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LEISURE NEGOTIATION STRATEGIES SCALE: A STUDY OF VALIDITY AND RELIABILITY FOR UNIVERSITY STUDENTS

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ABSTRACT

The aim of this study was to develop a Turkish version of the "Leisure Negotiation Strategies Scale" for university students and to examine its validity and reliability. The Leisure Negotiation Strategies Scale contains 31 items, which are expressed on a 5-point Likert scale. The scale was tested in two separate samples comprising a total of 810 Turkish students. The first group (n=400) was used to test data using exploratory factor analysis, and the second group (n=410) was used to test data using confirmatory factor analysis. Explanatory factor analysis produced a 6-factor solution with the sub-dimensions time-management strategies, skill-acquisition strategies, interpersonal relations, intra-personal validation strategies, physical fitness strategies and financial management. Confirmatory factor analysis confirmed this 6-factor solution (first order confirmatory factor analysis, GFI=0.85, AGFI=0.82, NFI=0.87, TLI=0.90, CFI=0.91, RMSEA=0.072, SRMR=0.074; second order confirmatory factor analysis, GFI=0.85, AGFI=0.82, NFI=0.87, TLI=0.90, CFI=0.91, RMSEA=0.072 and SRMR=0.074). Cronbach's alpha coefficient values ranged from 0.70 to 0.77 in the 6 sub-dimensions. Finally, evidence of test-retest reliability of scale scores was supported, based on responses from 100 students. These results demonstrate that this Turkish version of the scale is a valid and reliable instrument for university students.

Key words: Leisure constraints; Coping; Scale; Factor analysis; Turkish students.

INTRODUCTION

Many studies conducted in different disciplines have stated that individuals should participate regularly in physical activities in their leisure time for a balanced life. The World Health Organisation has reported that, for a variety of reasons, insufficient participation in physical activities is one of the risk factors for global mortality causing an estimated 3.2 million deaths globally in a year (World Health Organization, 2014). One of the main aims of leisure studies is to understand how people spend their leisure time. For this reason, knowing both factors that lead people to leisure activities and those that prevent people from participating in leisure activities would facilitate understanding of why people participate in these activities, such as: motivational factors; life satisfaction (Huang & Carleton, 2003); and leisure satisfaction (Jackson, 1991).

One of the most important topics considered in studies of leisure is constraint (Jackson & Scott, 1999). A constraint, in general, is an abstract or concrete structure consisting of one or more reasons that prevent the occurrence of certain behaviour (Jackson, 1988). Leisure

constraints could be seen as an accumulation of factors that prevent the individual from participating in leisure activities, decrease the number of repetitions, break the motivation to participate in activities, cause loss of time, undermine the advantages of leisure services and decrease the degree of satisfaction expected from these activities (Jackson & Henderson, 1995; Jackson & Scott, 1999).

Crawford and Godbey (1987) have identified three groups of constraints. These are internal constraints, which include individuals' psychological condition and attitudes; interpersonal constraints, which stem from the conflict of differing characteristic features and structural constraints, which occur as a result of the inconsistency between available recreational activities and fields and the way in which people wish to spend their leisure time. Crawford *et al*. (1991) sequenced the constraints people experience hierarchically. According to these authors, internal factors are the strongest determinants of behaviour, and external factors have a weaker impact. The level of participation and non-participation results from the relationships between these factors. Oh *et al*. (2001) conducted a study on this topic that also supports this view. Again many studies have demonstrated that the strongest factor limiting the participation of people in leisure activities is the constraint that stems from peoples' own minds (Frederick & Shaw; 1995; Henderson *et al*., 1995; Carroll & Alexandris, 1997; Hubbard & Mannell, 2001; Alexandris *et al*., 2002; Wood, 2011).

