Character Strengths in Turkey: Initial Adaptation Study of Values in Action Inventory of Strengths for Youth (VIA-Youth) and Life Satisfaction in Young People

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Abstract: The character strengths and virtues approach is a classification system to examine the characteristics of good character in terms of twenty-four strengths and six virtues. This study was designed to investigate the psychometric properties regarding the reliability and validity of the Turkish version of the VIA-Youth. A tool developed to evaluate the character strengths of youth. In addition, character strengths were examined in terms of life satisfaction, values and demographic characteristics. 1963 high school students between 14-19 years participated in this study by completing VIA-Youth and the Human Values and Life Satisfaction inventories. The results confirm the six-factor model in the theoretical framework. It has also been concluded that character strengths affect life satisfaction and values and that socio demographic features are related to strengths. The adaptation of this inventory into Turkish culture contributes to the current understanding of the universal aspects of character strengths for studies within the context of positive youth development. Besides the adaptation, the relationships between character strengths, values, demographic characteristics and life satisfaction were discussed and suggestions were made.

Keywords: *Character strengths, virtues, Turkish VIA-youth, values, life satisfaction.*

Introduction

Beyond the traditional emphasis on psychological problems, interest in the study of positive psychological structures such as forgiveness, resilience and subjective well-being has increased lately. Among these studies, there has been relatively little scientific research related to good character (Biswas-Diener, 2006). However, the Character Strengths and Virtues Approach (Peterson & Seligman, 2004) is considered quite comprehensive and multidimensional in investigating characters of youth and adult. It has more recently garnered more attention among researchers due to the contribution it has made to the current understanding of these constructs.

According to this approach, character consists of the positive properties in the affect, thought, and behavior of an individual. To express the multi-dimensionality of a good character, the components of character are named "character strengths". These strengths have been closely associated with what are otherwise referred to as virtuous distinctives. Virtues are esteemed positive features of an individual which are accepted universally as good. Character strengths, however, are also psychological processes defining both the virtues and the indicators of being virtuous (Park & Peterson, 2006). As such, character strengths have been specified through a set of criteria (Park, Peterson & Seligman, 2004). These criteria dictate that the character strengths must include being observable, consistent, measurable, individually different, contributive to individual happiness, valued morally, seen as important to be developed by the society, noticeable from an early age, and appreciated when it is present by the society, presence in individual forms gradually.

The purpose of this classification of character strengths is multifaceted. The classification helps to reveal the theoretical foundations of these strengths, identify the variables related with the strengths, and allow for discussion on the factors and approaches in lifelong development of these strengths (Luthans & Youssef, 2007). In the development of the

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classification of character strengths, several studies have been taken into account. These studies include the investigation of youth development literature, an evaluation of the scales related to the concept of strong character traits and virtues, as well as an assessment of strengths-based character training programs. Furthermore this classification has been developed from a thorough scanning of the literature on psychiatry for good character, youth development, character education, religion, philosophy, institutional studies, and psychology (Peterson & Park, 2004).

Character strength classification defines and categorizes 24 character strengths in terms of 6 virtues. The inventories of the VIA-Character Strengths have been designed to evaluate the dimensions of character strengths and being virtuous (Peterson, Park & Seligman, 2006). The properties confirmed in this classification, and evaluated by the inventories, include the 6 virtues of wisdom, courage, humanity, justice, temperance, and transcendence. The 24 character strengths in the classification include social intelligence, fairness, leadership, citizenship, forgiveness, humility, prudence, self-regulation, appreciation of beauty, gratitude, hope, humor, spirituality, wisdom, courage, humanity, justice, temperance, transcendence, creativity, curiosity, love of learning, open-mindedness, perspective, honesty, bravery, industry, zest, kindness and love.

 The effects of these strengths have been investigated through a very wide range of research. It has been revealed that many character strengths, especially hope, affect subjective well-being (Toner, Haslam, Robinson & Williams, 2012), school life and academic success (Weber & Ruch, 2012) are correlated positively with positive feelings (Gusewell & Ruch, 2012). This has been shown to be useful in the healing process (Peterson, Park & Seligman, 2006) as well as effective in predicting disorders such as depression (Gillham et al., 2011). Additionally, it can be said that it is associated with resiliency (Hutchinson, Stuart & Pretorius, 2010). Furthermore, the number of character strengths can be increased with the experimental intervention and contribute to subjective well-being (Dossett, 2011). Additional research is still necessary for refining the measurement tools used to investigate these strengths from an early age. Specifically, the construct should be studied in different cultures because of the invaluable contribution to research in an international context that it could provide.

VIA-Youth is a measuring instrument that aims to evaluate character strengths. The construct validity studies on it, can be divided into two parts: development from the original findings (Park & Peterson, 2005; Park & Peterson, 2006a; Peterson & Seligman, 2004; Dahlsgaard, 2005) and adaptations into different cultures. In scale development studies, factor analysis and principal component analysis has been done on construct validity and 4 factors have been determined. Adaptation studies were done in an African secondary school (Van Eeden, Wissing, Dreyer, Park & Peterson, 2008). Construct validity was demonstrated in confirmatory and exploratory factor analysis and reached a one-dimensional factor structure. From a study examining the factor structure for Australian high school youth (Toner, Haslam, Robinson & Williams, 2012), the 5-factor structure emerged. Likewise, in a study conducted in secondary and high schools in India (Dahiya, 2013) the 5-factor structure was affirmed. As such, it can be seen that a range of numbers have emerged in adaptation studies, while the 4 factor structure remained consistent in development studies. Consequently, previous studies achieving these results indicated the need for further investigation on different samples for the theoretical structure of the 6 factor structure. However, it is important to note that in these studies there is a need to do a confirmatory analysis, which is based on an analysis of the items instead of factor analysis from scale points, which is more appropriate for the adaptation processes.

