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LIFE STYLES SCALE AND ITS LANGUAGE ADAPTATION, RELIABILITY AND VALIDITY STUDIES

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ABSTRACT
The life style scale developed by Kern in 1982 consists of five subscales and 35 items. The adaptation of the scale was made by Özpolat and Akbaba. The lowest correlation value was found to be .32 between English and Turkish items while the highest value was .92 which were found to be significant at the level of p<.05. In the reliability studies, the scale was conducted on 400 undergraduate students in Erzurum, Turkey. To find out whether the number of the subjects was adequate Kasier-Mayer-Olkin (KMO) was examined and the score was found to be .93; internal validity of the items was cronbach alpha (a) .96. In order to evaluate construct validity of the scale, principal components factor analysis was conducted, and the data was rotated in varimax. According to the results, the scale's distribution was the same as the original one. The scale was conducted to 280 undergraduate students for the similar scale validity with the defense styles questionnaire. The correlation between total scores that subjects took was analyzed and the correlation value was found to be .69 which is significant at the level of p<.05.
Keywords: life styles, adler, individual psychology

INTRODUCTION

Perceptions of an individual about the world he exists in is tried to be expressed by different concepts in psychology. Each one of psychological theorists basically tended to reflect the viewpoints of their concepts about this conceptual structure. However, Alfred Adler was the first psychologist who dealt with the viewpoints of human life with a systematical approach and named these form of systems as "life styles".

Alfred Adler had begun to talk about this concept in the early 1900s. Adler defensed that each individual determines his own lifestyle by creating the schemes in his own family and social environment and develops strategies to cope with the problems faced according to this lifestyle. Thus, consultants' knowledge about the lifestyle of the individual will positively affect consultation progress and healing of the client (Kern, 2008).

Life style of a child is born and shaped by the creation power of child, how he sees the world and what he considers to be successful (Adler, 1993).

Newborn firstly benefits from the experiences in creating his concepts of the world and learns the environment. This learning process occurs as a result of trial and error experiences that he carried out to recognize the new environment. These experiences can cause a child to develop rules about the world (Shulman & Mosa, 1988). These rules lead us create a point of

view about the world around us and make sense of it. As a result; this set of rules become individuals' own life principles. Of course, these individuals' own life principles determine their life styles (Shulman & Mosak, 1988).

Lifestyles are affected not only from an individual's experiences, but also from his physical development (Adler, 1993). According to Adler, lifestyles have biological, psychological and social features. For instance; lack of an organ is a biological or physical disadvantage and affects the lifestyle of the individual. Family, friends and teachers are important effects on an individual's life as they have a big role; besides these, environmental effects, neighbors and culture are the factors that affect lifestyles.

Adler defended that all behaviors are shaped by an individual's lifestyle. An individual's value judgments are under the effects of the aims he developed and his established views. Each aspect of an individual is shaped by the effect of personality integrity (Geçtan, 1998).

Tendency bases of lifestyle can be divided into 4 groups;

1.Self-concept; individual's beliefs about who he is
2.Self-ideal; individual's beliefs about who he should be
3.Individual's views about what is the world except him and what does this world expect from him
4.Conscientious Beliefs; "right-wrong" directions developed by the individual

Human beings use this scheme in order to continue their lives easily. With this scheme, an individual can understand and evaluate his life, can presuppose about the events and control himself. But he is not conscious about the fact that he uses these instruments that are needed in order to continue his life (Geçtan, 1998).

If an individual's lifestyle isn't in accordance with the expectations of society, and if his personality is not developed enough, there occurs a tension in the individual. According to Adler, hostility, aggression, and sadistic tendencies aren't the primary tendencies. But if a person's personality and lifestyle isn't developed enough, these tendencies become apparent when he meets a difficulty in life. According to Adler, inconsistency with living conditions isn't a random situation. If social feelings are deficient, threats of the outer world reveals the reality of extemporaneousness to life. When such an individual's early childhood period is analyzed, it is usually seen that they had sleep disorders, urinary incontinence, tantrums…etc. which are the indications of inadaptability. Tendency to be self-centered increase as the one is under the burden of stress and society's expectations. This situation increases the inadaptability and self-centeredness. This creates a vicious cycle which is impossible to avoid (Yanbastı, 1996).

