

Full Length Research Paper

How school climate predicts teachers' organizational silence

Saleh Ali Y. Alqarni

Department of Educational Administration, Faculty of Graduate Educational Studies, King Abdulaziz University (KAU), Jeddah, KSA.

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This study aims to explore the relationships between school climate constructs and teachers' organizational silence (OS) and to analyze how school climate predicts teachers' OS. The study population comprised all teachers (2,237) working in private primary schools in Jeddah, Saudi Arabia. The sample consisted of 329 responses, which represented 14.7% of the original population. Structural equation modeling for path analysis between the main constructs (teacher behavior, principal behavior) and teachers' organizational silence revealed the influence of principal behavior on teachers' silence was significant. However, the influence of teachers' behavior on teachers' silence was found to be non-significant. The relationships between teachers' OS and four school climate constructs (supportive principal behavior, directive principal behavior, collegial teacher behavior, intimate teacher behavior) were negative, while the relationships between teachers' organizational silence and two school climate scales (restrictive principal behavior, disengaged teacher behavior) were positive. It is recommended that top educational management officials develop relevant policy procedures, such as legislating necessary regulations to protect whistle-blowers in the school environment. Given the increased popularity of the Organizational Climate Description Questionnaire for Elementary Schools (OCDQ-RE) in measuring school typology, we encourage the use of this questionnaire to predict other teachers' behaviors in the school environment.

Key words: School climate, Organizational Climate Description Questionnaire for Elementary Schools (OCDQ-RE), organizational silence, teachers' silence.

INTRODUCTION

The current era is characterized by a highly competitive, changing environment. In this context, organizations confront rapid changes in information processing and decision-making. Thus, organizations make use of their employees' thoughts and suggestions to enhance innovative initiatives and to promote organizational

effectiveness. Recognizing their employees as a valuable resource of innovative thoughts and useful opinions, healthy organizations also seek their criticisms, complaints, and even notifications of irregularities and violations. Consequently, managers aim to create healthy and open organizational climates that urge employees to

E-mail: saalqarni@kau.edu.sa. Fax: 00966126951689.

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speak up with their ideas, concerns, complaints, and any information about the current issues in the workplace.

These actions and arrangements are consistent with the management literature, which stresses how critical employee voices and communication opportunities are within organizations (Tangirala and Ramanujam, 2008; Morrison and Milliken, 2000). However, unfortunately, many employees choose to remain silent and withhold their ideas, concerns, and information about issues in their work environments. Researchers and theorists (Çakıcı, 2007; Perlow and Williams, 2003; Milliken et al., 2003; Pinder and Harlos, 2001; Morrison and Milliken, 2000) have long demonstrated that employees are generally hesitant to speak up both to their supervisors and colleagues when they have potentially critical concerns or valuable thoughts to share. This behavior is identified as organizational silence (OS); more specifically, OS refers to the withholding of potentially useful information or critical concerns that employees fail to share with their supervisors or those in positions of authority (Morrison and Milliken, 2000; Pinder and Harlos, 2001). In other words, it refers to an employee's tendency to not speak up when they have an idea, a suggestion, a concern about problematic issues in the workplace, or a disparate perspective that could be helpful or applicable to share (Van Dyne et al., 2003; Milliken et al., 2003).

Likewise, educational institutions are not far removed from these problems. Alqarni (2015) clarified that educational institutions confront many of the same problems that are associated with employees' behaviors in issues of organizational performance. These include a low tendency to participate in decision-making, weak involvement in initiative and innovative activities, hesitance to express their ideas and suggestions, withholding information regarding illegal practices in the workplace, and absolute acquiescence and obedience to their heads. Consistently, additional researchers (Çakıcı, 2007; Bayram, 2010) demonstrated that OS is a prevalent behavior in school environments and among educators.

Recent research has also revealed that OS is associated with negative organizational outcomes. Some researchers (Graham, 2002; Perlow and Williams, 2003) claimed that OS could decrease organizational learning, error correction, and crisis prevention. Moreover, organizational performance declines with significant levels of silence (Perlow and Williams, 2003). In line with these outcomes, Perlow and Williams (2003) added that "silence can exact a high psychological price on individuals, generating feelings of humiliation, pernicious anger, resentment, and the like that, if unexpressed, contaminate every interaction, shut down creativity, and undermine productivity" (p. 53). Similarly, Morrison and Milliken (2000) presented a model of the effects of organizational silence, which includes a "lack of variance in informational input, lack of analysis of ideas and alternatives, lack of internal negative feedback, employees' perceived feelings of not being valued and

employees' cognitive dissonance" (p. 718). These adverse OS consequences impose a need to examine this phenomenon in terms of its causes and conditions. This issue becomes increasingly important for educational institutions in general and for schools in particular, which should be examples of healthy learning environments that reinforce effective communication, freedom of expression, smooth flows of information, and successful collegial work.

To address OS in educational institutions in general, and in schools in particular, we argue that organizational climate or school climate might provide us with a broader understanding of the real contributors or antecedents of this phenomenon. Based on an in-depth look at the concept of school climate, this assumption is supported by the fact that school climate represents:

The heart and soul of a school, psychological and institutional attributes that give a school its personality, a relatively enduring quality of the entire school that is experienced by members, which describes their collective perceptions of routine behavior, and affects their attitudes and behavior in the school (Hoy and Miskel, 1987: 226).

Pretorius and de Villiers (2009) described school climate as "a relatively enduring, pervasive quality of the internal environment of a school experienced by educators and/or learners that influences their behavior and proceeds from their collective perceptions" (p. 33). One core element in these definitions is that school climate affects school members' behaviors. Therefore, we argue that school climate dimensions might help explain teachers' OS. In support of this view, Hoy et al. (1991) introduced the Revised Organizational Climate Description Questionnaire for Elementary Schools (OCDQ-RE), which investigates principal behavior and teacher behavior. These two components interact to characterize the *openness* of the school climate. When examining these two main interacting components and their sub-components, a question arises: Could school climate be a significant predictor of teachers' OS? Alternatively, could the OCDQ-RE be a potential index for predicting teachers' OS? To put it simply, Hoy et al. (1991) demonstrated that:

The typology of school climates developed by OCDQ-RE provides a framework for not only the study of leadership, motivation, and school effectiveness but also of organizational communication, school structure, decision making, goal setting, and control processes. There is a host of important research questions to be addressed, and the OCDQ-RE is a heuristic tool in the endeavour...it gives a reasonably reliable index of what might be wrong in a school functioning below par (Hoy et al., 1991: 37).

