

Organizational Health with Management Approach: A Scale Development Study

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Abstract

The purpose of this study is to develop the "Organizational Health Scale" for employees and test its validity and reliability. The experimental form created for this purpose has been presented to the experts for their opinions. In line with the feedback from experts, exploratory factor analysis (EFA) has been conducted in a pilot study within a sample group of 50 people, and 1 item has been removed from the survey consisting of 29 items. The data obtained by 354 participants working in the health sector responding the 28-item test form have been analysed using the SPSS 20.0 and AMOS 24.0 software. In exploring factor analysis, a three-dimensional structure such as "career", "managerial ability" and "social psychology" have been reached. Together, these three factors explain 88.4% of the total variance. As a result of confirming factor analysis for scale, fit values have been obtained as RMSEA= 0.055, CFI= 0.926, TLI= 0.925, GFI= 0.901, AGFI=0.911, RMR= 0.062 and the organizational health scale has been found to have good fit criteria. Cronbach's alpha reliability coefficients have been found to be 0.86 for the whole scale, 0.76 for the career sub-dimension, 0.80 for the managerial ability sub-dimension, and 0.64 for the social psychology sub-dimension, and the scale has been found to have internal consistency. The findings of the research have revealed that organizational health scale is a valid and reliable measuring tool. T Test, one-way variability analysis and Tukey Test have been carried out in order to determine if the organizational health levels of the participants are different in terms of demographic variables. As a result of the analysis carried out; it has been found out that there are significant differences between organizational health sub-dimensions according to the variables of gender, age, marital status, education, title, working time.

Keywords: Organizational Health, Scale Development, Work Environment

Introduction

In order for businesses to develop continuously, achieve change and succeed, all their units must be functional. One of the concepts that stands out from this perspective towards the businesses is organizational health (Doğanay and Dağlı, 2020:128). Organizational health has been the subject of scrutiny in different ways by various disciplines. Educational scientists use the concept of organizational health in relation to administrative and organizational structure in schools, while industrial psychologists use the concept of organizational health as a "state of well-being" created by all kinds of psychological, physiological and mental conditions that contribute to the ability of the employees to create feelings of effectiveness, efficiency, job satisfaction, commitment, etc. (Tutar, 2010:184). Organizational health is a concept that addresses the organization's compliance with all its internal components and environment and its ability to achieve its goals and objectives. Furthermore, organizational health addresses the state of the physical environment of the organization and the appropriate tools to realize the purpose of the organization, communication status between the organization and senior management, problem solving, development, growth and innovation potential. It is also concerned with the quality of inputs (state of competence) and raw material safety, management and decision-making activities of the organization, the moral, psychological and physical health of its employees and the welfare, performance and positions of the employees (Akbaba-Altun, 2001; Xenidis and Theocharous, 2014).

The concept of organizational health has been first used by Argyris in the 1950s, and its systemic examination has been first carried out by Mathews Miles (1969). Miles used the concept of organizational health to express the climate of schools. Today, this concept is the subject of various researches by academicians studying business psychology. A healthy organizational structure means that the institution is psychologically (organizational climate, organizational culture) and physically well in general (Tutar, 2010:184). Miles (1969) explained the concept of organizational health using a model of a school's characteristics with 10 dimensions. These dimensions are being target-oriented,

communication competence, optimal power synchronization, resource usage, consistency, morale, innovation, autonomy, compliance and capability of trouble shooting. According to Miles (1969), organizational health is not only about surviving in their environments, but also about organizations that continue to cope in the long term while constantly improving and extending their ability to survive and cope (Sezgin, 2008). In other words, he has defined healthy organizations as organizations that not only continue to survive in their environmental conditions, but also continuously improve their basic talent and life in the long term (Tsui and Cheng, 1999). Similarly, Hoy and Tarter (1991) have expressed organizational health as the ability of organizations to successfully adapt themselves to their environment, to ensure association within the members of the organization and to achieve their goals.

It is argued that the concept of organizational is a variable that improves organizational performance and efficiency (Buluç, 2008:574). It is stated that healthy organizations have loyal employees who are affiliated with their organization, morale and motivation in the business are high, in-house and out-of-house communication channels are constantly open, productivity is increasing and they consist of employees with successful middle-level managers. Healthy organizations are defined as places where employees love to come to work and see themselves as part of the institution and are proud of it (Lyden and Klingele, 2000). The organization's health can affect both the organization's operational systems and the design and management of procedures. It can also change employee behaviour, stress level and employee health in the organization. Organizational health can also have a positive impact by improving employee performance and business relationships. There is effective communication between employees and managers in a healthy organization. In addition, employees in a healthy organization are innovative. Healthy organizations are determined by three factors. These factors are employees, the organization itself and its working conditions (Özer et al., 2019). Xenidis and Theocharous (2014) evaluate organizational health in four stages. These stages include identifying processes within the organization, identifying critical elements within processes, assessing the health status of critical elements,

identifying problematic elements and processes, and evaluating organizational health.

Method

The research performed is a scale development study. The aim of the study is to develop an organizational health scale that could be culturally valid in order to measure participants' perceptions of organizational health. The organizational health scale has been prepared through the following stages as indicated by various experts; (1) Scale Development, (2) Validity Study of Scale, (3) Reliance Study of Scale (Karasar, 1998; Altunışık et al., 2005; Balcı, 2005; Rabbit, 2002).

