Journal of Physical Education and Sport ® (JPES), Vol. 23 (issue 4), Art 118, pp. 944 - 949, April 2023
online ISSN: 2247 - 806X; p-ISSN: 2247 – 8051; ISSN - L = 2247 - 8051 © JPES

Original Article

The perceived organizational leisure support scale (POLSS): A turkish validity and reliability study

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Published online: April 30, 2023
(Accepted for publication April 15, 2023)
DOI:10.7752/jpes.2023.04118

Abstract:
This study aimed to adapt the "Perceived Organizational Leisure Support Scale" developed by Lien and Cheng in 2022 to the Turkish language and Turkish culture and to test its validity and reliability. Leisure Time Support Scale (LTSS) is basic research since it is a Turkish validity and reliability study. In the study, quantitative research, a general survey model was applied. The study population consisted of individuals over the age of 18 working in public institutions and private enterprises in Istanbul. The sample consisted of (n=286) volunteer participants working in institutions and enterprises, determined by the appropriate sampling methods. As a data collection method, a survey technique was applied and data were collected online and voluntarily. The original form of the "Perceived Organizational Leisure Support Scale" consisted of 4 sub-dimensions and 14 items. To adapt the scale to the Turkish language and Turkish culture, the language validity of the scale was ensured by using the translation-back translation method. SPSS 20 and LISREL 8.80 statistical package programmers were used for data analysis. The construct validity of the 14 items with 4 factors in the original form of the scale was examined by confirmatory factor analysis (CFA). Cronbach's Alpha internal consistency coefficients were calculated to test the reliability level of the scale. Cronbach's Alpha internal consistency coefficient and item-total correlations were calculated to test the reliability of the Turkish version of the scale. Moreover, the most frequently used goodness of fit indices in the studies in the literature was explained. According to the obtained results, it was determined that the Perceived Organizational Leisure Support Scale (POLSS), which consisted of 14 items and 4 sub-dimensions, is a valid and reliable scale in the Turkish language and culture. It was determined that the adapted scale is an appropriate measurement tool for determining the perceived organizational leisure time support of individuals over the age of 18 working in public institutions and private businesses who regularly participate in recreational activities.
Key Words: **Leisure, Support, Institution and business, Validity and reliability**

Introduction

It is a well-known fact that there are conscious public institutions and private businesses in our country that have an institutional identity and show the necessary sensitivity to their employees and increase their work efficiency. Not only to provide financial comfort but also to give employees the necessary value, both morally and mentally is essential. Some values cannot be compensated with money. To better understand these values, it is important to know what the concept of time is first.

Time is a continuous process in which events follow each other from the past to the present and into the future, and it is the basic element which gives meaning to actions. In other words, time is the duration of action. Time is an important value that flows at a constant speed in an irrepressible way and is equally owned by all individuals (Akatay, 2003). It is the time needed or elapsed to perform a certain task (Güven & Yeşil, 2011). All these definitions explain time in every aspect. It is known that the time that individuals will dedicate to themselves as a result of their compulsory and strenuous work is important. In this case, the importance of leisure is highlighted. With industrialization, the time that individuals will allocate to leisure activities has increased and it has been explained that steps should be taken to support individuals at this point to participate (Ma et al., 2012; Chan et al., 2018; Ito et al, 2020). Therefore, the importance of the phenomenon of leisure is understood.

While the main objectives of all public institutions and private enterprises are to make a profit and serve society in general, they also have special objectives such as providing a suitable work environment for their employees, long-term growth, providing qualified goods and services to customers, and existing in the future. Providing a suitable working environment for its employees, which is one of its special objectives, is considered to be important for the employee to provide satisfaction for both his/her job and career (Taylan-Soydan, 2021). In addition to providing a suitable working environment for employees, it is thought that giving importance to leisure time and supporting the activities they will participate in during this period can make employees feel physically, mentally and socially well and develop. In the context of all this information, the fact that individuals

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receive leisure support from the institutions and organizations they work for will enable them to act more freely in their participation in leisure and thus to be happy and peaceful as well as to be regenerated. It can be said that a happy, peaceful and regenerated employee will reveal a more willing and more dynamic work efficiency with the support of the institution and organization to which he/she belongs. From this point of view, this study aimed to adapt a measurement tool that can be used to determine the perceived corporate leisure support of individuals over the age of 18 working in public institutions and private enterprises who regularly participate in recreational activities to Turkish culture.

