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The Causal Effect of Spiritual Leadership on Organizational Health in Educational Organizations

Research Article

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ABSTRACT

Spiritual leadership is among the latest leadership types for the workplace or community, which addresses transcendental and metaphysical nature within human being. Organizational health refers to the ability of organization in effective functioning, coping with problems and managing changes in appropriate manner. Integration of both concepts in schools by the leaders and teachers can lead to better outcomes for them and organization. In this regard, this study has been structured to examine the causal relationship between spiritual leadership and organizational health according to teachers' perceptions. Data of the study were obtained from 298 teachers in no-thesis programs at universities in Şanlıurfa, Gaziantep, and Kahramanmaraş during 2014-2015 academic year. These teachers were selected based on convenience sampling. The scales of Spiritual Leadership developed by Fry, Nisiewicz, Vitucci, and Cedillo (2007) and Organizational Health developed by Hoy and Sabo (1998) and adapted into Turkish by Korkmaz (2007) were used to collect data from the participants. The relationship between the constructs was tested through Structural Equation Modeling using AMOS. The findings demonstrate that spiritual leadership has a significant impact on organizational health.

Keywords:
Spiritual Leadership, Organizational Health, Structural Equation Modeling, Schools, Teachers

Introduction

Spiritual leadership (SL) refers to the way of conducting work in which people express their inner voice and seek their meaning of life or calling, while organizational health (OH) refers to the ability of organization in improving and sustaining related processes and mechanisms to survive and adapt with the environment around itself (Behroozi, Qasemi, Khodadad, & Behroozid, 2017). The concepts of "spirituality and health" are the two basic concepts which give meaning to both leadership and organizational definitions mentioned in

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this paper. Thus, it is important to know what spirituality and health actually mean before moving on to spiritual leadership and organizational health.

"Spirituality" is a basic quality of the human inner life and displays the pure and nonphysical reality at the core of personality, which harbors the deepest dimension of human experience (Egel & Fry, 2017). Job makes the life meaningful apart from providing an income; thus, a work without soul is disturbing and may lack in true sense of meaning (Ebrahimi, Kazemi, & Salajegheh, 2016). Spirituality at work can act as positive powerful force for living of the people, as integration of the work with the spiritual life that create a more enjoyable, balanced, and meaningful work atmosphere (Razi, Akbari, Shakiba, & Marzban, 2015).

World Health Organization (1948) defines the term of health not based on merely the absence of disease or sickness, instead "as a state of complete physical, mental, and social well-being." Health refers to the ability of coping with outer factors to protect inner strength while at the same time adapting a changing environment. One meaning of being healthy is becoming a "whole" and experiencing wholeness is another aspect of being spiritual (Kriger & Hanson, 1999). That is why; organizational health can be directly or indirectly influenced by the spiritual conditions and well-being of employees in the organization. Because of the fact that spirituality and health, core characteristics of being human, have paramount importance in lives of people and organization, this present study aimed at disclosing if there is any causal relationship between spiritual leadership and organizational health in schools, which has not been explored to the great extent in the literature.

Spiritual Leadership

The crucial concept of spiritual leadership has received universal recognition in the way of measuring organizational performance as a result of interactive relationship between leaders and followers (Hunsaker, 2016). Spiritual leadership can guide leaders to help followers to be able to meet higher order needs such as self-efficacy, a sense of autonomy, competence, relatedness through task involvement and goal identification, and achievement of a flow state (Gjorevska & Takács, 2016). Spiritual leadership is based on an inner life or a spiritual practice that goes beyond self-interests with connection to the greater goals promoting the common well (Egel & Fry, 2017). Spiritual leaders, creating insightful opportunities for people at work to share their whole selves, can generate communication and improved trust in the organization (Gotsis & Grimani, 2017). One of the most cited studies on spiritual leadership belongs to Fry's (2003) "Toward a Theory of Spiritual Leadership" which shows that vision, hope/faith, and altruistic love are needed to become a successful spiritual leader (Klaus & Fernando, 2016). Fry (2003) states spiritual leadership's purpose as tapping into the leaders and followers' fundamental needs for spiritual survival through calling and membership, to create vision and value congruence across individuals and groups; and to foster higher levels of commitment and productivity in organizations. Within the framework of related research and Fry (2003)'s work, Hunsaker (2016, p. 208) explains the process of spiritual leadership as the interaction of intrinsic motivators between leaders and followers, as operationalized by hope/faith, vision, and altruistic love, which in turn enhances positive individual and organizational outcomes, such as productivity, organizational commitment, life satisfaction, and OCB. These outcomes and implications are actually more than what has been considered. Spirituality can be linked to several factors positively including compassion and empathy for co-workers, employees and other stakeholders, stress management, and quite importantly creativity and innovation (Shinde & Fleck, 2015).

Spiritual Leaders in Schools

There are studies, which have shown that leadership style can affect organizational outcomes like performance, trust, and etc. (Nanjundeswaraswamy & Swamy, 2014). A workplace that lacks in security and trust will not become successful (Bondoc, 2016). This is also a possible case for educational organizations.

Spirituality can help instructional leaders understand school contexts, realize their practical tasks, maintain their personal strengths, help principals/administrators model school values, support school relationships, and solve management problems (Gibson, 2011). Perkins, Wellman, and Wellman (2009) found that there is generally a significant relationship between spirituality and leadership practices, and strengthening this dimension will also strengthen leadership practices. In order to see the effect of spiritual leadership on the school atmosphere, school leaders must follow and pay attention universal values in the school and be aware of sacredness of inner life in communicating with school personnel. A school management that adapts spirituality in educational practices by paying attention to teachers' transcendence, meaning, team sense, and self-development will affect the path of the educational organization in a positive way. This will bring many benefits for schools. Spirituality can directly or indirectly affect many variables (Polat, 2011). These variables are organizational development, loyalty, integration, harmony, adopting the job, commitment, job satisfaction, identification, positive climate, trust, collaboration, morale, productivity, interaction and affinity among individuals, organizational health, motivation, success, performance, ethical environment, work place peace, and efficiency.