Apart from validity studies, the previous decades' researches of character strengths have focused generally on the relationship between character strengths, well-being, and happiness (Niemiec, 2013). In this context, one of the most widely studied variables is life satisfaction. It has been emphasized that character strengths are positively correlated with high levels of life satisfaction (Brdar, Anić & Rijavec, 2011; Proctor, Maltby & Linley, 2011). However, the research has identified a range of predictors of life satisfaction (Gillham et al., 2011). Though overall, it has been revealed that the two are correlated and that with an increase of characters strengths, life satisfaction also increases. Some strengths such as hope, love, and gratitude appear to contribute more to life satisfaction, while mental strengths have been shown to have a weaker correlation to life satisfaction (Park, Peterson & Seligman, 2004). Moreover, the literature supports that besides love and hope, curiosity and zest (Peterson, Ruch, Beerman, Park & Seligman, 2007), kindness (Dossett, 2011), spirituality (Proyer, Gander, Wyss & Ruch, 2011) and leadership, also affect life satisfaction positively. Furthermore, one's appreciation of beauty and excellence, patience and creativity appear to be predictors of low life satisfaction (Toner, Haslam, Robinson & Williams, 2012). The impact of character strengths on life satisfaction has been examined in the context of criterion validity in this study.

Additionally, the relationship between character strengths and demographic characteristics such as age, gender, grade level are discussed extensively in the research. Park and Peterson (2005) found differences in terms of grade level, gender, ethnicity, academic achievement, and age in their study with high school students. In the studies conducted with high school students on the demographic variables (Park, 2004; Park and Peterson, 2005; Toner, Haslam, Robinson & Williams, 2012), it was observed that female students received higher scores in strengths such as kindness, appreciation of beauty and excellence, love than the male students. In different age groups, women scored higher in kindness (Biswas-Diener, 2006) and social intelligence (Linley et al., 2007) than men and generally received higher scores in character strengths overall. Moreover, when viewed in terms of age as a demographic variable, character strengths increased with age (Linley et al., 2007). This was shown through young people achieving higher scores than

children (Park, 2004). Another finding from the demographic studies was that as the grade level rose, some strengths decreased (Park & Peterson, 2005; Park & Peterson, 2006). Also, in the studies regarding the relationship between character strengths and happiness, socio-economic status (SES) is a variable that is discussed in terms of its impact on happiness (Park & Peterson, 2006b). SES has not been as widely tested in the research and its direct relationship with character strengths requires more investigation. Additionally, the interrelationships of strengths (Seider, Gilbert, Novick & Gomez, 2013) and the determination of the most common strengths amongst the general population (Furnham & Lester, 2012; Gradisek, 2012) are noteworthy in the context of intercultural validity.

It has been stated that there is a need for further research on the international application of this classification. Further international studies are necessary in order avoid cultural bias. Additional research needs to focus on novel intercultural data. Additionally, the behaviors and competencies require more focus as well as how to identify and develop the important strengths (Biswas-Diener, 2006). It is posited that because these competencies are universal, there is a need for evaluation by comparing them with other cultures with intercultural data. Furthermore, the literature has identified the importance of defining the basic components of character under the larger process of the development of character strengths, as well as ensuring the appropriate design of character strength scales for diverse cultural groups (Park & Peterson, 2006a). This study sought to contribute to these pursuits and to increase the current capacity to analyze and evaluate each strength and the scales used to measure them.

Effective measurement tools that can evaluate programs focused on the development of character training programs in schools and youth organizations are needed (Steen, Kachorek & Peterson, 2003). Evaluating the effect of prevention programs in research using these scales may be possible. With the development of such scales, new information regarding the structure and development of character traits and how to improve them can be revealed (Park, 2004; Park & Peterson, 2006a). Additional descriptive or experimental studies on character strengths can be carried out through the use of the psychological measurement tool adapted for this study.

There has been an increase in the demand for studies regarding character strengths in cultures worldwide. The character strength theory and the adaptation of VIA-Youth provides a solution and meets the need to provide a trustworthy framework for values and character training analysis. In conclusion, this study uses a culturally sensitive, comprehensive psychological assessment tool (VIA-Youth) to determine demographic characteristics, and their related strengths, with an overall aim to measure their impact on life satisfaction. "What is the reliability level of Inventory of Character Strengths for Youth", "what is the validity level of Inventory of Character Strengths for Youth", in which level character strengths and demographics related each other, and in which level character strengths related with life satisfaction" were research questions of this research.

Method

Participants

Following a convenient sample method, data was collected from 2069 participants, divided into four groups. 1155 (55.83%) were females and 914 (44.17%) were males. The scales of 106 participants were canceled because of missing data and the analysis was conducted on the remaining 1963 participants. The data was gathered from youth who were high school students from Bursa which is a cosmopolitan Turkish city. In addition, data was collected from 110 participants who were high school students from this large cosmopolitan city and took part in the pilot and linguistic equivalence studies of the inventory.

Data was collected from 1100 participants studying in grades 9-12 in a high school for validity and reliability studies of the Via-Youth. 65 answer sheets were invalid and analysis was conducted with the remaining 1035 answer sheets. Participants included 483 (46.7%) female students and 552 (53.3%) male students. 231 (22.3%) were from the 9th grade, 250 (24,2%) from 10th grade, 280 (27.1%) from 11th grade, and 274 (26.5%) 12th grade students. 10 students (1.0%) were fourteen years old, 218 students (%21.1) were fifteen, 263 students (25.4%) were sixteen, 334 students (32.3%) were seventeen, 195 students (18.8%) were eighteen, and 15 students (1.4%) were nineteen years old. The age range of this group was 5 years and the average age was 16.50 (Sd=1.09). According to Karris (2007) in order to clarify the best factor structure of character strengths, it is necessary to work with 5 times as many participants as the number of items. Similarly, Macdonald, Bore and Munro (2008) emphasize that for the factor analysis regarding character strengths, at least five participants per item or over 1,000 participants should be reached. As the parallel of it, since it has been emphasized that small samples should not be used in the CFA (Kline, 2010), the construct validity study has been done with data from 1035 participants.

In the process of analyzing the relationship between character strengths and life satisfaction, data was collected from 759 students from grades 9-12. Analysis was conducted from 733 students after cancelling 26 invalid responses. The participants included 441 (60.2%) female students and 292 (39.8%) male students. 194 (26.5%) students were in the ninth grade, 182 (24.8%) were in the tenth grade, 199 (27.1%) were in the eleventh grade, and 158 (21.6%) were in the twelfth grade. One of the participants was (0.1%) 14 years old, 135 (18.4%) were 15, 199 (27.1%) were 16. 249 (34.0%) were 17, 141 (19.2%) were 18.6 (0.8%) were 19, and 2 (0.3%) were 20. The age range of this group was 6 (14-20), the average is 16.57 (Sd=1.04).