According to Jackson *et al*. (1993), constraints do not prevent people from participating. Leisure participation relies heavily on the ability of the individual to manage their daily routine while struggling with many factors (Crawford *et al*., 1991; Scott, 1991). Many people can negotiate the constraints or struggle with them. Within the scope of this proposition of Jackson *et al*. (1993), Jackson and Rucks (1995) examined the strategies for negotiating the constraints of secondary and high school students. They found that the most common strategy used by students for negotiating the constraints is time management ability. Other popular strategies mentioned were gaining new skills for participation, inter-personal relations with people with whom they participate and physical convenience, as well as financial strategies whether occupational or other income sources are provided to enable participation in activities that have some cost.

Subsequently, Hubbard and Mannell (2001) examined how to negotiate leisure constraints in a recreation company environment. They developed the *Leisure Negotiation Strategies Scale*, which is based on the negotiation strategies defined by Jackson and Rucks (1995), in order to question workers in recreation-related companies. The negotiation strategies in this scale were sequenced as skills acquisition, inter-personal coordination and financial resources. It was found that constraints decreased the level of participation in recreational activities and also stimulated greater use of negotiation sources. The results of this study supported the constraint negotiation propositions developed by Jackson *et al*. (1993) and a theoretical model that explains the role of motivation in negotiation. In subsequent years, this scale has been modified by Elkins (2004) to address recreational campus sport and its validity was verified by Beggs *et al*. (2005).

The university years are accepted as a time that has fundamental effects on the lives of individuals. The ability of university students to participate in recreational activities during their leisure time depends on the opportunities available. Many university students cannot

participate in these activities, or cannot participate at the desired level, because of constraints, such as 'facility/service and transportation', 'social environment and lack of knowledge', 'individual psychology', 'lack of friends', 'time' and 'lack of interest'. However, they would be willing to participate if campus life offers them sport programmes and other activities. It has been observed that many students develop strategies to be able to negotiate with these constraints. This concept is very important and would serve as a valuable tool in the lives of individuals (Henderson & Bialeschki, 1993; Samdahl & Jekubovich, 1997; Little, 2000).

PURPOSE OF THE RESEARCH

While many studies related to leisure constraints have been conducted in Turkey, where the concept of leisure negotiation has recently been a popular topic, there is a shortage of studies related to the concept of negotiation strategies. This need motivated the present study. In addition, it is believed that by establishing which strategies university students adopt to negotiate the constraints and participate in recreational sport activities, would serve as a contribution to the leisure literature. Within this scope, the aim of this study was to test the reliability and validity of the Leisure Negotiation Strategies Scale for Turkish university students, who participate in recreational campus sport.

METHODOLOGY

Participants

The population for this study consisted of 4129 university students, who were studying at the 1st year level in 14 faculties, 5 schools, 5 vocational schools and 1 conservatory, and were enrolled in elective physical education courses in the 2011-2012 academic year. The sport presented was basketball, mountaineering, football, body building, folk dancing, table tennis, tennis, volleyball and swimming. Two separate samples were selected from this population. The first group comprised 400 students (mean age=20 years; SD=2; female=105; male=295), and the second group comprised 410 students (mean age=20 years; SD=2; female=126; male=284). An exploratory factor analysis (EFA) was conducted on the data of the first group, and a confirmatory factor analysis (CFA) was conducted on the data of the second group. Another 100 students were then recruited to examine the test-retest reliability of scale scores.

Measurements

Leisure Negotiation Strategies Scale (LNSS)

This study used the negotiation strategies developed by Jackson and Rucks (1995) and the quantitative measures of negotiation established by Hubbard and Mannell (2001) (overall Cronbach's alpha reliability of 0.72), to examine negotiation strategies in a campus recreational sport setting. Elkins (2004) modified the negotiation instrument developed by Hubbard and Mannell (2001), and leisure negotiation was operationalized using Elkins's (2004) Negotiation Strategies Scale. This scale was further validated by Beggs *et al.* (2005). *LNSS* consists of 31 ways that relate to 6 basic negotiation strategies: time management; skill acquisition; inter-personal relations; intra-personal validation; physical fitness; and financial management (Table 1). Cronbach's alpha coefficients indicated strong measures of reliability

with an overall internal consistency of 0.89 and negotiation strategy subscales ranging between 0.85 and 0.91.