Taking these considerations into account, we hypothesize that school climate dimensions could

significantly predict teachers' OS.

Statement of problem

Very little research in Saudi Arabia is available regarding OS and how it relates to other organizational variables. To date, the country's K-12 education sector, whether in public or private schools, remains unexplored in terms of antecedent variables of OS. In addition, even though OS is an emerging concept in organizational psychology literature that has been associated with undesirable organizational consequences, little is presently known about its status and contributing factors in the Saudi context.

Therefore, it is necessary to investigate OS in Saudi K-12 education to explore how this relates to the school climate as this climate provides a reasonable framework for highlighting the behaviors that might be affecting school functioning. This research is also necessary because OS can weaken organizational effectiveness and performance. Based on this context, a further question arises: Might school climate be a significant predictor of teachers' OS in the Saudi context? Accordingly, this paper sought answers to the following research questions:

- (1) How do Saudi teachers perceive their school climate?
- (2) How do Saudi teachers perceive their OS?
- (3) What relationships exist between school climate constructs and teachers' OS?
- (4) How do the constructs of school climate predict teachers' OS?

THEORETICAL BACKGROUND

Organizational silence

OS is a relatively new construct introduced by Pinder and Harlos (2001), Morrison and Milliken (2000), and Milliken et al. (2003). For Morrison and Milliken (2000), "it is a collective phenomenon where employees withhold their opinions and concerns about potential organizational problems" (p. 707). Consistently, Pinder and Harlos (2001) described OS as "withholding genuine expression about behavioral, cognitive, and/or affective evaluations of organizational circumstances to people who seem capable of changing the situation" (p. 334). These two definitions imply that OS is an intentional decision by an employee to remain silent and not convey any useful information or work-related concerns/critiques to those in positions of authority.

Research conducted on the consequences of OS has demonstrated that it is associated with undesirable organizational outcomes, such as low organizational performance, low retention rates (Perlow and Williams,

2003), lack of information, employee stress, dissatisfaction, disengagement (Morrison and Milliken, 2000), and a high turnover rate of people who speak up (Donaghey et al., 2011). It also denies an organization of potentially valuable knowledge (Detert and Edmondson 2011). Other research has asserted that it impedes "innovation and perpetuates poorly planned projects that lead to defective products, low morale, and a damaged bottom line" (Pentilla, 2003, p. 25). Moreover, OS is thought to be detrimental to a "bottom-up information exchange," which in turn "reduces the quality of top leaders' decisions" (Lu and Xie, 2013: 47).

Despite these risks, little research has been conducted on the antecedents and reasons underlying this devastating organizational phenomenon. Some research has reported that the organizational and contextual factors are hierarchal organization (Pinder and Harlos 2001; Milliken et al., 2003), abusive leadership (Detert and Trevino, 2010), an instrumental climate (Wang and Hsieh, 2013), a fear climate (Pinder and Harlos, 2001; Morrison and Milliken, 2000), an unsupportive culture, an unsupportive supervisor style, a lack of closeness or a poor relationship with the supervisor (Milliken et al., 2003), procedural justice (Tangirala and Ramanujam, 2008), top management attitudes to silence, supervisors' attitude to silence, communication opportunities (Vakola and Bourades, 2005), perceived organizational support, and management openness (Çetin, 2013). Very recently, in an extensive review of the current knowledge about the inhibitors and motivators of silence and voice in organizations, Morrison (2014) reported "job and social stressors, climate of fear or silence, instrumental climate, hierarchal structure and change-resistant culture" as "contextual inhibitors of voice" (p. 186) in organizations.

Other researchers addressed individual factors such as a consideration of the costs and benefits of speaking up, a fear of speaking up to superiors (Detert and Edmondson, 2011), deeply held beliefs about the riskiness of using one's voice (Detert and Edmondson, 2011; Morrison, 2014), socially shared beliefs about silence (Morrison, 2011; Frazier and Fainshmidt, 2012; Morrison, 2014), lack of experience, a low-level position, fear of being treated as a troublemaker (Milliken et al., 2003), an individual's personal identity (Ashford and Barton, 2007), a sense of futility of voicing an opinion (Morrison, 2014; Milliken et al., 2003; Detert and Trevino, 2010), employee acquiescent behavior (Pinder and Harlos, 2001), and psychological detachments (Morrison, 2014; Burris et al., 2008).

In Saudi Arabia, three main studies have been conducted on this topic. In academia, Alqarni (2015) found that the top management attitude toward silence was the highest determinant of OS among faculty members, followed by communication opportunities, and managers' attitudes toward silence were ranked last. The study also revealed that OS is significantly correlated with silence climates in universities and that OS is negatively

correlated with trust in superiors, procedural justice, and organizational commitment.

Afandi (2008) investigated whistleblowing in various public sector institutions. She found that whistleblowing is not a common behavior in Saudi work environments. The study also found that barriers of whistleblowing include the following: weak religious faith, weak adherence to moral values, and absence of proper protection for whistleblowers. Alwehabe (2014), also exploring the public sector, found that “fear of negative feedback, lack of communication skills, lack of top management support, isolation, and fear of adverse reactions” (p. 389), all contribute to OS in public sector institutions.

As a researcher and observer of OS in the Saudi context, the context is not far removed from the factors and causes discussed by the relevant literature, whether in relation to individual, organizational, or contextual factors. It is noteworthy that the organizational context in Saudi Arabia confronts several problems, including leaders and administrators remaining in their positions for long periods, authoritarian leadership, and the lack of participatory styles of leadership. In its organizational structure, the majority of organizations, including educational organizations, tend to place most of the power and authority in the hands of senior leaders, which in turn stimulates individuals to remain silent to ensure job security and pursue their interests. With regard to individual factors, generally, individuals tend to avoid being the source of bad news and strive to maintain good and constructive relationships with their managers and colleagues alike. If we know that parental leadership prevails socially and organizationally due to considerations of seniority and expertise, individuals tend to remain silent and avoid disclosure because of their appreciation and respect for their older and more experienced leaders. In addition, certain deeply embedded social and religious values consider silence as a virtue in many situations for the sake of enhancing unity and preventing schism at both the societal or organizational levels.

In summary, OS has been investigated as a destructive phenomenon that is associated with negative organizational outcomes; therefore, it is worthwhile to research this topic to determine its contributors and antecedents to obtain a more complete picture and deeper understanding of this phenomenon. The current study is one such attempt in this direction.