For the VIA-Youth test-retest study, 120 ninth grade students were the participants. 106 results were used for analysis because of 14 invalid answer sheets. 66(62.3%) of the participants were girls, 40(37.7%) were boys. 20(18.9%) of the participants were 14 years old, 85(80.2%) were 15 and one of them (0.9%) was 16. The age range was 2 years, and the average of age (14-16) was 14.8(SD=.42).

To analyse the criterion validity of VIA-youth, data was collected from 90 students from the11th grade. After the removal of one set of data due to the missing data, analysis was carried out with data from 89 students. 60 (66.7%) of the students were female, 30 (33.3%) of were male. 11 (12.2%) were sixteen years old, 75 (83.3%) were seventeen, and 4 (4.4%) were eighteen. The age range was 2 years (16-18) and the average age was 16.92% (Sd=.40).

Measures

Values in Action Inventory of Strengths for Youth (VIA-Youth; Peterson & Seligman, 2004; Park & Peterson, 2005; Park & Peterson, 2006) was developed based on the character strengths theory. It was adapted from a 240-item form used with adults, into one intended for young people between the ages of 10-17. The measurement tool is comprised of 198 self-description type items on a five point scale (1=totally disagree, 5=totally agree). Receiving a high score from the inventory expresses strengths by positive characteristics features. There are 24 subscales, each of which are intended to evaluate a different character strengths. Subscale scores are created from the average of the responses. The scores can be used both with subscales and the dimensions of virtue.

The Satisfaction With Life Scale (SWLS; Diener et al. 1985) was developed to measure general life satisfaction and was adapted into Turkish by Koker (1991). The measurement includes 5 items on a 7 point scale (1=strongly, 7=strongly agree). The scores obtained from the scale can lie between 5 and 35. 'The conditions of my life are excellent' is a sample item from this scale. Internal consistency (α=.87) and test-retest-reliability (r=.82) had adequate levels of proficiency. Internal consistency of the scale was .84 for this research.

The Humanistic Values Scale (HVS; Dilmac, 2007) is a likert type scale with five degrees (1=never, 5=always) consisting of 42 items which have been developed in order to determine the humanistic values. It was used to determine the criterion validity of VIA-Youth. Receiving a high score suggests that individuals show more humanitarian values. According to the principal components analysis, which was conducted to determine construct validity, the scale included 6 factors (friendship, responsibility, being peaceful, respect, honesty and tolerance) and the factor loadings changed between .36 and .83. Item-total factor correlations were between .19-.72. Internal consistency coefficients for subscales were .65-.73, .92 for the entire scale; Test-retest reliability coefficients were between .73–.91 for subscales, and .87 for the entire scale. Although internal consistency of the subscales of the scale is relatively low due to the number of items, it was .85 for the total scale.

Procedure

The Adaptation Process

Translation Studies were carried out based on the rules of the written permission of the Institute of VIA for the adaptation process. At this stage, an inventory consisting of 198 items was translated from English into Turkish by an academician who has worked as a researcher in the U.S.A. and by a professor in Psychological Counseling who received his Ph.D from the U.S.A. and has good knowledge of both cultures and professional translation. In order to ensure that the dimensions of virtue and the concepts of character strengths subscales are expressed in the most accurate way in Turkish, similar studies on conceptual translations (Seligman, 2007) were examined and a seasoned scholar working in the Ministry of Education and participant in graduate studies in the field of Turkish Language and Literature was consulted. Furthermore, a scholar working as a Lecturer of English, who holds a Ph.D. in Linguistics, at the School of Foreign Languages at Hacettepe University helped with the Turkish equivalents for the concepts discussed. The opinions of professors, associate professors, assistant professors and other academicians with Ph.D. degrees and scholars from 5 counseling departments of different universities (reputable third party organizations) were consulted and used to assist in the translation and the development of inventory items. For forward and back translation process, it was taken into consideration that the scholar giving opinions for translation be from Counseling departments, have completed their academic education abroad or at universities where the medium of instruction is English, and have conducted studies on the subject of the inventory (Ruch et al., 2010). The translation form Turkish to English was submitted to four professional faculty members for adequacy/accuracy of the translation and the comprehensibility of the items and compliance to the culture and development level. The translations were then compared and differences were noted. The inventory was then revised in line with the feedback from professionals, two researchers working together on the clarity, the accuracy of the translation, and with respect for the developmental level of students. With the revision of the inventory, the translation form was given to four different faculty members for back translation from Turkish to English. The process of receiving opinion from faculty members took more than four months. As a result of the back translation process, the majority of statements match the original form of the inventory. Corrections were made by evaluating the unity and the corresponding meaning in the original inventory.

Inter-rater reliability, language equivalency, and pilot study

The 8 experts who participated in the translation process were requested to rate the compatibility of each inventory item in order to determine the character strengths by grading "(1) as not appropriate" and "(5) as totally appropriate''. To determine the compatibility of each expert's grades on the compatibility of the each inventory item to determine the character strengths, Kendall's concordance as inter-rater reliability index (Liao, Hunt and Chen, 2010) was calculated ($\chi 2$=191.34; sd=7; p<.001) and the expert's grades were found to be significantly compatible.

The form was applied to 80 high school students from grades 9-12 to determine the comprehensibility of the Turkish translation as a sample group. The necessary corrections were made by receiving feedback on the comprehensibility of items and taking the observations into account.

The translation form was applied twice to 31 high school students from the 11th grade who were studying in an English International Baccalaureate program with a two-week interval to determine the linguistic equivalence of a similar age group. The analysis was conducted with data collected from 30 students, due to one invalid answer sheet, and the results of analysis revealed a high correlation (r=.80) between the English and Turkish form of the inventory. There was a conclusion that the meaning of the Turkish form of the inventory is not different from the original form. Thus, linguistic equivalence of the inventory has been ensured and the validity and reliability studies of the new inventory form have been started.

Data Collection

Applications were completed with the necessary permission obtained from the Department of national education in high schools and with the cooperation of the school administration and staff. During the data collection period, one researcher was ready to help students refocus because of the excess of the number of the questions in VIA-Youth Inventory in all classes. Instructions on how to answer the inventory was explained in detail to the students and questions were answered. The students completed the inventory in 25-45 min thus, a course hour was generally adequate.