Organizational Health

A uniform definition of organizational health has yet been made completely in the literature (Kipfelsberger, Herhausen, & Bruch, 2016). Organizational health definitions have been varying depending on the location and purpose of the group (Bradley, 2017). In general sense, organizational health means a unity of spirit, body, and mind in the organization; (1) body means communication, structure and job distribution in the organization, (2) mind refers to a way in which procedures, problems, and tasks are implemented, (3) the spirit refers the passion and attachment felt in the organization (Ikhwan, Sudiro, Noermijati, & Rahayu, 2017). For Tutar (2014), healthy organizations are the ones that are truly purified from the factors that may cause occupational alienation.

Launer (2006) in his paper about organizational health mentions his own story in National Health Service where he worked in different departments. He had three dictating machines; all of which went broke at around the same time. He requested new ones; the first workplace provided it immediately, while the second one provided it after several official papers in two-three weeks. The third one did not provide any solid response to his request, even after months passed by. It is not difficult to imagine the organizational commitment one person can provide in these three workplaces, and the organizational work culture and health of the personnel present in the structure. A healthy organization is the one in which organizational processes are performed in efficient and non-disturbing manner. In this regard, Xenidis and Theocharous (2014, p. 564) view the term of organizational health with a respect to efficiency of all operations in the organization as "*the state of complete and unimpeded operation of all formal, informal, main and auxiliary organizational processes.*" Miles (1965, p.17) who defines organizational health as "*a healthy organization in this sense not only survives in its environment, but continues to cope adequately over the long haul, and continuously develops and extends its surviving and coping abilities*" considers organizational health as second-order system features inclined to transcend short-run effectiveness. Miles (1965) explains "second-order properties" under ten dimensions within the scope of task, maintenance and growth, and changefulness:

- Goal Focus: The goals of the organization should be achievable and clear to the members in the organization.
- Communication adequacy: When information travels distortion free in the organization, both vertically and horizontally, adequacy of communication is provided.
- Optimal power equalization: The organization is at a good state when the distribution of influence is relatively equitable and justified in the organization among leaders and employees.

- Resource utilization: The inputs into the organization like personnel are to be used effectively, for example, one person working up to his limits with a minimal sense of strain.
- Cohesiveness: A clear sense of identity should prevail in the organization, knowing who they are or it is, so that people are attracted to membership by being in the organization.
- Morale: A sound feeling of well-being or satisfaction should spread in the organization.
- Security and pleasure: Work environment is also rendered in high morale organizations.
- Innovativeness: A healthy system stays innovative, follows new goals, produces new kinds of assets, and changes itself for a better state over time
- Autonomy: Organizations should have a kind of independence from their environment, showing the ability of acceptance or rejection to fulfill their roles and responsibilities.
- Adaptation: The ability to bring about a corrective change in organization in accordance with the surrounding environment helps it better to stand against stress and maintain stability. Miles (1965) here gives an example of the disappearance of dinosaurs, which could not meet the conditions behind adaptation in some ways.
- Problem-solving adequacy: An adequate organization solves its problems with assets and personnel it has at present. Organizations need to have a well-established structure for detecting a problem, implementing a solution, and evaluating the effectiveness.

Organizational Health for School Management

The concept of organizational health is first used by Miles (1965, 1969) to define healthy nature of schools. Organizational health in terms of schools shows the psycho-social status of educational organizations (Buluç, 2008). According to Özdemir (2012), healthy organizations, which are open to constant development and changes while continuing to live in harmony with its surroundings, depend on the necessary resources for the realization of the objectives, carrying out the determined objectives efficiently, maintaining the integrity of organization, and forming and protecting the organizational value system. According to Korkmaz (2005), all social systems, especially schools, have to solve four basic problems if they want to survive, grow, develop, and stay as healthy organizations: 1) They need to get adapted to their environment, 2) They should demonstrate their goals and move on, 3) They should have an integrative system, and 4) They should create and maintain a distinctive culture.

Educators consider the concept of organizational health within the managerial and organizational structure of schools while industrial psychologists treat the concept as a "good state" of all kinds of mental, psychological, and physiological conditions contributing to employees' productivity, job satisfaction, effectiveness, work peace, corporate loyalty and commitment (Tutar, 2014). Organizational health, thus, needs to be treated as a main concept in school management. With some studies about organizational health, positive correlations with health and factors in schools were significant. Hoy and Hannum (1997) found dimensions of organizational health to be significantly related with student achievement. Hoy and Woolfolk (1993) also found a healthy school climate provided a chance for the development of teachers' personal teaching efficacy about influencing student learning. Similarly, Kant (2017), who determined a significant relationship between the adjustment of teachers and organizational health, mentioned if there is good organizational health in an organization, teachers can adjust themselves very easily and fulfill their responsibilities in a very effective manner. According to other studies, organizational health has a significant role in academic achievement (Farahani, Mirzamohamadi, Afsouran, & Mohammadi, 2014; Owens, 2015). Güçlü, Recepoğlu, and Kılınç (2014) showed that all sub-dimensions of the organizational health scale are significantly related to the sub-dimensions of job motivation in a positive way and it is a significant predictor of teacher motivation.

