

Mediation Effect of Schools' Psychological Climate on the Relationship between Principals' Leadership Style and Organizational Commitment

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ABSTRACT Educational organizations are facing new challenges due to global changes affecting countries economically, cultural and socially. This wave of changes is creating new demands from schools and school leaders must look for ways to meet these demands and to direct their employees towards organizational goals. School climate and teachers' commitment to organization, which are two significant assets for organizational performance, are influenced by how leaders use their leadership capabilities in organizational processes. This study aims to assess the mediating effect of psychological climate on the relationship between leadership styles and teachers' commitment. The results show that psychological climate is a partial mediator in that relationship. In other words, principals' leadership abilities influence organizational commitment both directly and through psychological climate. As a result, it is indicated that to increase teachers' commitment, leaders must focus on increasing positive psychological climate

INTRODUCTION

Educational institutions, that educate people with various skills necessary for today's fast-changing world, have recently become the most important power behind transformation and development of societies. Considering that schools can instigate vast changes in communities and individual behavior (Williams 2009), education seems to have a catalyst power in social transformation. In other words, schools assume vital functions such as "maintaining existing culture, ensuring social and political cohesion as well as managing social change" (Dincer 2003: 105).

Schools that assume these significant responsibilities are expected to provide a quality and effective education to members of community. This "quality and effective education" has been a goal set by society to be achieved by schools. The level and nature of such an education highly depends on how these important social units are managed along with the psychosocial status of teachers at schools. Leadership that is often

regarded as "the single most important factor in the success or failure of institutions" (Bass 1990: 8) is known to affect various subsystems in organizations. As pointed out by Eren (2012: 435), leaders are expected to bring people together around a common goal and increase their power, courage, desire and energy. Leaders are thus believed to influence, psychological climate; employees' "perceptions that describe how an individual cognitively appraises the environment" (Barkhi and Kao 2011: 125) and commitment; the level they are attached to organization they work for.

Leadership Styles

Leadership is known as an effort that directs organizational activities to achieve a common goal. Since leadership also refers to the process of interpersonal interaction and guidance in order to achieve organizational goals, it could be defined as an "influence" process through interpersonal communication (Karahana 2008: 147). Leadership is a subject of management science and it is a concept both related to business world and can also be analyzed from psychological, sociological, political and philosophical perspectives (Sisman 2004).

Global changes that affect societies from political, cultural, social and educational aspects

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necessitate new leadership styles in order to effectively manage these changes. These “mega trends” have changed industrial societies to knowledge societies, national economies to global economies, and short-term approach to long-term approach and representative democracy to participatory democracy (Balci 2011: 197; Naisbitt 1982). All these changes have, to some extent, invalidated traditional leadership theories and led to emergence of new theories and leadership styles. Among these primary styles are instructional leadership, visionary leadership, ethical leadership and the other relatively new transformational and interactive leadership styles (Turan 1996).

While fast changes and ambiguities necessitate a new leadership style, organizations cannot stop creating their own desired future. Transformational leadership that is defined as the ability to create sudden and effective changes in an organization (Celik 2003) is a type of leadership to reach this desired future (Turan 1996). Charismatic leadership, which refers to being visionary, acting in accordance with ethical values, being a role model, having an intellectual influence on people, providing individualized support is another leadership style that aims to increase the effectiveness of a school by helping employees achieve their high order needs and thus show extra-role behaviors (Bass 1990). Leadership style can therefore be an antecedent of various organizational outcomes. Transformational leadership style is found to be linked to normative commitment (Ilhami et al. 2013; Kim 2013) and effective leadership fosters employee commitment (Wallace et al. 2013).

Charisma is described as extraordinary, supernatural or exceptional power or skills peculiar to one unique person (Adair 2005). It refers to the ability to stay calm, have self-confidence, and show reactions that can influence others’ behaviors (Karaman 1999). Charismatic leaders create and transfer inspiring high ideals and give effective speeches to carry these ideals to people. They inspire and motivate people towards goals and show enthusiasm and good will. These intellectually stimulating leaders also support creativity among his/her followers by helping them approach problems from different ways (Bass and Avolio 1990).