Data analysis

Descriptive statistics for the dimensions of virtue and for all subscales of the character strengths were carried out. Construct validity was determined by confirmatory factor analysis (CFA). The CFA is a construct equation modeling technique used to assess measurement models and is the most commonly used technique in educational research (Kline, 2010). CFA is directly used in the process of intercultural adaptation (Balzarotti, John & Gross, 2010). In the frame of character strengths, if there is a theoretical background in the process of developing inventories, using CFA is emphasized (Park & Peterson, 2006a). Similarly, in the process of adaptation to different cultures, CFA is commonly used (Van Eeden, Wissing, Dreyer, Park & Peterson, 2008). As such, VanEeeden et al.'s approach has been taken as a base for this study, and therefore, CFA is used to analyze the VIA-Youth's factor structure. The Cronbach's alpha reliability coefficient and test-retest correlation coefficient and the item-total correlation were calculated in the reliability study. The Pearson correlation coefficients were calculated to determine the relationship between subscales and the criterion validity. A T-test and ANOVA were used to determine the character strengths in accordance with demographic variables. Multiple regression analysis was used to predict life satisfaction from character strengths. The upper limit of the margin of error was taken as .05.

Results

Descriptive statistics and reliability

Besides mean scores, standard deviations, skewness, kurtosis values, internal consistency and test-retest scores were also measured. As seen in Table 1., while the mean scores are between 3.24 (self-regulation) and 4.27 (spirituality), the standard deviations are between .53 (kindness, bravery) and .82 (forgiveness). Skewness and kurtosis values have shown a normal distribution in Subscale scores. Looking at the average scores, the top five most common strengths are spirituality (4.27), gratitude (4.24), appreciation of the beauty and excellence (4.19), love of learning, (4.13) and honesty (4.03). The least common five strengths are self-regulation (3.24), forgiveness (3.48), humility (3.57), leadership (3.58), and perspective (3.64). The first strength for girls was appreciation for beauty and excellence (4.44) and is followed by spirituality (4.38), gratitude (4.32), love of learning (4.24) and kindness (4.17). As for males, gratitude strength (4.18) is located in the first and is followed by spirituality (4.17), love of learning (4.03), the appreciation of beauty (3.98) and bravery (3.94).

Internal consistency coefficient, test-retest reliability and item-total correlations were calculated to determine the reliability. Internal consistency coefficients gathered from the first research group of 1035 people are .64-.81 for the sub-scales of the wisdom dimension, .91 for the total score; .66-.81 for the sub-scales of the courage dimension, .88 for total score; .71-.76 for the sub-scales of the humanitarian dimension, .86 for the total score; .72-.84 for the subscales of fairness, .87 for the total score; .66-.81 for the subscales of the temperance dimension, .80 for the total score; .72-.85 for the subscales of the transcendence dimension, .89 for the total score. Considering all the results, internal consistency

coefficients for all subscales are .64(curiosity)-.85(spirituality); and for virtue dimensions .80 (temperance)-.91(wisdom) were obtained. The median of internal consistency coefficients of subscales are .75 and of the virtue dimensions are .87. Also, as seen on Table 1, internal consistency coefficients gathered from the second research group of 733 people are .61-.80 for the subscales of the wisdom dimension and .90 for the total score; .70-.77 for the subscales of the courage dimension, .80 for the total score; .67-.77 for the subscales of the humanity dimension and .85 for the total score; .70-.74 for the subscales of justice, .83 for the total score; .67-.81 for the subscales of the temperance dimension, .81 the for total score; .74-.85 for the subscales of the transcendence dimension and .88 for the total score. Considering the results of the second research group, internal consistency coefficients for all subscales are .61(curiosity)-.85(spirituality); and for the virtue dimensions .83(temperance)-.90(wisdom) were obtained. The median of internal consistency coefficients of the subscales are .74 and of the virtue dimensions are .86.

The inventory was applied with a two-week interval to determine test-retest reliability. As seen in Table 1., test-retest coefficients are .72-.85 for the subscales of the wisdom dimension, .89 for the total score; .73-.83 for the sub-scales of the courage dimension, .85 for the total score; .77-.80 for the subscales of the humanity dimension, .85 for the total score; .75-.85 for the subscales of justice, .85 the for total score; .75-.80 for the subscales of temperance the dimension, .84 for the total score; .72-.84 for the subscales of the transcendence dimension, .86 the for total score. In the test-retest study, while the values gathered from the subscales are between .72 (gratitude)-.85 (leadership, perspective); .84 (temperance)-.89 (wisdom) is for the virtue dimensions. The median of test-retest coefficients of subscales are .79 and of virtue dimensions are .85.

For both homogeneity (Ruch et al., 2010) and item reliability of the subscales, total-item correlations are examined in corrected form. Accordingly, for an item in subscales of self-control, open-mindedness, prudence, humour and humility, the corrected total correlation is .06 .15, .16, .17, and .19 respectively and for all other items, corrected item-total correlations was taken above .20, changing between the .21-.75 range.