Under the light of these ideas of Adler, an individual's point of view about life can be defined as: "*The individual doesn't connect himself to the outer world in a predetermined way as supposed. He is always connected to his own thoughts about himself and according to his problem at that time. His limits aren't the same as the general limits like others; they are at the same time created by himself for his own life. The factor that determines his relation to the outer world is neither heritage nor environmental effects. Heritage gives him only some abilities; environment gives him only some impressions. These abilities and impressions creates the building stone he will use while taking and perceiving them; namely his interpretation of his own experiences and his attitude towards life. In other words, his*

genuine usage of these building stones or his own attitude towards life will determine his relation with outer world" (Adler, 1993).

In Adler's definition of lifestyle, another important point he mentions is the early childhood experiences. Adler, (1931) said that "I have never made decisions about an individual's lifestyle without asking him the very first experience he had". He put forward the significance of early childhood experience with these words. Adler's followers after him have always took this significant point into consideration and tried to question lifestyles in a more systematical way. Individual psychologists have mostly used the interview technique while questioning their clients (Ecksteın & Kern, 2009). But when they understood that this technique's determination of lifestyles changes from client to client, they decided to develop a more systematic approach. A standard inventory was developed by Kern, Wheeler and Curlette in 1982; they took early childhood experiences and individual lifestyles in terms of individual psychology into consideration while developing this approach (Kern, Wheeler & Curlette,1984).

Thus, Adler stated that an individual's point of view about life is determined by the experiences he created in his mind that are shaped by his interactions with environment. So the individual will use the experiences he lived and encoded in his mind in the problems he will face in his future life. His approach to his problems will either get him closer to normal behaviors or move him away from them. Life Style Scale developed by Kern (1982) is made of 5 sub-scales. These are: Control scale, perfectionism scale, self-esteem scale, expectation scale and pleasing scale. The scale is 5 point likert type and, has 7 items in each dimension and totally made of 35 items.

METHOD

The purpose of this research was to make the adaptation of Life Style Scale developed by Kern (1982) into Turkish and to study the validity and reliability of this inventory.

Study Group

The research was conducted on 400 undergraduate students in different departments of Atatürk University Faculty of Education. 110 of the students attended the study were in Turkish teaching, 50 were on English teaching, 75 in Archeology, 75 in Preschool teaching, 50 in Psychological counseling and guidance, 40 in Social Sciences teaching departments. Most of the sampling (%94), which was made of 198 female 202 male students, were between the ages of 19 and 23 and average age was 21.

Data Collection Tool

Life style Scale is and inventory prepared from Adlerian concepts and it is made of 35 items. In this context, the scale tries to determine an individual's life style on the basis of the basic concepts of individual psychology. Total sub-scale scores of the scale show how a person adopted to this life style. However, an individual's misbeliefs concerning with life style can be inferred from the scale responses' scores. Therefore, identified misbeliefs of the individual are discussed with a consultant in the process of consultation. The purpose of scale development is to ease usage in clinical practice. Validity or reliability analysis of the

original of the scale which is developed by Kern (1982) and used in clinical diagnosis, haven't been made.