Workgroup

This research has been applied to employees working in an official health institution in Ankara province. When the distribution of the workgroup by gender is examined; it is observed that 41.7% are female and 58.3% are men. When the distribution is examined in terms of age groups; 19% of the people are aged 20-29, 36.2% of the people are aged 30-39, 36.2% of the people aged 40-49, 8.6% of the people are aged 50-59. 79.7% of participants are married and 20.3% are single. 3.3% of the participants are high school graduates, 10% of the participants are high school graduates and 25% are associate degree graduates. The ratio of people with bachelor's degree is 43.3%, and the ratio of people with postgraduate degree is 18.3%. 1.7% of the participants are managers, 71.2% are staff, 10.2% are employees and 16.9% are of other status. According to the period of employment in the occupation, the ratio of respondents employed for 1-5 years is 21.7% and the ratio of respondents employed for 11-15 years is 13.3%; the ratio of respondents employed for 16-20 years is 30%, the ratio of respondents employed for 21-30 years is 11.7% and the ratio of respondents employed for 31 years and more is 3.3% When the distribution by income is examined; the ratio of respondents with income below TRY 3000 is 12.1%, the ratio of respondents with income of TRY 3001-4000 is 46.6%, the ratio of respondents with income of TRY 4001-5000 is 24.1%, the ratio of respondents with income of TRY 5001-6000 is 6.9% and the ratio of respondents with income more than TRY 6000 is 6.9%.

Scale Development

In the first phase of the development of the organizational health scale, a comprehensive literature review has been carried out and the studies carried out at home and abroad on organizational health and substances of similar scales have been examined and expressions that are considered to measure organizational health are organized as scale items. A form of 29 items has been created taking into account all indicators of organizational health. The 29-item form has been evaluated by experts with knowledge of the subject to get expert opinions. In the resulting form, each item has been evaluated within the scope of measuring organizational health, being associated with related sub-dimensions, the appropriateness of the language and the comprehensiveness of the statements. First, a pilot application has been carried out on a sample of 50 people and as a result of the application, 1 item has been removed from the scale. In order to determine the respondents' level of agreement to the items in the scale a 5-type Likert scale has been used as "5- strongly disagree, 4-disagree, 3-neither agree nor disagree 2-agree, 1-strongly agree". Eventually, a form consisting of 28 items and 3 sub-dimensions as "career", "managerial ability" and "social psychology" has been created.

Data Collection

The survey data has been collected between October 7-22 November 2019 by the researchers who conducted the survey. The researchers visited the participants at work and made the necessary explanations about the research subject, the survey form has been left to the participants who agreed to participate in the research, and the forms have been collected after they have been filled out. The survey has been conducted on 380 people who have been easily identified by sampling method. However, 354 survey forms have been included in the analysis. 26 survey forms have been excluded from analysis for various reasons. When determining the work group, it has been taken into account that the participants volunteered. The form used as a data collection tool consists of the first section including 7 statements that contain the demographic information of the participants and the second section with 28 statements to be evaluated by the participants.

Analysis of the Data

SPSS 20.0 and AMOS 24.0 package programs have been used in statistical analysis of the data obtained from the participants. Validity and reliance analyses have been carried out to determine the psychometric properties of the scale. It has been evaluated as to whether the data have been suitable for factor analysis within the scope of the research with Kaiser-Meyer Olkin [KMO] coefficient and Bartlett Sphericity Test. The sample size required for factor analysis has been examined and the determined working group has been considered sufficient (Tabachnick and Fidell, 2001). In relation to the validity of the organizational health scale, exploring factor analysis has been carried out within the scope of structural validity. Factor loads have been determined as at least 0.30 in the analysis (Büyüköztürk, 2006). Confirmatory factor analysis has been carried out using AMOS 24.0 program to confirm the factor structure of the organizational health scale determined by exploratory factor analysis. Maximum likelihood

technique has been used in the study. In addition, the standardized regression coefficients of the road diagram for organizational health scale have been calculated.

Findings

Findings on the Structural Validity of Organizational Health Scale

In the relevant literature, there are different opinions and criteria on sample size in order to perform factor analysis in scale development research. It is considered sufficient that the sample size is generally 5 to 10 times the number of items in the scale (Pett et al., 2003; Rabbit, 2005). In the current study, with this in consideration, exploratory factor analysis (EFA) has been carried out on 354 participants. In order to examine the structural validity of the organizational health scale, a pilot study has been carried out on a sample of 50 people and appropriate arrangements have been made according to the results and applied to the main working group.

Table-1 Exploratory Analysis Results for Pilot Application

	Factor			
	1	2	3	4
s1	0,832			
s2	0,825			
s3	0,804			
s5	0,699			
s4	0,599			
s6	0,593			
s7		0,586		
s12		0,562		
s13		0,793		
s15		0,769		
s9		0,570		
s8		0,548		
s10		0,522		
s17		0,712		
s18		0,601		
s19		0,461		

	Factor			
	1	2	3	4
s20		0,428		
s14		0,826		
s16		0,506		
s11		0,484		
s23			0,879	
s21			0,850	
s29			0,700	
s26			0,694	
s28			0,573	
s27			-0,688	
s24			0,612	
s25			0,461	
s22				0,853

In order to determine the suitability of the data for factor analysis as a result of the exploratory factor analysis applied, the KMO coefficient and Bartlett Sphericity Test significance level have been examined and the data has been found suitable for factor analysis. When table 2 with factor structure of 29 items is examined, it is observed that 29 items are weighted under 4 factors. However, item 22 has been excluded from the study due to the weighting of this item on its own under the fourth factor. Other than that,

no problems have been observed in the remaining items, therefore the questionnaire has been finally shaped.

