



Paternalistic Leadership Scale Turkish Adaptation a Validity – Reliability Study

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Abstract: The first step towards discussing a phenomenon or a concept in depth and with powerful scientific principles and methodology is to develop, adapt and utilize tools that accurately measure and discover the problem. For this purpose, the present study concentrated on paternalistic leadership, which is a new concept in the field of management, and reliability and validity studies on the scale (PLS) that was used to assess paternalistic leadership by Cheng et al. (2004) were conducted to add the scale to the national literature. The study was conducted on the data collected from 326 (EFA) + 255 (CFA) research assistants to determine the validity of the scale. In a determination of the reliability of the scale, item-total point correlations and Cronbach's Alpha internal consistency coefficient were used. In order to determine how the scale works in different cultural and qualitative samples, the adaptation version was discussed by comparing with the previous factor analysis studies of the PLS. The analysis showed that adaptation version of the PLS, with the structure of its 3 sub-dimensional and 23-items, will able to be used in studies aiming to determine the characteristics of paternalistic leadership in the organizational structure and management processes of universities for the researchers working in the field of higher education.

Keywords: *Paternalistic leadership, paternalistic leadership scale, research assistants, scale development.*

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Introduction

Theoretical and applied research on management and organization are focused on the actor that operates and maintains the structure based on the needs and expectations of efficient, productive and sustainable strategic development required today; the leader. However, several definitions, types and attributes of leadership have been debated in the past, and the novel conceptualizations of leadership emerge every day. The consensus on definitions, approaches and research about leadership is based on its conceptualization and determinant nature of cultural context and codes in its explanation. One of the leadership concepts that determine an organizational and administrative behaviour of societies and institutions related to cultural codes is the concept of "paternalistic leadership." It is known that the word "pater" in Latin denotes powerful discipline, authoritarian principles and practices, display of fatherly affection when leading individuals, and making the employees a member of a broad family (Cheng, et al., 2004; Mussolin & Calabro, 2014; Wu, Huang & Chan 2012). One of the distinguishing features of paternalistic leadership, perhaps the most significant one, is its geographical and cultural dimension, and in the literature, it was stressed that paternalistic administration is more common in eastern societies (Aycaan & Kanungo, 2000; Cheng, et al., 2004; Erben, 2004; Gelfand, Erez & Aycaan, 2007; Chen & Kao, 2009; Pellegrini, Scandura & Jayaraman, 2010; Cheng, et al., 2014; Zhang, Huai & Xie, 2015). On the other hand, there are also studies that considered paternalistic approach as an effective management tool and strategy, since it prioritizes collectivist values, strengthens the sense of responsibility, and facilitates intimate communications and loyalty (Hofstede, 2001).

Paternalistic administration and leadership could be perceived as a desirable or problematic approach based on the field of study and cultural, social, and political characteristics of the participants. Paternalistic leadership indicates a collectivist social structure and an extremely powerful patriarchal leader (Yeh, Chi & Chiou, 2008; Cerit, 2013) and in paternalistic relations, subordinates respond to the benevolent care and protection of the leader with loyalty, sense of belonging and compliance (Pellegrini, Scandura & Jayaraman, 2010). Collectivist cultures could perceive paternalistic administration as a positive factor. Patronage, protection, support, close attention and personal relations could shape individuals' expectations from social life accordingly. In other words, in a structure where loyalty and dedication are expected, paternalism could create an effective leadership field. Inequality is inherent in all societies. However,

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sociological, cultural, and political perceptions about inequality, and efforts and strategies to reduce inequality might differ. Power distance could be considered as the inequality resulting from power relations in social and organizational structures. It is assumed that the power distance would increase where the effect of the paternalistic culture and management perception is high. Turkey is one of the collective societies with a high-power distance (Hofstede, 2001). Recent cross-cultural studies indicated that management and organizations with paternalistic practices were more prominent in China, Pakistan, India, Turkey and the US when compared to countries like Canada and Germany (Aycan & Kanungo, 2000; Pellegrini & Scandura, 2008). On the other hand, in western management literature, paternalism is perceived as a negative attribute and synonymous with authoritarianism.

Paternalistic leadership could be considered as an approach that could be associated with the concept of patriarchy. Main indicators of paternalistic leadership are centrist administration, effective informal organization replacing the formal organizational structure, establishment of organizational unity and integrity, reputation and importance, protection of domination, political manipulation, patronage, conflict resolution, social and administrative power distance (Cheng et al., 2004). It is expected of the paternal manager to form administrative behaviour based on the communicative and emotive expectations and needs of the employees. Thus, in exchange for the protection of the needs of employees such as close attention, acknowledgement and respect, employees should submit their loyalty to the leader based on the mutual psychological corporate contract. This contract between the manager and the employee, in a way, refers to the authoritarian relationship between a father and a son and the position of the father in a family. Here, "the father figure" is an actor, who knows the best for his employees and makes decisions in their benefit (Sagie & Aycan, 2003). Paternalism inherits its socio-political characteristics from the order of patriarchal, feudal relations. Paternalism is usually encountered in family and organization structures with a feudal and patriarchal order (Koksal, 2011a). Employee characteristics that rely on the effect and power of the leader and prefer to voluntarily surrender their support in the leader's field of action and power and facilitate the establishment of the paternalistic culture in the organization. This leadership style could easily adopt similar social and cultural norms due to the power distance it creates. It describes a structure and understanding where administrative quality and authority have acquiesced to authorities that were given protection legitimacy (Aycan & Kanungo, 2000; Aycan, 2001; Erben, 2004). However, paternalistic relations in the organizational structure indicate a more complex sum of relations beyond the visible ones. A climate where social and cultural capital are decisive is also prevalent in paternalistic relations.

In traditional societies where the life is experienced within patriarchal social and cultural codes, an authority of the Father is accepted unconditionally. The hierarchical structure is unquestionable. External supervision and control are prevalent, replacing self-control. Loyalty is a common personality trait. Management by a powerful figure is preferred to autonomy, initiative and decision-making (Farh & Cheng, 2000a; Gelfand et al., 2007; Pellegrini & Scandura, 2008; Yeh et al., 2008; Pellegrini et al., 2010). Furthermore, certain societies approve paternalistic attitudes and administrative approaches, and the same societies expect such relations (Koksal, 2011b). Administrators that protect the interests of their employees, share their thoughts and emotions, are participative, open, and deal with the problems outside the workplace, create a family environment in the firm and form close relations with their employees could be preferred in such an environment (Sendogdu & Erdincelebi, 2014). However, it has been determined by the studies conducted in various samples in Turkey that the paternalistic leadership is a widely observed and highly anticipated leadership approach (Aycan, 2001; Aycan & Kanungo 2000; Erben, 2004; Erben & Guneser, 2008; Schroeder, 2011; Sendogdu & Erdincelebi, 2014).

Paternalism has been studied as a three-dimensional structure including authoritarianism, benevolence and moral leadership dimensions (Cheng et al., 2004). Authoritarianism reflects the authoritarian behaviour of the leader, leader's absolute control over employees and obedience of the subordinates without raising questions. Benevolence is the tendency of the leader to behave for the good and the interest of the employees. The benevolent leader also deals with the employee's personal problems. Moral leadership dimension identifies the qualifications in a leader such as merit, self-discipline and ethics. Leader utilizes his or her power, not only for personal interests but also for the benefit of employees and the whole organization. Cheng et al. (2004) considered paternalistic leadership as a similar approach to patriarchy; they emphasized that the main features of the paternalistic leadership are centralization, lack of effective formal structure, ensuring coherence with organization, didactic leadership, personality, prestige and importance, protection of sovereignty, political manipulation, patronage, favouritism, conflict resolution and social distance. However, the leader's domain of influence and power and such as the characteristics of the employee who trusting in the power of this domain and prefer to self-surrender to this influence and power is determinant on the inveteracy of the paternalistic culture.

There are studies in the literature that define paternalistic leadership with different variables. Studies that measured the relationship between paternalistic leadership and various variables or its effects could be exemplified with studies on organizational justice (Koksal 2011b), favouritism (Erden, 2014), learned strength, leave of employment, loyalty expectation (Turesin, 2012), and workplace bullying (Shahbazi et al., 2013). In a study by Pellegrini and Scandura (2008), those who applied the paternalistic leadership and the relational research model between different variables were extensively compiled: Studies by Farh and Cheng (2000a, 2000b) and Aycan and Kanungo (2000) found positive correlations between paternalistic leadership, job satisfaction, organizational commitment, and organizational loyalty. Cheng, Huang, and Chau (2003) concluded that job satisfaction, taking responsibility in teamwork, and increased

performance was significantly related to paternalism. Cheng et al. (2004) found that the effects of paternalistic leadership were related to organizational citizenship behaviour, recognition, adaptation and gratitude.

Pellegrini and Scandura (2008) also explored the paternalistic leadership in the cultural context of Turkey, India and North America and found that the paternalistic leadership traits have a positive effect on student behaviour. The findings in a study that related the authoritarianism dimension of paternalism with workplace bullying were interesting (Soylu, 2011). Rehman and Afsar (2012), reported that paternalistic leadership influenced organizational citizenship behaviour and employee loyalty positively. Furthermore, certain studies reported that employees adopted paternalism for their self-protection requirements, family-type supportive culture in the organization and need for a respectful environment and considered paternalism as a normal administrative strategy that improves responsibilities such as loyalty and devotion (Brumley, 2014).