Process

In the process of adapting Life Style Inventory to Turkish, firstly translation of English form to Turkish was completed. In translation process, "Back-Translation Method" and "One Way Translation" methods were used for evaluation of translation and to develop a draft form. Translation of Life Style Inventory from Turkish to English was made and then controlled by researchers and 4 different academic members of department of English. Scale items with their English translations were shown to two academic members in PDR department and their opinions were taken. In the next stage, the prepared Turkish form was given to two academic members in English Teaching department who could use both languages very well and they were required to translate it to Turkish again. At the end of this Back Translation method, a Turkish draft form was prepared which was thought to represent the original one at its best. This form was then given to 41 university students and they were required to write if the items were understandable or not and to state their alternatives if they have. Some of the items were changed accordingly after the evaluations. The form reshaped by these changes were translated again to English; then this translated version was again sent to Kern and he was asked if the scale that was adapted to the culture was consisting similar items with the original one. Upon Kern's positive views about the Turkish form, a research was conducted on students in English Teaching department in order to analyze linguistic equivalence of the scale. Firstly the English and then the Turkish form were conducted two times with one week in between on 41 students in English teaching department in Erzurum Atatürk University. Correlation between these two applications was determined to be the linguistic equivalent criteria.

Item test correlation and %27 sub and supergroups comparisons were used for item distinctive of Life Style Inventory. In calculating item test correlation, Paerson product moment correlation coefficient was determined according to total score, t-test was used in comparing %27 sub and supergroups. Internal consistency and test-retest reliability coefficient studies were made for Life Style Inventory reliability studies which were conducted on 140 students in Atatürk University Department of Education. Turkish form was given to these students twice with 15 days time period between them and correlation between data of the two applications was taken as test-retest test reliability coefficient.

Construct and adaptation validity were analyzed for validity studies of Life Style Inventory. Explanatory factor analysis and confirmatory factor analysis were made for researching the construct validity of inventory. For determining confirmatory validity, correlation between the short form of defense styles test that was adapted to Turkish by Bodur (1999) and Turkish form was calculated and the result was accepted to be result adaptation validity. SPSS 15.0 and Lisrel 8.51 programs were used in calculating inventory's reliability and validity.

FINDINGS

Linguistic equivalence

Correlation between English and Turkish form scores were calculated in order to determine linguistic equivalence of the inventory and correlation for the complete scale were found to be .89, for control sub-scale .88, for perfection sub-scale .89, pleasing sub-scale .89, self-esteem sub-scale .87 and expectations sub-scale .89.

Reliability

Corrected Item-Total score correlation of Life Styles Inventory's 5, 6, 9, 13, 19, 33rd and 35th items were found to be negative. Corrected Item-Total score correlation of the 1st, 7th and 32nd items of Life Styles Inventory were very low and it was seen in the section of "If the item is removed, scale's Cronbach Alpha coefficient" Cronbach Alpha coefficient value increased to .89. These findings showed that 5, 6, 9, 13, 19, 33rd and 35th items had an inverse effect on the scale and 1st, 7th and 32nd items' contribution to scale was low. As a result, 1, 5, 6, 7, 9, 13, 19, 32, 33 and 35th items were removed from the scale. Total internal consistency reliability coefficient of the Life Styles Inventory were found to be .96 for the total inventory; cronbach alpha coefficient of perfection sub-scale was .96, cronbach alpha coefficient of control sub-scale was .95, cronbach alpha coefficient of pleasing sub-scale was .96, cronbach alpha coefficient of expectations was .95, cronbach alpha coefficient of self-esteem was .96. Test-retest test reliability coefficient of the inventory for the complete scale was found to be .87, for control sub-scale .70, for perfection sub-scale .75, for pleasing sub-scale .80, for self-esteem sub-scale .72 and for expectations sub-scale .80.

Construct Validity

Explanatory factor analysis and confirmatory factor analysis were made in order to analyze structural validity of Life Styles Inventory. Firstly, sampling convenience and Barlett Sphericity tests were made. For data to be convenient to factor analysis KMO should be higher than .60 and Barlett test should be meaningful (Büyüköztürk, 2004). In this study, KMO sampling convenience coefficient was found to be .93, Barlett Sphericity test X^2 value was found to be 87455,607 ($p<.001$). These results showed that the items given to scale answers could become factors.