School climate

Educators and researchers have researched school climate for over one hundred years (Cohen et al., 2009). As previously described, based on definitions provided by Hoy and Miskel (1987, 2005) and Freiberg (1999), school climate can be said to represent the collective perceptions of how school members experience the

internal atmosphere, how they understand their relationships, and how they behave, interact, and influence each other. The definitions also stress the important point that school climate influences members' behaviors and that accordingly, schools can be distinguished from one another based on teachers' routine behaviors and attitudes.

Operationally, it is useful to distinguish school climate from other related confounded constructs, such as school culture and school-level environment. School climate has been described as the “quality and character of school life” (National School Climate Council, 2007: 5). According to the National School Climate Council (2007), it comprises school members' experiences, interactive relationships, as well as shared perceptions, attitudes, and feelings they have about the school. “School culture” is defined as “the long-term physical and social environment, as well as the values or beliefs of the school shared across individuals and time” (National School Climate Center, FAQs, n.d.). In other words, school climate can be categorized as the “attitude or mood” of the school, while school culture represents the “personality or values” of the school. Climate is perception-based, while culture is grounded in shared values and beliefs (Gruenert, 2008). The school-level environment is another related construct which refers to “teachers' perceptions of psychosocial dimensions of the environment of a school, which includes student support, affiliation, professional interest, mission consensus, empowerment, innovation, resource adequacy, and work pressure” (Webster and Fisher, 2004: 313).

Research conducted on school climate demonstrates that it highly influences teachers' behaviors. Pritchard and Karasick (1973) and Lawler et al. (1974) indicated that climate influences organizational performance, employees' satisfaction levels, and work motivation. Sergiovanni and Starratt (2002) clarified that school climate could enhance or impede school educators' endeavors to fulfill their needs at the workplace. Consistently, Freiberg (1999: 11) reported that school climate “can foster resilience or become a risk factor in the lives of people who work and learn in a place called school.”

More recently, the school climate has been widely proved as a critical factor that can influence school improvement and change initiatives (Daly, 2008; Sailes, 2008; Schoen and Teddlie, 2008). Consistently school climate has been widely used to investigate many school aspects, relationships, behaviors, and outcomes. For example, positive school climate is associated with higher levels of student learning and achievement (Goddard et al., 2015; Jones and Shindler, 2016; Stewart, 2008; MacNeil et al., 2009), dropout prevention (Dynarski et al., 2008), improved psychological well-being (Ruus et al., 2007; Virtanen et al., 2009), reduced aggression and violence (Goldstein et al., 2008; Gregory et al., 2010), reduced bullying behavior (Birkett et al., 2009; Meyer-

Adams and Conner, 2008), and reduced sexual harassment (Attar-Schwartz, 2009). Other researchers found that positive school climate enhances mutual trust, respect, group cohesion, and cooperative learning (Ghaith, 2003; Finnan et al., 2003). For teachers, teachers' job satisfaction and self-efficacy were found to be related to school climate (Aldridge and Fraser, 2016). Other researchers found that positive school climates significantly predicted teacher commitment (Collie et al., 2012). Similarly, healthy school climates are found to reduce teachers' stress and burnout and to increase their job satisfaction (Skaalvik and Skaalvik, 2009; Collie et al., 2012).

Given the importance of school climate, many theorists and researchers have developed measures to assess internal school environment aspects as evaluated by students, teachers, administrators, and parents. The National Center on Safe Supportive Learning Environments (2018) published a compendium of the most reliable and valid measurements across the U.S. that can be used as school climate assessment. Among those are the Comprehensive School Climate Inventory (CSCI), School Level Environment Questionnaire (SLEQ), Alaska's School Climate and Connectedness Survey (SCCS), Delaware School Climate Student Survey, the Authoritative School Climate Survey, School Climate Assessment Instrument (SCAI), the U.S. Department of Education School Climate Survey (EDSCLS), and the OCDQ-RE/OCDQ-RS. These inventories differ in terms of the school climate need assessment, the constructs they measure, and target respondent groups.

Out of these measurements, the OCDQ-RE/OCDQ-RS has received unprecedented interest and gained popularity among researchers of school climate in primary and secondary schools. Due to the popularity of the OCDQ-RE/OCDQ-RS and its proven merits in diagnosing the internal school atmosphere and employees' behaviors, it has been used to explain teachers' commitment levels (Akoto and Allida, 2017), teachers' organizational citizenship (Mabekeje, 2017), teacher self-efficacy, teachers' beliefs (Lacks, 2016), organizational health (De Villiers, 2006), faculty trust (Hoy et al., 2002), teacher leadership (Kilinç, 2014), and principal leadership (LaRoche, 2014).

Guided by the above merits of the OCDQ-RE, and considering that teachers' OS might negatively affect school performance and educational outcomes, this paper hypothesizes that the OCDQ-RE is an efficient tool in predicting teachers' OS.

School climate and teachers' organizational silence

As it is essential to take the characteristics of the school's organizational structure into account when investigating the attitudes and behaviors of its teachers (Sarason,

1996), teachers' silence could be predicted using the OCDQ-RE. Hoy et al. (1991) revealed that the "OCDQ-RE distinguishes between three dimensions of principal behavior (supportive, directive, and restrictive) and three dimensions of teacher behavior (collegial, intimate, and disengaged)." Accordingly, these two sets of dimensions can be used to identify the principal openness and teacher openness, and hence, "provide the basis for a four-celled typology of school climate: open, closed, engaged, and disengaged climates" (Hoy et al., 1991: 36).

In terms of silence and voice behaviors, teachers may demonstrate different levels according to these four contrasting types of school climate. An *open school climate* is "characterized by teacher relations that are professional, collegial, friendly, and committed to the education of students. The principal is supportive and professional and does not restrict or direct teachers with orders" (Hoy and Miskel, 2013, p. 4). In this climate, teachers are expected to freely express their ideas, feelings, and concerns to both the principal and to their colleagues. In such a safe and encouraging climate, teachers may take further steps by voicing their criticisms and sharing information about problematic issues in the school environment.

On the contrary, a *closed school climate* is "characterized by teacher relations that are disengaged, distant, suspicious, and not professional; the principal is directive, restrictive, and not supportive" (Hoy and Miskel, 2013: 4). Moreover, teachers appear to "be divisive, intolerant, apathetic, and uncommitted" (Hoy et al., 1991: 34). Principals are seen to be "unsympathetic, unconcerned, and unresponsive" (Pretorius and Villiers, 2009: 35). In such a climate, teachers may feel reluctant to speak up both to the principal and their colleagues. This type of school climate may cause a state of fear, a lack of security, a lack of trust, retrogression, and hesitance in which teachers no longer have the desire to share their knowledge and express their views.