Other studies, which concluded that paternalistic leadership affected the information sharing and organizational silence behaviour of the employees, were interesting in explaining the correlation between paternalistic leadership and organizational culture. It was determined that there was a negative correlation between authoritarian leadership and information sharing and a positive correlation between moral leadership and information sharing, and as employees shared more information, the organizational voice strengthened (Chan, 2014; Goncu et al., 2014). It was identified that authoritarian paternalistic leadership increased the silence of employees and created status concerns among employees (Zhang, Huai & Xie, 2015). In another study, it was determined that paternalism was related to clan culture and an authority figure (Mussolin & Calabro, 2014). Wu, Huang and Chan (2012) identified a positive correlation between benevolent leadership, one of the dimensions of paternalistic leadership, and job performance and organizational confidence and a negative correlation between authoritarian leadership dimension, and job performance and organizational confidence. Similarly, it was found that there was a positive correlation between the authoritarianism dimension of paternalistic leadership and alienation, and between ethical relations in organizational structure and benevolent leadership (Cheng & Wang, 2014; Lirang, Papan, Yang & Xiaobing, 2014). Authoritarianism and benevolence dimensions of paternalistic leadership could affect the sense of self, organizational citizenship behaviour and job performance of the employees (Brumley, 2014). In addition to this, Nal and Tarim (2017) found that the paternalistic leadership has a significant and highly positive effect on job satisfaction. However, there are also studies that found paternalistic leadership affected job performance negatively and created aversion from work (Ozcelik & Cenkcı, 2014).

It could be argued that there are social, cultural and institutional variables that facilitate the approval and acceptance of paternalistic leadership in Turkey. These variables could be summarized as collective behaviour, external control, determinism, conflict avoidance, conflict suppression, high organizational power distance, resistance against change and traditional and masculine values Ayca & Kanungo, 2000; Erben, 2004; Gelfand et. al., 2007; Koksall, 2011b, Yuzbasioglu & Dogan, 2018). A review of cultural, human and social determinants would demonstrate that paternalism is accepted and is in demand and participation of individuals in decision-making processes is limited. Thus, the power of the leader makes it easy for the employees to dedicate themselves to the leader (Yardimci, 2011). Needs or roles of using power and influence others or influenced by the power and being controlled could work as personality traits, the leadership and the employee become discriminatory. Hence, paternalism starts to act as the character of the organization. Paternalism also reflects the status quoist attributes in a society or organizational policies. Paternalistic leadership is a type of leadership that could result in different indicators and different organizations due to its cultural, social and political components. Cheng et al. (2004) found that the Paternalistic Leadership Scale had cross-cultural acceptability and generalizability features based on the samples obtained in China, Japan, Korea and Taiwan.

Public order, organizational structure and administrative practices in Turkey have paternalistic characteristics. However, there are almost no studies in the literature that addressed paternalistic leadership in academic organizations, more specifically in teacher training institutions. Furthermore, the reason for conducting the present study in faculties of education was due to the fact that faculties of education are the institutions that adopt the paternalistic organizational culture and administrative approaches the most among academic organizations (Yuksel, 2010). The present study is based on the views of research assistants employed at faculties of education. Research assistants were chosen based on the assumption that leadership in a leader and follower interaction is measured by the followers, in other words, the affected ones. In universities, the academicians with higher titles are perceived as leaders by their subordinates. The research assistant job description includes that, fulfill all the tasks which are appointed by anyone who has a higher academic title, according to Article 33 of Law No. 2547, in Turkey. (YOK, 1981). In addition, research assistants continue their interaction with academicians with a higher title outside the business environment intensively, similar to the paternalistic organization culture; creating paternalistic behaviour expectations as the source of social value for managers (Erol & Kunt, 2018). Thus, based on the views of the research assistants (subordinates/viewers) in faculties of education, the aim of the present study is to conduct a language-based and literature-based adaptation of the Paternalistic Leadership Scale (PLS) developed by Cheng et al. (2004). The Turkish version of the scale, for which the language equivalence was established, was structured by presenting behaviour examples that would facilitate the understanding of paternalistic approaches by academicians with higher titles. Moreover, in this study, the previous national and international adaptation and factoring studies of the paternalistic leadership scale were also examined and compared. The aim of such a comparison is to discuss the results of this study on a more solid basis by demonstrating how the scale works in a different culture and different nature of the samples.

Research questions

The following research questions were structured based on the objective of the study:

1. Is The Paternalistic Leadership Scale valid for identification of paternalistic leadership behaviour in academic organizations?
2. Is The Paternalistic Leadership Scale reliable for identification of paternalistic leadership behaviour in academic organizations?

Limitations

The present study is limited to the adaptation of the paternalistic leadership scale developed by Cheng et al. (2004) based on the views of research assistants employed in faculties of education. It is limited with the data obtained with the statistical techniques utilized during the scale adaptation process. Comparisons of the adapted scale have been limited to the factorization studies which have been made previously by Cheng et al. (2004) and available in the field.

Methodology

Measures

Paternalistic Leadership Scale, originally developed by Cheng et al. (2004), includes *Benevolent Leadership*, *Moral Leadership* and *Authoritarian Leadership* dimensions. It contains 26 items. 11 items are on *Benevolent Leadership*, 6 items are on *Moral Leadership*, and 9 items are on *Authoritarian Leadership* dimensions. The Scale was designed as a 6-point Likert-type scale where the response options vary between (1) 'I completely do not agree' and (6) 'I completely agree.' However, in the present study, the scale was adapted as a 5-point Likert-type scale. The scale was originally developed for business organizations. Cronbach's Alpha coefficients based on the reliability findings for the three dimensions were .84 for the benevolent leadership factor, .95 for the moral leadership factor and .87 for authoritarian leadership factor.

Study group

In this study, by random sampling, it is preferred to collect as much data as possible to represent the population. The data was collected from the 581 research assistants employed at state university faculties of education in Turkey via email. As suggested by Brown (2015) and Erkus (2012), the data was collected for Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) separately for each. Considering the rule that participant number should be ten times more than item number for EFA (Field, 2005; Kline, 2005), 400 research assistants working in the faculties of education of different state universities were sent e-mail and reached 326 (81%) participants. In the second part, in order to apply CFA to the scale that appeared as a result of EFA, considering the rule that participant number should be five times more than item number (Bryman & Cramer, 2001; Gorsuch, 1974), another 300 research assistants working in the faculties of education of different state universities were sent e-mail and reached 255 (85%) participants. While 189 research assistants are male and 137 are female in the first data set (EFA); in the second data set (CFA), 143 research assistants are male and 112 are female.

Process

The Process was designed in four phases. In order to ensure language validity in the first phase, with the translation-back translation method, the original translation form was compared by researchers and two academicians whose native languages are English. This process was repeated until it was decided that the items completely reflected the exact statements in the original scale. During this process, it was determined that an item 13 in Moral Leadership dimension assessed two different statements, and this item was rewritten by dividing it into two different statements. Furthermore, the statements in Moral Leadership dimension were reverse-coded for adaptability and intelligibility in Turkish. In this stage, the items in the scale were redefined to reflect the subjective cases specific to the research assistants. Furthermore, sample case scenarios were added after each item to facilitate the understanding of the statements. In the second phase, content validity was tested to determine with "Lawshe Analysis" whether the statements in the scale could actually measure the behaviour it was aimed to assess, and face validity was tested to determine which behaviour the scale was aimed to assess. In the third phase, initially exploratory factor analysis (EFA), and then confirmatory factor analyses (CFA) were applied on the data obtained and searched for evidence for the structural validity of the scale (Joreskog & Sorbom, 1993). The reason for the utilization of these two factor analyses used for different purposes is to attempt to reveal the structure of the PLS, developed originally outside Turkey on research assistants (EFA) and to control whether the emerging structure was a result of the data collected from the research assistants (CFA) (Cokluk et al., 2010). In the fourth phase, item-total point correlations and Cronbach's Alpha coefficient of internal consistency were used in a determination of the reliability of the scale (Tavsancil, 2005).

Findings

Findings on the validity of PLS

Skewness and Kurtosis values were analysed to examine the multivariate normality of the data set prior to the factor analysis performed to determine the construct validity of the PLS. According to the literature, the fact that the ratio of skewness and kurtosis values to their standard deviation is between ∓ 1.5 (Tabachnick and Fidell, 2013) or ∓ 2.0 (George and Mallery, 2010) is shown as evidence to the normal distribution of the data set. In this study, skewness and kurtosis values of each dimension were found to be between +2.0 and -1.7. Total-item correlations were examined in order to reveal whether the items on the prospective scale really conformed to the intended psychological construct. Because of the theoretical structure of the PLS, when the total item correlations are measured, the total scores of the dimensions, not the scale, were examined with the score from each item, and it was seen that all the items had a value above .30 (Sencan, 2005). To test the sufficiency of the sample size, Kaiser-Mayer-Olkin (KMO) value was scrutinized. For the principal components factor analysis, KMO value was found as 0.962, which was an acceptable value. This value demonstrated that the data obtained was suitable for factor analysis (Kline, 2005). Whether the normality level of the distribution meets the requirements of the factor analysis was examined using the Bartlett test of sphericity and the chi-square value was determined as significant ($\chi^2=5975,44$; $p<0.01$). Since the chi-square value was statistically significant, it was determined that the data was suitable for factor analysis (Kline, 2005; Buyukozturk, 2006).