Material & methods

Research Model

In this study, it was aimed to adapt the "Perceived Organizational Leisure Support Scale" developed by Lien and Cheng in 2022 to the Turkish language and Turkish culture, and to test its validity and reliability to determine the perceived organizational leisure support of employees working in public institutions and private enterprises. The study was conducted according to the general survey model due to the quantitative evaluation of the data collected from the participants. The survey model is "a research model that aims to describe a past or present situation as it exists, and tries to define the individual, event or object of the research subject as its conditions" (Karasar, 2008). The survey technique was applied as the data collection method and the data were collected online voluntarily. This study was obtained from Istanbul Gelişim University Ethics Committee (ethics committee permission).

Universe and Sample

The study population consisted of public institutions and private businesses in Istanbul. The sampling method to be used is the convenient sampling method, which is expressed as collecting data from a sample that the researcher can easily reach (Büyüköztürk, 2018). The study sample consisted of 132 female and 154 male volunteer participants over the age of 18 (n=286) who work in public institutions and private businesses. In scale validity and reliability studies, it was stated that the sample size should be five times the number of items or observed variables recommended for the use of the factor analysis technique in the study group (Child, 2006). According to Kline (1994), the item (variable) ratio for the sample size should be (10: 1). In validity and reliability studies, it was recommended that the ratio of the number of samples to the number of items should be higher than 5 (Aksu, Eser, & Güzeller, 2017). In this context, there were 14 items in the Perceived Organizational Leisure Support Scale. Therefore, the sample size taken from the population was determined as (n: 286).

Data Collection Tool

Perceived Organizational Leisure Support Scale, developed by Lien and Cheng (2022) to determine the leisure time support status of individuals, is a measurement tool consisting of 4 sub-dimensions and 14 items. The original form of the scale consisted of a total of 4 sub-dimensions and 14 items, as (A) Instrumental Leisure Support (items 1.-2.-3.-4.-5), (B) Time-Based Leisure Support (items 6.-7.-8), (C) Incentive Leisure Support (items 9.-10.-11) and (D) Community-Based Leisure Support (items 12.-13.-14). This measurement tool had a 7-point Likert type as Strongly Disagree (1), Usually Disagree (2), Disagree (3), Undecided (4), Agree (5), Usually Agree (6) and Strongly Agree (7).

To perform the adaptation study of the Perceived Organizational Leisure Support Scale (POLSS) to the Turkish language and Turkish culture, the recommendations that were frequently used in the literature and that should be considered in cross-cultural scale adaptation studies recommended by Hambleton and Patsula (1999) were considered (Gürbüz, et al., 2018). Before starting the study, permission was obtained from the scale authors for Turkish adaptation. The translation and back-translation method was used to create the Turkish form of the items in the scale. At this stage, the items in the English form of the scale were translated into Turkish by three academicians who are proficient in English language. These Turkish forms were then evaluated separately by three experts who specialized in scale adaptation and had very good English language skills, and they were asked to mark the most appropriate of these statements. As a result, the Turkish form was translated back into English by another expert with a high level of English language skills, and the agreement between the original English form and the Turkish form was determined (Koç, 2022). Finally, the comprehensibility of the scale expressions was reviewed by piloting the Turkish form, and the final form of the Turkish form (POLSS) that can be used in the Turkish literature was given by the researchers.

Data Analysis

SPSS 20 and LISREL 8.80 statistical package programmers were used for the analysis of the obtained data. The construct validity of the 14 items with 4 factors in the original form was analyzed by confirmatory factor analysis (CFA). Confirmatory Factor Analysis (CFA) is a type of structural equation model (SEM) that can measure the relationship between observed variables and latent variables (Brown, 2006). Cronbach's Alpha internal consistency coefficients were calculated to test the reliability level of the scale. Cronbach's Alpha internal consistency coefficient and item total correlations were calculated to test the reliability of the Turkish version of the scale. Besides, the most frequently used goodness of fit indices in the studies in the literature were explained.

Table 1. Skewness and kurtosis values of scale questions and kolmogorov-smirnov test significance level results

	Skewness	Kurtosis	P
Item 1	-,568	-,260	,000
Item 2	-,545	-,302	,000
Item 3	-,764	-,987	,000
Item 4	-,569	-1.030	,000
Item 5	-,750	-,987	,000
Item 6	-,702	-1,091	,000
Item 7	-,586	-1,320	,000
Item 8	-,530	-1,046	,000
Item 9	-,672	-1,139	,000
Item 10	-,536	-1,045	,000
Item 11	-,503	-1,024	,000
Item 12	-,837	-,971	,000
Item 13	-1,041	-,532	,000
Item 14	-1,074	-,483	,000

N=286

When the Kolmogrov Smirnov test results were analysed, it was seen that deviations from normality in the scale questions were at significant levels. Kolmogrov Smirnov test was only one of the methods used to evaluate normality. It was determined that there were no excessive deviations in the normal distribution curves, and when the skewness and kurtosis coefficients were considered, all scores were within the range of ±1.5. Moreover, Büyüköztürk (2018) stated that these values were within the range of ±1. Tabachnick and Fidell (2013) stated that if the skewness kurtosis coefficients were between ±1.5, the data showed a normal distribution. It was determined that the skewness and kurtosis values of the scores were within the range of ±1/ ±1.5 and there were no excessive deviations in the normal distribution curves, and the data showed a normal distribution. In this context, it was decided to apply confirmatory factor analyses (CFA) to the scale.