An *engaged climate* is marked by "ineffectual attempts made by the principal to exercise and maintain control. The principal's style of leadership is rigid, autocratic, and characterized by high defectiveness, low supportiveness, and high restrictiveness" (Pretorius and Villiers, 2009: 35). On the other hand, teachers' behaviors are seen as highly professional, collegial, intimate, and engaged; and respect and intimacy prevail in their interactions. Regardless of the principal's ineffective leadership, teachers are "productive, cohesive, committed, and supportive" as well as "engaged" in their tasks (Hoy et al., 1991: 33). In such a climate, teachers may have few channels to share their ideas and concerns with the principal; the principal's focus on setting discipline through rigid control and close supervision may lead teachers to withhold information or suggestions regarding the improvement of work-related affairs. Instead of sharing ideas and information with the principal, teachers

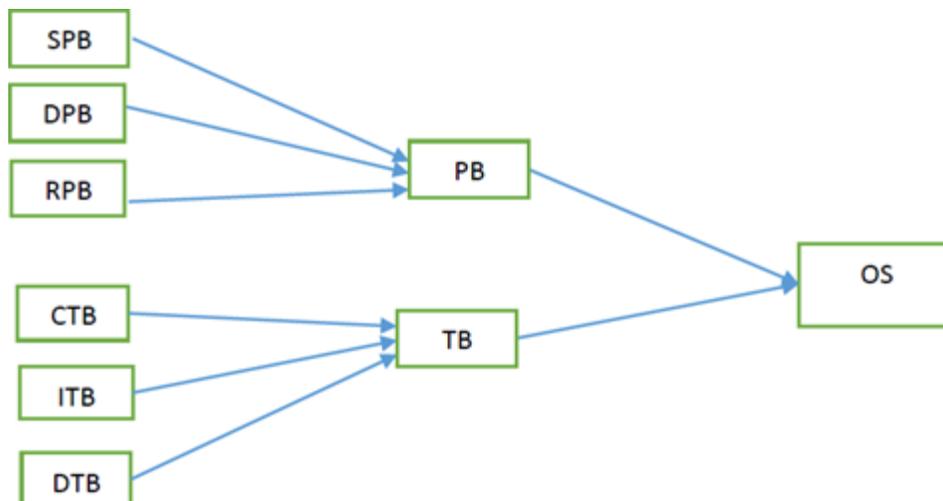


Figure 1. The hypothesized model used in the study. Supportive Principal Behavior (SPB), Directive Principal Behavior (DPB), Restrictive Principal Behavior (RPB), Collegial Teacher Behavior (CPB), Intimate Teacher Behavior (ITB), Disengaged Teacher Behavior (DTB)

tend to share some of their concerns with their colleagues because of their cohesive and strong social relations.

In a *disengaged climate*, principals are “open, concerned, supportive, flexible,” facilitating, and non-controlling, but the “faculty tends to be indifferent or even intolerant towards the principal” (Pretorius and de Villiers, 2009: 36). Teachers demonstrate low intimacy and low collegiality, and they appear to be “divisive, uncommitted and disengaged” (Hoy et al., 1991: 34). Due to their indifference and the tendency toward disengagement, teachers may demonstrate silence because they are not concerned about the school’s interests.

As school climate has been widely used to investigate many school aspects, relationships, behaviors, and outcomes, this study is consistent with this line but examines a new phenomenon in the school environment; teachers’ OS. The hypothesized model is based on structural modeling that groups the constructs of principal behaviors (PB) and teacher behaviors (TB) into two higher-order constructs. Accordingly, the relationships between school climate and teachers’ OS were examined using these two higher-order constructs. As school climate is recognized as a multidimensional construct (Wang and Degol, 2016), we sought to identify how principal behaviors—namely, supportive (SPB), directive (DPB), and restrictive (RPB)—influenced teachers’ OS and how teachers’ behaviors—namely, collegial (CTB), intimate (ITB), and disengaged (DTB)—influenced their OS. Based on our review of the literature above, as a school’s climate significantly influences teachers’ behaviors, and the OCDQ-RE is an efficient tool for identifying what is investigated how the OCDQ-RE dimensions might predict teachers’ organizational silence as illustrated in the wrong with these behaviors; therefore, the present study

model below (Figure 1).

MATERIALS AND METHODS

We used quantitative methods to investigate school climate and teachers’ OS in the private primary schools in Jeddah as perceived by teachers themselves. We analyzed and interpreted how constructs of school climate can relate and contribute to the existence of teachers’ OS. As this study was conducted to interpret how constructs of school climate predict or forecast teachers’ OS, a correlational prediction research design was used. In support of the use of this design, Creswell (2012) stated, “In correlational research designs, investigators use the statistical correlation test to describe and measure the degree of association (or relationship) between two or more variables or sets of scores” (p. 338). The prediction research design is a correlational design, which is used, according to Creswell (2012), “to identify variables that will predict an outcome or criterion” (p. 341).

Sampling

The research population comprised all the teachers working at private primary schools in Jeddah during the 2017/2018 academic year. This included 2,237 teachers working in 69 different schools. The private primary schools are geographically located in six main areas and are under the supervision of six educational offices. Private schools were selected for various reasons. First, Saudi teachers in private schools are paid by the owner of the school, and, therefore, they are likely to remain silent in order to retain their jobs and seek job security. Second, there is a large proportion of non-Saudi teachers working in private schools whose main concern is to remain in the Kingdom for financial reasons. Therefore, they tend to be silent and acquiescent to school principals and school owners. In any case, the fact that the study was confined to private schools is the main limitation of the present study.

Table 1 illustrates how the teachers are distributed across the six educational offices. Access was granted to the school and teacher database, and from which, a representative stratified random

Table 1. Sampling information.

N	Educational offices	Number of teachers	%	Distributed questionnaires	%	Receipt responses	%
1	Al-Naseem	375	16.8	113	16.8	47	14.3
2	Al-Safa	368	16.5	111	16.5	59	17.93
3	The South	271	12.1	81	12.1	43	13.07
4	The East	166	7.4	50	7.4	27	8.2
5	The North	678	30.3	203	30.2	102	31
6	The Middle	379	16.9	114	17	51	15.5
		2237	100%	672	30%	329	14.7%

sample was selected from the six offices (328 teachers, 14.66%).