As original Life Style Inventory was made of 5 sub-scales, principal components factor analysis was conducted, and the data was rotated in varimax and it was limited to 5 factors. After this process, a construct with 5 factors which explains %90 of the total variant was obtained and it was seen that item distribution in original form and the distribution in the adapted form were coherent. Factor results with factor loads are given in Table 1.

Items under the "Control Sub-scale" which is the first factor, mostly includes control centered life style of an individual. Individuals who get high scores in this sub-scale want to control everything around them. This factor's loads vary between .91 and .97; this factor explains %19.35 of the total variance and made of 5 items. An example of items in this sub-scale is; *"I don't like changes in last-minute or uninvited guests"*. The second factor, perfection is made of 5 items. Individuals who get high scores in this sub-scale want perfection in their lives all the time. This factor's loads vary between .83 and .97 and it

explains %19.06 of the total variance. An example of the items in this sub-scale is; *"I like being tidy, I like my hair done and wear clean and tidy clothes"*.

Table 1: Life Style Inventory Explanatory Factor Analysis Results

Sub Scale	Item no	Factor Load	Factor Load	Factor Load	Factor Load	Factor Load
Control	6	**0.94**				
	10	**0.97**				
	14	**0.92**				
	19	**0.91**				
	24	**0.92**				
Perfect	1		**0.83**			
	7		**0.97**			
	11		**0.85**			
	15		**0.97**			
	20		**0.95**			
Pleasing	2			**0.93**		
	4			**0.88**		
	12			**0.83**		
	16			**0.88**		
	21			**0.82**		
Self-Esteem	3				**0.75**	
	8				**0.93**	
	17				**0.89**	
	22				**0.93**	
	25				**0.93**	
Expectations	5					**0.74**
	9					**0.90**
	13					**0.91**
	18					**0.88**
	23					**0.80**

The third factor is pleasing; individuals who get high scores in this sub-scale are too sensitive towards people in their lives. They continuously try to avoid hurting others. This factor's loads vary between .82 and .93; this factor explains %18.26 of the total variance and it is made of 5 items. An example of the items in this sub-scale is; *"I especially try to avoid hurting people"*. The fourth factor is self esteem; the scores that are taken from its scale are inverse proportional with the self esteem. Namely, high score of an individual in this scale shows low self-esteem. These individuals are very shy, can not give personal decisions and can be used by others. This factor's loads vary between .75 and .93; this factor explains %17.07 of the total variance and made of 5 items. An example of the items in this sub-scale is; *"My life seems to be full of disappointments"*. The fifth factor is expectations sub-scale. Individuals who adopt this lifestyle are energetic. They use their energy to reach their goals in life. But when they can not reach what they want after their efforts, they step back and accept the situation. Factor loads vary between .74 and .91; this factor explains %16.99 of the total variance and it is made of 5 items. An example of the items in this sub-scale is; *"Mostly I think that I carry the burden of people around me, but I think that they don't deserve this"*. Correlation between sub-scales is taken into consideration besides factor structure in construction validity study. Correlation coefficient between factors of Life Style Inventory is given in Table 2.