In this study, "Maximum likelihood" (ML) method was employed as the extraction method for the EFA. ML is one of the factorization techniques that give the best match for normally distributed data. "Direct Oblimin" technique, which is an oblique rotation method, was determined as the rotation method because of the fact that the factors bear close meanings and factor structures are partially related in social sciences researches (Sencan, 2005). As a strategy to determine the number of factors for EFA, according to the eigenvalue factor determination method has been chosen. (Buyukozturk, 2006). The results (dimensions, factor loadings, item-total correlations, explained variance and eigenvalues) for the initial factor analysis of the scale are presented in Table 1.

Table 1. Exploratory Factor Analysis Results for PLS (phase I)

Item	Code	Factor			Item total test correlations
		1 (B)	2 (M)	3 (A)	
P10		0,825			0,785
P8		0,824			0,800
P2		0,787			0,748
P5		0,786			0,771
P4		0,745			0,779
P3		0,742			0,687
P9		0,697			0,643
P1		0,657			0,684
P7		0,656			0,639
P11		0,617			0,579
P13-A*	(R)	-0,514			-0,259
P17	(R)		0,872		0,790
P15	(R)		0,869		0,787
P16	(R)		0,862		0,796
P14	(R)		0,801		0,790
P13-B	(R)		0,743		0,704
P12	(R)		0,599		0,613
P24				0,717	0,810
P26		-0,311		0,659	0,789
P23		-0,447		0,582	0,783
P21		-0,425		0,565	0,805
P22**		-0,477		0,538	0,781
P25*				0,518	0,298
P19				0,492	0,687
P20				0,453	0,581
P18		-0,314		0,433	0,712

<i>P6*</i>			0,310	0,212
(Rotated) Eigenvalues	11,036	3,355	2,153	
(Rotated) Explained variance (%)	40,873	12,426	7,974	
Total explained variance (%)	40,873	53,3	61,274	

According to Table 1, as a result of the process of ML analysis which was used the direct oblimin rotation method, 3-factor structure was obtained similarly to the original structure. However, the analysis was repeated by subtracting from the analysis that a load (P22) under two different factors was close to each other and that the three items (P6, P13-A, P25) gave low item-total test correlation and Cronbach's Alpha coefficient. The items and test statistics on the scale after the items were removed are displayed in Table 2.

Table 2. Exploratory Factor Analysis Results for PLS (phase II)

Item	Code	Factor			Item total test correlations
		1 (B)	2 (M)	3 (A)	
P3		0,791			0,690
P10		0,789			0,805
P8		0,777			0,810
P2		0,774			0,749
P9		0,746			0,657
P5		0,718			0,790
P4		0,667			0,787
P7		0,635			0,660
P1		0,633			0,685
P11		0,535			0,580
P17	(T)		0,855		0,790
P15	(T)		0,847		0,787
P16	(T)		0,838		0,796
P14	(T)		0,778		0,790
P13-B	(T)		0,732		0,704
P12	(T)		0,585		0,613
P24				0,840	0,777
P26				0,792	0,769
P21				0,729	0,820
P23				0,723	0,776
P19				0,670	0,732
P20				0,608	0,605
P18				0,567	0,726
(Rotated) Eigenvalues		10,17	3,248	1,812	
(Rotated) Explained variance (%)		44,217	14,122	7,878	
Total explained variance (%)		44,217	58,34	66,217	

It was observed, the items of the scale were grouped under the determined factor structures in a statistically significant manner, as depicted in Table 2. Eigenvalue for the **Benevolent Leadership** factor consisting of ten items (P3, P10, P8, P2, P9, P5, P4, P7, P1, P11) was found as 10, 17 This sub-factor alone explained 44,22% of the total point variance. Factor load values for the items in this dimension varied between 0,535 and 0,791. **Moral Leadership** factor included six items (P17, P15, P16, P14, P13-B, P12) and had the eigenvalue of 3,25. This sub-factor explained 14,12% of the total variance in the scale. Factor load values for the items in this dimension varied between 0,585 and 0,855. The third factor, **Authoritarian Leadership** dimension included seven items (P24, P26, P21, P23, P19, P20, P18) with a factor eigenvalue of 1,81 This sub-factor explained 7,88% of the total variance in the scale. Factor load values for the items in this dimension varied between 0,567 and 0,840. Item and test statistics related to the scale after the removal of the four items was considered as evidence for the structural validity of the scale and A new structure was formed with three sub-factors with an eigenvalue of above 1 and theoretically parallel to the Cheng et al. (2004) version of PLS with the remaining twenty-three items. It was observed that these three factors explained 66.22% of the total variance. It was accepted in the literature that multi-factor scale structures should explain 40 – 60% of the total variance (Scherer et al., 1988 cited by

Tavsancil, 2005). By these standards, the three-factor structure was deemed sufficient to assess the perceptions of the research assistants about the paternalistic leadership.

Next, a model was designed representing the three-factor structure emerged as a result of EFA and it was attested (Drasgow & Schmitt, 2002). Several fit indices are available to determine the goodness of fit of a model tested with CFA. Since these fit indices have pros and cons when compared to each other in a determination of the accord between the theoretical model and actual data, it was suggested to use several fit index values together (Buyukozturk et al., 2004).

For a model to be deemed acceptable in CFA, it has to meet certain criteria. These criteria are; with standardized regression coefficients and chi-square/sd values Goodness of Fit Index, GFI; Comparative Fit Index, CFI; Normed Fit Index, NFI; Relative Fit Index and Root Mean Square Error of Approximation, RMSEA. For standardized regression coefficients, .71 and over are excellent, .63 is very good, .55 is good, .45 is acceptable, and .32 is weak. (Comrey & Lee, 1992 cited by Tabachnick & Fidell, 2007). As it is generally implemented, the criteria were set as > 0.90 for GFI, NFI, and CFI, and $< .08$ for RMSEA, and; in addition, if the value that was found by the division of by the degree of freedom was found as two or below, it is considered acceptable (McDonald & Moon-Ho, 2002; Schermelleh-Engel, Moosbrugger & Muller, 2003; Thampson, 2000; cited by Simsek, 2007).

The model was tested with Level 1 and Level 2 CFA to determine whether the theoretical structure of 23 items and 3 factors matched the empirical structure of the EFA result which was carried out for PLS. In the evaluation of CFA model with standardized regression coefficients (factor loadings) and model fit indices were examined, created CFA models in Figure 1 and Figure 2, the goodness of fit values are presented in Table 3. The Amos model which consist the factor loadings obtained from the first level CFA for PLS as can be seen in Figure 1 which is located on the scale's dimensions factor loadings of the items between .57 and .89. The obtained compliance index values are detected as $\chi^2/df= 1,75$; GFI=.90, NFI=.91, CFI=.96, RMSEA= .055 (table 3). In addition, modifications have been made between "P3-P9", "P16-P17", "P18-P19", "P19-P20" and "P24-26". According to these findings, the compliance indices obtained from the first level CFA indicate that the model is consistent with the data obtained from the sample.