Given the importance of spiritual leadership and its impact on organization health for a productive working environment in schools, this study has been carried out to examine the causal relationship between

spiritual leadership and organizational health in terms of teacher perceptions. To do so, confirmatory factor analyses (CFA) for Spiritual Leadership (SL; Fry, Nisiewicz, Vitucci, & Cedillo, 2007) and Organizational Health (OH; Korkmaz, 2007) scales were implemented to check construct validity of indicators and latent variables in structural equation model (SEM). After ensuring significantly informative indicators and subscales based on CFA to be included in SEM, the causal relationship between some of SL dimensions and OH was investigated.

Method

Model of Research

This study is based on quantitative research whereby casual relationship between SL and OH was investigated. Thus, SEM was carried out with a path model, which quantifies specific cause and effect relationships between the variables (Wright, 1934).

Study Group

Original data of the study were collected from 344 teachers in no-thesis programs at universities in Şanlıurfa, Gaziantep, and Kahramanmaraş during 2014-2015 academic year. These teachers were selected based on convenience sampling. Non-thesis master programs are taught by faculties in the School of Education to increase teachers' professional competence in the target areas specified in the programs. Non-thesis master programs can be attended by in-service and pre-service teachers. Our study group included only in-service teachers. After implementing several analyses for particular assumptions, e.g., outliers and normality, only 298 participants' data were carried out for further analysis.

Data Collection Tools

The scales of Spiritual Leadership developed by Fry, Nisiewicz, Vitucci, and Cedillo (2007) and Organizational Health developed by Hoy and Sabo (1998) and adapted into Turkish by Korkmaz (2007) were used to collect data from teachers. Those teachers have taken these scales which consist of unipolar Likert-scaled items with 5 response options (i.e., from strongly disagree to strongly agree). Using unipolar Likert-scaled items allowed us to obtain ordinal data focusing on the presence or absence of each item. The SL and OH scales have 40 and 44 items, respectively, in which both positively and negatively worded items exist. The SL has 9 latent variables, namely, *vision* (V), *altruistic love* (AL), *hope/faith* (H), *meaning* (M), *inner life* (IL), *membership* (MS), *productivity* (P), *organizational commitment* (OC), and *satisfaction with life* (SL). Whereas, the OH has six latent variables, namely, *collegial leadership* (CL), *teacher affiliation* (TA), *principle influence* (PI), *institutional integrity* (II), *resource influence* (RI), and *academic emphasis* (AE). Each subscale has at least four to 10 items.

Data Analysis

Before carrying out CFA and SEM specifications, the data had to be screened for relevant assumptions. First, one of important points is to discuss how missing data were handled. That is, 12 of 344 teachers who have not answered either almost half of the total items or all items of some subscales were deleted from the data. Second, after recoding reversed-worded items, missing responses from 53 teachers among the rest of 332 teachers, which were assumed missing completely at random, were computed. The missing responses were calculated using the Expected-Maximization algorithm in SPSS 22.0 version (IBM Corp, 2013). Third, in terms of checking outliers and normality, 34 outliers were removed from the data set; therefore, 298 teachers were included in further analyses. Finally, variance inflation factor (VIF) for multicollinearity assumption, which shows redundancy of two or more variables due to high correlations among them, was checked. The maximum level of VIF was 4.41, which is lower than the criterion of 10.00 (Hair, Anderson, Tatham, & Black, 1995). Thus, the assumption of multicollinearity has been met. The authors examined Fry's (2003) model and

hypothesized different theoretical model proposed as below and tested it through structural equation modeling (SEM).

In forming the proposed model below, the researchers analyzed the related literature. Ahiauzu and Asawo (2010) found that a culture of altruistic love leads to high commitment, a core quality for membership. Altruistic love increases employees' sense of membership (Fry, 2003). Bodla and Ali (2010) found that altruistic love affects productivity, organizational commitment, job satisfaction while membership acts as a mediator between altruistic love and organizational commitment, productivity, and job satisfaction. Polat (2011) found a high level of meaningful relationship between hope/faith and vision. In a regression study by Behroozi, Qasemi, Khodadad, and Behroozid (2017), a significant relationship was found between spiritual leadership incorporating all dimensions like hope/faith, altruistic love, and so on, and organizational health.

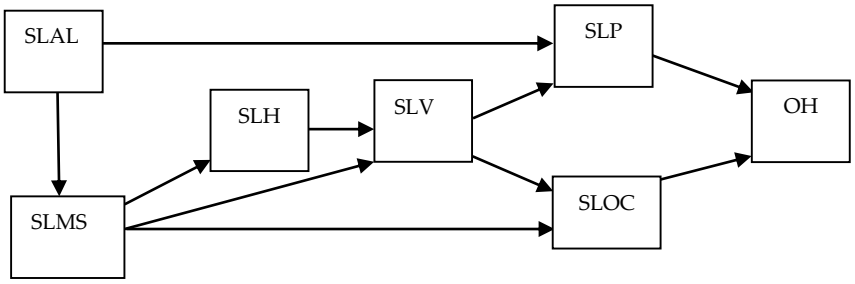

Figure 1. Hypothesized Model

Findings

Findings were reported in two parts. In the first part, significant indicators and latent variables (dimensions) were identified based on CFA for each scale. Due to low factor loadings flagged by modification indices, some dimensions were found non-significant along with a few non-significant items. Removing those non-significant dimensions and items from the further analyses has led to six dimensions with 22 items for SL; whereas, to five dimensions with 22 items for OH. Thus, the number of items loaded on each dimension ranged from three to six. Having specified significant indicators and dimensions by CFA, indicators of each dimension were aggregated to represent a new indicator for SEM (McDonald, 1996). In doing so, the model became simpler and easier to interpret; otherwise, the model estimation would not converge due to the large number of degrees of freedom. Correlation matrices for each CFA and SEM analyses are reported in tables below in next pages.