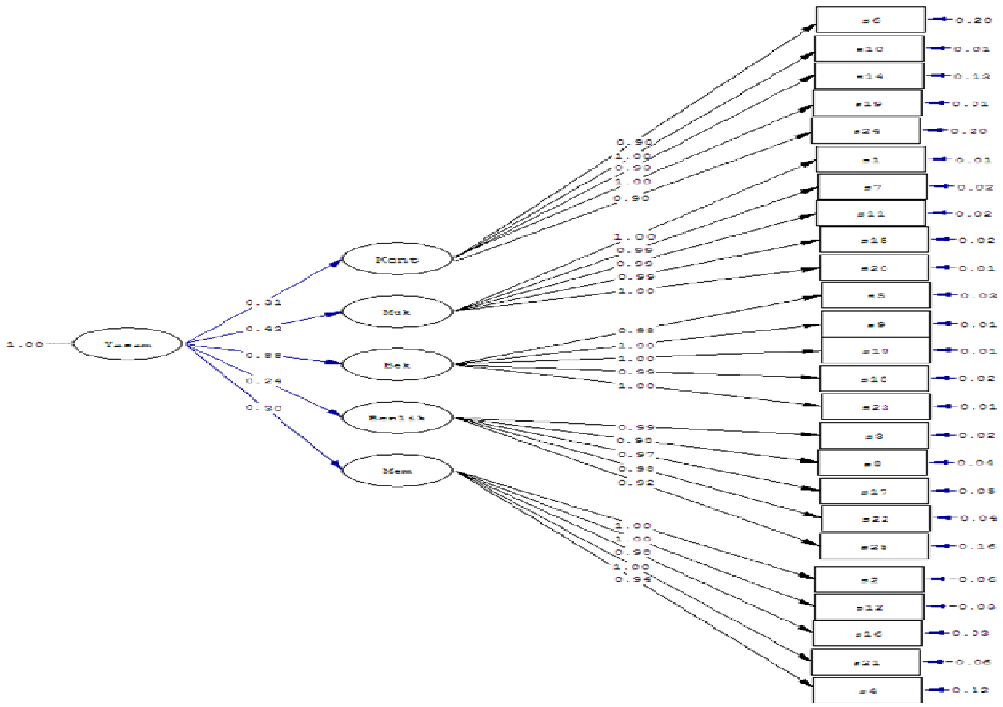
Table 2: Correlation Coefficient between Factors of Life Style Inventory

	Cont	Perf.	Pleas.	Self-est.	Expec.	Total L.
Control	-					
Perfect	,36(**)	-				
Pleasing	,35(**)	,17(**)	-			
Self-est.	,28(**)	,28(**)	,61(**)	-		
Expectations	,43(**)	,49(**)	,69(**)	,54(**)	-	
Total Load	,57(**)	,60(**)	,85(**)	,75(**)	,63(**)	-

* * p<.01

On the other hand, in order to verify this factor construction of Life Styles Inventory, gathered data were analyzed in Lisrel 8.51 program. In verification factor analysis, some statistical results are used in order to see if the scale is verified or not. The most commonly used statistic is Chi-square. Chi-square's ratio to degree of freedom should be 2 or below. The other statistics are GFI (Goodness of fit index), AGFI (Adjusted Goodness of fit index), CFI (Comparative fit index), RMSEA (Root mean square error of approximation), RMR (Root mean square residual) and SRMR (Standardized root mean square residual). If GFI, AGFI and CFI are higher than .90, it is acceptable and shows adjustment; if they are higher than .95, this shows good adjustment. If RMSEA, RMR, SRMR are below 0.5, this is a sign of a good situation while if they are below .08, this is a sign of an acceptable good situation (Şimşek, 2007).

Table 3: Life Styles Inventory Confirmatory Factor Analysis



At the end of confirmatory factor analysis of Life Style Inventory, it was found out that χ^2 (531.94) sd (270) (χ^2/sd= 1.97); and RMSEA (.07) RMR (.08) SRMR (.08) GFI (.95) AGFI (.93) CFI (96). Path diagram as a result of analysis is given in Table 3.

Adaptation Validity

For adaptation validity study, Life Style Inventory was evaluated with Defense Style Questionnaire. This questionnaire was developed by Bond, Gardner, Christian and Sigal in 1983. The test made of 88 items and 26 defenses was adapted to Turkish by Bodur in 1999. The short form of the test was used for adaptation validity of the test adapted to our language. Correlation between total scores of the participants in both the scale was calculated. The result of .69 was found to be significant at p <.01 level.