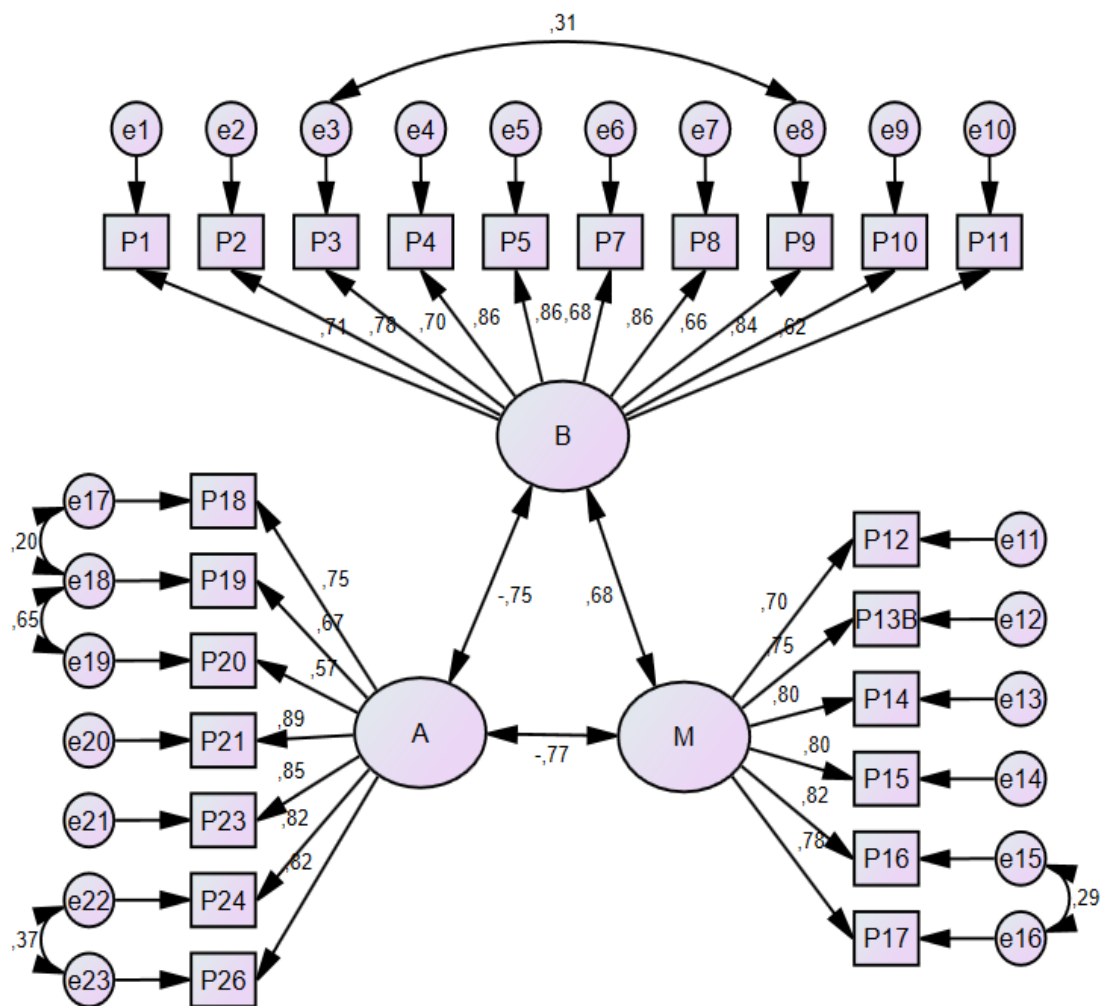


Figure 1. First Order Confirmatory Factor Analysis Results for PLS

As a result of the first order CFA, it was determined that the benevolent, moral and authoritarian leadership factors were independent of each other but were a component of the model. However, it is yet to be determined whether these three factors were related to paternalistic leadership. According to Yurdagul and Askar (2008), even though the items are collected under certain sub-factors in the first order factor model, certain of these sub-factors could be unrelated to the general structure that needs to be assessed. Therefore, conduction of the second order confirmatory factor analysis is recommended. Second order confirmatory factor analysis was implemented to determine whether PLS sub-factors were related to the general structure and to identify the factorial validity and the paternalistic leadership perceptions of the research assistants. Resulting Amos model is presented in Figure 2.

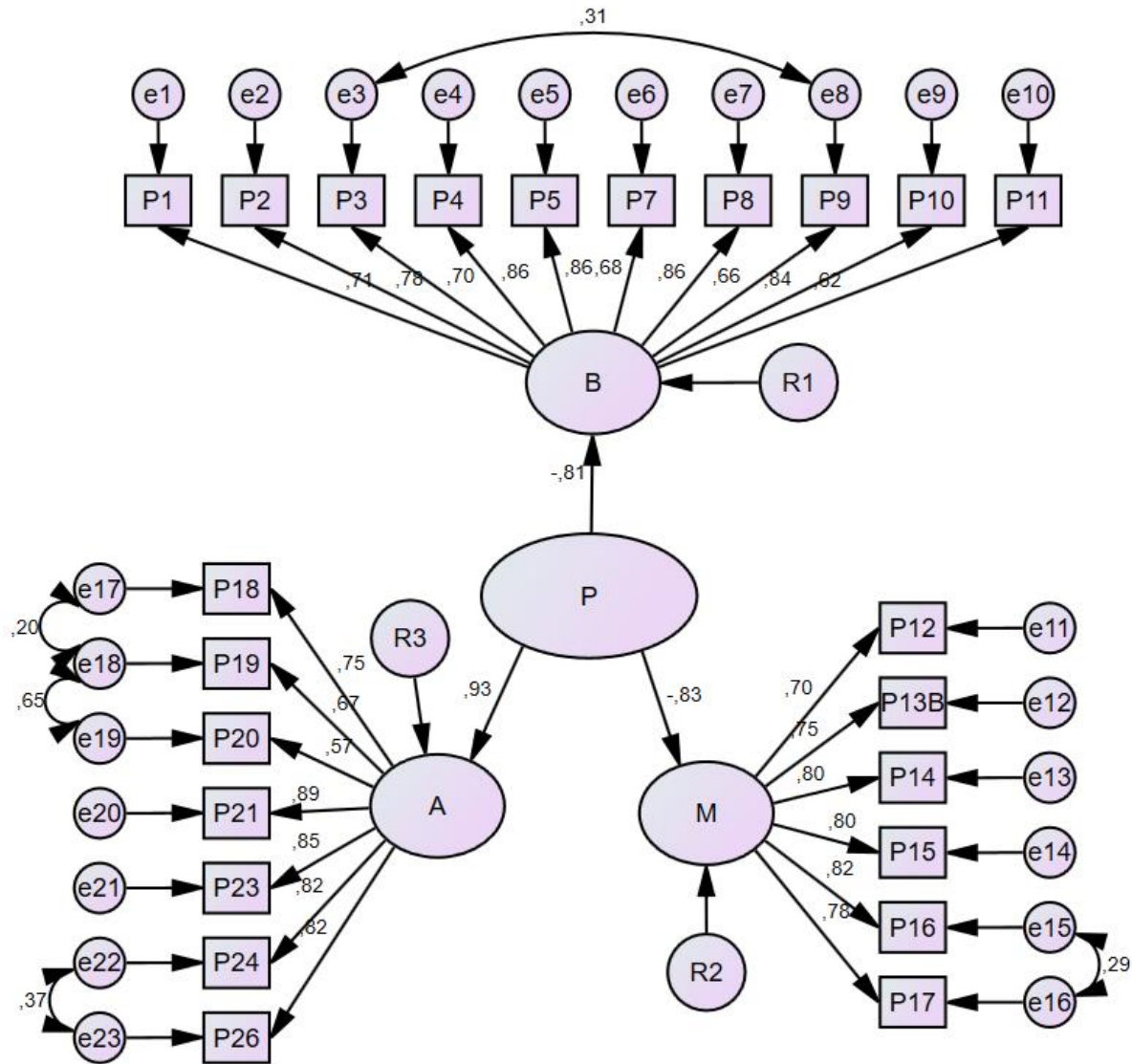


Figure 2. Second Order Confirmatory Factor Analysis Results for PLS

As can be seen in Figure 2, the factor loadings of the items in the PLS dimensions range from .57 to .89 detected as $\chi^2/df=1,76$; $GFI=.90$, $NFI=.91$, $CFI=.96$, $RMSEA=.055$ (table 3). According to this, it has been determined that the error variance, factor loadings and estimated values calculated in the first and second-level CFA are the same. This means that factors fit into the "paternalistic leadership" superstructure and that second-level relationships have no effect on model parameter values and compliance indices. As seen in Figure 2, it was observed that the most important component of the paternalistic leadership was the authoritarian leadership factor ($\beta = 0,93$; $p < 0,05$), depending on the study sample. Respectively moral/spiritual leadership ($\beta = 0,83$; $p < 0,05$) and benevolent/helpful leadership ($\beta = 0,81$; $p < 0,05$) dimensions follow this dimension. These findings point to the fact that when PLS is assessed collectively, the validity of the structure is achieved.

Table 3. Goodness of Fit Indices for First and Second Order CFA

Fit indicatess	First Order CFA	Second Order CFA	Excellent Fit	Acceptable Fit
χ^2/df	1,757	1,757	$0 \leq \chi^2/df \leq 2$	$2 \leq \chi^2/df \leq 3$
GFI	0,906	0,906	$.95 \leq GFI \leq 1.00$	$.90 \leq GFI \leq .95$
NFI	0,915	0,915	$.95 \leq NFI \leq 1.00$	$.90 \leq NFI \leq .95$

CFI	0,961	0,961	.95 ≤ CFI ≤ 1.00	.90 ≤ CFI ≤ .95
RMSEA	0,055	0,055	.00 ≤ RMSEA ≤ .05	.05 ≤ RMSEA ≤ .08

Findings on the reliability of PLS

Reliability is concerned with how accurately a measurement tool measures the characteristics it wants to measure (Buyukozturk, et. al., 2004). The most frequently used criterion for determining the level of reliability is the "Cronbach's Alpha" coefficient which measures the reliability of internal consistency. The alpha coefficient is considered to be around .90 is "perfect", .80 is "very good" and around .70 is considered "adequate" (Kline, 2005). In this study, the Cronbach's Alpha coefficient for the whole scale is detected .75; for benevolent/helpful .93; for leadership dimension of moral/spiritual leadership .91; for the dimension of authoritarian leadership .92 from the findings, it can be said that the general structure and sub-dimensions of PLS are high in internal consistency and therefore reliable.

Conclusion, Discussion and Suggestions

The first step towards discussing a phenomenon or a concept in depth and with powerful scientific principles and methodology is to develop, adapt and utilize tools that accurately measure and discover the problem. For this purpose, the present study concentrated on paternalistic leadership, which is a new concept in the field of management, and reliability and validity studies on the scale that was used to assess paternalistic leadership by Cheng et al. (2004) were conducted to add the scale to the national literature. Analyses conducted demonstrated that reliability and validity values for the *Adapted Version of Paternalistic Leadership Scale* were at acceptable levels. In order to show how the scale works in different cultures and samples, the scale was discussed in comparison with the previous studies of factor analysis. Table 4 which is prepared for this purpose includes studies used in a qualitative discussion.