Given the large number of degrees of freedom along with the sample size, chi-square values of the null and hypothesized models were found significant ($p < 0.05$). For this case, Jöreskog (1969) suggested that the model can be relaxed by introducing more parameters to extract further information from the data. Therefore, the chi-square test statistic can be divided by its degrees of freedom as an alternative criterion for overall model fit (Schreiber, Nora, Stage, Barlow, & King, 2006; Wheaton, Muthén, Alwin, & Summers, 1977). The ratios for a good fit for CFA and SEM analyses in this study were observed within the acceptable cut-off points of two or three (Bollen & Long, 1992). That is, in carrying out CFA, the ratios of 3.47 and 2.68 were found for SL and OH, respectively, and in doing SEM, the ratio was 3.48.

In addition to reporting chi-square test statistic, the normed fit index (NFI; Bentler & Bonet, 1980), the goodness-of-fit index (GFI; Jöreskog & Sörbom, 1989), the Tucker-Lewis index (TLI; Tucker & Lewis, 1973), the incremental fit index (IFI; Bollen, 1989), and the comparative fit index (CFI; Bentler, 1990) were checked if a model fits the data well. As Bentler and Hu (1995) suggested that a value greater than .90 could be acceptable for these indices. Furthermore, the root mean square error of approximation (RMSEA; Browne & Cudeck,

1993) can be further used to check the model-fit. Values less than .05 and .08 for the RMSEA correspond to "good" and "acceptable" fits, respectively.

Confirmatory Factor Analyses

CFA, the measurement model of SEM (Schreiber et al., 2006), is a theory driven approach. Figure 2 and Figure 3 below display CFA for SL and OH, respectively. First and foremost, the model-fit indices and the RMSEA values were investigated for each CFA.

Spiritual Leadership

The model-fit was considered acceptable based on fit indices displayed in Figure 2. Details of standardized and unstandardized coefficients and correlations among factors are reported in Figure 2, Table 1 and 2. Table 1 shows standardized and unstandardized coefficients for CFA of SL in which factor loadings ranged from lowest .71 (SLV18) and .74 (SLMS3) to the highest .88 (SLMS9) and .89 (SLH16).

Table 1. Standardized and Unstandardized Coefficients for CFA of SL

Observed Variable	Latent Construct	β	*B*	*SE*
SLAL22	AL	0.82	1.06	0.07
SLAL12	AL	0.80	1.02	0.07
SLAL10	AL	0.83	1.08	0.07
SLV30	V	0.74	1.00	
SLV26	V	0.77	0.93	0.07
SLV18	V	0.71	0.78	0.06
SLH16	H	0.89	1.00	
SLH15	H	0.81	0.98	0.06
SLH8	H	0.70	0.91	0.07
SLMS32	MS	0.79	1.00	
SLMS21	MS	0.79	1.02	0.07
SLMS9	MS	0.88	1.08	0.06
SLMS3	MS	0.74	0.98	0.07
SLOC37	OC	0.75	1.05	0.07
SLOC11	OC	0.75	1.11	0.08
SLP29	P	0.79	1.00	
SLP20	P	0.89	1.11	0.07
SLP19	P	0.83	1.05	0.07
SLAL1	AL	0.78	1.07	0.07
SLAL31	AL	0.81	1.00	
SLOC4	OC	0.82	1.11	0.07
SLOC39	OC	0.80	1.00	

Note. CFA = confirmatory factor analysis; SL = spiritual leadership; AL = altruistic love; V = vision; H = hope/faith; MS = membership; OC = organizational commitment; P = productivity.

Furthermore, correlations between items of Spiritual Leadership are given in Table 2, which includes 6 dimensions based on CFA as seen in Figure 2. Correlations between items of Spiritual Leadership with significant factor loadings ranged from .45 to .75. In particular, the lowest correlation (.45) was observed between item 18 (SLV18) and item 30 (SLV30) of *vision* and the highest correlation (.75) was observed between item 19 (SLP19) and item 20 (SLP20) of *productivity*. Furthermore, the correlation among the latent variables ranged from .52 between H (*hope*) and P (*productivity*) to .95 between M (*membership*) and AL (*altruistic love*) as seen in Figure 2.

Table 2. Correlations for Spiritual Leadership

		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
1	SLAL1	1																					
2	SLAL10	**.75**	1																				
3	SLAL12	**.57**	**.70**	1																			
4	SLAL22	**.63**	**.65**	**.65**	1																		
5	SLAL31	**.60**	**.61**	**.63**	**.72**	1																	
6	SLV18	.33	.39	.39	.35	.37	1																
7	SLV26	.45	.47	.52	.53	.54	**.49**	1															
8	SLV30	.46	.46	.50	.57	.61	**.45**	**.67**	1														
9	SLH8	.34	.45	.35	.34	.39	.60	.47	.37	1													
10	SLH15	.34	.40	.40	.40	.37	.62	.49	.44	**.54**	1												
11	SLH16	.34	.41	.43	.39	.46	.73	.50	.50	**.61**	**.73**	1											
12	SLMS3	.63	.58	.56	.60	.52	.36	.52	.44	.38	.38	.39	1										
13	SLMS9	.64	.71	.69	.66	.67	.47	.55	.54	.54	.44	.49	**.66**	1									
14	SLMS21	.55	.59	.58	.61	.60	.34	.61	.50	.39	.38	.39	**.59**	**.69**	1								
15	SLMS32	.60	.63	.61	.58	.68	.40	.55	.55	.43	.40	.45	**.55**	**.70**	**.63**	1							
16	SLOC4	.62	.67	.63	.65	.61	.44	.55	.51	.41	.43	.45	.69	.70	.65	.63	1						
17	SLOC11	.53	.53	.62	.58	.54	.39	.49	.53	.31	.36	.36	.52	.60	.51	.49	**.62**	1					
18	SLOC37	.48	.45	.55	.51	.56	.42	.57	.54	.37	.42	.39	.43	.57	.49	.50	**.58**	**.58**	1				
19	SLOC39	.48	.51	.58	.57	.58	.52	.59	.58	.42	.48	.50	.44	.61	.62	.59	**.61**	**.61**	**.69**	1			
20	SLP19	.46	.51	.45	.55	.51	.37	.49	.50	.38	.40	.46	.40	.53	.53	.44	.46	.42	.41	.45	1		
21	SLP20	.48	.54	.50	.60	.57	.33	.59	.56	.33	.33	.35	.42	.57	.64	.52	.54	.49	.50	.53	**.75**	1	
22	SLP29	.48	.48	.48	.56	.60	.29	.47	.65	.35	.32	.34	.33	.56	.49	.49	.50	.46	.50	.53	**.65**	**.68**	1