Table 1. Descriptive statistics and reliabilities

| VIA-Youth Scales | Min | Max | M | SD | S | K | Female | | Male | | $\alpha_{(1)}$ | $\alpha_{(2)}$ | r_{tt} |
							M	SD	M	SD			
Creativity	1.75	5.00	3.86	.63	-.32	-.25	3.85	.66	3.86	.60	.78	.77	.83
Curiosity	2.00	5.00	3.87	.58	-.21	-.22	3.92	.58	3.83	.57	.64	.61	.72
Love of learning	1.25	5.00	4.13	.61	-.57	.04	4.24	.58	4.03	.62	.81	.80	.76
Open-mindedness	1.88	5.00	3.88	.53	-.29	.02	3.95	.51	3.83	.53	.69	.70	.81
Perspective	1.25	5.00	3.64	.59	-.28	.36	3.70	.59	3.60	.59	.76	.72	.85
Honesty	1.71	5.00	4.03	.59	-.53	.18	4.16	.56	3.92	.60	.75	.75	.83
Bravery	2.25	5.00	4.01	.53	-.38	.09	4.10	.53	3.94	.52	.66	.70	.78
Industry	1.22	5.00	3.66	.65	-.32	-.13	3.77	.65	3.57	.63	.81	.77	.73
Zest	1.25	5.00	3.65	.66	-.53	.45	3.69	.68	3.61	.65	.77	.73	.78
Kindness	1.89	5.00	4.00	.53	-.45	-.04	4.17	.49	3.85	.52	.72	.72	.78
Love	1.22	5.00	4.01	.64	-.78	.57	4.13	.64	3.90	.63	.76	.77	.77
Social intelligence	1.63	5.00	3.90	.54	-.36	.02	3.98	.54	3.82	.53	.71	.67	.80
Fairness	1.78	5.00	3.79	.61	-.16	-.35	3.94	.61	3.66	.59	.73	.70	.75
Leadership	1.00	5.00	3.58	.74	-.29	-.15	3.64	.74	3.53	.74	.84	.74	.85
Citizenship	1.13	5.00	3.75	.59	-.46	.49	3.86	.58	3.66	.58	.72	.72	.78
Forgiveness	1.00	5.00	3.48	.82	-.49	-.12	3.51	.87	3.45	.79	.81	.81	.80
Humility	1.33	5.00	3.57	.60	-.25	.00	3.67	.62	3.50	.56	.66	.67	.75
Prudence	1.25	5.00	3.67	.60	-.30	.29	3.71	.62	3.65	.58	.68	.68	.77
Self-regulation	1.00	4.78	3.24	.66	-.24	-.20	3.18	.68	3.29	.63	.70	.69	.80
App. of beauty	1.63	5.00	4.19	.63	-.84	.41	4.44	.49	3.98	.65	.76	.76	.82
Gratitude	1.25	5.00	4.24	.57	-1.14	2.16	4.32	.57	4.18	.56	.72	.74	.72
Hope	1.13	5.00	3.81	.67	-.57	.33	3.81	.72	3.81	.63	.82	.82	.82
Humor	1.22	5.00	3.88	.66	-.52	.09	3.89	.69	3.88	.64	.79	.78	.84
Spirituality	1.00	5.00	4.27	.72	-1.57	2.80	4.38	.67	4.17	.75	.85	.85	.82
Wisdom	2.20	5.00	3.89	.46	-.31	.03	3.94	.46	3.84	.45	.91	.90	.89
Courage	2.37	4.97	3.84	.46	-.30	-.11	3.93	.46	3.77	.45	.88	.87	.85
Humanity	2.21	4.96	3.98	.47	-.42	.-.11	4.10	.46	3.87	.45	.86	.85	.85
Justice	1.49	4.92	3.71	.52	-.21	.00	3.81	.53	3.81	.53	.87	.83	.85
Temperance	1.91	4.71	3.49	.44	-.18	.27	3.52	.46	3.47	.42	.80	.83	.84
Transcendence	2.07	4.98	4.08	.44	-.65	.58	4.17	.42	4.00	.44	.89	.88	.86

N=1100 (female=483, male=552, missing=65). S=skewness, K=kurtosis, α=Cronbach's α ($\alpha_{(1)}$; N=1035, $\alpha_{(2)}$; N=733). r_{tt}=Test-retest reliability for 3 weeks, N=106).

Validity of VIA-Youth

The CFA method has been used for construct validity for the validity studies of the VIA-Youth. Moreover, the relationships between the dimensions of the inventory were investigated with criterion validity.

Construct validity

As previously stated, to determine the construct validity of the VIA-Youth, CFA, which includes bigger samples and scores of items and subscales devoted to 6 dimension of virtue and 24 subscales, is needed (Park & Peterson, 2005). Since there is a need for a detailed theoretical framework in order to determine the factor loads in CFA for construct validity (Shryack, Stoeger, Krueger Kallie, 2010), CFA is a common practice for scale development if there is an existing theoretical framework (Park & Peterson, 2006). Within the existing detailed theoretical framework of the character strengths approach, CFA has been done to substantiate an inventory which consists of the subscales of virtue (Furnham & Lester, 2012). In this vein, it has been stated that other factor analysis studies for measuring character strengths (Eg. Shryack, Stoeger, Krueger Kallie, 2010; Singh & Choubisa, 2010; Toner, Haslam, Robinson & Williams, 2012; Van Eeden, Wissing, Dreyer, Park, and Peterson, 2008) have verified the model of the six virtues and 24 character strengths subscales theory.

A second level CFA was done to examine this model. Each of the 198 items was examined to identify the extent to which they fit the six factor model consisting of three to five subscales. This was done in order to investigate the construct validity of the inventory. In the CFA, while the data was being analyzed, the maximum likelihood estimation, supposing that the variables in the model show multivariable normal distribution, was used.

As a result of the CFA, t values and factor loads were primarily examined. Accordingly, all parameter values were found to be significant at the .05 level except for one item. Since the t value of an item in the subscale of honesty, in the virtue of courage, was not significant and besides this, the reliability of the subscale increases with its removal, the item was removed from the inventory. It was found that the values of all items were greater than 0 and the standard solution. And also, when all the parameter values of the model are examined, it was revealed that there is no negative value. All the items in the inventory are loaded positive. Furthermore, it was found that there were some modification proposals to the model.

By correcting a limited number of error variances, considering that recommended changes will contribute to model fit, modifications were made based on theoretical explanations (Peterson & Seligman, 2004). Item pairs between 1-5 numbers have been associated with the error variances in each dimension. By making corrections between the items, the analysis for 6 dimensions were obtained again and it has been found out that the modifications made by the consent of the expert contribute to χ^2 (Chi-square) positively (p<0.05) and the changes in the goodness of fit index (GFI) are positive. However, the level of fit may be affected if overlapping items occur regarding the multidimensionality of the inventory. χ^2 value depends highly on the sample size, so as a result, working with a fairly wide research group in this research may be the cause of high χ^2 value.

Table 2. VIA-Youth Measurement Model Fit Indices

	χ^2/sd	GFI	AGFI	CFI	NFI	NNFI	IFI	SRMR	RMSEA
Wisdom	2712/690=3.93	0.88	0.87	0.96	0.94	0.95	0.96	0.053	0.053
Courage	2021/455=4.44	0.89	0.87	0.94	0.92	0.93	0.94	0.056	0.058
Humanity	1394/294=4.74	0.91	0.89	0.93	0.92	0.93	0.93	0.057	0.060
Justice	1304/267=4.88	0.91	0.89	0.95	0.94	0.95	0.95	0.062	0.061
Temperance	1988/490=4.05	0.90	0.88	0.90	0.88	0.90	0.90	0.070	0.054
Transcendence	3554/769=4.62	0.86	0.84	0.94	0.92	0.93	0.94	0.088	0.059

According to Table 3, when the model is considered as a whole, the fit between the model and data is good based on the levels accepted for the model fit. As well as that, the fit of the model consisting of 24 subscales and 6 virtue dimensions is acceptable and good. In accordance with this result, it can be said that the purpose of the inventory demonstrated competence with the validated model.