TABLE 1. **LEISURE NEGOTIATION STRATEGIES SCALE**

Scales and subscales
Time-management strategies
1. I cut short my activity session
2. I get up earlier or stay up later
3. I try to be better organised
4. I cut short time for work, school, and family
5. I schedule my classes to allow time for me to participate
6. I cut short time for other leisure activities
7. I've altered the time that I would normally participate
8. I choose to participate at times the facilities are not crowded
Skill-acquisition strategies
9. I utilise campus resources to learn what activities are offered
10. I try to learn new skills/activities
11. If I'm not skilled, I swallow my pride and do the best I can
12. If I'm not skilled, I ask for help with the activity
13. I practice so I am better at the activity
Inter-personal relations strategies
14. I participate in activities with people of the same gender
15. I try to find people to participate with
16. I try to find someone to give me a ride
17. I encourage my friends to participate with me
18. I adjust my activity choice based on what my friends want to do
19. I'm willing to participate with people that I don't know
Intra-personal validation strategies
20. I participate in activities that I am good at
21. I purposely participate in activities that are not competitive
22. I try to select activities where I can avoid conflict with others
Physical fitness strategies
23. I try to eat right so I feel like participating
24. I try to sleep more so I feel like participating
25. I try to improve my physical fitness so I can participate
26. I wear proper protective/safety equipment to prevent injury
Financial management
27. I try to budget my money so I can participate
28. I improvise with the equipment/clothes that I have
29. I got a job so I would have money to help me participate
30. I borrow equipment/clothes from others so I can participate
31. I participate in less expensive activities

Source: Beggs *et al.* (2005:147-148)

'Time management' strategies refer to issues related to better planning and organisation of time. 'Skill acquisition' comprises strategies that included learning and practising new skills. Inter-personal relations reflect participation strategies that involve interactions with other

people. 'Intra-personal validation' is the degree to which individuals change their leisure aspirations. 'Physical fitness' strategies refer to issues related to the improvement of fitness and prevention of injury. Finally, 'financial management' strategies involve improvement of financial status in order to participate in leisure activities. The items were measured using a 5-point Likert scale based on the frequency of use of each negotiation strategy (1=never to 5=very often) (Beggs *et al*., 2005).

Language adaptation process

The language adaptation process was done in 5 steps as adapted from Beaton *et al*. (2000). These steps consisted of 1-Translation, 2-Synthesis, 3-Back translation, 4-Expert committee review, and 5-Pre-testing. The translation of the *LNSS* from English to Turkish was carried out by 2 Turkish academics working in the recreation area and having a university education in the English language. These academics had entered language examinations conducted by the Higher Education Council of Turkey and proved to have adequate English language skills. For the synthesis step, the assessment of the translation was performed by 3 different academics from the recreation area and 2 specialists in English linguistics.

After the necessary adjustments, the Turkish translation was translated back into English by 3 different linguistic experts, none of whom had participated in the initial phase of the study. The purpose of the back-translation phase was to check for discrepancies between content and meaning of the original version of the scale and the translated version. After the back-translation an expert committee consisting of 2 different academics from the recreation area and a linguistic expert examined the back-translation and the original version of the scale. For the last step, which is the pre-testing of the scale, a parallel validity test was conducted.

In order to test whether the original English and Turkish forms had parallel test validity, 18 individuals who were academics and graduate students in recreation and sport science completed both forms. In order to eliminate the possible learning effect, the original English and Turkish forms were given respectively with an interval of 2 weeks. There was a significant correlation between the scores obtained from the 2 forms (r=0.92, p<0.05). Furthermore, a paired t-test was applied in order to examine whether the mean score on the Turkish scale differed from that on the original scale. The results showed that the Turkish version was an adequate alternative to the original form (p>0.05).