Transactional leaders, on the other hand, are leaders who try to maintain the existing structure of organizations (Celep 2004). They carry

out these roles in two ways; contingent rewards and management by exceptions (passive and active). These leaders use contingent rewards by rewarding or punishing based on employees’ performance and proficiencies (Geyer and Steyrer 1998).

Leaders who follow management by exceptions route could either follow the active or passive path. In active management mode, leaders follow employees’ performance by preventing them to diverge from standards and correct their mistakes along the way. In passive management mode, leaders just wait and do nothing until a problem arises. They do not act to fix the problem (Bass 1997). They follow the “do not fix it if it is not broken-do not touch it” principle and they do not act unless a problem arises (Karip 1998).

Laissez-faire leadership style means leaders’ avoidance of taking an initiative and not being seen around. This is the least mobile leadership style with less interaction with employees (Geyer and Steyrer 1998). It is also a type of leadership when the top person in an organization does not use any power and when this power is given to organizational sub units or departments (Rowold and Schlotz 2009).

Analyzed holistically, it could be argued that transformational leadership style is a more appropriate type of leadership for educational organizations than transactional leadership. Transformational leaders are effective and have creative ideas. They play active roles without ignoring events in an organization and try to solve the problems. Considering the structure of schools and that that problems must be solved either proactively or reactively as problems at schools can lead to inexpiable consequences, transformational leader behaviors are of great significance for schools.

Psychological Climate

It is known that organizations also have their climate, aura. Climate can be regarded as the personality of organizations (Cherrington 1994). Climate is a multidimensional psychological state that characterizes the person’s relationship with the organization in question (Meyer and Allen 1997) because a person’s psychological state is affected by organizational processes such as autonomy, work pressure, and control (Grigsby 1991). Climate can be measured by considering aggregated organizational, group or individual

level, the latter referring to psychological climate (PC) defined by James et al. (1978) as "an individual's cognitive representations of relatively proximal situational conditions, expressed in terms that reflect psychologically meaningful interpretations of the situation" (p. 786). Different from organizational climate, psychological climate is measured at the individual and unit levels of analysis (Chan 1998) and it thus focuses on perceptions from "I" point of view. In other words, psychological climate can be seen as "a judgment by the individual about the degree to which the work environment is beneficial to their sense of well-being" (Carless 2004). Leadership style employed in an organization affects climate felt by each unique individual. As shown by (Kara et al. 2013; Gillet et al. 2013), transformational leadership style is found to be more effective than transactional leadership style by fostering employee well-being.

Koys and Decotiis (1991) points out that multiple climates may exist in the same organization since organizational life can be perceptually different for members at different organizational levels, at different locations or in different units in the same location. Psychological climate refers to perceptions of individuals not aggregated at group level. Different from Brown and Leigh (1996) who classified into six sub factors; supportive management, role clarity, contribution, recognition, self-expression, and challenge, Koys and Decotiis (1991) have classified eight sub dimensions of psychological climate; fairness, support, pressure, autonomy, trust, cohesion, innovation, recognition.

Climate, which is affected by organizational processes and leadership, is expected to be influenced by leadership behaviors and also to influence employees' behaviors, such as commitment.

Organizational Commitment

Commitment is a vital concept that creates a powerful link between organization and employee because it serves as "glue that provides the vital bond between people and change goals" (Conner 1992: 147). The concept, which is based on reciprocations between organization and employee (Cropanzano and Mitchell 2005), is defined as a psychological state that ties employees to an organization (Allen and Meyer 1990). Similarly, Mottaz (1987) has conceptualized it as

a state created in return for rewards and payments received from an organization by employees. This "give and take" refers to the fact that when an individual is supported and feels valued and recognized in an organization, he or she will pay back in return with his or her energy, contribution to the organization. O'Reilly (1989) mentioned three stages of commitment; adaptation of individual to organization, identification of individual with organization and identification of organizational values by individual as a result of creation of congruence between individual and organizational values.