In the second implementation of exploratory factor analysis, 354 valid surveys have been obtained and the suitability of scale data for factor analysis has been re-examined. Since the KMO coefficient is close to 1 (0.818) and the Bartlett Sphericity Test significance level is less than 0.05, the data set is suitable for factor analysis.

Table-2 Exploratory Analysis Results for Main Application

	Factor		
	Factor Load	Average	Std. Deviation
Career (Eigenvalue = 5.62; Described Variance = 52.1%)			
In determining the duties of employees within the organization (corporation); education level, merit, career and driver's license (giving the job to the people) principles are respected.	0,825	2,00	0,97
Employees can easily use their own skills, knowledge and skills while performing their duties in the organization.	0,818	2,77	1,27
Promotion of employees within the organization is made in line with merit, career and competence principles.	0,808	2,30	1,05
The salaries and wages given to employees are directly proportional to their knowledge, skills, abilities and performances.	0,721	2,35	0,94

	Factor		
	Factor Load	Average	Std. Deviation
The working environment provided within the organization (corporation) is suitable for improving the knowledge, skills and capabilities of the employees.	0,655	2,27	1,16
Through their knowledge, skills, capabilities and training, employees are able to perform their current tasks effectively, efficiently and with a focus on results and to achieve organizational goals easily.	0,606	2,63	0,82
Managerial Capability (Eigenvalue = 3.32; Described Variance = 22.7%)			
Organizational (corporate) objectives, corporate performance, business and operation are shared with employees and their opinions are taken.	0,852	2,4	1,1
There is strong cooperation, solidarity, synergy and coordination among the employees within the organization (corporation).	0,871	2,2	1,1
Importance is given to feedback as well as manager-employee and employee-employee communication in the work and operations carried out within the organization.	0,778	2,6	1,0
Audit activities carried out within the organization (corporation); they are very strict, hard and extremely procedural.	0,766	2,8	1,2
Determined organizational (corporate) objectives, tasks, jobs and operations are compatible and identical to corporate capacity and employee knowledge, skills, capabilities and training levels.	0,625	2,7	1,1
Various practices, businesses and operations carried out by management within the organization (corporation) are in line with the principles of equality, justice, objectivity and fairness.	0,621	3,2	1,1
I believe that the organization (corporation) I work for is successful, effective and efficient in achieving its goals.	0,606	2,8	1,1
Employees can easily get permission to meet their social and special needs, provided that they do not disrupt their duties or avoid sloping.	0,555	2,9	1,0
Management cares about flexibility, functionality and rationality in their policies, practices, business and operations.	0,608	2,4	0,9
I believe that my organization (corporation) is extremely healthy.	0,451	2,5	1,0
I have a strong confidence in my relations with management.	0,433	3,4	1,3
Within the organization (corporation), there is a weakness and gap in supervision.	0,752	3,0	1,1
Very harsh and strict disciplinary practices are carried out within the organization (corporation).	0,526	2,7	1,1
Within the organization (corporation), strong cooperation, solidarity, synergy and coordination are provided by the management for the employees.	0,659	2,9	2,9

	Factor		
	Factor Load	Average	Std. Deviation
Social Psychology (Eigenvalue = 1.29; Described Variance = 13.6%)			
Managers attach importance to special days such as birthdays and marriages and employees are congratulated on such special days.	0,882	3,0	1,1
There are problems of dissonance, conflict and disagreement among the employees within the organization (corporation).	0,825	3,1	1,1
Conflicts, dissonances, disputes within the organization (corporation) can be resolved within the framework of mutual dialogue, empathy and respect.	0,712	3,0	1,1
The working environment provided in the organization helps to create intimate, social, warm, sincere relationships for employees.	0,695	2,4	1,2
There is a high level of trust and sincerity among the employees of the organization (corporation).	0,578	3,2	1,3
The type of communication of employees within the organization (corporation) is mostly formal, procedural and hierarchical.	0,696	2,8	1,1
Employees attach importance to special days such as birthdays and marriages of their colleagues and they are congratulated on such special days.	0,606	2,1	0,9
The working environment provided in the organization helps to create intimate, social, warm, sincere relationships for employees.	0,512	3,0	1,1

According to the results of the exploratory factor analysis given in Table 2; since the value of 28 items is three factors greater than one, it can be said that the substances are weighted under three factors. The first factor individually describes 52.1% of the total variance, the second factor alone explains 22.7% of the total variance, and the third factor individually describes 13.6% of the total variance, and the three factors collectively explain 88.4% of the total variance. When the common characteristics of the substances under the same factor are examined; the first factor is named "career", the second factor is named "managerial ability", and the third factor is named "social psychology".

Confirmatory Factor Analysis has been carried out using AMOS 24.0 program to confirm the factor structure of the organizational health scale determined by exploratory factor analysis. As a result of this; the ratio of the scale of the

perception of innovation to the degrees of freedom of the chi-square statistic ($2\chi^2/df$) is 3.67; root mean square approach error (RMSEA) is 0.055; the Tucker-Lewis index (TLI) is 0.925 and the comparative compliance index (CFI) is 0.926 (see Table 3). The fact that a model has a particularly comparative aligning index (CFI) and Tucker-Lewis index (TLI) values of 0.90 or above means that it achieves a good fit.