Note. Numbers in bold are correlations among indicators within each dimension. SL = spiritual leadership; AL = altruistic love; V = vision; H = hope/faith; MS = membership; OC = organizational commitment; P = productivity.

Figure 2 displays CFA for SL and the standardized factor loadings to latent variables (i.e., standardized coefficients), correlations between the latent variables, and the squared multiple correlations (SMC; R^2) for the reliability of the observed variables in relationship to the latent constructs. Note that, the SMC is the square of the standardized factor loadings. For example, the correlations among some latent variables are .78 for AL and V; .59 for H and AL; .95 for MS and AL; .65 for H and OC. When SMC associated with each path is examined, an interpretation of .79 for SLP20 is that 79% of the variance in *spiritual leadership* can be explained by item 20 of *productivity.* Another example is that an interpretation of .48 for SLH8 is that 48% of the variance in *spiritual leadership* can be explained by item 8 of *hope/faith.*

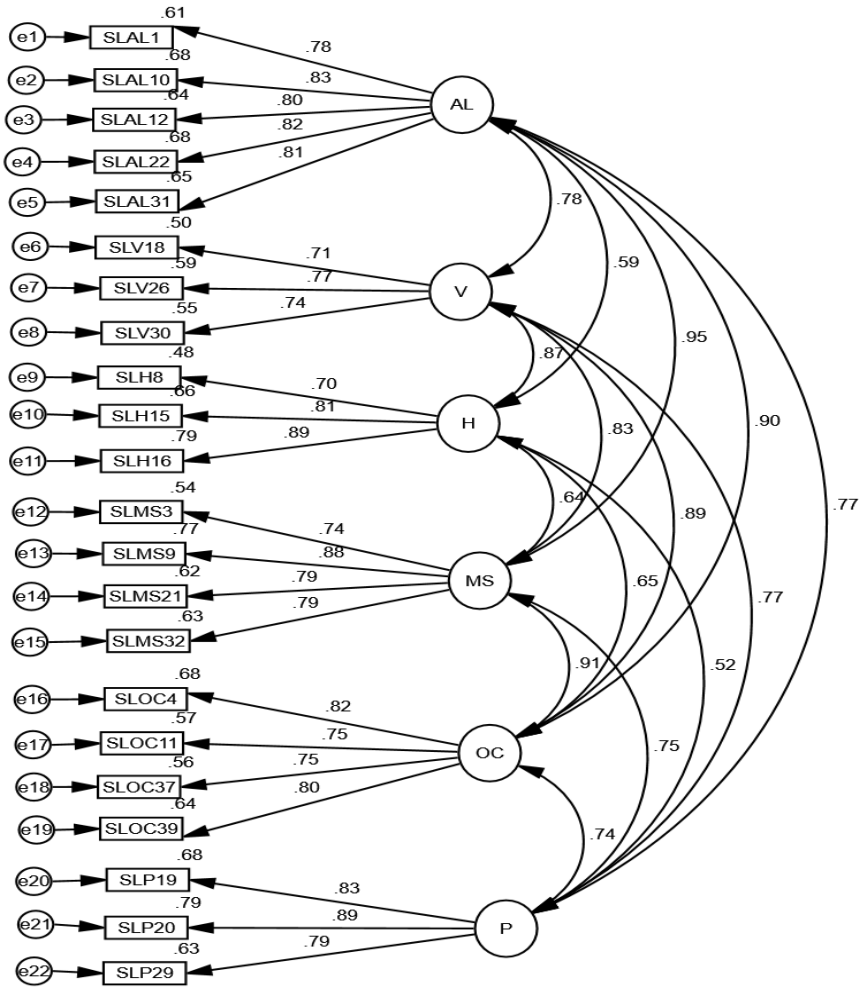

Figure 2. Confirmatory Factor Analysis for Spiritual Leadership

Note. ($\chi^2 = 673.7; df = 194;$ GFI = .83; NFI = .87; IFI = .90; TLI = .89; CFI = .90; RMSE = .09). SL = spiritual leadership; AL = altruistic love; V= vision; H = hope/faith; MS = membership; OC = organizational commitment; P = productivity.