Criterion validity and intercorrelations

VIA-Youth shows a conceptual similarity to some degree with some of the subscales in the literature as the relationship of the dimensions between the different scales within the scope of content validity are examined. To reveal the criterion validity, the relationship (Peterson and Seligman, 2004) between humanistic values including friendship, responsibility, being peaceful, respect, honesty, tolerance, and character strengths is examined.

As seen in Table 2., besides correlation coefficients between the variables expected a direct positive relationship with each other such as honesty-honesty, prudence-responsibility, social intelligence-friendship, gratitude and respect correlation coefficients between other subscales which are more than .20 and meaningful have been given. Positive, significant correlations were obtained between the 6 virtue dimensions and 15 character strengths. The correlation coefficients are positive with a significance level of .05 and .01 and change between .21(peaceful-perspective)-.56(responsibility-industry).

Beside the criterion validity, VIA-Youth's dimension scores and subscale scores have been investigated by using the Pearson correlation coefficients. Accordingly, correlation coefficients of subscales change between .51 and .86 and

correlation coefficients for 6 virtue dimensions have found .48 and .72. All correlation coefficients are positive, significant at the .01 level. The relationships of the 24 subscales are positive with each other, it varies between .00(between self-control, and humour) -.73(perspective and leadership).

Character strengths and demographics

Analysis results on the differentiation levels of the character strengths according to the age, gender, class level, and SES (socioeconomic status) variables are shown in Table 2. There was no significant correlation between age and character strengths. The results of the analysis on gender differences for having the character strengths reveal that self-regulation scores (M =3.29) of males are higher than females (M =3.18) on average ($t_{(1011)}$=-2.62, p<.01, d=.17). On 18% of the other 24 strengths, females received higher scores than males. In terms of the kindness (d=.66), and appreciation of beauty (d=.82) a large effect was obtained, and in terms of honesty (d=.42), love (d=.35), and fairness (d=.45) a medium size effect was obtained. In terms of the dimensions of virtue, females were found to have higher scores than males for all dimensions except for temperance. The effect size of the difference in dimensions of virtues is still moderate.

The differentiation levels of the character strengths according to class grades were investigated with one-way analysis of variance. According to the findings for the honesty character strength, 10th grade students (M =4.13) have higher scores than the 11th grade students (M =3.96) ($F_{(3, 1001)}$=3.60, p<.05, η^2=.011). For the fairness strength, again 10th graders (M =3.89) have a higher score than 11th grades (M =3.73) ($F_{(3, 988)}$=3.38, p<.05, η^2=.010). Also for the gratitude strength, the average score of 10th grade students (M =4.17) is higher than 12th graders ($F_{(3, 992)}$=3.49, p<.05, η^2=.010). 10th graders received a higher score (=3.78), than 12th graders (=3.66) in the justice virtue. ($F_{(3, 935)}$=2.74, p<.05, η^2=.009). However, effect sizes in the scores are small.

When having different socio-economic status and character strengths are compared, it has been found that the age of having love and humour differs. Young people from a below average SES get lower scores (M =3.65) than young people hailing from an average SES (M =4.01). Concurrently young people from a higher SES were found to have higher scores than the average (M =4.06) in terms of the love ($F_{(4, 699)}$=3.42, p<.01, η^2=.019). In terms of humour, the young people from below average SES get lower scores (M =3.22) than young people from average SES (M =3.88). Similarly, young people from higher SES scored for humour lower than the average (M =3.96) and young people having high SES (M =4.08) ($F_{(4, 703)}$=3.39, p<.01, η^2=.018). It has been found out that effect size is small.

Table 3. Correlations of the VIA-Youth Scales with human values, life satisfaction, and demographics

	F	R	P	R	H	T	LS r	LS β	Age r	Gender t	d	Class F	SES F
Creativity	.11	.33**	.22*	.33**	.13	.08	.17***	-.02	.07*	-.36	.02	.99	.82
Curiosity	.14	.14	.21	.11	.02	.02	.07	-.12**	-.03	2.34*	.14	1.66	.60
Love of learn.	.13	.21	.15	.12	.11	.01	.22***	-.08	.02	5.45***	.33	.10	.14
Open-mind.	.17	.35**	.09	.26*	.09	.06	.25***	.00	.05	3.60***	.23	.45	.04
Perspective	.27*	.39**	.21*	.28**	.19	.19	.21***	.00	.04	2.65**	.17	.26	1.42
Honesty	.07	.16	.19	.14	.31**	.15	.27***	-.02	-.01	6.49***	.42	3.59*	1.81
Bravery	.15	.49**	.24*	.55**	.42**	.23*	.19***	-.01	.04	4.76***	.29	.46	.95
Industry	.08	.56**	.29**	.41**	.34**	.11	.33***	.12*	-.01	4.76***	.30	.76	.53
Zest	.16	.26*	.14	.18	.06	.24*	.41***	.08	-.03	1.99*	.12	1.25	.46
Kindness	.21	.14	.14	.07	.09	.22*	.20***	-.09	.04	10.08***	.66	.27	.32
Love	-.09	.09	.29**	.13	-.03	.03	.46***	.23***	-.01	5.69***	.35	1.598	3.42**
Social intel.	.22*	.37**	.25*	.29**	.22*	.28**	.29***	-.06	.06	4.63***	.30	1.03	.87
Fairness	.04	.17	-.01	.07	-.07	-.13	.17***	.01	-.04	7.22***	.45	3.38*	1.90
Leadership	.16	.16	-.05	.06	-.02	-.08	.22***	-.00	-.01	2.29*	.15	.56	1.65
Citizenship	.11	.31**	.20	.25*	.08	.06	.21***	-.03	-.05	5.38***	.34	2.48	.85
Forgiveness	-.06	.11	.21*	.08	.08	.20	.09*	-.04	.02	1.03	.06	1.12	.81
Humility	.01	.15	.10	.16	.19	.11	.16***	-.01	.04	4.88***	.31	.05	.20
Prudence	.00	.17	.17	.16	.16	-.10	.27***	-.01	.05	1.55	.01	1.65	.20
Self-regulation	.04	-.05	.05	.03	-.09	-.17	.19***	-.05	.07*	-2.62**	.17	.46	.92
App. of beauty	.07	.11	.17	.08	.12	-.04	.16***	-.02	.03	12.97***	.82	.60	.72
Gratitude	-.07	.14	.19	.28**	.08	-.03	.49***	.33***	-.01	3.98***	.25	3.49*	.74
Hope	.01	.23*	.27*	.22*	.10	-.03	.44***	.17***	.04	.07	.01	1.60	1.28
Humour	.15	.02	-.055	-.20	.01	.05	.09*	.02	.00	.16	.01	.05	3.39**
Spirituality	.07	.17	.17	.23*	.10	-.03	.28***	-.06	.02	4.58***	.30	.98	1.24
Wisdom	.25*	.43***	.28**	.34**	.17	.11	.24***	-.24***	.03	3.11**	.20	.42	.10
Courage	.17	.56***	.33**	.48***	.41**	.27*	.41***	.27***	-.02	5.65***	.38	1.36	.94
Humanity	.14	.30**	.37***	.26*	.13	.26*	.40***	-.16*	.00	7.82***	.51	.87	1.70
Justice	.15	.28**	.05	.16	-.00	-.06	.26***	-.08	-.06	5.60***	.37	2.74*	.79
Temperance	-.00	.16	.21	.18	.15	.03	.26***	.00	.04	1.51	.09	.53	.93
Transcendence	.09	.19	.20	.13	.12	-.01	.43***	.32***	.00	6.30***	.43	1.38	.83