Table 4. Studies on the Factor Structure of PLS

Reference	Sample	Sample Size	Factor Analysis	Number of Factors	Factors	Number of Scale Items	Number of Factors	Factor Items	Removed Items	Explained Variance	Cronbach's Alpha (α)
Erben & Gunecer, 2008	White-collar Employee	142	EF A	3	Benevolent	19	7	1, 3, 4, 7, 8, 9, 11	2, 5, 6,	41,67	0,91
					Moral		5	12, 13, 15, 16, 17	10, 19, 20,		
					Authoritarian		7	14, 18, 21, 22, 23, 24, 26	25		
Chen & Kao, 2009	White-collar Employee	160	CF A	3	Benevolent	26	11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11		33,10	0,94
					Moral		6	12, 13, 14, 15, 16, 17			
					Authoritarian		9	18, 19, 20, 21, 22, 23, 24, 25, 26			
Chen, et al., 2009	White-collar Employee	601	CF A	3	Benevolent	26	11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11		33,10	0,95
					Moral		6	12, 13, 14, 15, 16, 17			
					Authoritarian		9	18, 19, 20, 21, 22, 23, 24, 25, 26			
Okten & Cenkcı, 2012	MBA students and Business Owners	227	EF A	3	Virtue	24	15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16	17, 25	19,25	0,887
					Austere		6	14, 21, 22, 23, 24, 26			
					Dictator		3	18, 19, 20			
Yesiltas, 2013	Blue-collar Employee	325	CF A	3	Benevolent	18	8	1, 4, 5, 6, 7, 8, 9, 11	2, 3, 10,		0,873

Moral	5	13, 14, 15, 16, 17	12, 18, 19, 20,	0,816
Authoritarian	5	22, 23, 24, 25, 26	21	0,766

Table 2. Continued

Reference	Sample	Sample Size	Factor Analysis	Number of Factors	Factors	Number of Scale Items	Number of Factors	Factor Items	Removed Items	Explained Variance	Cronbach's Alpha (α)
<i>Erben & Okten, 2014</i>	White-collar Employee	210	EF A	3	Benevolent	22	10	1, 2, 3, 4, 5, 7, 8, 9, 10, 11	6, 12, 18, 25	29,93	0,95
					Moral		7	13, 14, 15, 16, 17		17,50	0,9
					Authoritarian		5	19, 20, 21, 22, 23, 24, 26		16,53	0,847
<i>Suneli-Erden, 2014</i>	Blue-collar Employee	183	EF A	4	Benevolent	23	11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	12, 14, 25	26,39	0,928
					Moral		4	13, 15, 16, 17		14,89	0,855
					Behavioral Authority		5	21, 22, 23, 24, 26		14,26	0,847
					Administrative Authority		3	18, 19, 20		8,81	0,763
<i>Ozcelik & Cenkci, 2014</i>	White-collar Employee	224	EF A	3	Virtue	22	14	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15	14, 16, 17, 25	42,55	0,964
					Austere		5	21, 22, 23, 24, 26		18,8	0,935
					Dictator		3	18, 19, 20		10,90	0,795
<i>Kaygisizel, 2015</i>	Blue-collar Employee	155	EF A	3	Benevolent	17	11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	12, 13, 14, 17, 18, 19, 20, 21, 25	41,45	0,946
					Moral		2	15, 16		10,43	0,802
					Authoritarian		4	22, 23, 24, 26		15,39	0,793
<i>Kaygisizel & Okten, 2015</i>	Blue-collar Employee	155	EF A	3	Benevolent	21	11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	14, 17, 18, 19, 20	37,13	
					Moral		2	12, 13, 15, 16		14,66	
					Authoritarian		4	21, 22, 23, 24, 25, 26		8,27	
<i>Arslan, 2016</i>	Teacher	349	CF A	3	Benevolent	26	11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11			0,912
					Moral		6	12, 13, 14, 15, 16, 17		0,817	
					Authoritarian		9	18, 19, 20, 21, 22, 23, 24, 25, 26		0,83	

Table 2. Continued

Reference	Sample	Sample Size	Factor Analysis	Number of Factors	Factors	Number of Scale Items	Number of Factors	Factor Items	Removed Items	Explained Variance	Cronbach's Alpha (α)
Veloen, 2016*	Blue-collar Employee	230	EFA + CFA	4	Benevolent	11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11			67,00	0,948
					Moral	5	12, 13, 15, 16, 17		58,00	0,818	
					Supervisors Authoritarian Leadership Experience of The Supervisors Authoritarian Leadership	23	5	18, 19, 20, 23, 25	14, 21, 24	42,40	0,769
						2	22, 26		17,26		
Zheng, 2016	Blue-collar Employee	258	EFA	3	Benevolent	11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11			36,40	0,89
					Moral	24	4	14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26	12, 13	8,24	0,95
					Authoritarian	9			17,95	0,8	
Ugurluoglu et al., 2017	Hospital Staff	267	EFA	4	Benevolent	11	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11			31,45	0,84 & 0,94
					Moral	23	3	15, 16, 17	12, 13, 14	12,54	
					Behavioral Authority	6		21, 22, 23, 24, 25, 26,		12,21	
					Administrative Authority	3		18, 19, 20		11,72	
Yuzbasioglu & Dogan, 2018	Hospital Staff	243	EFA	3	Benevolent	11	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12	6, 14,		28,55	0,915
					Moral	21	6	13, 15, 16, 17, 18, 21	19, 20,	15,26	0,787
					Authoritarian	4		22, 23, 24, 26	25	11,87	0,668

* In the study of Veloen (2016), the explained variance values were calculated based on independent factors, not on the scale.

As can be seen in Table 4, there has been reached fifteen studies that were examining the factor structure of the Paternalistic Leadership Scale developed by Cheng et al. (2004), and in three studies (Suneli-Erden, 2014; Veloen, 2016; Ugurluoglu et al., 2017), the structure has 4 factors and in the twelve studies it has 3 factors in accordance with the original structure. In the 4-factor studies, while the benevolence and moral leadership dimensions were similar to the original factorization, the authoritarian leadership dimension was divided into two separate factors. In two studies (Okten & Cenkci, 2012; Ozcelik & Cenkci, 2014), the factors were named as different from the original scale; the items in the benevolence leadership dimension are factorized as "Virtue", the items in the leadership factor under the moral leadership dimension are factorized as "Austere", the items in the authoritarian leadership dimension are factorized as "Dictator". In eight of twelve studies (four studies with 4 factors + three studies with 4 factors), the items were collected in different factors from the original structure, but the factor structure of the scale was not expected to change much in the adaptation studies for concordance (Kline, 2005; Brown, 2015). In this study, the factor structure and the distribution of items to factors are in parallel with the original scale. In the fourteen examined studies, only EFA or CFA was used as the factorization strategy, and in one study, both the EFA and the CFA were used together. In this study, EFA and CFA that have to be done in cultural adaptations were used together. (Cokluk, et al., 2010).

While in three of the fifteen studies using CFA, the items were in full compliance with the original structure, in twelve of them using EFA or CFA, some items were discarded. In order to give more detailed information about discarded items; the items discarded from the analysis at most are P14 and P25 (seven studies). Then, it is followed by P12 (six studies), P19, P20 (five studies), P17, P18 (four studies), P6, P13 and P21 (three studies), P2 and P10 (two studies), P3, P5, P16,

and P24 (one study) respectively. In this study, unlike the other studies examined above, firstly the original P13 item was divided into two separate items (P13-A, P13-B) because it contains two statements at the same time. Four items (P6, P13-A, P22, P25) were excluded from the analysis because they disrupted the factor structure and/or gave a low item correlation. While three items were excluded from the analysis in our study in the same way as the above studies, only the item P22 was excluded from the analysis as a special case in our study.

In factoring studies, the disclosure of the highest variance with a minimum number of factors is targeted. The height of the explained variance ratio indicates the power of the factor structure of the developed scale. The number of factors covered by 2/3 of the total variance is considered as the number of factors to be achieved. It is often difficult to reach the quantity quoted in the scale development studies, especially in the behavioural sciences. However, an analysis that is describing 50-75% of the total variance is considered as a valid analysis. It is wrong to mention the ability to represent if the factor structure generated accounts for less than half of the total variable variance (Buyukozturk, 2006). While there was no information on the total variance explained in 5 studies, the variance values of ten studies is ranging from 55.68 to 72.25, and in this study, it is 66.21 which is similar.

One of the important elements of the factoring studies is the sample size which is effective at first degree in determining the number of factors that will arise in the analysis result (Zwick & Velicer, 1986). In this regard, Field (2005) suggests that the size of the sample and the reliability of the results of the factor analysis are directly proportional. According to Comrey and Lee (1992 cited by Tabachnick & Fidell, 2007), analyzes with sample sizes of 50 and below are very weak, 51-100 are weak, 101-200 are medium, 201-300 are good, 300-500 are very good and between 500 and 1000 are considered excellent. When the sample distributions of the fifteen studies are examined; there are five studies between 101-200, seven studies between 201-300, two studies between 300-500 and one study between 500-1000. The sample size of this study is 326 (EFA) + 255 (CFA) = 581, and is in perfect scale according to Comrey and Lee (1992 cited by Tabachnick & Fidell, 2007). In addition to the sample size, giving more valid results of the factorization analyzes depends on the number of the items you have measured and the ratio of the number of "*participants/items*" associated with them. There are two general rules related to this in the literature. While Kline (2005) and Field (2005) propose 10/1 ratio, Gorsuch (1974) and Stevens (1996) argue that a ratio of 5/1 is sufficient. While eleven of the fifteen studies provide only the first proposal, four studies correspond both the proposals. In this study (EFA 326 people / 26 items, CFA 255 people / 21 items) both proposals were corresponded.

