly reliable (Çam & Baysan-Arabacı, 2010;Nunnally & Bernstein, 2010; Rattray & Jones, 2007; Şencan, 2005). In this study, the overall and subscale Cronbach's alpha values were found to be >0.70, and the Cronbach's alpha values of the scale and its subscales were highly reliable. The Cronbach's alpha values indicated that the items measured the subject sufficiently, the items were relevant to the subject, and the scale had good reliability (Çam & Baysan-Arabacı, 2010; Nunnally & Bernstein, 2010; Rattray & Jones, 2007; Şencan, 2005). In Melnyk et al. (2011), the total Cronbach's

Table 3
Results of the reliability analysis of the scale and sub-dimensions (n = 843).

Sub-dimensions	Cronbach α	First half of Cronbach α	Second half of Cronbach α	Spearman–Brown	Guttman split-half	Correlation between two halves	M ± SD (Min-Max)
Scale total	0.90	0.85	0.80	0.88	0.88	0.78	61.62 ± 11.70 (1–80)
First sub-dimension	0.84						27.41 ± 5.81 (1–42)
Second sub-dimension	0.79						20.16 ± 4.34 (1–30)
Third sub-dimension	0.81						14.04 ± 3.68 (1–24)

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Table 4
Correlations of the item–total score and sub-dimension total score (n = 843).

Items	X ± SS	Item–total score correlation (*r*)*	Item–subscale total score correlation (*r*)*
1. I am sure that I will do what is best to lead a healthy life.	3.81 ± 1.08	0.59	0.58
2. I believe that exercise and being active will help me to feel better about myself.	4.10 ± 1.12	0.58	0.64
3. I am certain that I will make healthy food choices.	3.26 ± 1.17	0.50	0.67
4. I know how to deal with things in a healthy way that will not bother me.	3.69 ± 1.13	0.59	0.57
5. I believe that I can reach the goals that I set for myself.	4.00 ± 1.10	0.61	0.62
6. I am sure that I can handle my problems well.	3.83 ± 1.09	0.66	0.66
7. I believe that I can be more active.	3.88 ± 1.14	0.58	0.54
8. I am sure that I will do what is best to keep myself healthy.	3.71 ± 1.10	0.67	0.69
9. I am sure that I can spend less time watching TV.	3.98 ± 1.30	0.46	0.41
10. I know that I can make healthy snack choices regularly.	3.25 ± 1.22	0.50	0.60
11. I can deal with pressure from other people in positive ways.	3.89 ± 1.18	0.59	0.63
12. I know what to do when things bother or upset me.	3.79 ± 1.18	0.54	0.63
13. I believe that my parents and family will help me to reach my goals.	4.40 ± 1.06	0.55	0.57
14. I am sure that I will feel better about myself if I exercise regularly.	4.05 ± 1.14	0.61	0.67
15. I believe that being active is fun.	4.13 ± 1.14	0.56	0.63
16. I am able to talk to my parents/family about things that bother or upset me.	3.78 ± 1.36	0.47	0.49

* $p < 0.001$.

alpha values of the scale were >0.70. Therefore, the scale in this study is similar to its original construct and has a strong internal consistency.

The Cronbach's alpha values obtained using the split-half method were >0.70, a strong and significant relationship was found between the halves, and both the Spearman–Brown and Guttman's split-half coefficients were >0.70. These results demonstrated that the scale had a high level of reliability (Çam & Baysan-Arabacı, 2010; Nunnally & Bernstein, 2010; Rattray & Jones, 2007; Şencan, 2005). Although these results showed that the internal validity of the scale was high, they could not be compared with those of the original study because it did not conduct a split-half analysis.

One of the important factors affecting the reliability of scales is response bias. Response bias means that individuals respond to the scale items in accordance with the expectations of the researchers or the society instead of with their opinions. Doing so negatively affects the reliability of a scale and thus its validity, although indirectly. Hotelling's T-square test was used to analyze the scale to determine the existence of response bias. The test revealed that the respondents answered the items according to their own opinions, the responses of the participants were different, and the scale had no response bias, thus indicating that the scale was reliable (Nunnally & Bernstein, 2010; Rattray & Jones, 2007; Şencan, 2005).

Item–total score analysis of the scale and its sub-dimensions

The item–total score analysis explains the relationship between the scores obtained from each item of a scale and the total score of the scale. It is an indicator of whether the items in a scale measure the desired quality (DeVellis, 2012; Hayran & Hayran, 2011; Jonhson & Christensen, 2014; Terwee et al., 2007). This value should be >0.20, positive, and as close to 1 as possible (Şencan, 2005). In this study, the correlation of the items with the total score of the scale was found to be 0.46–0.67, and the correlation of the items with the total score of the subscales was 0.41–0.69. The correlation coefficients of both the item–total score and the item–subscale total score were found to be positive and >0.20. Thus, all the items of the scale showed a high correlation with the total score and the total score of their subscales, the scale measured the desired quality adequately, and the item reliability of the scale and its subscales was high. As the item–total score analysis was not performed in the original study by Melnyk et al. (2011), the results of this study could not be compared with those of the original study. Moreover, these findings demonstrated that this study had a high level of internal consistency.

Limitations

Despite the many strengths of this work, it is limited by the use of convenience sampling, which may affect the generalizability of the study.

Implications for nursing practice

The results of this study are consistent with those of the review of the scale's original version. Therefore, the Healthy Lifestyle Beliefs Scale for adolescents is a valid and reliable scale that can be used in the healthy lifestyle beliefs assessment of Turkish adolescents. The determination, management, and education of the healthy lifestyle beliefs of adolescents require teamwork (pediatric nurses, public health nurses, public health specialists, pediatricians, etc.). The pediatric nurses included in this team must not only assess the healthy lifestyle beliefs of adolescents but also measure the efficiency of educational and interventional nursing practices, which provide healthy living practices, using the Healthy Lifestyle Beliefs Scale.

Conclusion

The Healthy Lifestyle Beliefs Scale for adolescents was found to be a valid and reliable measurement tool for the Turkish sampling in this study. This tool can be used by professionals to determine the healthy lifestyle beliefs of Turkish adolescents. It can also be used to conduct cross-cultural comparative studies.

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Contributors' statement

All the authors contributed to the concept and design, acquisition and interpretation of data, drafting the article and gave final approval of the version to be published.

CRediT authorship contribution statement

Aslı Akdeniz Kudubes: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing - original draft, Writing - review & editing. **Murat Bektas:** Conceptualization, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Supervision, Validation, Visualization, Writing - review & editing.

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Declaration of competing interests

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