Considering that there might be deficiencies in the survey response rate, we selected a sample size of 672 teachers (30% of the original population), as illustrated in Table 1. We expected a high attrition rate (from previous experience with other similar studies that we have conducted where participation was very poor). As a sample of 328 teachers was the minimum required sample size to represent the teacher population adequately, we oversampled from the intended population to cover for the expected non-response and high attrition. As expected, of the 672 participants, only 329 (14.7% of the original population) responded, which demonstrated a non-response rate of 51.04%. The two scales were sent via a web-based survey to the target teachers.

Instruments

School climate

The OCDQ-RE developed by Hoy et al. (1991) was used to investigate the teachers' perceptions of their school climates. The questionnaire was contextualized to the Saudi educational context through translation and back translation techniques. The OCDQ-RE is a 42-item survey distinguishing between three dimensions of principal behavior-supportive, directive, and restrictive, and three dimensions of teacher behavior-collegial, intimate, and disengaged (Hoy et al., 1991). The 42 items are rated on a five-point Likert scale, ranging from rarely occurs to very frequently occurs. Examples of the questionnaire are as follows:

- (i) The principal rules with an iron fist.
- (ii) The principal listens to and accepts the teachers' suggestions.
- (iii) There is a minority group of teachers who always oppose the majority.
- (iv) Teachers provide strong social support for colleagues.

Reliability of the subscales was calculated through Cronbach's alpha. The values of Cronbach's alpha ranged from 0.727 to 0.895, indicating appropriate internal consistency. Nunnally (1978) suggests that a value of Cronbach's alpha of 0.70 and above is considered sufficient and is indicative of a strong inter-item homogeneity. Alphas of the subscales are as follows: SPB = 0.895, DPB = 0.848, RPB = 0.727, CTB = 0.776, ITB = 0.867, DTB = 0.813.

Organizational silence (OS)

A short questionnaire, developed by Alqarni (2015), was used to explore teachers' OS. Alqarni (2015) developed the questionnaire for the Saudi educational context after a careful and in-depth review

of related literature; in particular, research by Morrison and Milliken (2000), Milliken et al. (2003), Morrison and Milliken (2003), Morrison (2011), and Morrison (2014), as well as the scales developed by Vakola and Bourades (2005) and Van Dyne et al. (2003). This non-dimensional questionnaire comprises nine items rated on a five-point Likert scale, ranging from rarely occurs to very frequently occurs. The value of Cronbach's alpha was .907, indicating a high internal consistency, and examples of the questionnaire items (that have been translated from Arabic) are as follows:

- (i) So as not to be treated as a troublemaker, I avoid talking about work problems.
- (ii) I lack the necessary support to report illegal practices
- (iii) I lack the power to express my views freely

RESULTS

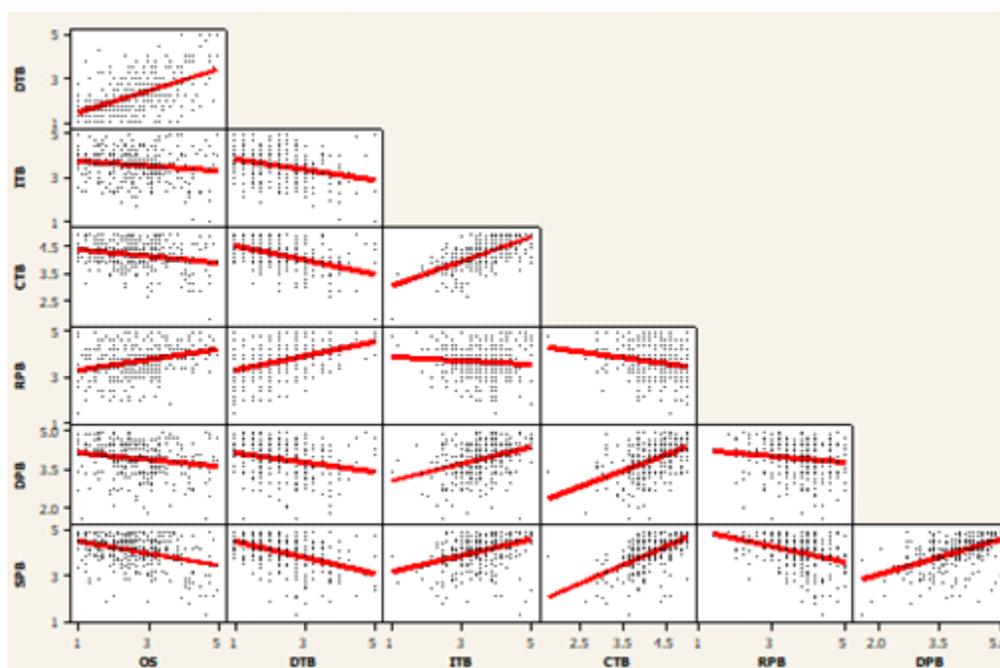
As this study was conducted to link teachers' perceptions of their school climates to their OS behaviors, the focus was on predictability and not on distinguishing one school from another in terms of openness and closeness. Therefore, teachers' collective perceptions were processed as a whole instead of focusing on the teachers of one particular school.

In terms of school climate dimensions, as illustrated in Table 2, the mean scores indicated that collegial teacher behavior was rated the highest ($M = 4.22$), followed by supportive principal behavior ($M = 4.11$), directive principal behavior ($M = 3.94$), restrictive principal behavior ($M = 3.68$), intimate teacher behavior ($M = 3.56$), and finally disengaged teacher behavior ($M = 2.25$). In terms of OS behaviors, the teachers exhibited a relatively moderate level ($M = 2.65$). Examining the standard deviations of the posited variables, we found that they all exhibited satisfactory variations from the mean scores. This means that there is sufficient variability captured in the posited variables.

To study the relationships among the six constructs of school climate with OS, the scatter matrix and Pearson's correlation coefficients were examined. A Pearson correlation requires that the relationship between each pair of variables is linear (Conover and Iman, 1981). This assumption is violated if there is curvature among the points on the scatterplot between any pair of variables.

Table 2. Means and standard deviations.

N	Variable	Min	Max	Range	M	SD
1	Supportive Principal Behavior (SPB)	1.22	5.00	3.78	4.11	0.712
2	Directive Principal Behavior (DPB)	1.56	5.00	3.44	3.94	0.675
3	Restrictive Principal Behavior (RPB)	1.40	5.00	3.60	3.68	0.680
4	Collegial Teacher Behavior (CPB)	1.75	5.00	3.25	4.22	0.515
5	Intimate Teacher Behavior (ITB)	1.00	5.00	4.00	3.56	0.701
6	Disengaged Teacher Behavior (DTB)	1.00	5.00	4.00	2.25	0.872
7	Teachers' OS	1.00	5.00	4.00	2.65	0.951

**Figure 2.** Scatter matrix of study variables.

From the first column of Figure 2, it is quite evident that out of the six constructs of school climate, only two constructs (DTB and RPB) have a positive relation with OS and the other four dimensions (ITB, CTB, DPB, and SPB) have a negative relation with OS.