One of the widely known models regarding organizational commitment was formulated by Meyer and Allen (1991) who divides it into three sub categories; affective, normative and continuance. Affective commitment refers to employees' affective attachment to organization, identification with organization and active involvement in organizational processes. Employees with high affective commitment levels stay in organization because they intrinsically desire to stay (Meyer and Allen 1991). This level of commitment represents the "want to" level of commitment (Herscovitch and Meyer 2002). Normative commitment refers to obligation to stay in organization due to ethical reasons. Employees who are normatively committed to organization tend to stay in the organization because they feel loyal and indebted to organization because of the opportunities provided by organization. These employees do not want to disappoint their supervisors and colleagues and feel that these people will have negative thoughts about them in case they leave organization (Greenberg and Baron 2000). Herscovitch and Meyer (2002) define this level as "have to" level since those who remain out of a sense of obligation (normative commitment) may do likewise only if they see it as a part of their duty, or as a means of reciprocation for benefits received. Continuance commitment reflects awareness about costs of leaving the organization. Employees who have continuance commitment continue to stay in the organization because they need this (Meyer and Allen 1991). In other words, organization members "ought to" stay with their organization (Herscovitch and Meyer 2002) due to the costs related to leaving. Employees with continuance commitment levels are considered to be less committed to organization than affective organization.

While the relationship between leadership and commitment has been studied intensively, less research has focused on how climate mediates this relationship. This study aims to contribute to existing literature by analyzing individual level climate perceptions (psychological climate) and commitment.

Leaders are directly influencing commitment levels; however, analyzing other sub systems that will show clear ways to affect commitment will provide concrete areas to work on for increasing commitment. That is why; an investigation of how psychological climate mediates the relationship between leadership and commitment would provide a better insight about steps leaders should take to increase teachers' commitment.

Objectives

Thus, this study aims to reveal the mediating effect of school psychological climate on the relationship between leadership and teachers' organizational commitment. To achieve this, the following questions will be answered:

1. Is there a significant relationship between leadership and psychological climate?
2. Is there a significant relationship between leadership and teachers' commitment to the organization?
3. Is there a moderating effect of psychological climate on the relationship between leadership and teachers' commitment to the organization?

MATERIAL AND METHODS

Model

Because the current study aims to assess the relationships between principals' leadership abilities, school's psychological climate levels and their organizational commitment levels, causal-comparative model was applied. Causal-comparative model is used to analyze causes of an existing situation or event within the context of cause-effect relationships (Fraenkel and Norman 2008; Buyukozturk et al. 2008: 15).

Participants

The study group of this study consists of 1469 teachers working in primary school in South-east of Turkey in 2012-2013 academic year. Table

1 shows frequency and percentages related to variables such as participants' personal characteristics, nationality, gender, marital status, education, age and tenure.

Looking at Table 1, it is seen that the number of female and male teachers participating in the study is almost equally distributed. The data shows that a great majority of participants are married. Also, most participants are at middle ages. The table also shows that there is variation in terms of participants' tenure with most teachers are either in the beginning of their careers or have minimum 10 years of experience.

Table 1: Frequency and percentages of participants based on demographic variables

Variable	Categories	N	%
Gender	Male	769	52.3
	Female	700	47.7
Marital Status	Married	963	65.6
	Single	486	33.1
Age (years)	29 and lower	579	39.4
	30- 39	685	46.6
	40 and above	205	14.0
Tenure (years)	1-4	539	36.7
	5-9	356	24.2
	10 and above	574	39.1
Total		1469	100.0

Data Collection Tools

Three scales were used in order to collect data for the study.