Organizational Health

Figure 3 below displays CFA for OH along with the standardized factor loadings to latent variables (i.e., standardized coefficients), correlations between the latent variables, and the squared multiple correlations (SMC; R^2) for the reliability of the observed variables in relationship to the latent constructs. The model-fit was considered acceptable based on fit indices reported in Figure 3. The correlation among the latent variables ranged from .63 between TA (*teacher affiliation*) and RI (*resource influence*) to .86 between CL (*collegial leadership*) and RI (*resource influence*). Moreover, factor loadings ranged from .74 of item 20 (OHPI20; *organizational health – principle influence*) to .91 of items 22 (OHPI22), which were reported in Table 5. Furthermore, the lowest and highest SMCs were observed for OHPI20 (.55) and OHPI22 (.83), respectively. For example, an interpretation of .70 for item 35 (OHTA35) is that 70% of variance in *organizational health* can be explained by item 35 of *teacher affiliation.* For detailed examination of all variables and dimensions under OH, Figure 3, Tables 3 and 4 are reported below**.** For instance, Table 3 shows standardized and unstandardized coefficients of SL based on CFA in which factor loadings ranged from lowest .74 (OHPI20) and .76 (OHRI32) to the highest .88 (OHTA36) and .89 (OHCL43).

Table 3. Standardized and Unstandardized Coefficients for CFA of OH

Observed Variable	Latent construct	β	B	SE
OHAE7	AE	0.79	1.00	
OHAE6	AE	0.78	0.98	0.07
OHAE5	AE	0.82	1.00	0.06
OHAE4	AE	0.82	1.00	0.06
OHAE3	AE	0.81	0.97	0.06
OHAE2	AE	0.79	0.92	0.06
OHPI23	PI	0.85	1.00	
OHPI22	PI	0.91	0.91	0.04
OHPI21	PI	0.88	0.90	0.05
OHPI20	PI	0.74	0.75	0.05
OHRI32	RI	0.76	1.00	
OHRI30	RI	0.77	0.99	0.07
OHRI29	RI	0.82	1.03	0.07
OHCL44	CL	0.81	1.00	
OHCL43	CL	0.89	1.02	0.06
OHCL42	CL	0.87	1.06	0.06
OHCL41	CL	0.86	1.03	0.06
OHCL40	CL	0.86	0.91	0.05
OHTA38	TA	0.84	1.00	
OHTA37	TA	0.87	1.03	0.06
OHTA36	TA	0.88	1.05	0.06
OHTA35	TA	0.84	1.01	0.06

Note. CFA = confirmatory factor analysis; OH = organizational health; AE = academic emphasis; PI = principle influence; RI = resource influence; CL = collegial leadership; TA = teacher affiliation.

Table 4. Correlations for Organizational Health

		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
1	OHAE2	1																					
2	OHAE3	**.69**	1																				
3	OHAE4	**.64**	**.70**	1																			
4	OHAE5	**.63**	**.62**	**.75**	1																		
5	OHAE6	**.65**	**.64**	**.63**	**.63**	1																	
6	OHAE7	**.59**	**.60**	**.60**	**.66**	**.62**	1																
7	OHPI20	.45	.49	.48	.48	.47	.47	1															
8	OHPI21	.50	.58	.54	.62	.46	.66	**.68**	1														
9	OHPI22	.49	.56	.53	.61	.48	.69	**.68**	**.81**	1													
10	OHPI23	.53	.56	.53	.55	.51	.67	**.62**	**.71**	**.78**	1												
11	OHRI29	.50	.52	.47	.55	.41	.61	.47	.68	.63	.65	1											
12	OHRI30	.41	.43	.51	.52	.39	.53	.46	.53	.54	.59	**.62**	1										
13	OHRI32	.43	.41	.46	.46	.35	.52	.46	.56	.57	.59	**.56**	**.67**	1									
14	OHTA35	.52	.54	.49	.48	.56	.47	.44	.47	.50	.49	.43	.33	.36	1								
15	OHTA36	.54	.58	.54	.54	.59	.57	.41	.52	.55	.55	.50	.48	.48	**.72**	1							
16	OHTA37	.52	.49	.43	.45	.55	.47	.33	.47	.44	.44	.49	.34	.35	**.77**	**.75**	1						
17	OHTA38	.57	.51	.46	.46	.60	.52	.39	.49	.50	.49	.49	.37	.38	**.67**	**.73**	**.75**	1					
18	OHCL40	.47	.51	.47	.51	.50	.65	.47	.62	.65	.65	.66	.54	.57	.46	.62	.51	.55	1				
19	OHCL41	.45	.48	.45	.49	.40	.56	.47	.63	.62	.62	.64	.53	.56	.48	.57	.53	.52	**.76**	1			
20	OHCL42	.45	.51	.46	.46	.47	.61	.46	.57	.63	.63	.58	.51	.57	.44	.57	.42	.47	**.73**	**.77**	1		
21	OHCL43	.49	.56	.55	.54	.47	.65	.45	.64	.67	.66	.65	.54	.57	.51	.58	.49	.50	**.76**	**.74**	**.78**	1	
22	OHCL44	.45	.50	.50	.49	.47	.57	.49	.59	.57	.59	.59	.56	.54	.39	.57	.46	.44	**.68**	**.68**	**.72**	**.73**	1

Note. Numbers in bold are correlations among indicators within each dimension.

Table 4 presents correlations between items of Organizational Health with significant factor loadings ranged from .56 to .81, which are reported in Table 4 above. In particular, the lowest correlation (.56) was observed between item 29 (OHRI29) and item 32 (OHRI32) of *resource influence* and the highest correlation (.81) was observed between item 21 (OHPI21) and item 22 (OHPI22) of *principle influence*. Furthermore, the correlation between the latent variables ranged from .63 between RI (*resource influence*) and TA (*teacher affiliation*) to .86 between RI (*resource influence*) and CL (*collegial leadership*) as seen in Figure 3.