$N_{(age, gender, and class)}$=1035, F=Friendship, R=Responsibility, P=Peaceful, R=Respect, H=Honesty, T=Tolerance, $LS_{(N=733)}$=Life Satisfaction, $SES_{(N=733)}$=Socio-economic Status
*p<.05, ** p<.01, *** p<.001.

Character strengths and life satisfaction

Life satisfaction has shown a positive and significant correlation with all character strengths except for curiosity and virtue dimensions. The correlation coefficients change between .07 (curiosity) and .49 (gratitude). In terms of the virtue dimensions, the relationship coefficients with the life satisfaction are positive and are between .24 (wisdom) and .43 (transcendence).

As seen in Table 2., according to the multiple regression analysis conducted to determine to what extend the character strengths predict life satisfaction, gratitude, love, hope, curiosity, industry and kindness explained 39% of the total variance regarding the "life satisfaction" ($F_{(6, 425)}$=45.84, p=.000). Gratitude was found to be the most important power in the first turn which explains 29% of the total variance (β=.33). Curiosity and kindness predicted "life satisfaction" in a negative direction, whereas the other four variables predicted 'life satisfaction' in a positive direction. Wisdom, courage, humanity, and transcendence accounted for 27% of the total variance of "life satisfaction" ($F_{(4, 427)}$=39.87, p=.000). Transcendence explained 22% of the total variance itself and was the most important dimension of virtue in the first turn. (β=.32). Wisdom predicted "life satisfaction" in the negative direction, but the other three variables explain it in a positive direction. Gender difference in life satisfaction was not found ($t_{(730)}$=-.05, p>.05) nor was any meaningful contribution was obtained when gender was added to the regression model.

Discussion and Conclusion

This study aims to analyze reliability and validity of the Turkish adaptation of the VIA-Youth. More specifically, character strengths are analyzed within the life satisfaction, values, and demographic features of high school students.

Looking at the average scores from descriptive statistics, the first five most common strengths are spirituality, gratitude, appreciation of beauty and excellence, love of learning, and honesty. The last minimum five strengths are self-regulation, forgiveness, humility, leadership, and perspective. When the relevant literature ranking the average scores in this way (Park & Peterson, 2005; Peterson & Park, 2006; Shryack, Stoeger, Krueger Kallie, 2010; Singh Choubisa, 2010; Toner, Haslam, Robinson & Williams, 2012; Weber & Ruch, 2011) is examined, the top ranks of young adults in high school are similarly situated and they are different than the adults. In Linley and et al's study (2007) open-mindedness, curiosity, and love of learning is one of the strengths possessed at the highest level. According to another study (Proctor, Maltby & Linley, 2011), the most prominent strengths found are love, humor, kindness, social intelligence and open-mindedness for both men and women participants alike. The least featured strengths are leadership, self-regulation, perspective, spirituality, and self-control. Park & Peterson (2006) found that the most common strengths are humour and love and that the least are prudence, forgiveness, religiousness, and self-regulation among youth. When compared with the other studies, according to the results, the most common strength is spirituality. These findings, which differ from the results of similar studies can be explained as a change in the strength of spirituality by geographic region (Eg. spirituality is more common in the north of the United States than in the South) (Park, Peterson & Seligman, 2006). This situation can be considered as a cultural difference of the Turkish community in a specific strength.

Besides the overall similarity of the least common and most common strengths, it is possible to consider the international structure of these strengths. An example of this can be seen in a study with participants from 54 different countries (Park, Peterson & Seligman, 2006). That study found similarities and revealed an intercultural structure of the strengths. The character strength rankings for youth in this study were found to be consistent with the literature and thus, this study can also be used as validity data for the adapted inventory.

According to the subscales, although consistency coefficients related to the Turkish VIA-Youth's reliability obtained from two different research groups are found relatively low, that is curiosity (.64), humility (.67), and prudence (.68), all other subscales exceeded .70. In addition, all test-retest reliability coefficients are found >.70. In consideration of the virtue dimensions, both coefficients of internal consistency obtained from the research group are >.80. In a similar study of VIA-Youth with 15-18-year-old high school students (Toner, Haslam, Robinson & Williams, 2012), it has been revealed that coefficients of internal consistency are .48(self-regulation), .60(appreciation of beauty and excellence), and .68(social intelligence); all lower than .70. Dahiya (2013) reached the .46-.65 internal consistency coefficient for the subscales, and when compared with the results of other studies, according to the results of this study, the three other subscales were within acceptable limits with very little difference in the reliability values of the subscales.