"Three-Dimensional Visual Commitment Scale" developed by Meyer and Allen (1997) an adapted by Karakus (2005) to Turkish culture as "Organizational Commitment Scale" was used in the study. It has 21 items and the reliability coefficient (Cronbach alpha) of the scale was found to be 0.885.

"Multi-factor Leadership Scale" developed by Bass and Avolio (1990) based on contingent leadership theory was used to determine leadership style employed by school principals. The scale was adapted to Turkish by Akdogan (2002). While the original form of the scale had 45 items, the adapted version has 36 items. The reliability coefficient (Cronbach's alpha) of the scale was found to be 0.798.

"Psychological Climate Scale" developed by Koys and DeCotiis (1991) and adapted to Turkish by Altunkese (2002) was used to assess the psychological climate of schools. The scale had

8 dimensions and 44 items. The reliability coefficient (Cronbach alpha) of the scale was found to be 0.901.

Data Analysis

Data was analyzed with hierarchical multiple linear regression method. Prior to data analysis, missing values, outliers, normality, multicollinearity were analyzed, in other words, premises of analysis were tested.

While analyzing the effects of principals' leadership abilities and school's psychological climate as independent variables on teachers' organizational commitment as dependent variable, hierarchical multiple linear regression models were used in which gender, age and tenure variables were controlled. The dichotomous categorical variables of gender status were re-coded before analyses with dummy coding (0=males, 1=females). The age variable was collected as a continuous variable, so it was entered into the analyses as it was.

The model to be tested is: "principals' leadership abilities influence their organizational commitment both directly and through their psychological climate levels". In the study, the mediation effects of school's psychological climate levels on principals' leadership abilities predicting their teachers' organizational commitment levels was analyzed.

"Mediation effect" that was developed by Baron and Kenny (1986) could be defined as "the mediation effect of a third variable in the relationships between two variables". There are some conditions to be met for a third variable to be acting as mediator in relationship between two variables.

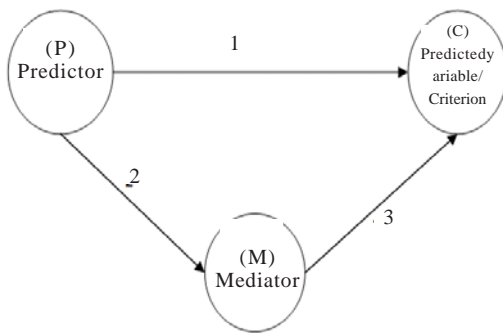


Fig. 1. Mediation effect in Baron and Kenny model

As can be seen in Figure 1, there are three variables; (P) Predictor, (C) Predicted /Criterion and (M) Mediator. Baron and Kenny (1986) noted that for the evidence of mediation effect through regression analysis four conditions below must be met:

- ♦ P significantly predicts C. (1),
- ♦ P significantly predicts M. (2),
- ♦ M predicts C if effect of P is controlled. (3),
- ♦ If the effect of M is controlled, prediction of P on C is significantly lessened. (4).

In the fourth step, if the effect of P on C is found to be insignificant, M will be considered as "full-mediator" variable; if the effect of P on C is found to be significantly lessened, M will be considered as "partial-mediator" variable. In partial mediation cases, it could be stated that P both has a direct effect on C and an indirect effect on C through mediating effect of M. In such a model, the effect of P on C without considering (without controlling) C is the sum of both direct and indirect effects (Frazier et al. 2004: 126).

There are 14 separate mediation test methods used to assess the significance of mediation effects in literature. Sobel test which is used frequently and known to create the most reliable results (Simsek 2007: 25) was used in the current study. MedGraph-I program developed by Jose (2003) and open for use online was utilized to apply Sobel test in the study.

RESULTS

Findings and results related to hierarchical linear regression analysis carried out to assess mediation effect of teachers' psychological climate in the relationships between principals' leadership styles and general organizational commitment are presented in this part. While analyzing the effect of instructor's principals' leadership styles on general organizational commitment in the mediation test analysis, psychological climate was taken into model as control variable.