When the quality of the samples used in the studies were examined, twelve studies were conducted in profit-making organizations, two studies were in the health sector and only one study was conducted in the education sector, which was similar to this study. While in fourteen of the fifteen studies examined, information related to the reliability of the factors was given, no information was given in one study. The most reliable factor in fourteen studies is benevolence leadership, followed by moral and authoritarian leadership factors. Similar to the studies examined in this study, the highest reliability was ranked as benevolence (.93), moral (.92) and authoritarian leadership (.90). A difference of this study from the other studies that have been mentioned is while the statements used in the other studies, whether due to the nature of the sample or not, Cheng's et al. (2004) direct translations, a sample case scenario is added to this work which is thought to reflect the subjective situation of the research assistants in order to facilitate the understanding and the concretization of the statement under each item.

When the table is examined in more detail, it is seen that the same researchers performed factor analysis again on similar samples at different or same time intervals, and the factor structure or the distribution of the items to the factors changed each time. For example, while Erben and Guneser (2008) found a structure consisting of 3 factors and 19 items in their first work on white-collar employees, in their second study on blue-collar employees, Suneli-Erden (2014) found a structure consisting of 4 factors and 23 items. Okten and Cenkci (2012) found a structure with 3 factors and 24 items, Erben and Okten (2014) found 3 factors and 22 items, Ozcelik and Cenkci (2014) found 3 factors and 22 items. Again, in all three studies conducted on similar samples, the items loaded into the factors and excluded from the analysis differ. The findings of Kaygisizel (2015), and Kaygisizel and Okten (2015) are more striking. While in the doctoral thesis applied to the same sample (Kaygisizel, 2015), a structure consisting of 3 factors and 21 items was found, in the article produced from the doctoral thesis a structure consisting of 3 factors and 17 items was found. The differences in these studies are thought to be due to the fact that researchers may have applied different strategies (maximum probability instead of principal component analysis or oblique rotation instead of vertical rotation) in each factorization method. Because there are more than one statistical method for factorization, each factorization strategy can produce different analyzes. (Field, 2005; Buyukozturk, 2006; Tabachnick & Fidell, 2007).

However, detailed information related to this was not given in the studies. Paternalistic Leadership Scale obtained and reliability structural validity that is required for application in the sample of university both linguistically and culturally. It was concluded that the model and data goodness of fit was acceptable. The scale is presented as a data collection tool that was tested for validity and reliability in studies that aim to determine the characteristics of paternalistic leadership in organizational structure and management processes in universities for researchers in the field of leadership and organizational behaviour in higher education. Furthermore, it is considered that it would especially facilitate the relational research that would be conducted to determine correlations between paternalistic leadership and other variables. At the same time, future relational studies that address paternalistic leadership based on "*power distance, organizational structure, organizational loyalty, legal authority, organizational communications, participation in decisions,*

organizational citizenship organizational culture” variables and concepts would enable the assessment with different strategies of the organizational structure and behavioral dimensions of higher education, in Turkey.

References

- Arslan, O. (2016). *Okul yoneticilerinin paternalistic liderlik duzeyleri ile ogretmenlerin orgutsel sinizm algilari arasindaki iliski [The relationship between school administrators' paternalistic leadership levels and teachers' perception of organizational cynicism]* (Unpublished Master's Thesis). Usak University, Usak, Turkey
- Aycan, Z. (2001). Paternalizm: Yonetim ve liderlik anlayisina iliskin uc gorgul calisma [Paternalism: Three Empirical Studies on Management and Leadership]. *Journal of Management Studies*, 1(1), 1-19.
- Aycan, Z., & Kanungo, R. N. (2000). Toplumsal kulturun kurumsal kultur ve insan kaynaklari uygulamalari uzerine etkileri [The effects of social culture on corporate culture and human resources practices]. In Z. Aycan (Ed.), *Akademisyenler ve profesyoneller bakis acisiyla Turkiye'de yonetim, liderlik ve insan kaynaklari uygulamalari [Academics and Professionals in Turkey Perspective Management, Leadership and Human Resource Practices]* (pp. 25-53). Ankara: Turkish Psychologists Association Publications.
- Brown, T. A. (2015). *Confirmatory factor analysis for applied research*. New York: The Guilford Press.
- Brumley, K. M. (2014). You care for your work; I'll care for your family: Perceptions of paternalistic managerial actions and employee commitment in Mexico. *Community, Work & Family*, 17(4), 467-485.
- Buyukozturk, S. (2006). *Sosyal bilimler icin veri analizi el kitabi [Data analysis for social sciences handbook]*. Ankara: Pegem Akademi.
- Buyukozturk, S., Akgun, O. E., Ozkahveci, O., & Demirel F. (2004). Gudulenme ve ogrenme stratejileri olceginin Turkece formunun gecerlik ve guvenirlik calismasi [The validity and reliability study of the Turkish version of the motivated strategies for learning questionnaire]. *Educational Sciences: Theory & Practice*, 4(2), 210-239.
- Chan, S. C. H. (2014). Paternalistic leadership and employee voice: Does information sharing matter? *Human Relations*, 67(6), 667– 693.
- Chen, H. Y., & Kao, H. S. R. (2009). Chinese paternalistic leadership and non-Chinese subordinates' psychological health. *The International Journal of Human Resource Management*, 20(12), 2533-2546.
- Chen, X. P., Eberly, M. B., Chiang, T. J., Farh, J. L., & Cheng, B. S. (2014). Affective trust in Chinese leaders: Linking paternalistic leadership to employee performance. *Journal of Management*, 40(3), 796-819.
- Cheng, B. S., Boer, D., Chou, L. F., Huang, M. P., Yoneyama, S., Shim, D., Sun, J. M., Lin, T. T., Chou, W. J., & Tsai, C. Y. (2014). Paternalistic leadership in four East Asian societies: Generalizability and cultural differences of the triad model. *Journal of Cross-Cultural Psychology*, 45(1), 82–90.
- Cheng, B. S., Chou, L. F., Wu, T. Y., Huang, M. P., & Farh, J. L. (2004). Paternalistic leadership and subordinate responses: Establishing a leadership model in Chinese organizations. *Asian Journal of Social Psychology*, 7(1), 89-117.
- Cheng, B. S., Chou, L. F., & Farh, J. L. (2000). A triad model of paternalistic leadership: The constructs and measurement. *Indigenous Psychological Research in Chinese Societies*, (14), 3-64.
- Cheng, B. S., Huang, M. P., & Chou, L. F. (2003). A triad model of paternalistic leadership: The evidence from Chinese mainland. *Indigenous Psychological Research in Chinese Societies*, (20), 209-252.
- Cheng, M. Y., & Wang, L. (2014). The mediating effect of ethical climate on the relationship between paternalistic leadership and team identification: A team-level analysis in the Chinese context. *Journal of Business Ethics*, 5, 1-16.
- Cokluk, O., Sekercioglu, G., & Buyukozturk, S. (2010). *Sosyal bilimler icin cok degiskenli istatistik: SPSS ve LISREL uygulamalari [Multivariate statistics for social sciences: SPSS and LISREL applications]*. Ankara: Pegem Akademi.
- Drasgow, F., & Schmitt, N. (2002). *Measuring and analyzing behaviour in organizations, advances in measurement and data analysis*. California: Josey-Bass.
- Erben, G. S. (2004). Toplumsal kultur aile kulturu etkilesimi baglaminda paternalizm boyutuyla isletme kulturu: Turkiye ornegi [Social Culture in the context of family culture interaction with paternalism size business culture: The case of Turkey]. In T. Kocel (Ed.), 1. *Aile isletmeleri kongresi [1. Family Businesses Congress]* (pp. 345-356). Istanbul: Istanbul Kultur University Press.
- Erben, G. S., & Guneser, A. B. (2008). The relationship between paternalistic leadership and organizational commitment: Investigating the role of climate regarding ethics. *Journal of Business Ethics*, 82, 955-968.
- Erben, G. S., & Otken, A. B. (2014). Paternalistic liderlik ve ise iliskin iyilik iliskisinde is-yasam dengesinin rolu [The role of work-life balance in the relationship between paternalistic leadership and work related well-being]. *Journal of Management and Economics Research*, 22, 103-121.