Results

Table 2. Factor loadings and t values of POLSS

Scale Items		Factor Loadings	t Value
Instrumental leisure support	1 My company values the provision of allowances for leisure activities.	0.64	11.17
	2. My company values the connection between performance and leisure allowance as a reward.	0.62	10.61
	3. My company values the provision of leisure sports venues and equipment (e.g.,basketball courts, swimming pools, and strength training equipment) in the work environment.	0.57	9.63
	4. My company values the provision of leisure sports courses (e.g., yoga classes) in the work environment.	0.63	10.82
	5. My company provides massage services (e.g., massage chairs and blind massage) in the work environment.	0.65	11.22
Time-based leisure support	6. I can adjust my work schedule according to my leisure needs.	0.59	9.86
	7. I am free to schedule my time for leisure activities at work.	0.64	10.87
	8. My company has a comprehensive leisure vacation policy in place.	0.56	9.31
Incentive leisure support	9. My company provides leisure reward systems according to our performance.	0.76	14.01
	10. My company holds competitive leisure sports matches to encourage employee participation in leisure activities.	0.65	11.56
	11. My company values reward travel for employees.	0.66	11.79
Community-based leisure support	12. My company values the provision of assistance in establishing leisure clubs.	0.66	10.68
	13. My company values the planning of community-based leisure activities (e.g., family days and sports days).	0.60	9.56
	14. My company values charity leisure activities (e.g., beach clean-up).	0.58	9.12

When Table 2 was examined, it was seen that the factor loadings of the sub-dimensions in the Turkish form of the Perceived Organizational Leisure Support Scale (POLSS) ranged between 0.57-0.65 for the "Instrumental Leisure Support" sub-dimension, 0.56-0.64 for the "Time-Based Leisure Support" sub-dimension, 0.65-0.76 for the " Incentive Leisure Support" sub-dimension and 0.58-0.66 for the "Community-Based Leisure Support" sub-dimension. Parameter estimates were significant at the 0.05 level if t values exceed 1.96. In analyses conducted following the structural equation model, non-significant t values should be excluded from the analysis (Çokluk, Şekercioğlu, & Büyüköztürk, 2012). When the t values of the items were analysed, it was found that each of them was greater than 1.960 at $p<0.05$ significance level.