As illustrated on Table 2, after demographic variables such as gender, age, tenure and principals' leadership styles variables are controlled in Step 1, school's psychological climate score was added into the model through enter method in Step 2. As a result of hierarchical linear regression analysis, after psychological climate was added to the model, the effect of principals' leadership abilities on organizational commitment changed from $\beta=.129$ to $\beta=.078$. That after psychological climate was added to the model, the effect of principals' leadership abilities was decreased but still remained significant show that

organizational commitment is a partial mediator in that relationship. In other words, principals' leadership abilities influences organizational commitment both directly and through psychological climate.

As shown on Table 3, in Sobel test that was carried out by entry of some data in Table 2 to MedGraph-I program to assess the significance of mediation effect, mediation effect of psychological climate was found to be significant in $p < .001$ level. Looking at analysis performed to test mediation effects; it could be observed that the total effect of principals' leadership abilities on teachers' organizational commitment is $\beta = .129$. When psychological climate is controlled, the principals' leadership abilities on organizational commitment becomes $\beta = .078$. The difference which is $\beta = .051$ results from mediation effect of psychological climate. The mediation effects and general model is shown in Figure 2. The prediction between variables is shown through the arrow on the figure. Standardized Beta coefficients in regression table are revealed on the arrows.

Table 3: Sobel test analysis results related to the significance of mediation effect of school's psychological climate in principals' leadership abilities levels predicting teachers' organizational commitment

Mediation type	Partial
Sobel Z score	5.605376
Significance	<0.000001
Direct effect	0.078
Indirect effect	0.051
Total effect	0.129

Table 2: Results of hierarchical linear regression analysis related to mediation effect of school's psychological climate on the effect of principals' leadership abilities on teacher's organizational commitment

Model Independent variables		Dependent variable: Organizational commitment					
		B	Std. error	Beta	t	p	F
1 st Step	Constant	2.317	.198		11.703	.000	7.962***
	Gender	.080	.035	.062	2.319	.021	
	Age	.005	.005	.053	1.010	.313	
	Tenure	-.005	.005	-.052	-.994	.320	
	Leadership Abilities	.232	.046	.129	4.996	.000	
2 nd Step	Constant	1.786	.212	8.415	.000	14.765***	
	Gender	.078	.034	.060	2.285	.022	
	Age	.005	.005	.057	1.099	.272	
	Tenure	-.006	.005	-.059	-1.143	.253	
	Leadership Abilities	.140	.048	.078	2.920	.004	
	Psychological Climate	.253	.040	.171	6.411	.000	

$\Delta R^2 = .027^{***}$

* $p < .05$. ** $p < .01$. *** $p < .001$

DISCUSSION

Organizations have various sub systems such as goals and values, psychosocial sub-system, technical and structural subsystems and managerial subsystem has a strong influence on the effectiveness of all the other subsystems (Kast and Rosenzweig 1985; Eren 2012). A positive leadership style employed properly in organizational processes is highly likely to organize all other subsystems towards common organizational goals. Commitment is one of the areas leaders need to embark their focus on as because committed teachers have greater job effort and involvement, and are less likely to leave their positions and display other withdrawal behaviors (Hulpia and Devos 2010). As shown by a great deal of research (Nguni et al. 2006; Ross and Gray 2006; Meyer and Allen 1997), school leadership practices are of great importance since they are positively related to teachers' commitment level. Although some studies (Johnston et al. 1990; Savery 1991) found no link between organizational commitment and leadership behavior, this study has found out similar results with researchers (Acar 2012; Steyrer et al. 2008; Avolio, et al. 2004; Barling et al. 1996; Bono and Judge 2003; Dubinsky et al. 1995; Dumdum et al. 2002; Lowe et al. 1996; Walumbwa et al. 2003) who found strong correlations between leadership practices and organizational commitment. Teachers are influenced by actions of their leaders and these leadership skills have a determining effect