Procedure

The administration of the schools granted permission to perform the research and students were informed of the purpose of the study and their rights as participants. The scale was administered during elective physical education courses with permission from the lecturer. Prior to the administration of the scale, the participants were informed about the scales and the importance of answering questions honestly was emphasised. The scale took approximately 10 minutes to complete.

Statistical analysis

Validity

Exploratory Factor Analysis (EFA): Responses obtained from the first sample were examined by the EFA using the SPSS version 18.5. EFA aims to discover a factor or factors on the

basis of the inter-variable relations (Tabachnick & Fidell, 2001). A principal components analysis was performed using Kaiser's criterion (eigenvalue >1), followed by a varimax rotation. It was accepted as the criteria that factor loads of the clauses should be at least 0.35 (Field, 2000; Hair *et al*., 2006), and the difference between the item factor loads included in the 2 factors should be at least 0.10 (Tabachnick & Fidell, 2001). The internal consistency of the overall scale and subscales were measured by Cronbach's alpha coefficient.

Confirmatory Factor Analysis: The Confirmatory factor analysis (CFA) was performed on the data from the second sample, using LISREL 8.7 (Jöreskog & Sörbom, 2004), and the model parameters were estimated using maximum likelihood estimation (Tezbaşaran, 1997). The purpose of the CFA is not to identify the number of factors, but to confirm the factor structure of the scale. Consequently, CFA is more of a theory-testing procedure, in which variables can be specified to be loaded onto certain factors and the number of factors is fixed in advance. Whether the measurement model identified in the first sample had an acceptable goodness of fit was evaluated using the following commonly used goodness of fit statistics: Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI), Standardised Root Mean Square Residual (SRMR), Adjusted Goodness of Fit Index (AGFI), Normal Fix Index (NFI), Tucker Lewis Index (TLI) and Comparative Fit Index (CFI) (Kline, 2005).

Reliability

Additionally, the test-retest reliability of scale scores was examined in data from 100 students from the university, who completed the *LNSS* twice with an interval of 2 weeks between tests.

RESULTS

Content validity

In order to test whether the original English form and Turkish form had parallel test validity, 18 individuals who are academics and graduate students in recreation and sport sciences were administered both forms. The possible learning effect was eliminated by applying the original English and Turkish forms respectively with an interval of 2 weeks. The correlation between the scores obtained from the 2 forms was significant ($r=0.92$, $p<0.05$). Also, a paired t-test was used to examine whether there was a difference between the mean scores on the Turkish scale and the original English scale. The results showed that the Turkish version was an adequate alternative to the original form ($p<0.05$). This result supports the conclusion that the Turkish form could be used in place of the original form.

Validity

Exploratory Factor Analysis

First, analyses of sampling adequacy were conducted on the 31 items of the *LNSS* to determine whether it was suitable for factor analysis. Bartlett's test of sphericity indicated a chi-square value of 3500.75 ($p<0.001$), and the Kaiser-Meyer-Olkin measure of sampling adequacy indicated a value of 0.811. When a basic scree-plot test and eigenvalue >1.0 criteria were used, 6 factors were generated from the *LNSS*. It was accepted as the criteria that factor loads of the clauses should be at least 0.35 (Field, 2000; Hair *et al*., 2006), and the difference