- Erkus, A. (2012). *Psikolojide olcme ve olcek gelistirme-I: Temel kavramlar ve islemler [measurement and scale development in psychology-I: Basic concepts and operations]*. Ankara: Pegem Akademi.
- Erol, E., & Kunt, M. (2018). Egitim fakultelerinde orgutsel iklim ile orgutsel politika algisi arasindaki iliskiler [The relationship between organizational climate and perceptions of organizational politics in educational faculties]. *Pamukkale University Journal of Education*, (43), 15-29.
- Farh, J. L., & Cheng, B. S. (2000a). A cultural analysis of paternalistic leadership in Chinese organizations. In J., T., Li; A., S., Tsui & E., Weldon (Eds.), *Management and organizations in the Chinese context* (pp. 84-127). London: Macmillan.
- Farh, J. L., & Cheng, B. S. (2000b). Paternalistic leadership in Chinese organizations: An analysis from culture perspective. *Indigenous Psychological Research in Chinese Societies*, 13, 127-180.
- Field, A. (2005). *Discovering statistics using SPSS*. London: SAGE.
- Gelfand, M. J., Erez, M., & Aycan, Z. (2007). Cross-cultural organizational behavior. *Annual Review of Psychology*, 58, 479-514.
- Goncu, A., Aycan, Z., & Johnson, R. E. (2014). Effects of paternalistic and transformational leadership on follower outcomes. *The International Journal of Management and Business*, 5(1), 36-58
- Gorsuch, R. L. (1974). *Factor analysis*. Philadelphia: W. B. Saunders Company.
- Hakimian, F., Farid, H., Ismail, M. N., & Ismail, I. A. (2014). The role of paternalistic leadership on fostering employees' innovative behavior: Moderating effects of job insecurity. *International Journal of Research in Business and Technology*, 4(2), 446-453.
- Hofstede, G. H. (2001). *Culture's consequence: Comparing values, behaviors, institutions and organizations across nations*. California: Sage.
- Joreskog, K. G., & Sorbom D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Lincolnwood, IL: Scientific Software International.
- Kaygisizel, E. (2015). *The relationship between paternalistic leadership leader-member exchange (LMX) and job stress: An exploratory research on workers from private and public sectors in Turkey* (Unpublished Master's Thesis). Yeditepe University, Istanbul, Turkey
- Kaygisizel, E., & Okten, A. B. (2015). Is paternalistic leadership a source of job stress? *International Journal of Managerial Studies and Research*, 3(11), 44-53.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling*. New York: The Guilford Press.
- Koksal, O. (2011a). Bir kulturel liderlik paradoksu: Paternalizm [A cultural leadership paradox: Paternalism]. *Mustafa Kemal University Journal of Social Sciences Institute*, 8(15), 101-122.
- Koksal, O. (2011b). Paternalizm ile algılanan orgutsel adalet arasindaki iliskinin tespitine yönelik bir arastirma [An empirical study towards determination of the relationship between Paternalism and perceived organizational justice]. *Journal of Economics and Administrative Sciences*, 12(2), 159-170.
- Lirang, L., Panpan, M., Yong, Z., & Xiaobing, H. (2014). The influence of paternalistic leadership on work alienation: Mediating effect of perceived organizational support. *Chinese Journal of Management*, 11(8), 1150-1169.
- Martinez, P. G. (2003). Paternalism as a positive form of leader-subordinate exchange: Evidence from Mexico. *Journal of Iberoamerican Academy of Management*, 1, 227-242.
- Mussolin, D., & Calabro, A. (2014). Paternalistic leadership in family firms: Types and implications for intergenerational succession. *Journal of Family Business Strategy*, 5, 197-210.
- Nal, M., & Tarim, M. (2017). Saglik yoneticilerinin paternalistic (babacan) liderlik davranislarinin calisanlarin is doyumuna uzerine etkisi [The effect of paternalistic leadership behaviour by health managers on workers' job satisfaction]. *ACU International Journal of Social Sciences*, 3(2), 117-141.
- Okten, A. B., & Cenkci, T. (2012). The impact of paternalistic leadership on ethical climate: The moderating role of trust in leader. *Journal of Business Ethics*, 108, 525-536.
- Ozcelik, G., & Cenkci, T. (2014). Moderating effects of job embeddedness on the relationship between paternalistic leadership and in-role job performance. *Procedia - Social and Behavioral Sciences*, 150, 872-880.
- Pellegrini, E. K., & Scandura, T. A. (2006). Leader-member exchange (LMX), paternalism and delegation in the Turkish business culture: An empirical investigation. *Journal of International Business Studies*, 37(2), 264-279.
- Pellegrini, E. K., & Scandura, T. A. (2008). Paternalistic leadership: A review and agenda for future research. *Journal of Management*, 34, 566-593.

- Pellegrini, E. K., Scandura, T. A., & Jayaraman, V. (2010). Cross-cultural generalizability of paternalistic leadership: An expansion of leader-member exchange theory. *Group & Organization Management, 35*(4), 391-420.
- Rehman, M., & Afsar, B. (2012). The impact of paternalistic leadership on organization commitment and organization citizenship behavior. *Journal of Business Management and Applied Economics, 5*, 2-12.
- Sagie, A., & Aycan, Z. (2003). A cross-cultural analysis of participative decision-making in organizations. *Human Relations, 56*(2), 453-473.
- Schroeder, J. (2011). The impact of paternalism and organizational collectivism in multinational and family-owned firms in Turkey. *Theses and Dissertations, 17*, 1-24.
- Sendogdu, A. A., & Erdincelebi, M. (2014). Paternalistik liderlik ile orgutsel vatandaslik davranisi arasindaki iliskiye yonelik bir arastirma [A study on the relationship between paternalistic leadership and organizational citizenship behavior]. *The Journal of Social and Economic Research, 14*(27), 253-273.
- Shahbazi, G., Naami, A., & Aligholizadeh, S. (2013). An empirical study of the relationship between three components of paternalistic leadership and workplace bullying: The case of an Iranian Bank. *World Applied Sciences Journal, 22*(12), 1814-1821.
- Simsek, O. F. (2007). *Yapisal esitlik modellemesine giris: Temel ilkeler ve LISREL uygulamalari [Introduction to Structural Equation Modeling: Basic Principles and LISREL Applications]*. Ankara: Ekinoks.
- Soylu, S. (2011). Creating a family or loyalty-based framework: The effects of paternalistic leadership on workplace bullying. *Journal of Business Ethics, 99*, 217-231.
- Stevens, J. (1996). *Applied multivariate statistics for the social sciences*. New Jersey: Lawrence Erlbaum Associates.
- Suneli-Erden, P. (2014). *The relationship between paternalistic leadership, perceived employment discrimination and nepotism* (Unpublished Master's Thesis). Yeditepe University, Istanbul, Turkey.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson Education Inc.
- Tavsancil, E. (2005). *Tutumların ölçülmesi ve SPSS ile veri analizi [Measurement of attitudes and data analysis with SPSS]*. Ankara: Nobel.
- Ugurluoglu, O., Ugurluoglu-Aldogan, E., & Urek, D. (2017). Saglik calisanlarinin paternalistik liderlik algilarini etkileyen etmenler [Factors affecting health professionals' perceptions of paternalistic leadership]. *KMU Journal of Social and Economic Research, 19*(32), 1-7.
- Veloen, M. (2016). *The influence of paternalistic leadership on organizational commitment and organizational citizenship behaviour at selected organizations in the Western Cape Province* (Unpublished Master's Thesis). University of the Western Cape, Bellville, Republic of South Africa.
- Westwood, R. I., & Chan, A. (1992). Headship and leadership. In R. I. Westwood (Ed). *Organizational Behavior: A Southeast Asian Perspective*. Hong Kong: Longman.
- Wu, M., Huang, X., & Chan, S. C. H. (2012). The influencing mechanisms of paternalistic leadership in Mainland China. *Asia Pacific Business Review, 18*(4), 631-648.
- Yardimci, C. (2011). *Paternalistik liderlik davranislarinin is tatmini uzerindeki etkisi: Bankacilik sektoru uzerinde bir uygulama [Effects of paternalistic leadership behaviors on job satisfaction: an application on banking sector]* (Unpublished Master's Thesis). Hacettepe University, Ankara, Turkey.
- Yeh, H. R., Chi, H. K., & Chiou, C. Y. (2008). The influences of paternalistic leadership, job stress, and organizational commitment on organizational performance: An empirical study of policemen in Taiwan. *The Journal of International Management Studies, 3*(2), 85-91.
- Yesiltas, M. (2013). Paternalistic liderligin orgutsel vatandaslik davranislari uzerindeki etkisinde dagitim adaletinin aracilik rolu [The effects of paternalistic leadership on organizational citizenship behavior: Mediating role of distributive justice]. *Journal of Business Research-Turk, 5*(4), 50-70.
- YOK (1981). 2547 Sayili Yuksekogretim Kanunu [2547 Higher Education Act].
- Yuksel, S. (2010). *Turk universitelerinde egitim fakulteleri ve ogretmen yetistirme [Education faculties and teacher training in Turk universities]*. Ankara: Pegem
- Yurdagul, H., & Askar, P. (2008). An investigation of the factorial structures of pupils' attitude towards technology (PATT): A Turkish sample. *Primary Education Online, 7*(2), 288-309.
- Yuzbasioglu, N., & Dogan, O. (2018). Relationship between paternalistic leadership and organizational commitment in hospitality industry: Case of Antalya, Turkey. *Academic Journal of Interdisciplinary Studies, 3*(1), 163-173.

- Zhang, Y., Huai, M., & Xie, Y. (2015). Paternalistic leadership and employee voice in China: A dual process model. *The Leadership Quarterly*, 26, 25-36.
- Zheng, Y. (2016) *Fear and compliance: A study of antecedents, mediators and benefits of paternalistic leadership in China* (Unpublished Doctoral Thesis). Durham University, Durham, England
- Zwick, W. R., & Velicer, W. F. (1986). Comparison of five rules for determining the number of components to retain. *Psychological Bulletin*, 99(3), 432-442.