A Pearson correlation analysis was conducted among six constructs of school climate and teachers' OS to study the statistical significance of the relationships as depicted in the scatter matrix in Figure 2. Cohen's standard was used to evaluate the strength of the relationships, where coefficients between 0.10 and 0.29 represent a small effect size, coefficients between 0.30 and 0.49 represent a moderate effect size, and coefficients above .50 indicate a large effect size (Cohen, 1988). The effect size tells us something about how relevant the relationship between two variables is in practice. "Effect size based on the difference of averages is often referred to as Cohen's *d*, and effect size based

on correlations is referred to as Cohen's *r*" (Rosenthal and Rosnow, 1984: 361), but for the current study, we measured the relationships between the variables so we can use Cohen's *r*. Table 3 provides guidelines for the different effect sizes. Small effects are difficult to see with the naked eye.

Figure 3 presents the results of the correlations of the six constructs of school climate with teachers' OS. A significant positive correlation was observed between OS and DTB ($r_p = 0.52$, $p = 0.001$), indicating a large effect size. This correlation indicates that as DTB increases, teachers' OS tends to increase. A significant positive correlation was observed between OS and RPB ($r_p = 0.36$, $p = 0.002$), indicating a moderate effect size. This correlation indicates that as RPB increases, teachers' OS tends to increase. A significant negative correlation was observed between OS and SPB ($r_p = -0.34$, $p < 0.001$), indicating a moderate effect size. This correlation

Table 3. Guidelines for effect sizes.

	<i>d</i>	<i>r</i>	<i>r</i> equivalent to <i>d</i> *
Small	0.20	0.10	0.10
Medium	0.50	0.30	0.24
Large	0.80	0.50	0.37

* where $r = \frac{d}{\sqrt{d^2 + 4}}$
 Source: Rosenthal and Rosnow (1984).

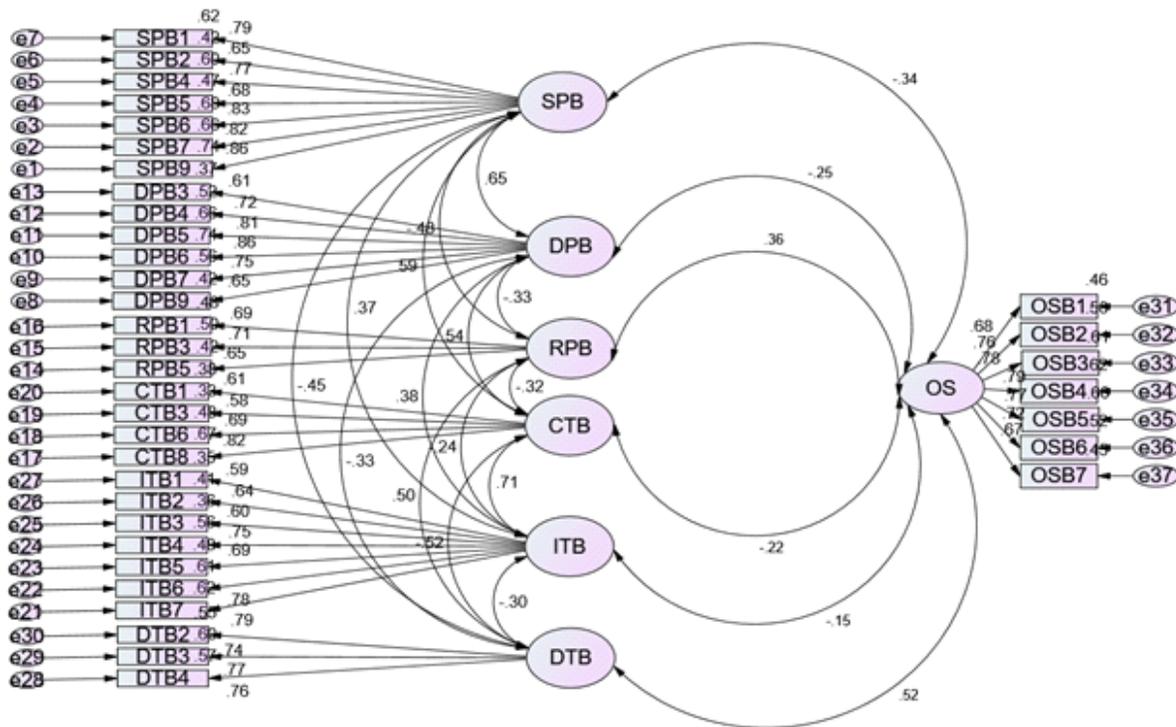


Figure 3. Correlations of school climate constructs with organizational silence.

indicates that as SPB increases, teachers’ OS tends to decrease. A significant negative correlation was observed between OS and DPB ($r_p = -0.25, p < 0.001$), indicating a small effect size. This correlation indicates that as DPB increases, teachers’ OS tends to decrease. A significant negative correlation was found between OS and CTB ($r_p = -0.22, p < 0.001$), indicating a small effect size. This correlation indicates that as CTB increases, teachers’ OS tends to decrease. A significant negative correlation was observed between OS and ITB ($r_p = -0.15, p = 0.030$), indicating a small effect size. This correlation indicates that as ITB increases, teachers’ OS tends to decrease.

To test the study hypothesized model, an analysis was conducted using Structural Equation Modeling (SEM), which is considered to be a comprehensive approach for multivariate analysis. Among the two main variants of

SEM, Covariance-based SEM was used, and the software for the analysis was AMOS 21.0. The analysis was in two parts, with the first part covering the analysis of the measurement model followed by the analysis of the structural model.

In the analysis of the measurement model, Confirmatory Factor Analysis (CFA) was conducted using AMOS. The objective of this analysis was to determine the validity and reliability of the model. All of the items were loaded into the respective constructs. During the analysis, the constructs were grouped into two higher-order constructs that represented principal behavior (PB) and teacher behavior (TB). Using the higher-order constructs and deleting items with low factor loadings, model fit was achieved with the parameters illustrated in Table 4. The verification for convergent validity was

Table 4. Measurement model, confirmatory factor analysis (CFA).