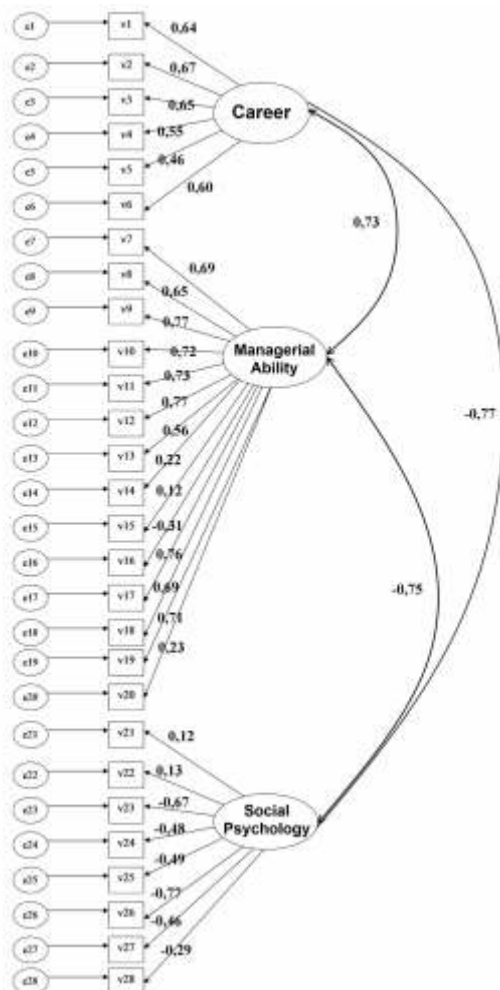
Goodness of fit indices are usually a measure of variance and covariance described by the model. The specifying coefficient calculated in multiple regression can be interpreted as R². The closer the value of goodness of fit indices to 1, the more compatible the model can be said to be in the data. For goodness of fit indices, the acceptability of 0.90-0.95 and the fact that it is above 0.95 shows a high compatibility (Dickey, 1996; Stapleton, 1997; Byrne, 1998).

Table-3.Confirmatory Factor Analysis Goodness of Fit

Acceptable Fit Indices	Calculated Fit Indices
$\chi^2/sd < 5$	3.667
GFI > 0.90	0.901
AGFI > 0.90	0.911
CFI > 0.90	0.926
TLI > 0.90	0.925
RMSEA < 0.08	0.055
RMR < 0.08	0.062

The track diagram of the organizational health scale is given in Figure 1 and the standardized regression coefficients are given in Table 4.

Figure-1 Standardized Regression Coefficients



When the standardized regression coefficients in Table 4 are examined; it is observed that values range between 0.122 and 0.770. However, it is understood that items S1-S6 affect the sub-dimension of the career in a positive way. Between the items S7 and s20, only item S16 negatively affects the level of managerial ability, while other items are observed to have a positive effect. Items 21 and 22 of the items between S21-S28 under the sub-dimension of social psychology affect the sub-dimension of social psychology positively, while other items negatively affect them.

Table-4 Standardized Regression Coefficients

		Dimension	Value
S1	<---	Career	0,642
S2	<---	Career	0,672
S3	<---	Career	0,652
S4	<---	Career	0,551
S5	<---	Career	0,462
S6	<---	Career	0,600
S7	<---	Managerial Ability	0,689
S8	<---	Managerial Ability	0,647
S9	<---	Managerial Ability	0,767
S10	<---	Managerial Ability	0,717
S11	<---	Managerial Ability	0,732
S12	<---	Managerial Ability	0,768
S13	<---	Managerial Ability	0,565
S14	<---	Managerial Ability	0,228
S15	<---	Managerial Ability	0,122
S16	<---	Managerial Ability	-0,311
S17	<---	Managerial Ability	0,765
S18	<---	Managerial Ability	0,695

		Dimension	Value
S19	<---	Managerial Ability	0,716
S20	<---	Managerial Ability	0,237
S21	<---	Social Psychology	0,121
S22	<---	Social Psychology	0,131
S23	<---	Social Psychology	-0,673
S24	<---	Social Psychology	-0,481
S25	<---	Social Psychology	-0,498
S26	<---	Social Psychology	-0,770
S27	<---	Social Psychology	-0,446
S28	<---	Social Psychology	-0,290

Findings on The Reliability of Organizational Health Scale

According to the reliance analysis, a general rule accepted in the field of social sciences is that Cronbach's Alpha value of 0.6-0.7 shows an acceptable level of reliability, while a level of 0.8 or higher shows a very good level (Hulin et al., 2001). If the alpha coefficient is between 0.80 and 1, the scale has high reliability (Rabbit, 2002; Alpar, 2001). The reliance of the 28-item scale developed in this context has been calculated by Cronbach alpha internal consistency coefficient. The internal consistency coefficient for

"career" sub-dimension (6 items) is 0.76, for "managerial ability" sub-dimension (14 items) is 0.80, and for "social psychology" sub-dimension (8 items) is 0.64. The internal consistency coefficient for the entire scale is 0.86. The resulting values indicate that this scale is a reliable measuring tool for measuring organizational health perception.

Change of Organizational Health by Demographics

Independent-Sample T Test and one-way variance analysis (One-Way ANOVA Test) have been conducted in independent groups to determine the averages of organizational health scale sub-dimensions based on demographic information and whether the difference between these averages has been significant. Table 5 examines the change in organizational health scale sub-dimensions by gender. According to this table; the sub-dimensions of career, managerial ability and social psychology vary significantly by gender. It has been determined that women's career, managerial ability and social psychology levels are significantly higher than that of men.