Appendix - A

Paternalistic Leadership Scale - Original Version

Factor	Statement
Benevolent leadership	P1. My supervisor is like a family member when he/she gets along with us.
	P2. My supervisor devotes all his/her energy to taking care of me.
	P3. Beyond work relations, my supervisor expresses concern about my daily life.
	P4. My supervisor ordinarily shows a kind concern for my comfort.
	P5. My supervisor will help me when I'm in an emergency.
	P6. My supervisor takes very thoughtful care of subordinates who have spent a long time with him/her.
	P7. My supervisor meets my needs according to my personal requests.
	P8. My supervisor encourages me when I encounter arduous problems.
	P9. My supervisor takes good care of my family members as well.
	P10. My supervisor tries to understand what the cause is when I don't perform well.
	P11. My supervisor handles what is difficult to do or manage in everyday life for me.
Moral leadership	P12. My supervisor never avenges a personal wrong in the name of public interest when he/she is offended. ^(R)
	P13. My supervisor employs people according to their virtues and does not envy others' abilities and virtues.
	P14. My supervisor uses his/her authority to seek special privileges for himself/herself. ^(R)
	P15. My supervisor doesn't take the credit for my achievements and contributions for himself/herself.
	P16. My supervisor does not take advantage of me for personal gain.
	P17. My supervisor does not use guanxi (personal relationships) or back-door practices to obtain illicit personal gains.
Authoritarian leadership	P18. My supervisor asks me to obey his/her instructions completely.
	P19. My supervisor determined all decisions in the organization whether they are important or not.
	P20. My supervisor always has the last say in the meeting.
	P21. My supervisor always behaves in a commanding fashion in front of employees.
	P22. I feel pressured when working with him/her.
	P23. My supervisor exercises strict discipline over subordinates.
	P24. My supervisor scolds us when we can't accomplish our tasks.
	P25. My supervisor emphasizes that our group must have the best performance of all the units in the organization.
	P26. We have to follow his/her rules to get things done. If not, he/she punishes us severely.

Appendix - B

Paternalistic Leadership Scale – Adapted Version (English)

Factor	Statement
Benevolent Leadership	P1. Professor treats me like a family member in his/her relationship with me. <i>Ex. When We're together, professor treats me like a little brother/sister/kid.</i>
	P2. Professor spends all his energy for to take care of me. <i>Ex. Professor endeavors for to make me grow up as an academician.</i>
	P3. Beyond work relations, professor also expresses his/her thoughts about my daily life. <i>Ex. Sometimes I have conversation with professor and he/she gives me advices about future.</i>
	P4. Professor usually has a sensitive attitude to make me comfortable. <i>Ex. Professor tries to create an environment where I can work comfortably.</i>
	P5. Professor helps me whenever I'm in trouble. <i>Ex. Professor is with me when I'm in trouble.</i>
	P7. Professor supplies my personal needs when I requested. <i>Ex. When I need permission professor gives me permission without official permission</i>
	P8. Professor encourages me whenever I'm in trouble. <i>Ex. When I write my thesis or essay, professor gives me spiritual support.</i>
	P9. Professor also takes care of my family members. <i>Ex. Professor knows my brother (etc.) and chats with him when he encounters him.</i>
	P10. When I show low performance, professor tries to understand why. <i>Ex. When I fail to deal with my works, instead of scolding me, professor asks me if everything is OK in my private life</i>
	P11. Professor does the things for me which I slog in my daily life. <i>Ex. When I get stuck in an analysis (ex SPSS, etc.), professor does the analysis for me.</i>
	Moral Leadership
P13-B. Professor is jealous of the skills or traits of the assistants. ^(R) <i>Ex. Professor doesn't like me about being more qualified at SPSS</i>	
P14. Professor uses his authority for to demand privileges ^(R) <i>Ex. Professor got bought new items to his room by using his appellation/ Lecturer (ex Head of department, Prof. etc.).</i>	
P15. Professor appropriates my achievements and my contributions. ^(R) <i>Ex. Professor wants me to write his name first, even in a work where I work hard.</i>	
P16. Professor takes advantage of me for his self-interests. ^(R) <i>Ex. Professor wants me to go to class instead of him.</i>	
P17. Professor provides personal benefits with personal relationship or through secret works. ^(R) <i>Ex. Even in a work without his any effort, my teacher wants to have his name written.</i>	
Authoritarian Leadership	
	P19. Whether important or not, the professor determines all the decisions in the departments. <i>Ex. My department cannot make any decisions that professor does not accept.</i>
	P20. Professor tells the last word at the faculty or department meetings.

Ex. Professor makes feel his rank to the others.

P21. Professor always behaves to the assistants in a commanding manner.

Ex. I've hardly ever heard anything from professor to request something from any assistants. He always gives orders.

P23. Professor has a strict discipline understanding against the assistants.

Ex. Professor's relationship with assistants is usually in the form of command.

P24. Professor scolds us when we have not completed the assigned tasks.

Ex. Professor scolds, screams etc.me when I can't do a task in time which he wants.

P26. We must follow the rules of the professor when conducting the works.

Otherwise, he punishes us hard.

Ex. Since I didn't do a job like professor wanted, I got pecuniary or moral punishment.

Appendix - C

Paternalistik Liderlik Olcegi - Uyarlama Versiyonu (Turkce)

Faktor	Ifade
Yardimsever Liderlik	P1. Hocam benimle olan ilişkilerinde bana aileden biri gibi davranır. <i>Orn. Birlikteyken hocam bana ufak kardes/evlat gibi davranır.</i>
	P2. Hocam bütün enerjisini benimle ilgilenmek için harcar. <i>Orn. Hocam benim bir akademisyen olarak yetismem için emek harcar.</i>
	P3. İş ilişkilerinin ötesinde, hocam benim günlük yaşamımla ilgili düşüncelerini de ifade eder. <i>Orn. Zaman zaman da olsa hocamla oturup sohbet ederiz/bana gelecekle ilgili nasihatlerde bulunur.</i>
	P4. Hocam genellikle benim rahat etmem için hassas bir tavir sergiler. <i>Orn. Hocam benim rahatca çalışabileceğim bir ortam oluşturmaya çalışır.</i>
	P5. Ne zaman zor durumda kalsam hocam bana yardım eder. <i>Orn. Basım sıkıştığında hocam yanımda olur.</i>
	P7. Hocam talep ettiğimde kişisel gereksinimlerimi karşılamaktadır. <i>Orn. İzin almam gerektiğinde resmi izin almama gerek kalmadan hocam bana izin verir.</i>
	P8. Ne zaman güç durumunda kalsam hocam beni cesaretlendirir. <i>Orn. Tezimi veya makalemi yazarken hocamın manevi destekleri olmuştur.</i>
	P9. Hocam aile üyeleriyle de ilgilenir. <i>Orn. Hocam kardesimi (vb.) tanıyıp ve gördüğünde onunla da sohbet eder.</i>
	P10. Hocam düşük performans gösterdiğimde bunun nedenini anlaya çalışır. <i>Orn. İşle ilgili başarısızlık yaşadığım durumlarda hocam beni azarlamak yerine özel hayatımda her şeyin yolunda olup olmadığını sorar.</i>
	P11. Günlük hayatta zorlandığım şeyleri hocam benim için/adıma yapar. <i>Orn. Bir analizde (örn. SPSS vb.) sıkıştığım da hocam benim için analizi yapar.</i>
	Ahlaki Liderlik
P13-B. Hocam asistanların yeteneklerini veya özelliklerini kiskanır. ^(T) <i>Orn. Hocam SPSS'de ondan daha yetkin olmamdan hoşlanmaz.</i>	
P14. Hocam yetkisini kendine özel ayrıcalıklar talep etmek için kullanır. ^(T) <i>Orn. Hocam imkânî/unvanını kullanarak (Orn. Bolum başkanı, Prof. vb.) odasına yeni eşyalar aldirtmiştir.</i>	
P15. Hocam benim başarılarımdan ve ona katkılarımdan kendine pay çıkarır. ^(T) <i>Orn. Hocam benim emegimin fazla olduğu bir çalışmada bile kendinin birinci isim olarak yazmasını ister.</i>	
P16. Hocam kişisel çıkarları için benden yararlanır. ^(T) <i>Orn. Hocam onun yerine derse girmemi ister.</i>	
P17. Hocam bireysel ilişkilerle veya gizli işlerle kişisel kazanç sağlar. ^(T) <i>Orn. Hocam emeginin olmadığı bir çalışmada bile isminin yazılmasını ister.</i>	
Otoriter Liderlik	
	P19. Önemli olsun ya da olmasın ABD veya bölümdeki tüm kararları hocam belirler. <i>Orn. Bölümüm hocamın kabul etmediği hiçbir kararı alamaz.</i>
	P20. Fakülte veya bölüm toplantılarında son sözü daima hocam söyler. <i>Orn. Toplantılarda hocam ağırlığını diğerlerine hissettirir.</i>
	P21. Hocam asistanlara her zaman emredici bir tavirle davranır. <i>Orn. Şimdiye kadar hocamın hiçbir asistandan bir şey rica ettiğini neredeyse hiç</i>

duymadim, hep emir vermistir.

P23. Hocam asistanlara karsi kati bir disiplin anlayisina sahiptir.

Orn. Hocamin asistanlarla iliskisi genelde emir-komuta seklindedir.

P24. Hocam verilen gorevleri tamamlamadigimizda bizi azarlar.

Orn. Hocam benden istedigini bir isi yetistiremedigimde bana bagirir, kizar vb.

P26. Isleri yuruturken hocamin kurallarina uymamiz gerekir. Aksi halde bizi sert bicimde cezalandirir.

Orn. Bir isi hocamin istedigini gibi yapmadigim icin maddi veya manevi ceza aldigim olmustur.