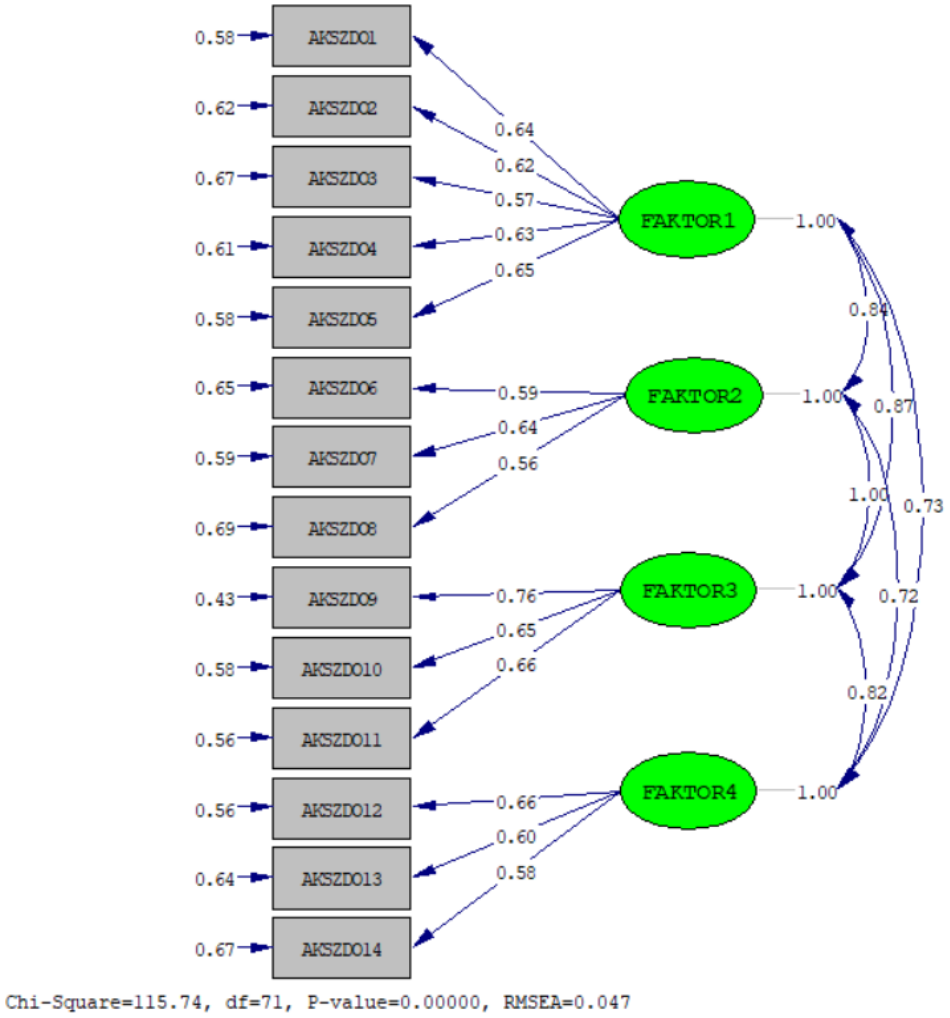

Fig. 1. Path diagram of confirmatory factor analysis of POLSS

In Figure 1, the value of χ2/sd, one of the fit indices of the model, was found to be 1.63. The Chi-Square (Chi-Sguare)/degree of freedom ratio (df) below 3 in CFA corresponds to perfect fit and below 5 corresponds to moderate fit (Kline, 2005; Şimşek, 2007; Sümer, 2000). In this direction, it was determined that the χ2/sd ratio gave an perfect fit for the analysis performed.

Table 3. Model-data fit values of the POLSS

NFI	NNFI	IFI	RFI	CFI	GFI	AGFI	RMR
0.96	0,98	0,99	0,95	0,99	0,95	0,92	0,04
X^2/df=1,63	**RMSEA**=0,047						

Among the fit indices, the NFI value was 0,96, the NNFI value was 0,98, the IFI value was 0,99, the RFI value was 0,95, the CFI value was 0,99, the GFI value was 0,95, the AGFI value was 0,92, the X2/df value was 1,63, and the RMR value was 0,047. The RMSEA value of less than 0,05 indicates a perfect fit and less than 0,08 indicates a good fit (Çokluk et al. 2012). It was determined that a perfect fit was achieved with an RMSEA value of 0,047.

Table 4. The correlations and internal consistency coefficients between the sub-dimensions of the POLSS

		Instrumental Leisure Support	Time-Based Leisure Support	Incentive Leisure Support	Community Based Leisure Support
Instrumental Leisure Support	**r**	1			
	p	-			
Time-Based Leisure Support	**r**	,621**	1		
	p	,000	-		
Incentive Leisure Support	**r**	,667**	,678**	1	
	p	,000	,000	-	
Community Based Leisure Support	**r**	,641**	,592**	,607**	1
	p	,000	,000	,000	-

**p<,050; **p<,001*

Table 4 showed the correlation values between the sub-dimensions of the POLSS. According to the obtained data, it was determined that there were positive, medium and high-level relationships between the sub-dimensions.

Table 5. Reliability of the items in the explained dimensions of the scale

Instrumental Leisure Support		**Time-Based Leisure Support**		**Incentive Leisure Support**		**Community Based Leisure Support**	
Cronbach's Alpha	Item number	Cronbach's Alpha	Item number	Cronbach's Alpha	Item number	Cronbach's Alpha	Item number
,775	5	,740	3	,757	3	,767	3

The reliability test was applied for the factor analysis applied to test the reliability of the items in the explained dimensions of the scale. As a result of the test, the "Cronbach's Alpha" value of the items in the first dimension of the scale was 0,775, the "Cronbach's Alpha" value in the second dimension was 0,740, the "Cronbach's Alpha" value in the third dimension was 0,757, and the "Cronbach's Alpha" value in the fourth dimension was 0,767. The internal consistency coefficient was analysed for scale reliability studies. A high Cronbach's Alpha coefficient is an important indicator for validity, as well as showing that the sample is homogeneous within and the scale items are compatible with each other (Tavşancıl, 2014). The internal consistency coefficient can be interpreted as "not reliable" if it is below 0,40, low reliability if it is between 0,40-0,59, reliable between 0,60-0,79, and high reliability if it is between 0,80-1,00" (Özdamar, 2016). The internal consistency coefficients of the sub-dimensions of the scale were found to be reliable.