Table-5 Organizational Health Sub-Dimensions and Gender Variable Test

Independent-Sample T		N	Average	Std. Deviation	T	p
Career	<i>Female</i>	150	2,67	0,62	45,641	0,000*
	<i>Male</i>	210	2,19	0,69		
Managerial Ability	<i>Female</i>	150	2,94	0,54	21,519	0,000*
	<i>Male</i>	210	2,61	0,74		
Social Psychology	<i>Female</i>	150	3,08	0,41	64,556	0,000*
	<i>Male</i>	210	2,63	0,58		

*p<0,05

Table 6 shows the change of organizational health scale according to age groups. When this table is examined; while career sub-dimension does not differ significantly according to age groups, it is observed that the sub-dimensions of managerial ability and social psychology vary significantly according to age groups. According to TUKEY test results to determine which group the difference originated from for sub-dimensions that differ

significantly; the administrative ability of people aged 20-29 and 30-39 is significantly higher than that of people aged 40-49 and 50-59. In addition, the managerial ability level of people aged 40-49 is significantly higher than that of people aged 50-59. For social psychology sub-dimension; social psychology level of people aged 30-39 years old is significantly higher than that of people aged 40-49 and 50-59 years old. There is no significant difference in the third career sub-dimension and age variable.

Table-6 Test on Organizational Health Sub-Dimensions and Age Variable

One-Way ANOVA	Age	N	Average	Std. Deviation	F	p
<i>Career</i>	20-29	66	2,53	0,96	1,164	0,324
	30-39	126	2,35	0,65		
	40-49	126	2,39	0,66		
	50-59	30	2,50	0,32		
<i>Managerial Ability</i>	20-29	66	2,90	0,82	5,867	0,001*
	30-39	126	2,90	0,55		
	40-49	126	2,69	0,65		
	50-59	30	2,43	0,63		
<i>Social Psychology</i>	20-29	66	2,85	0,74	5,656	0,001*
	30-39	126	2,96	0,46		
	40-49	126	2,70	0,57		
	50-59	30	2,62	0,43		

*p<0,05

Table 7 indicates that the sub-dimensions of the organizational health scale change according to the marital status. When the table is examined; while the sub-dimensions of career and managerial ability do not differ significantly depending on marital status ($p>0.05$), the

social psychology sub-dimension differs significantly depending on marital status ($p<0.05$). Accordingly, it has been determined that the level of social psychology of married employees is higher than the level of social psychology of singles.

Table-7 Test on Organizational Health Sub-Dimensions and Marital Status Variable

Independent-Sample T		N	Average	Std. Deviation	T	p
<i>Career</i>	<i>Married</i>	282	2,33	0,64	3,859	0,050
	<i>Single</i>	72	2,51	0,90		
<i>Managerial Ability</i>	<i>Married</i>	282	2,74	0,68	0,054	0,816
	<i>Single</i>	72	2,76	0,70		
<i>Social Psychology</i>	<i>Married</i>	282	2,77	0,59	6,595	0,011
	<i>Single</i>	72	2,96	0,42		

When the change of the organizational health scale expressed in Table 8 according to the level of education is examined; the sub-dimensions of career, managerial ability and social psychology vary significantly according to the level of education ($p<0.05$). According to TUKEY test results to determine which group the difference originated from for these sub-dimensions that differ significantly;

career sub-dimension of primary school graduates is significantly higher than the career sub-dimension of bachelor's and post-graduate degree holders and the career sub-dimension of high school, associate degree and bachelor's degree holders are significantly higher than post-graduate degree holders. For managerial ability sub-dimension, the managerial ability of primary school and

associate degree holders is significantly higher than that of postgraduate degree holders, and the managerial ability of high school graduates is significantly higher than that of bachelor's and postgraduate degree holders. For social psychology sub-dimension; the level of social psychology

sub-dimension level of high school and postgraduate degree holders is significantly higher than associate degree holders and the social psychology sub-dimension level of postgraduate degree holders is significantly higher than bachelor's degree holders.

Table-8 Test on Organizational Health Sub-Dimensions and Education Level Variable

One-Way ANOVA		N	Average	Std. Deviation	F	p
Career	<i>Primary School</i>	12	2,83	0,00	2,841	0,024*
	<i>High School</i>	36	2,47	0,81		
	<i>Associate degree</i>	90	2,42	0,62		
	<i>Bachelor's Degree</i>	156	2,40	0,74		
	<i>Postgraduate</i>	66	2,18	0,69		
Managerial Ability	<i>Primary School</i>	12	3,08	0,22	3,311	0,011*
	<i>High School</i>	36	2,98	0,60		
	<i>Associate degree</i>	90	2,83	0,70		
	<i>Bachelor's Degree</i>	156	2,70	0,68		
	<i>Postgraduate</i>	66	2,58	0,69		
Social Psychology	<i>Primary School</i>	12	2,78	0,46	4,134	0,003*
	<i>High School</i>	36	2,98	0,57		
	<i>Associate degree</i>	90	2,66	0,48		
	<i>Bachelor's Degree</i>	156	2,80	0,62		
	<i>Postgraduate</i>	66	2,98	0,48		

* $p < 0,05$

Table 9 shows the change of organizational health scale according to the working status. When this table is examined; it is observed that the sub-dimensions of career, managerial ability and social psychology vary significantly according to the level of education ($p < 0,05$). According to TUKEY test results to determine which group the difference originated from for these sub-dimensions that differ significantly; the career sub-dimension of managers and people with other status are significantly higher than

personnel and career sub-dimension of employees are significantly higher than personnel and people with other status. For managerial capability sub-dimension; the level of managerial ability sub-dimension for workers is significantly higher than that of staff and people with other work status. For social psychology sub-dimension; the level of social psychology sub-dimension of managers and workers is significantly higher than that of staff.