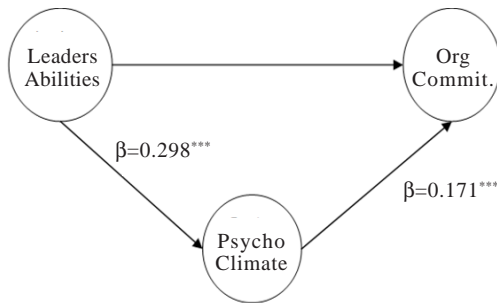


Fig. 2. The mediation effect of psychological climate in the relationship between principals' leadership abilities and teachers' organizational commitment with standardized beta coefficients (* $p < .05$, ** $p < .01$, * $M < .001$).**

on whether teachers are affectively attached to their organizations.

The findings are correlated with Chieffo (1991)'s finding that the nature and autonomy of work environment has an impact on employees' commitment. Leaders can thus influence commitment through their actions, skills and some other organizational processes. One of these factors to use as leverage for increase in commitment level is psychological climate. In other words, leadership may affect work outcomes through climate that is created within the work environment (Lee 2005; Nemanich and Keller 2007; De Poel et al. 2012). Leaders can increase teachers' commitment levels by creating a fair atmosphere based on mutual trust, create less pressure on teachers, providing any type of support they need during organizational life. They can also create environment where teachers can use their creative skills, which would stimulate employees to reflect on the work processes and express their own innovative ideas and thoughts (Pole et al. 2008) because approaching innovative ideas positively and empowering teachers to become more autonomous people in organization could help teachers to become more emotionally attached to organization which will further reflect on their organizational performance. Psychological climate, that is defined as how employees perceive the work conditions in a certain workplace (Rousseau 1988) can function as a concept to be used as a leverage for increased organizational commitment.

A leader adopting a particular style would create a climate similar to that style (Venkatapa-

thy 1990) since leadership shapes all other organizational processes. Since specifically in times of organizational change, teachers can have concerns in different stages (Cetinkaya 2012), the type of leadership adopted in school organizations seems to determine a positive school climate and contributes to teachers' heightened commitment levels. When a leader with strong leadership capabilities manages a school, effectively interact with teachers, recognize their efforts and help them make meaning of organizational events, he or she will create a positive psychological climate in which teachers will feel valued. Teachers working in such a positive school environment will tend to identify more with organizational goals.

CONCLUSION

School principals' actions and the way they use leadership in organizational practices influence how teachers attach meaning to organization and how each individual teacher perceives organizational procedures. Psychological climate is measurement of climate at individual level and it takes individual as unit of analysis. It differs from organizational climate, which is more of aggregated perceptions in any given organization. Since it measures how organizational processes are beneficial or detrimental to individual's well-being, it could be seen as the basis for organizational level climate perceptions. Just as it has a strong effect on overall group level and organizational level climate perceptions; leadership style has a determining effect on psychological climate; that is organizational members' individual perceptions. What is more interesting is that psychological climate mediates the existent relationship between leadership style and teacher commitment and acts as a factor increasing teacher commitment to organization.

RECOMMENDATIONS

Training process of school principals can be organized in such a way to include courses and sessions on certain ways to increase teachers' organizational commitment levels.

School principals can frequently be updated about the effects of leaders' actions on teachers' psychological climate and on followers' behavior.

School climate can be measured on a regular basis from individual, group and organization levels and the findings should be shared with school principals.

School principals can hold short meetings with individual teachers with an open-minded focus on both sides. The meetings should be used as a reflective thinking tool to help principals review his or her actions on climate and commitment.

Selection and induction of school principals can include some post-graduate level courses on motivation, school climate and members' commitment to organizational processes. These courses can help principals to get insights through field studies and action-research.

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