between the item factor loads included in the 2 factors should be at least 0.10 (Tabachnick & Fidell, 2001). The 4 items (3, 5, 19, 26), which were not appropriate to our criteria were excluded from the scale. The remaining 27 items were subjected to a new principal components analysis with varimax rotation. The scree plot suggested that 6 factors should be extracted (Figure 1), which explained 53.86% of the variance (Table 2). According to the Pett *et al.* study of 2003 and the Hair *et al.* study of 1995 (cited in Williams *et al.*, 2010) in humanity studies, the explained variance is commonly as low as 50-60%.
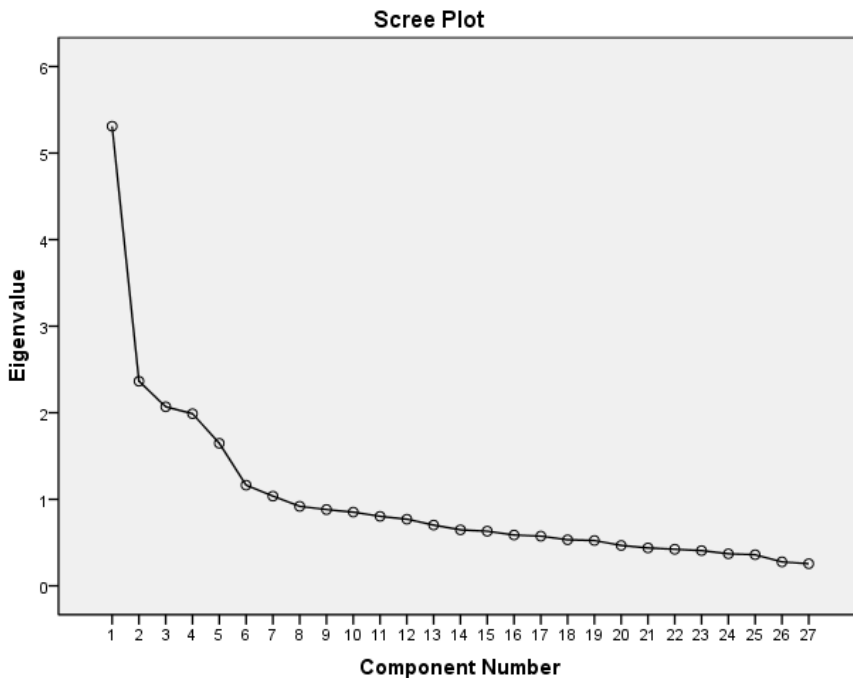
FIGURE 1.   **SCREE PLOT OF EXPLORATORY FACTOR ANALYSIS**

Factor 1 (5 items) accounted for 13.33% of the variance and measured 'Skill-acquisition strategies.' Factor 2 (6 items) accounted for 9.24% of the variance and measured 'Time-management strategies.' Factor 3 (5 items) accounted for 8.54% of the variance and measured 'Inter-personal relations.' Factor 4 (5 items) accounted for 8.50% of the variance and measured 'Financial management.' Factor 5 (3 items) accounted for 7.14% of the variance and measured 'Intra-personal validation strategies.' Factor 6 (3 items) accounted for 7.09% of the variance and measured 'Physical fitness strategies.

TABLE 2. **EFA (VARIMAX ROTATION) OF LNSS ITEMS (n=400)**

Scale	Factor Loading	Variance	α
Time-management strategies (Factor 2)		9.245	0.703
1. I cut short my activity session	0.674		
2. I get up earlier or stay up later	0.575		
4. I cut short time for work, school, and family	0.673		
6. I cut short time for other leisure activities	0.660		
7. I've altered the time that I would normally participate	0.674		
8. I choose to participate at times the facilities are not crowded	0.513		
Skill-acquisition strategies (Factor 2)		13.334	
9. I utilise campus resources to learn what activities are offered	0.609		
10. I try to learn new skills/activities	0.705		
11. If I'm not skilled, I swallow my pride and do the best I can	0.673		
12. If I'm not skilled, I ask for help with the activity	0.749		
13. I practice so I am better at the activity	0.635		
Inter-personal relations strategies (Factor 3)		8.545	0.729
14. I participate in activities with people of the same gender	0.675		
15. I try to find people to participate with	0.591		
16. I try to find someone to give me a ride	0.745		
17. I encourage my friends to participate with me	0.612		
18. I adjust my activity choice based on what my friends want to do	0.717		
Intra-personal validation strategies (Factor 5)		7.147	0.727
20. I participate in activities that I am good at	0.668		
21. I purposely participate in activities that are not competitive	0.839		
22. I try to select activities where I can avoid conflict with others	0.797		
Physical fitness strategies (Factor 6)		7.092	0.700
23. I try to eat right so I feel like participating	0.758		
24. I try to sleep more so I feel like participating	0.721		
25. I try to improve my physical fitness so I can participate	0.694		
Financial management (Factor 4)		8.500	0.716
27. I try to budget my money so I can participate	0.539		
28. I improvise with the equipment/clothes that I have	0.602		
29. I got a job so I would have money to help me participate	0.604		
30. I borrow equipment/clothes from others so I can participate	0.741		
31. I participate in less expensive activities	0.722		
TOTAL		**53. 863**	**0.813**