Table-8 Test on Organizational Health Sub-Dimensions and Education Level Variable

One-Way ANOVA		N	Average	Std. Deviation	F	p
Career	<i>Manager</i>	6	3,00	0,00	10,292	0,000*
	<i>Personnel</i>	252	2,27	0,70		
	<i>Worker</i>	36	2,86	0,49		
	<i>Other</i>	60	2,48	0,73		

One-Way ANOVA		N	Average	Std. Deviation	F	p
Managerial Ability	<i>Manager</i>	6	2,93	0,00	7,429	0,000*
	<i>Personnel</i>	252	2,67	0,59		
	<i>Worker</i>	36	3,22	0,47		
	<i>Other</i>	60	2,79	1,02		
Social Psychology	<i>Manager</i>	6	3,33	0,00	5,349	0,001*
	<i>Personnel</i>	252	2,75	0,55		
	<i>Worker</i>	36	3,06	0,51		
	<i>Other</i>	60	2,88	0,64		

*p<0,05

Table 10 shows how the organizational health scale changes depending on the working time in the profession. When this table is examined; it is observed that the sub-dimensions of career, managerial ability and social psychology vary significantly according to the level of education ($p < 0.05$). According to TUKEY test results to determine which group the difference originated from for these sub-dimensions that differ significantly; the career sub-dimension is significantly higher for employees working for 31 years and more compared to employees working for 6-10 years, higher for employees working for 11-15 years compared to employees working for 6-10 years and 21-30 years and higher for employees working for 1-5 years compared to employees working for 6-10 years, 16-20 years and 21-30 years. The managerial ability sub-dimension is significantly higher for employees working for 31 years and

more compared to employees working for 21-30 years, higher for employees working for 16-20 years compared to employees working for 21-30 years and 21-30 years and higher for employees working for 1-5 years compared to employees working for 6-10 years, 16-20 years and 21-30 years. Social psychology sub-dimension level significantly is higher in employees working for 1-5 years than 6-10 years, 21-30 years and 31 years and more. The average level of employees working for 6-10 years is significantly higher than those working for 21-30 years and the level of employees working for 6-10 year and 21-30 year is significantly higher than employees working for 31 years and more. The average level of employees for a period of 16-20 years is significantly higher than those who work for 6-10 years, 21-30 years and 31 years and above.

Table-10 Test on Organizational Health Sub-Dimensions and Working Time in the Profession

One-Way ANOVA		N	Average	Std. Deviation	F	p
Career	<i>1-5 years</i>	78	2,68	0,84	5,917	0,000*
	<i>6-10 years</i>	72	2,15	0,74		
	<i>11-15 years</i>	48	2,52	0,51		
	<i>16-20 years</i>	108	2,31	0,66		
	<i>21-30 years</i>	42	2,21	0,51		
	<i>31 years and more</i>	12	2,58	0,26		
Managerial Ability	<i>1-5 years</i>	78	3,04	0,74	10,727	0,000*
	<i>6-10 years</i>	72	2,81	0,67		
	<i>11-15 years</i>	48	2,89	0,69		
	<i>16-20 years</i>	108	2,66	0,60		
	<i>21-30 years</i>	42	2,19	0,48		
	<i>31 years and more</i>	12	2,79	0,08		

One-Way ANOVA		N	Average	Std. Deviation	F	p
<i>Social Psychology</i>	<i>1-5 years</i>	78	2,96	0,51	7,062	0,000*
	<i>6-10 years</i>	72	2,70	0,60		
	<i>11-15 years</i>	48	3,01	0,34		
	<i>16-20 years</i>	108	2,86	0,63		
	<i>21-30 years</i>	42	2,49	0,46		
	<i>31 years and more</i>	12	2,50	0,18		

*p<0,05

Table 11 states that the organizational health scale changes according to income status. When this table is examined; it is observed that the sub-dimensions of career, managerial ability and social psychology vary significantly according to income level ($p < 0.05$). According to TUKEY test results to determine which group the difference originated from for these sub-dimensions that differ significantly; the career sub-dimension of people with an income of TRY 3000 and lower is significantly higher than all other groups. The level of managerial capability sub-dimension of those with income of TRY 3,000 and below is significantly higher than

all other groups. In addition, the managerial capability sub-dimension level of those with income of TRY 3001-4000 is significantly higher than those with income of TRY 5001-6000. For social psychology sub-dimension, the career sub-dimension of people with an income of TRY 3000 and lower is significantly higher than all other groups. In addition, the social psychology sub-dimension level of those with income of TRY 3001-4000, TRY 5001-6000 and more than TRY 6000 TL is significantly higher than those with income of TRY 4001-5000.