Discussion

This study aimed to test the validity and reliability of the "Perceived Organizational Leisure Support Scale" developed by Lien, and Cheng, (2022) to adapt the scale to the Turkish language and Turkish culture. Necessary permissions were obtained from the researchers who developed the scale for the adaptation of the scale to Turkish culture.

The factor loadings of the sub-dimensions in the Turkish form of the Perceived Organizational Leisure Support Scale (POLSS) ranged between 0,57-0,65 for the "Instrumental Leisure Support" sub-dimension, 0,56-0,64 for the "Time-Based Leisure Support" sub-dimension, 0,65-0,76 for the "Incentive Leisure Support" sub-dimension, and 0,58-0,66 for the "Community-Based Leisure Support" sub-dimension. In the classification performed by Tabachnick and Fidell (1995), it was stated that factor loadings higher than 0.71 were perfect, between 0.63 and 0.71 were very good, between 0.55 and 0.63 were good and between 0.55 and 0.45 were appropriate. In this context, it was seen that the factor loadings in this study were perfect, very good and good. Besides, when the t values of the items were examined, it was determined that each of them was higher than 1,960 at the $p<0.05$ significance level. It was understood that it was in parallel with the scale developed by Lien, and Cheng, (2022).

The CFA results, which were conducted to confirm the factor structure of the original scale, which had four factors (sub-dimensions) and a total of 14 items, showed that the four-dimension and 14-item structure of the scale was confirmed. Confirmatory Factor Analysis was a validity tool used especially in the adaptation of measurement tools developed in other cultures and samples (Seçer, 2015).

The value of $\chi 2/sd$, one of the fit indices of the model, was found to be 1,63. The Chi-Square (Chi-Sguare)/degree of freedom ratio (df) in CFA below 3 corresponds to perfect fit and below 5 corresponds to moderate fit (Kline, 2005; Şimşek, 2007; Sümer, 2000). In this direction, it was seen that the $\chi 2/sd$ ratio was 1,63 for the analysis performed in this direction. RMSEA value of less than 0.05 indicates an excellent fit and less than 0.08 indicates a good fit (Çokluk et al. 2012). The RMSEA value showed a perfect fit with a level of 0,047. Thus, it was determined that the 14-item and 4-factor structure of the scale was confirmed as a model. When compared with the standard fit criteria ($0 \leq \chi 2 /sd \leq 2$) that should be looked at as a result of confirmatory factor analysis specified by Schermelleh-Engel and Moosbrugger (2003) in their study, it was seen that the overall fit values were in the " perfect fit values" group. One of the Confirmatory Factor Analysis indices of NFI value was detected as 0,96, NNFI value was 0,98, IFI value was 0,99, RFI value was 0,95, CFI value was 0,99, GFI value was 0,95, AGFI value 0.92, X2/df value was 1,63 and RMR value was 0,04. RMSEA value of less than 0,05 indicates a perfect fit and an RMSEA value of less than 0,08 indicates a good fit (Çokluk et al., 2012). It was determined that an excellent fit was achieved with an RMSEA value of 0,047. The RMSEA value of the scale developed by Lien, and Cheng (2022) was expressed as 0,052. It was seen that the adapted scale had a good fit that supported the original.

The correlation values between the sub-dimensions of the POLSS were analysed. According to the obtained data, a moderate and high level of positive correlation was detected between the sub-dimensions. Cronbach's Alpha coefficient of the scale sub-dimensions was calculated between 0,740-0,775. The Cronbach's alpha coefficients calculated for the reliability of the scale were between the values of 0,60-0,90, which was stated as highly reliable by Alpar (2006). Lien and Cheng (2022) stated that the correlation coefficient values between the sub-dimensions of the scale developed by Lien and Cheng (2022) showed a significant relationship and had a valid and good level of prediction.

Conclusions

As a result, it was determined that the "Perceived Organizational Leisure Support Scale" developed by Lien and Cheng in 2022 was a measurement tool suitable for Turkish culture. The Perceived Organizational Leisure Support Scale consisted of 4 sub-dimensions and 14 items. It was determined that the Perceived Organizational Leisure Support Scale was a valid and reliable scale in the Turkish language and culture, and it was an appropriate measurement tool for determining the perceived Organizational leisure support of individuals over the age of 18 working in public institutions and private businesses who regularly participate in recreational activities. **Conflicts of interest.** The authors declare no conflict of interest.

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