Model fit parameter	Criteria good fit/Acceptable fit	Measurement model (CFA) results	Structural model (SEM) results
CMIN/df	< 3.00/< 5.00	1.806	1.774
CFI	> 0.95/< 0.90	0.919	0.922
RMSEA (PCLOSE)	< 0.06 (non-significant)/< 0.08	0.050 (0.552)	0.049 (0.685)
SRMR	< 0.06/0.08	0.0770	0.0764

Table 5. Convergent and discriminant validity.

Average variance extracted (AVE) for convergent validity		Fornell-Larcker matrix for discriminant validity		
	AVE	PB	TB	OS
PB	0.533	0.730		
TB	0.589	0.702	0.768	
OS	0.555	-0.392	-0.282	0.745

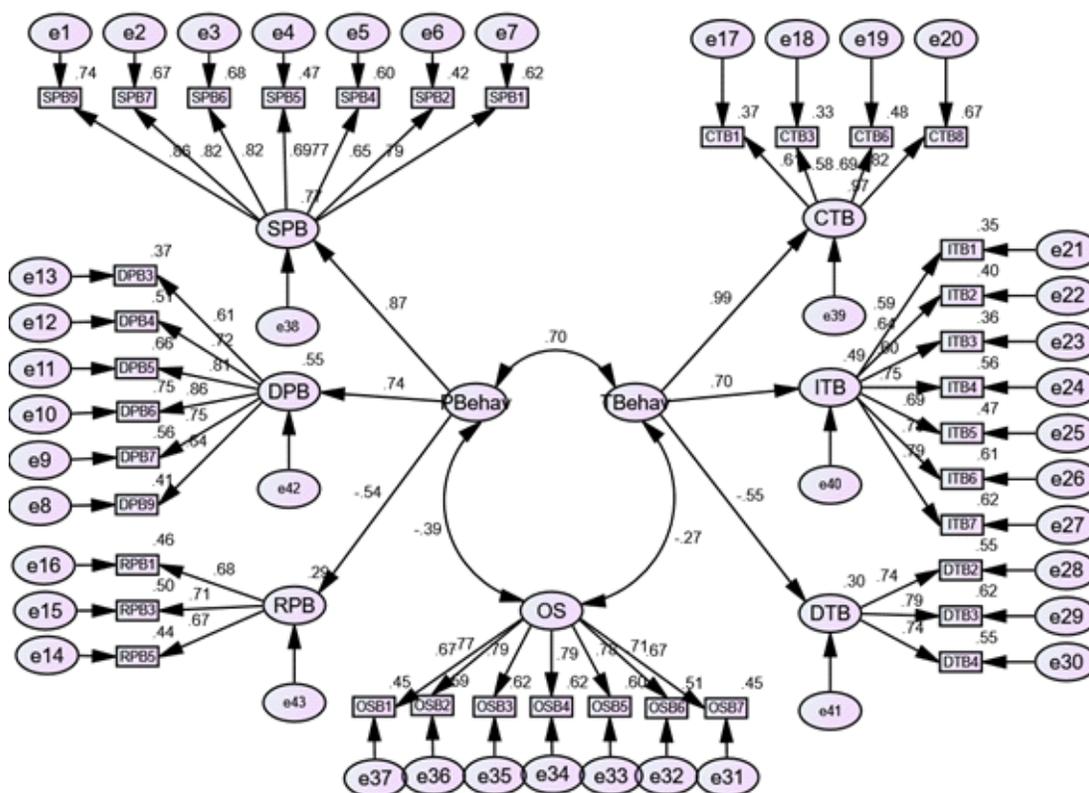


Figure 4. Measurement model (CFA) using second-order constructs.

based on the value of Average Variance Extracted (AVE), which was found to be less than 0.50 for all of the main constructs. For discriminant validity, the Fornell-Larcker

(Fornell and Larcker, 1981) criteria were used, which is illustrated in Table 5. The complete measurement model is illustrated in Figure 4.

The relationships between the six school climate constructs and teachers' OS are worthy of reflection and explanation. The relationships between teachers' OS and four school climate constructs (SPB, DPB, CTB, and ITB) were negative, while the relationships between teachers' OS and two school climate scales (RPB and DTB) were positive. Largely, teachers' OS tends to increase as disengaged teacher behavior increases. Therefore, it can be said that teachers' OS, which is at a moderate level, is due to teachers' indifference, a tendency toward disengagement, and a sense of unconcernedness. This type of OS has been articulated by Van Dyne et al. (2003) as acquiescent silence that represents "those who are fundamentally disengaged, resigned to the current situation and are not willing to exert the effort to speak up, get involved, or attempt to change the situation" (p. 38). In line with this view, Pinder and Harlos (2001) regarded disengaged behavior as "a deeply-felt acceptance of organizational circumstances, a taking-for-granted of the situation and limited awareness that alternatives exist" (p. 349).

Similarly, teachers' OS tends to increase as restrictive principal behavior increases. In support of this finding, Burris et al. (2008) revealed that employees' intentions of speaking up with suggestions were at a low level when these employees perceive that their supervisor is abusive. Elaborating on supervisors' attitudes towards employees' voices and silence, Milliken et al. (2003) revealed that a frequently reported reason was either a poor employee-supervisor relationship or a perceived unsupportiveness on the part of the supervisor. Explaining these managers' restrictive behaviors, Morrison and Rothman (2009) demonstrated that inflated feelings of power could cause leaders to become hostile or autocratic and reduce their responsiveness to employees' input, and thus, stifles employees' voices.

In contrast to principal restrictive behavior, teachers' OS tends to decrease, at a moderate level, as supportive principal behavior and directive principal behavior increase. In support of this finding, Miceli et al. (2008) reported that employees are more likely to comment on critical issues if they feel that their supervisor is supportive. This is consistent with Milliken et al. (2003), who found that employee-supervisor relationships and supervisors' supportiveness were significantly correlated with employees' voice intentions. Recent works that addressed employee voice and silence from the perspective of staff perceptions on supervisor openness have supported this finding. For example, Detert and Burris (2007) clarified that employees' voice tendency depends on their perceptions of the extent to which their supervisor is approachable, listens, is concerned with their input, and is properly interested in their views and contributions. Saunders et al. (1992) suggested that employees exhibited a greater likelihood of speaking up when they worked for a supervisor whom they regarded as approachable and responsive to their ideas and

suggestions. Also, Morrison (2011) concluded that "the more open and supportive the relationship...the more positive will be the employee's perceptions of voice efficacy and safety" (p. 390). In the school context, Çetin (2013) reported significant correlations between teachers' voices and their perceptions of organizational support and management receptivity. The study also revealed that perceived management openness was one of the strongest contributors to teachers' voices. Alwehabie (2014) found that a lack of top management support was one of the predictors of OS in public sector institutions in Saudi Arabia. Similarly, Alqarni (2015) found a significant positive correlation between OS among faculty and managers' attitudes toward silence. Consistently, Alqarni (2015) reported a negative correlation between the faculty's OS and trust in supervisors.