According to the corrected item-total correlations of the VIA-youth, it has been found that the coefficients of all other items in the subscales are positive and at good levels except for 5 items, which show relatively low values. The mentioned items have been considered supporting items for the inventory since the item-total correlation coefficients of other items are positive (Erkus, 2012). When these items are removed from the scale, there no changes in reliability and they does not make a considerable increase for reliability (Tavsancil, 2002). As such, it was decided that these items would stay in the related subscales of the inventory by evaluating the verification of the theory in the context of culture and expert consideration. Consequently, a reduction in the diversity between items was unnecessary (Sencan, 2005).

In the comparisons regarding gender, females had higher scores in most of the strengths than the males, notwithstanding the studies which have shown that males tend to score higher in the categories of creativity (Linley et.al. 2007) and self-regulation (Biswas-Diener, 2006). In Park and Peterson's (2005) study, female students also produced higher scores than their male counterparts in appreciation of beauty and excellence, as well as open-mindedness, gratitude, kindness, love, perspective, and spirituality. Male students' scored lower in all of these strengths. When viewed alongside the previous studies in a consistent format, it is especially remarkable to see that females are more prominent in terms of certain strengths. In the interpersonal relationships, in the development of strengths, it can be said that rearing attitudes of the parents have an influence on character strengths.

In contrast to the previous studies regarding the relationship between character strengths and age (Linley et al., 2007; Park, 2004), some differences were noted in terms of grade level, although they are not significant. This supports the findings of Park & Peterson (2006) who found that the lower the grade the higher the character strengths. Furthermore, the pair also found that as grade level increases, the strength of the temperance dimension and spirituality strength decline (Park & Peterson, 2005).

In comparisons done with SES, it has been revealed that young people from lower-level socioeconomic backgrounds have lower scores in terms of love and humor. Since character strengths have been shown to be shaped by one's environment (Steen, Kachorek, & Peterson, 2003), it is posited that low socioeconomic status students, for whom health or physiological needs are a priority, have a lower chance of building higher-level needs such as love and humour.

Similar to previous findings (Miljkovic & Rijavec, 2008) it was concluded that life satisfaction is positively correlated with all character strengths. When looking at the relationship between the character strengths and life satisfaction, as character strengths increase, life satisfaction increases. Furthermore, gratitude was found to be the most influential predictor of life satisfaction. In Peterson, Ruch, Beerman, Park and Seligman 's (2007) study, gratitude was similarly found to be the most important predictor of life satisfaction. Additionally, this most important strength predictor of life satisfaction can change according to culture. Accordingly, life satisfaction in a particular country is accompanied by the value of the given strengths. From this perspective, gratitude, known as a strength whose display is encouraged, is important to foster in order to protect the mental health of Turkish society as it appears to directly affect life satisfaction. Similar to other findings in the literature (Park, Peterson & Seligman, 2004; Peterson, Ruch, Beerman, Park & Seligman, 2007; Proyer, Gander, Wyss, & Ruch, 2011) besides gratitude, love, hope and industry explained life satisfaction in a positive way. However, the strength of curiosity, unlike the previous research, was shown to have low importance and had a negative impact on life satisfaction. Also unlike the findings of previous studies where industry and humour were positively correlated with life satisfaction; this study found that prudence, open-mindedness, love of learning, and originality were negatively correlated or unrelated with life satisfaction. Moreover, in these findings, virtue of transcendence was the most important dimension that predicted life satisfaction. This is followed by courage, wisdom and justice. Transcendence and courage were shown to have a positive impact on life satisfaction. Gender did not affect life satisfaction.

In the construct validity studies, the acceptance limits for fit indexes (Byrne, 1998) based on model data was good and, as such, it can be said that 24 subscales and 6 factor structures are acceptable and have a good level of fit. This result demonstrates that the inventory is in accordance with the purpose of the measurement and that the model is validated. In the studies analysing the character strengths inventory (Avey, Luthans, Hannah, Sweetman, & Peterson, 2012; Thun & Kelloway, 2011), it has been found that the three major fit index $\chi2/sd$ ratio is smaller than 5, the CFI is above .90 and error coefficiency is below .08, thus showing that the model comprising of 24 subscales adapts well in terms of all dimensions. In previous studies that examined the validity of the VIA-Youth in different cultures through adaptation, it is remarkable that structures different from the theoretical structure of 24 subscales and 6 dimensions; such as a one-dimensional (Van Eeden, Wissing, Dreyer, Peterson, & Park, 2008) or 5 dimensional (Dahiya, 2013; Toner, Haslam, Robinson & Williams, 2012) structure, had been reached. This study can be said to be the first study confirming the original theoretical 6 factor structure (Peterson & Seligman, 2004).

For concurrent validity, humanistic values properties have been appraised within the scope of character strengths which are considered universal values (Peterson & Seligman, 2004). These 15 strengths were determined to have a positive relationship between the six different values of tolerance, responsibility, peacefulness, respect, honesty and friendship. This result can be taken as evidence of the criterion validity.

According to the results obtained through an examination of the relationship between subscales and virtue dimensions and the dimensions' relationship between each other; it has been established that the coefficient of the relationship between subscales and virtue dimensions is higher than the dimensions' relationship between each other. These results can be classed as additional evidence for the structure of the inventory by revealing that each virtue dimension has a stronger relationship with its subscale and a separate structural integrity (Dossett, 2011). Besides this, the aforementioned dimensions have similar and positive relations with each other and character strengths (Dahlsgaard, 2005; Singh & Choubisa, 2010), share a theoretical base (Peterson & Seligman, 2004), and overlap with the results of CFA.

As a result, when all findings are considered together, it has been found out that the Turkish VIA-Youth has adequate validity and a reliability coefficient to be used both in research and applied studies for determining character strengths of young people in high school. The adapted inventory is considered to contribute in the design and execution of experimental studies in the area of positive youth development. Counseling services for youth can benefit from the results to design and conduct individual and group studies and program evaluation. Signature strengths of the students can be specified by VIA-Youth and they can be developed by professional counseling support with the perspective of strengths-based counseling.

However, it is important to note that the study also has several limitations. One of them is that VIA-Youth is developed for the ages of 10-17 and unlike this age limit, this study includes an adaptation for young people who attend high school. This is determined by taking into account the high number of the questions and developmental differences between high school and secondary school students. In the future studies, VIA-Youth can be adapted for secondary school students. Another limitation is that the test-retest studies were done with a relatively small research group and for a limited period. The authors recommend that the inventory be reevaluated with a larger participant group and in a longer period (eg. 3,6 months).

Acknowledgement

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