The reliabilities of the *LNSS* sub-scales were assessed by Cronbach's alpha coefficient and the item-total correlations from each dimension. In this case, for Cronbach's alpha coefficients, acceptable criteria were ≥0.70 (Nunnally & Bernstein, 1994).

Confirmatory Factor Analysis

The *LNSS* was tested with first order CFA and second order CFA analyses, using the sub-factor structure determined by the EFA. In the first order CFA, to evaluate the absolute fit, χ^2 (minimum fit function test), RMSEA, GFI, and SRMR were used. The AGFI, NFI, TLI and CFI were used as incremental fit measures. The χ^2 statistic is generally significant in large samples (Byrne, 1989). For this reason, rather than only using χ^2 values, a ratio of the

calculated χ^2 to the degrees of freedom was recommended. It is desirable that this ratio (χ^2/df) is below 5 (Klem, 2000; Sumer, 2000). The results showed that χ^2 values were significant (χ^2=947.71, df=309, χ^2/df=3.06, p<0.000). High values were found for the fit indexes TLI (0.90) and CFI (0.92), indicating a good fit. In addition, it is desirable for RMSEA (0.071) and SRMR (0.071) values to be lower than 0.08 (Anderson & Gerbing, 1988; Hu & Bentler, 1999; Sumer, 2000; Schermelleh-Engel *et al*., 2003; Hooper *et al*., 2008). GFI, AGFI and NFI values higher than 0.90 in fix indexes show a good fit (Marsh & Hocevar, 1988), but the 0.85-0.90 range for GFI, AGFI and NFI value higher than 0.80 shows the existence of an acceptable fit (Marsh *et al*., 1988). GFI (0.85), AGFI (0.82) and NFI (0.87) were found in this research. The values determined in this study complied with these criteria.

TABLE 3. **CFA MAXIMUM LIKELIHOOD ESTIMATES OF FIRST ORDER**

Item no.	Factor loading estimates*	t-Values	Estimated error variances
1	0.63	10.45	0.65
2	0.56	8.39	0.77
4	0.49	8.02	0.79
6	0.52	9.10	0.73
7	0.50	8.58	0.76
8	0.47	6.93	0.84
9	0.63	11.56	0.68
10	0.83	17.93	0.36
11	0.81	14.34	0.54
12	0.74	14.83	0.52
13	0.67	13.15	0.60
14	0.35	6.01	0.90
15	0.65	14.56	0.51
16	0.52	9.04	0.78
17	0.78	16.89	0.37
18	0.53	9.48	0.76
20	0.71	12.65	0.55
21	0.74	12.36	0.57
22	0.73	12.32	0.57
23	0.79	13.64	0.51
24	0.60	9.86	0.73
25	0.74	14.24	0.47
27	0.83	17.69	0.37
28	0.80	19.17	0.29
29	0.64	10.91	0.71
30	0.38	6.21	0.90
31	0.46	8.50	0.81

*Factor loading estimates are not standardised.   (n=410)