Table-11 Test on Organizational Health Sub-Dimensions and Income Level Variable

One-Way ANOVA		N	Average	Std. Deviation	F	p
<i>Career</i>	<i>TRY 3000 and below</i>	42	3,12	0,61	15,051	0,000*
	<i>TRY 3001-4000</i>	162	2,30	0,57		
	<i>TRY 4001-5000</i>	84	2,26	0,77		
	<i>TRY 5001-6000</i>	24	2,38	0,71		
	<i>TRY 6000 and above</i>	36	2,20	0,81		
<i>Managerial Ability</i>	<i>TRY 3000 and below</i>	42	3,28	0,43	10,253	0,000*
	<i>TRY 3001-4000</i>	162	2,72	0,42		
	<i>TRY 4001-5000</i>	84	2,61	0,76		
	<i>TRY 5001-6000</i>	24	2,34	1,01		
	<i>TRY 6000 and above</i>	36	2,85	1,07		
<i>Social Psychology</i>	<i>TRY 3000 and below</i>	42	3,06	0,43	10,588	0,000*
	<i>TRY 3001-4000</i>	162	2,86	0,49		
	<i>TRY 4001-5000</i>	84	2,51	0,58		
	<i>TRY 5001-6000</i>	24	3,06	0,54		
	<i>TRY 6000 and above</i>	36	2,82	0,74		

*p<0,05

Conclusions and Recommendations

In this study, an "Organizational Health Scale" has been developed to determine the organizational health perceptions of employees. Various scales related to the concept of organizational health in the field writing have been examined and it has been found that there is no common consensus among the researchers. Furthermore, it has been noted that the current studies on organizational health are usually originating abroad, and domestically, they are usually in the form of adaptations and only studies aimed at determining the organizational health of schools. Therefore, within the scope of this study, a new scale has been developed to measure organizational health care on the people who work. The scale developed is a five-digit Likert scale, with 3 sub-dimensions and a total of 28 items. Statistical analysis has revealed that these 3 factors explain 88.4% of the total variation and the factors on the scale; named "career", "managerial ability" and "social psychology". There are no reverse-encoded items in scale items.

There are also studies in the literature that address the organizational health scale in different dimensions. According to these studies; Kimpston and Sonnebend (1975) have defined organizational health in 6 dimensions as decision-making, transactional relations, school-society relationship, innovation, autonomy and coping; Hoy and Feldman (1987) in 7 dimensions as organizational integrity, manager effect, respect, initiative structure, resource support, moral dimension and the importance of the job; Neugebauer (1990) in 7 dimensions as planning and evaluation, motivation and control, group function, personnel function, decision-making and problem solving, financial management and environmental interaction; Hoy, Tarter and Kottkamp (1991) have defined it in 6 dimensions as academic importance, corporate integrity, manager effect, resource support, teacher dependency and occupational leadership by working on the scale developed by Hoy and Feldman in 1987 in order to measure and define the organizational health levels of schools; in 5 dimension as organizational leadership, environmental interaction, organizational integrity, organizational identity and organizational product in the scale developed by Akbaba

(1997) who was inspired by the scale developed by Hoy, Tarter and Kottkamp (1991) in order to measure the organizational health levels of schools; Lyden and Klinge (2000) have defined it in 9 dimensions as communication, loyalty and dependency, moral, participation, corporate reputation, union of purpose, ethics, definition of performance, leadership and resource usage; Korkmaz (2006; 2007) has adapted the organizational health scale developed by Hoy and Feldman (1987) to measure the health of schools to Turkish education system and defined it in 5 dimensions as academic emphasis, corporate integrity, professional leadership, resource support and moral; Doğanay and Dağlı (2020) have defined it in 4 dimensions as academic emphasis, supportive leadership, moral and environmental factors and World Health Organization (WHO, 2020) has defined it in 4 dimensions as environmental factors, physical health, psychological health and social health. The organizational health scales contained in the domestic literature have been developed to measure the organizational health of schools, while the current organizational health scale has been developed to measure the organizational health of the people in 3 dimensions as career, managerial ability and social psychology.

Exploratory and confirmatory factor analyses and structural validity of organizational health scale are discussed. When the fit index values obtained as a result of these analysis results are taken into account, it is observed that the fit indices are good as a result of the three sub-dimension models. Internal consistency reliance coefficients of the developed scale are 0.76 for the career sub-dimension, 0.80 for the sub-dimension of managerial ability, 0.64 for the sub-dimension of social psychology and 0.86 for the entire scale. According to these results, it has been determined that the scale developed has structural validity and internal consistency. The results of the study show that the resulting organizational health scale can be used as a valid and reliable measuring tool. As a result of the findings, it can be stated that the scale developed within the scope of the current research can fill a significant gap in the organizational health literature and will be an original measuring tool that can be used in future research. The developed organizational health scale can be used as a data

collection tool for further research. Furthermore, due to the use of domestic and foreign literature during the development of the organizational health scale, this strengthens the universal nature of the organizational health scale developed and suggests that the scale can be used in different countries.

From an organizational point of view, organizations need to be healthy in the first place to carry out their goals. Therefore, the issue of organizational health is one of the important issues that should be considered in the literature of organizational behaviour. Consequently, the issue of organizational health can be worked together with many issues; various research on the causes and consequences can be improved. It is predicted that the organizational health scale developed within the scope of the research, which is found to be acceptable in terms of structural validity and internal consistency, can also be used in these studies. However, examining the issue of organizational health in future studies in terms of different variables and discriminating the sectors (as public/private) will contribute to the emergence of different outcomes and the development of literature in this field. At the same time, the validity and reliance values of the organizational health scale developed on different sample groups can be tested in these studies. Each study to be made with this scale will contribute to the scale's capability to measure even more strongly.