To a lesser extent, teachers' OS tends to decrease as collegial and intimate teacher behaviors increase. As respect, intimacy, friendship, and cohesiveness prevail in teachers' interactions, they tend to share their criticisms and concerns about problematic work issues with their colleagues. However, these attempts are kept minimal within the teacher community and do not go beyond this to the school leader or the top educational management. The relevant literature regards these attempts to voice as prosocial voice, "expressing work-related ideas, information, or opinions based on cooperative motives" (Van Dyne et al., 2003: 1371). This type of healthy relationship among coworkers leads to the creation of a favorable voice climate (Morrison et al., 2011) that is safe and reduces employees' tendencies to withhold their ideas and concerns.

The path analysis revealed that principal behavior is a significant, influential contributor to teachers' OS. This finding indicates that school leaders might lead their schools in traditional, individualistic, and authoritarian ways that prevent smooth and effective participation in decision-making and information exchange, and thus, create an unfavorable atmosphere, where discussing shortcomings and imbalances in the workplace is not possible. Consistently, the relevant literature provided considerable evidence that those in leadership positions play an influential role in enhancing employees' tendencies to remain silent against illegal practices or problematic matters. Many researchers have concluded that leadership behaviors have significant effects on employees' intentions to speak up (Edmondson, 2003; Morrison, 2011). Ashford et al. (2009) commented that leaders create an atmosphere for speaking up through formal and informal voice channels and influence the cognitive perceptions that drive their choice of whether or not to speak up. In contrast, the structural modeling for path analysis revealed no significance of the influence of teacher behavior on teachers' OS. One of the determinants that this study has revealed is the school leader's behavior and their overall leadership practice. This implies that the determinants of OS in the school

environment are associated with other factors beyond the scope of teacher collective behaviors.

Conclusion

In terms of school climate, teachers' perceptions indicated that the three behaviors (supportive, directive, and restrictive) of school principals were very high. This may be because teachers work with school principals who differ in their organizational behaviors and leadership styles. In terms of teachers' behaviors, teachers tend to be highly collegial and relatively highly intimate, but they had moderately disengaged behaviors. In terms of teachers' OS, teachers exhibit a relatively moderate level, which indicates that school environments are not far removed from this problematic phenomenon. From the results, the relationships between teachers' OS and the four school climate constructs (SPB, DPB, CTB, and ITB) were negative, while the relationships between teachers' OS and two-school climate scales (RPB, DTB) were positive.

A major conclusion of this study is that out of the main two constructs of school Climate, findings emphasized the significant role of principal behavior (PB) on organizational silence (OS), while the influence of teacher behavior (TB) on organizational silence was found to be non-significant. In this context, it is not surprising that the findings are consistent with relevant literature that highlighted the importance of supervisory and leadership behaviors in the emergence and growth of OS.

Implications

As the OCDQ-RE has been approved as a heuristic tool, top educational administrators and school principals are advised to make use of the OCDQ-RE to conduct periodic investigations of school climate openness and make any necessary decisions or initiatives to address any shortcomings or imbalances. Considering that teachers' OS exists in the school environment, this should illustrate to school administrators and top educational management personnel that they need to take this issue seriously and address its causes and consequences at the individual, organizational, and cultural levels. It is also recommended that top educational management develops various policy procedures such as legislating necessary regulations to protect whistle-blowers in the school environment.

As disengaged teacher behavior is positively related to teachers' OS with a large effect size, valuable implications arise for top educational leaders. They need to adopt original and innovative interventions to have highly engaged teachers. This can be done through well-planned programs or initiatives that ensure ongoing support and create a robust professional learning

infrastructure for the teaching faculty. Typical strategies that address teacher disengagement include coaching and professional learning communities.

Principal behavior was found to be a significant contributor to teachers' OS in the school environment. It is hoped that this conclusion will draw the attention of officials and decision-makers in education directorates to take innovative initiatives that ensure the transformation of school leaders from traditional management styles to those that research has proved effective in reducing OS, such as ethical, transformational, and authentic leadership styles, stimulating voice behavior among teachers. In support of this implication, voice has been revealed to correlate positively with perceptions that an employee's boss is a transformational or ethical leader (Walumbwa and Schaubroeck, 2009; Detert and Burris, 2007; Liu et al., 2010). Likewise, Hsiung (2012) found that authentic leadership was an efficient style in promoting positive affective states and nurturing positive social exchanges with their colleagues, who would be, in turn, more active in conveying their ideas, and in contributing effectively to work-related problem-solving.

Future research

Research with larger samples is necessary to explore whether the relationships we found could be generalized to other public or private schools across the country. Additional quantitative studies that use new assessment scales are also encouraged. In such studies, it would be necessary to adapt one of the widely-used assessment scales; for example, the scale developed by Van Dyne et al. (2003) could reliably assess OS types in the Saudi context. Considering that OS is a complicated phenomenon that is multisided in its antecedents, as addressed in the theoretical review, researchers may acquire a deeper and more comprehensive understanding of this phenomenon if further research is geared towards investigating individual, contextual, and other organizational factors in the school environment.

This research addressed teachers' OS through a self-reported survey; however, for a broader understanding of OS in the Saudi context, qualitative research, such as structured interviews and case studies, are also recommended. Furthermore, given the pressing need to reach a broader and deeper understanding of OS in the Saudi context, future research on additional correlational studies that investigate how leadership styles e.g., servant, ethical, authentic, and transformational leadership-correlate to and predict OS are also necessary.

Undoubtedly, given the increased popularity of the OCDQ-RE/OCDQ-RS and its widespread use in measuring the school typology, the use of this questionnaire to predict other teachers' behaviors in the school environment, such as work engagement, self-

efficacy, organizational commitment, and organizational citizenship is required. Using other measurements of school climate to investigate teachers' voice and silence, future researchers could uncover the influence of other contributors other than those addressed in the study, and, hence, provide a deeper and more comprehensive understanding of these two phenomena. It is noteworthy that some personality traits make individuals disengage, such as deeply-held beliefs about silence, indifference, low self-confidence, a lack of enthusiasm, low self-efficacy, and other factors related to family upbringing. Subsequently, more individual-level factors should be included in future studies.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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