According to the CFA in Table 3, the factor loadings (k) changed between 0.25 and 0.81. The absolute value is preferred to be higher than 0.10. If the value is less than 0.10, it denotes a 'small effect'; if around 0.30 it denotes a 'medium effect'; and if higher than 0.50 it denotes a 'large effect' (Kline, 2005). Factor loadings generally had a large effect in this study. Also, the t-values of all items were significant. The estimated item-factor loadings, estimated error variances and t-values are shown in Table 3.
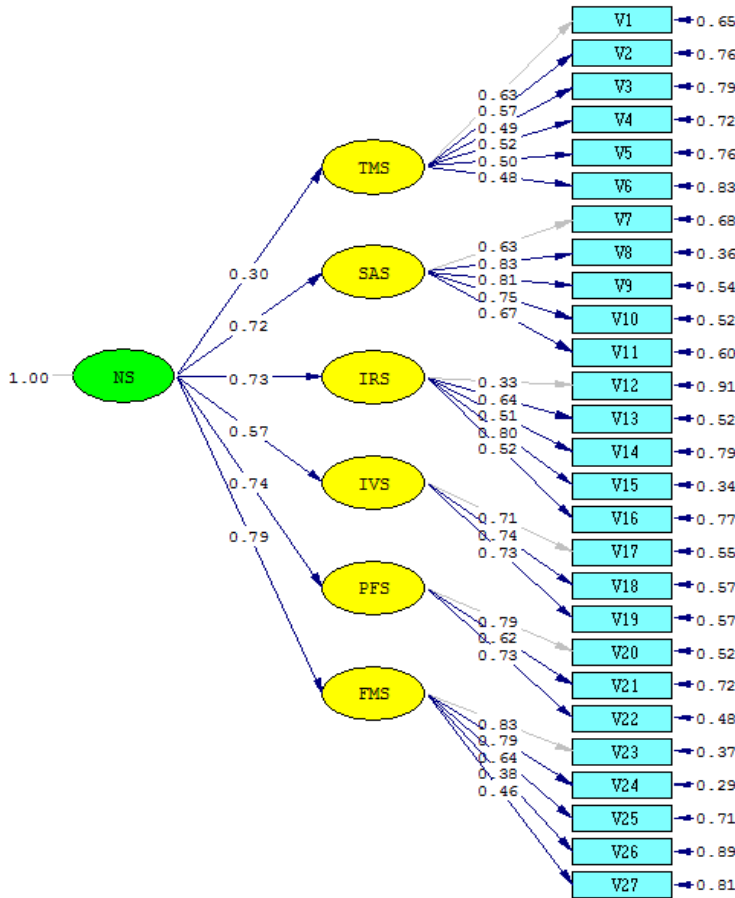
FIGURE 2.   **SIX-FACTOR MODEL OF LEISURE NEGOTIATION SCALE SCORES**

Significant χ^2 values were also found in the second analysis (χ^2=992.00, df=318, χ^2/df=3.11, p<0.000). High values were found for the fit indexes GFI (0.85), AGFI (0.82), NFI (0.87), indicating an acceptable fit and TLI (0.90), CFI (0.91), indicating a good fit, and the values of RMSEA (0.072) and SRMR (0.074) were below 0.08. These values show that the 6-factor structure of the scale gives acceptable and valid results. The scores for the factor-scale relationships in the second order CFA are shown in Figure 2.

Reliability

The stability of the scale was established by evaluating test-retest reliability. There was a significant positive correlation between the 2 tests. The 2-week test-retest reliability scores were: 0.83 (time-management strategies); 0.83 (skill-acquisition strategies); 0.80 (inter-

personal relations); 0.89 (intra-personal validation); 0.85 (physical fitness strategies); and 0.86 (financial management). There were no significant differences between the mean values for the 2 sessions (p>0.05).

DISCUSSION

The purpose of this study was to examine the validity and reliability of the Turkish version of the *LNSS* for university students.

Jackson *et al.* (1993) classified leisure negotiation strategies as cognitive and behavioural. Jackson and Rucks (1995) conducted a qualitative study to classify negotiation strategies where negotiation strategies were classified as cognitive and behavioural based on the study of Jackson *et al.* (1993). According to the statistics they derived from their research, Jackson and Rucks (1995) focused on behavioural strategies and classified them under titles: 'Modify time', 'Acquire skills', 'Change inter-personal relations', 'Improve finances', 'Physical therapy', 'Change leisure aspirations', 'Other'. In this study, they recommend that these strategies should be subject to further empirical investigations.