References

- Akbaba, S. (1997). Ortaöğretim okullarının örgüt sağlığı (Bolu ili örneği). Yayımlanmamış Doktora Tezi. *Ankara Üniversitesi Sosyal Bilim Enstitüsü, Ankara.*
- Akbaba-Altun, S. (2001). *Örgüt sağlığı*. Ankara: Nobel Yayın Dağıtım.
- Alpar, R. (2001). *Spor bilimlerinde uygulamalı istatistik*. Ankara: Nobel Yayın Dağıtım.
- Altunışık, R., Çoşkun, R., Bayraktaroğlu, S., & Yıldırım, E. (2005). *Sosyal bilimlerde araştırma yöntemleri SPSS uygulamalı*. İstanbul: Sakarya Kitabevi.
- Balcı, A. (2005). *Sosyal bilimlerde araştırma yöntem teknik ve ilkeler*. Ankara: Pegem A. Yayıncılık.
- Buluç, B. (2008). Ortaöğretim okullarında örgütsel sağlık ile örgütsel vatandaşlık davranışları arasındaki ilişki. *Türk Eğitim Bilimleri Dergisi, 6(4)*, 571-602.
- Büyüköztürk, Ş. (2006). Sosyal bilimler için veri analizi elkitabı: istatistik, araştırma deseni, spss uygulamaları ve yorum. Ankara: Pegem A Yayıncılık.
- Byrne, B. M. (1998). Structural equation modeling with lisrel, prelis and simlis: Basic concepts, applications and programming. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dickey, D. (1996). Testing The Fit of Our Models of Psychological Dynamics Using Confirmatory Methods: An Introductory Primer. (Advances in Social Science Methodology, 4 içinde. Editör: Bruce Thompson). London: JAI press Ltd
- Doğanay, E., & Dağlı, A. (2020). Organizational health scale: A scale development study. *International Education Studies, 13(7)*, 128-144.
- George, D., & Mallery, P. (2001). SPSS for Windows step by step: A simple Guide and reference. NeedhamHeights: Allyn&Bacon.
- Hoy, W. K., & Fedman, J. A. (1987). Organizational health: The concept and its measure. *Journal of research and Development in Education, 20(4)*, 30-37.
- Hoy, W. K., Tarter, C. J., & Bliss, J. R. (1990). Organizational climate, school health, and effectiveness: A comparative analysis. *Educational administration quarterly, 26(3)*, 260-279.
- Hulin, C., Netemeyer, R., & Cudeck, R. (2001). Can a reliability coefficient be too high? *Journal of Consumer Psychology, 10(1)*, 55-58.
- Karasar, N. (1998). *Bilimsel araştırma yöntemi*. (Sekizinci Basım). Ankara: Nobel Yayın Dağıtım.
- Kimpston, R. D., & Sonnabend, L. C. (1975). Public secondary schools: The interrelationships between organizational health and innovativeness and between organizational health and staff characteristics. *Urban education, 10(1)*, 27-45.
- Korkmaz, M. (2007). Örgütsel sağlık üzerinde liderlik stillerinin etkisi. *Kuram ve Uygulamada Eğitim Yönetimi Dergisi, 13(1)*, 57-91.

- Korkmaz, M. (2006). The relationship between organizational health and robust school vision in elementary schools. *Educational Research Quarterly*, 30(1), 14–36.
- Lyden, J. A., & Klingele, W. E. (2000). Supervising organizational health. *Supervision*, 61(12), 3-6.
- Miles, M. B. (1969). Planned change and organizational health: Figure and ground. In *Organizations and human behaviour: Focus on schools*, Edited by: Carver, F. D. and Sergiovanni, T. J. 375–391. New York: McGraw-Hill.
- Neugebauer, R. (1990). Do you have a healthy organization?. *Child Care Information Exchange*, 72, 38-41.
- Özer, Ö., Uğurluoğlu, Ö., Saygılı, M., & Songur, C. (2019). The impact of work alienation on organizational health: A field study in health sector. *International Journal of Healthcare Management*, 12(1), 18-24.
- Pett, M. A., Lackey, N. R., & Sullivan, J. J. (2003). *Making sense of factor analysis: The use of factor analysis for instrument development in health care research*. CA: Sage.
- Sezgin, F. (2009). Examining the relationship between teacher organizational commitment and school health in Turkish primary schools. *Educational Research and Evaluation*, 15(2), 185-201.
- Stapleton, C. D. (1997). Basic concepts and procedures of confirmatory factor analysis. Educational Research Association, Reports-Evaluative (142), Speeches / Meeting Papers (150)
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics* (Vol. 5, pp. 481-498). Boston, MA: Pearson.
- Tavşancıl, E. (2005). *Tutumların ölçülmesi ve SPSS ile veri analizi*. Ankara: NobelYayınevi.
- Tsui, K. T., & Cheng, Y. C. (1999). School organizational health and teacher commitment: A contingency study with multi-level analysis. *Educational Research and Evaluation*, 5(3), 249-268.
- Tutar, H. (2010). İş gören yabancılaşması ve örgütsel sağlık ilişkisi: Bankacılık sektöründe bir uygulama. *Ankara Üniversitesi SBF Dergisi*, 65(01), 175-204.
- WHO (2020). 10 Temmuz 2020 tarihinde <https://www.who.int/> adresinden erişildi.
- Xenidisa, Y., & Theocharous, K. (2014). Organizational health: Definition and assessment. *Procedia Engineering*, 85, 562-570.