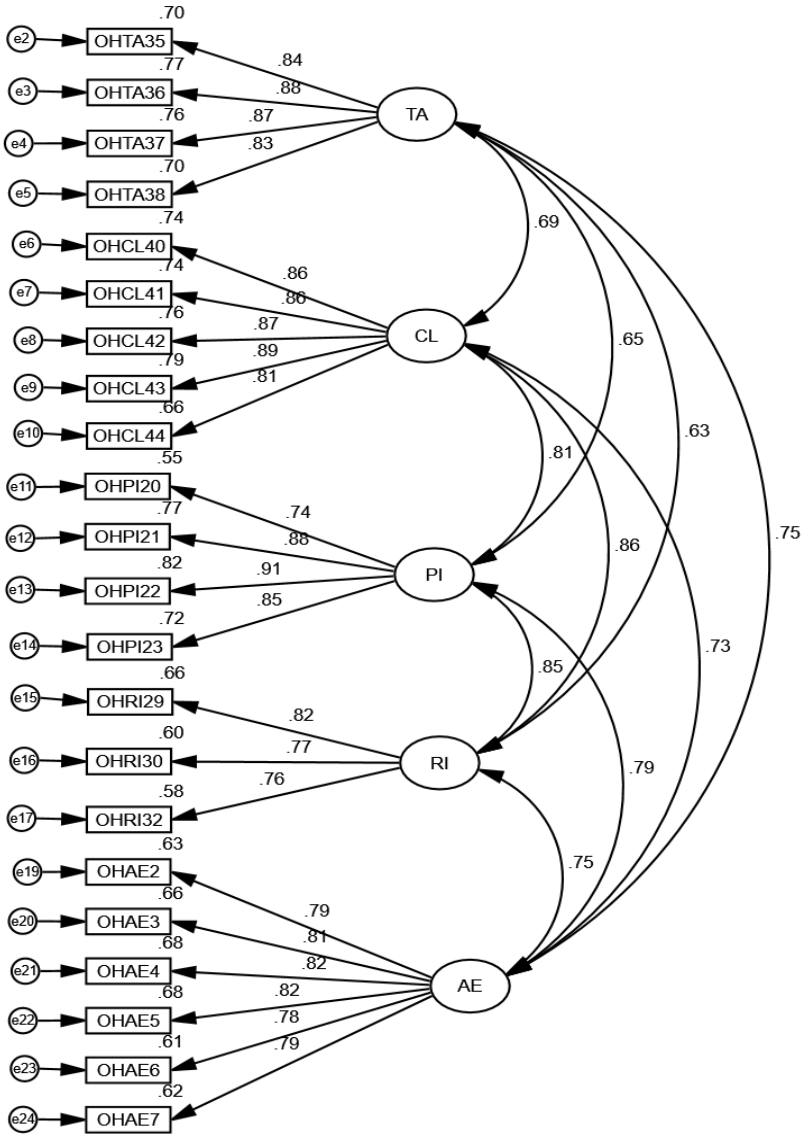

Figure 3. Confirmatory Factor Analysis for Organizational Health

Note. ($\chi^2 = 534.1; df = 199$; GFI = .86; NFI = .91; IFI = .94; TLI = .93; CFI = .94; RMSEA = .075). OH = organizational health; AE = academic emphasis; PI = principle influence; RI = resource influence; CL = collegial leadership; TA = teacher affiliation.

Structural Equation Model

SEM is a combination of multiple regression and exploratory factor analyses (Ullman, 2001). After determining significant indicators and dimensions, indicators of each dimension were aggregated to represent a new indicator for SEM (McDonald, 1996) by weighting significant items of each latent variable with the

corresponding factor loadings. In doing so, significant six latent variables – AL, MS, H, V, P, and OC – of the SL were obtained and used as observed variables. In the same way, after calculating the each of the significant five latent variables – TA, CI, PI, RI, and AE – of the OH, they were further calculated similarly to obtain a single observed variable for the OH based on CFA. Therefore, causal effects of each latent variable of the SL on the OH were investigated.

Based on the model-fit indices and the RMSEA values, the model-fit for SEM was considered acceptable. In the model, the lowest and highest SMCs were observed for SLH (.32) and SLMS (.72), respectively as seen in Figure 3 below. The most crucially in this study, it was found out that the variables of *spiritual leadership* can explain around 48% of total variance in *organizational health*.

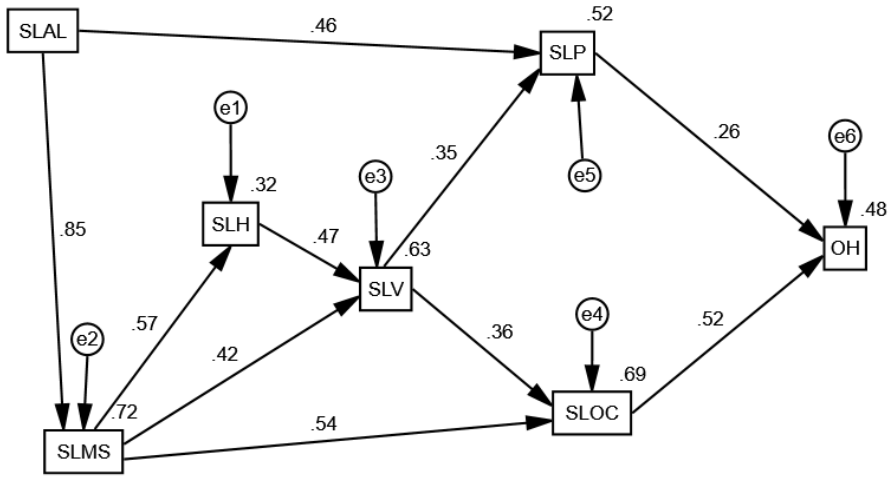

Figure 3. Structural Equation Model

Note. (χ^2 = 90.88; *df* = 11; GFI = .93; NFI = .95; IFI = .95; TLI = .91; CFI = .95; RMSEA = .16). OH = organizational health; SL = spiritual leadership; AL = altruistic love; V = vision; H = hope/faith; MS = membership; OC = organizational commitment; P = productivity.