Hubbard and Mannell (2001) tested leisure constraint negotiation models by developing a scale based on the list of strategies derived from Jackson and Rucks' (1995) study and the comments of their own study participants. Structural equation modelling was used in this study to test the different models where the negotiation strategies scale was used. Some of the tested models were validated and the reliability of the negotiation strategies scale was checked. In this study the scale consisted of the subscales, namely 'Time', 'Skill', 'Social' and 'Finances'. By using the current scale and the constructs used, Elkins (2004) developed and adapted all the constructs of the previous studies to campus recreational sport. Besides 'Time management', 'Skill acquisition', Interpersonal relations', 'Intra-personal relations', 'Financial management' strategies mentioned in previous studies, Elkins (2004) added 'Physical fitness' strategies.

A Pearson correlation coefficient of r=0.92 was found in relation to the consistency between the Turkish and English forms of the *LNSS* and there was no significant difference between the mean values on the 2 versions (p>0.05). These findings indicate that the consistency between the 2 versions of the scale is at an acceptable level and language equivalence has been attained. For determining the structural validity and factor structure of the *LNSS*, the EFA and the CFA methods were used. Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity were applied in the first stages of the EFA. A very high value (0.811) was found for KMO, which is well above the value of 0.70 and is the acceptable limit for this test. The result of Bartlett's Test of Sphericity was found to be 3500.75 (p<0.001). This demonstrates that the sample size was sufficient for the application of a factor analysis and the data were appropriately distributed. The 4 items (3, 5, 19, 26) which were not appropriate to our criteria were excluded from the scale. After excluding these items, the scale consisted of 6 sub-factors (time management, skill acquisition strategies, interpersonal relations, intra-personal validation, physical fitness strategies and financial management). All items had high loadings on their respective factor, consistent with the original form. The 6 factors explained 53.86% of the total variance. According to the humanity studies of Pett *et al.* in 2003 and Hair *et al.* in 1995 (cited in Williams *et al.*, 2012), the explained variance is commonly as low as 50-

60%. The validity of the 27-item, 6-factor structure of the *LNSS* was first determined by the EFA, followed by first-order and second-order CFA related to the one-dimensionality of the scale that was applied.

Cronbach's alpha coefficient for the reliability of the *LNSS* was ≥0.70 for all sub-factors (Nunnally& Bernstein, 1994), and the test-retest correlations conducted within a 2-week interval were high, indicating reliability of the scale. The results of the validity and reliability analyses on the data from 810 students have shown that the *LNSS*, which has 6 factors consisting of 27 items, is a reliable and valid instrument for measuring the negotiation strategies of university students towards recreational sport on campus.

CONCLUSION

In conclusion, the results of this study demonstrated that the Turkish version of the scale is a valid and reliable instrument for university students.

LIMITATIONS AND FUTURE RESEARCH

The most important limitation of this study was that the data were derived from only the Akdeniz University. The instrument was applied to a convenient sample of students in order to prevent the limitation of generalizability of the results. Nevertheless, the students in the Akdeniz University were selected from physical education and fine arts courses alternatively every term. Hence, the results obtained from this group could be generalised to other university students on the campus or other university students.

The second limitation of the study was that the scale was originally developed in the English language. So, it is recommended that future studies should develop an original scale in the Turkish language rather than adapting an existing instrument. However, this study is considered to be the first step in this direction.

In order to further examine the validity of the scale, future studies could examine its correlation with other scales, and determine the validity and reliability of the scale for the other groups (academic personnel) participating in recreational sport on campus. Using this scale could make significant contributions to the measurement power. Future studies based on conducting the same adaptation procedures in order to make intercultural comparisons would make a valuable contribution to the studies of leisure. For Turkish academics the development of a new *LNSS* in Turkish and making a parallel test validation of the scale with the original *LNSS* might be a good challenge.

Acknowledgment

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