Factor Analysis

Total item correlation explains the scores taken from test items and test's total score. According to this, total item correlation is expected to be positive and high (Baykul, 2000). In the interpretation of item test correlation, it is accepted that items that are .30 and higher distinguish individuals well in terms of the feature that is measured (Büyüköztürk, 2004). Adjusted item-total score correlation of Life Style Inventory were between .45 and .59; t-test (sd=327) values about differences between item scores of %27 sub and super groups were found to be between 10.04 (p<.01) and 13.68 (p<.01). These findings are given in Table 4.

Table 4: Adjusted Item-Total Score Test Correlation of Life Style Inventory and t Value of Difference between %27 Sub and Super Groups

Factor	Item No	r_{ix}	t	Factor	Item No	r_{ix}	t	Factor	Item No	r_{ix}	t
Control	6	,50	11,85	Perfection	1	,56	12,94	Pleasing	2	,54	12,15
	10	,45	10,55		7	,54	11,75		4	,56	13,32
	14	,51	12,60		11	,59	14,26		12	,56	13,09
	19	,47	11,04		15	,55	12,66		16	,54	12,39
	24	,50	11,93		20	,59	13,43		21	,56	12,71
Self-Esteem	3	,46	10,04	Expectations	5	,55	13,15				
	8	,49	10,48		9	,55	12,08				
	17	,49	10,82		13	,54	12,69				
	22	,48	10,71		18	,56	13,68				
	25	,49	11,07		23	,57	12,34				

p<.01

Evaluation of Inventory Scores

There are 25 items in Life Style Inventory Turkish form. There are 5 items in each sub-scale of this inventory which is prepared with 5 point likert type. The highest score that can be taken from each sub-scale is 25 while the lowest is 5. Individual's lifestyle is determined

according to his score in each subscale. Application of the inventory takes 15-20 minutes. It can be applied individually or as groups.

DISCUSSION AND RESULT

At the end of linguistic equivalence study, it was seen that correlation coefficient between original and adapted form scores were .89. This result showed that translated Turkish version of inventory items were in accordance with the English original items and Turkish form and English form were equivalent. At the end of reliability analysis, it was seen that 10 items of Life Styles Inventory decreased Cronbach Alpha coefficient which was scale's internal consistency coefficient and they should be removed from the scale. These items were removed from the scale in line with the views of the writer of scale. Inventory's consistency was proven by the fact that test-retest test reliability coefficient of the Turkish form with 25 items was .87.

Adaptation and structure validity of Turkish form were investigated. As a result of explanatory factor analysis, it was seen that scale owns five factors like the original form and items in the sub-factors were in accordance with ones of original scale. In addition, result (.69) obtained from adaptation validity shows Life Style Scale possesses adjustment validity. In the light of obtained these data, Scale was subjected to confirmatory factor analysis. As a result of DFA, it was found that χ 2 (531.94), SD (270) (χ 2/sd = 1.97) and RMSEA (.07), RMR (.08), SRMR (.08), GFI (.95), AGFI (.93), CFI (96). These findings confirm that scale is compatible with the original form.

It is accepted that items that are .30 and higher at the end of the item analysis distinguish individuals well in terms of the feature that is measured. When t-test results of differences between %27 sub and super groups are taken into consideration besides the fact that adjusted item-total score correlation of Life Style Inventory were between .45 and .59, it can be seen that items' discrimination powers are enough.

Life style Scale is an inventory prepared with the inspiration from Adlerian concepts. In this context, the scale is based on the basic concepts of individual psychology and tries to determine an individual's life style. Total sub-scale scores of the scale show that a person adapts to a life style. However, an individual's misbeliefs concerning with life style can be inferred from the scale scores of responses. Therefore, identified misbeliefs of the individual can be discussed with a consultant in the process of consultation. The purpose of scale development is to ease the use in clinical practice. There isn't a scale in our language with these kinds of aspects, and there is a limited number of studies on life styles; from this point, this scale make up the deficiency in this field and can be used as a basis for future studies in this field.

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