Table 5. Standardized and Unstandardized Coefficients for SEM

Endogeneous Variable	Exogeneous Variable	*β*	*B*	*SE*
SLMS	SLAL	0.85	0.62	0.02
SLH	SLMS	0.57	0.36	0.03
SLV	SLH	0.47	0.49	0.04
SLV	SLMS	0.42	0.27	0.03
SLOC	SLV	0.36	0.60	0.08
SLP	SLAL	0.46	0.28	0.03
SLOC	SLMS	0.54	0.58	0.05
SLP	SLV	0.35	0.45	0.06
OH	SLOC	0.52	1.98	0.19
OH	SLP	0.26	1.26	0.25

Note. OH = organizational health; SL = spiritual leadership; AL = altruistic love; V = vision; H = hope/faith; MS = membership; OC = organizational commitment; P = productivity.

Each arrow shows the standardized direct effects of exogeneous variables on endogenous variables. For instance, the effect of AL on P is .46, whereas, that of AL on MS is .85. Moreover, the indirect effect of AL on OH is .12 (.46 x .26). The interpretation of these effects could be, for example, one unit change in AL would

lead to .46 unit change in P. The indirect effect of MS on OH is .47 (.54 x .52). That is, one unit change in MS would lead to .47 unit change in OH indirectly. To give a last example, the indirect effect of LH on OC is .17 (.47 x .36). Standardized and unstandardized direct effects of the variables in the model can be seen below in Table 5 in detail, which are also depicted in Figure 3 over the arrows.

Discussion and Results

The original dimensions in the scale of Spiritual Leadership (SL) were, namely, *vision, altruistic love, hope/faith, meaning, inner life, membership*, *productivity*, *organizational commitment*, and *satisfaction with life*. Organizational Health (OH) had 6 latent variables, namely, *collegial leadership, teacher affiliation*, *resource influence*, *institutional integrity, principle influence*, and *academic emphasis*. Upon CFA analysis in this study for both scales, the number of dimensions decreased and reorganized as follows: *altruistic love, vision, hope/faith, membership, productivity,* and *organizational commitment* for SL; *collegial leadership, teacher affiliation, resource influence, principle influence,* and *academic emphasis* for OH.

The analysis in the study was performed to identify the level and direction of variables (AL, MS, H, V, P, and OC) on the variables of OH. This study found out that SL's subscales and *organizational health* were positively and significantly related, based on the data collected from teachers in this study. SL dimensions including *altruistic love, productivity, membership, hope/faith,* and *organizational commitment* showed a direct and indirect effects on predicting OH of the schools at varying degrees. The more schools welcome spiritual qualities, the healthier educational organizations become.

In this study, it was seen that the related dimensions of SL account for total variance in the OH at a medium level. Among all other variables, the highest direct effect was between *altruistic love* and *membership*, and the lowest one was between *productivity* and *organizational health*. The highest indirect effect was between *altruistic love* and *organizational commitment.* The variables of *vision, hope/faith, membership, productivity,* and *organizational commitment* are significant mediators between AL and OH.

While there are several studies examining the relationship of OH with other leadership types such as transformational, transactional, and instructional leadership (e.g., Korkmaz, 2007; Parlar & Cansoy, 2017), there is a gap in causality studies on leadership aspects of spirituality and organizational health (Ebrahimi, Kazemi, & Salajegheh, 2016), especially in school settings. In a regression study by Behroozi, Qasemi, Khodadad, and Behroozid (2017), a significant relation between SL and OH was observed. In another paper, spiritual values at work showed a positive, significant, and moderate correlation with the organizational health (Ikhwan, Sudiro, Noermijati, & Rahayu, 2017). The values of spiritual leaders can contribute to the healthy functioning of the organization. Polat (2011) mentions spiritual leadership as having a positive outcome on OH among many other variables such as loyalty, job satisfaction, and commitment. Yaghoubi and Rahimi (2016) stated a significant positive relationship between organizational spirituality and organizational health which can be predicted by organizational spirituality. From this point of view, our finding in this study is coherent with the existing literature at large extent.

In examining personal health of people in relation to their spiritual values, there are positive results such as those of health and spiritual constructs at the organizational level. Although the construct of health on personal level is different from that of organization, the definitions include similar grounds. There are studies suggesting a positive influence of spirituality on health of followers (Fry & Matherly, 2006). According to González-González (2018), there are some studies which assert many benefits for spirituality in developing good self-esteem, lessening occupational stress, contributing to wellbeing and health of a person, having effective stress management mechanisms and a predominantly internal locus of control, and attaining high tolerance levels, emotional intelligence, job satisfaction, and resilience. Studies show that spirituality and religion together can promote mental health by means of community and support, positive religious coping

and positive beliefs (Weber & Pargament, 2014). Koenig (2009) also highlights recent studies that have identified spirituality of people may function as psychological and social resources in coping with stress. Spirituality in this sense may influence people's sense of coherence and ability to deal with stress, loss, and illness (Büssing, Baumann, Hvidt, Koenig, Puchalski, & Swinton, 2014). Based on these studies, spirituality can be considered as an important factor in mental and psychological health of people as well.

In accordance with spiritual leadership and personal/organizational health findings in the literature, spirituality at schools can surely fulfill important roles in maintaining a healthy workplace and can help people empower their health through spiritual coping strategies. The findings in this study in line with related literature highlight the predictive power of spiritual leadership on organizational health in schools and educational organizations.

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