

Organizational-level study of the impact of past turnover on future turnover in the Sultanate of Oman

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Abstract

Turnover phenomena attracted researchers from all over the world for generations. Most of this research was directed towards turnover antecedents with a few scattered conceptual and empirical studies related to turnover consequences. The purpose of this study is to investigate the impact of past turnover on future turnover in public organizations, in addition to test the mediation role of organizational climate in this relationship. Public schools as separate identities were the best choice as the study sample. Data were collected through questionnaires from 142 public schools in all educational regions in Oman. Two-step structural equation modeling approach, and nested model comparison were used for data analysis. The results revealed that: (1) past turnover predicts future turnover, significantly; (2) organizational climate fails to mediate this relationship. The study added to the body of knowledge by confirming Staw's hypothesis relating past turnover to future turnover in the Omani context. Human resource professionals and educational administration practitioners may play an important role in decreasing future turnover by tackling and decreasing past turnover, in addition to improving the relationship climate in schools. The study is limited to public schools in Oman and further studies about turnover consequences in the Arabic context are needed to affirm the results.

Keywords: turnover intentions; transfer; quit; teacher; organizational climate; organizational-level

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1. Introduction

Turnover phenomena attracted researchers from all over the world. Most of this research was directed towards turnover antecedents, with a few scattered conceptual and empirical studies related to turnover consequences (Holtom, Mitchell, & Lee, 2008; Glebbeek & Bax, 2004). Even though, several turnover consequences' studies exist, they were all in Western contexts (Mobley, 1982), which makes the application of the results of such studies in non-Western context difficult due to the differences in economic, social and cultural environments between Western and non-Western contexts (Khatri, Fern, & Budhwar, 2001; Cotton & Tuttle, 1986). Thus, it is important to study turnover consequences in other contexts to gain more understanding of turnover phenomena.

Several studies about turnover exist in the Arabic context (e.g., Suliman & Al Obaidli, 2011; Swailes & Al Fahdi, 2011; Suliman & Al-Junaibi, 2010; Alotaibi, 2008; Al-Refaei & Omran, 1992). All these studies were directed towards turnover antecedents with a complete void of turnover consequences' studies. Other than concentrating on Western context, turnover research suffers from several gaps. First, turnover research is unbalanced since most of the attention was directed towards turnover antecedents (Holtom et al., 2008). Second, turnover research concentrated on employees working in the private sector, with less attention given to public employee turnover (Shuaibi, 1995). Third, individual-level studies gained more attention since they are easy to conduct, while organizational-level studies received less attention (Haines et al., 2010).

This study is an organizational-level study that concentrates solely on the consequences of turnover on public organization in non-Western context (Arabic), which may help in filling some of the gaps in turnover research. In the following sections of this paper, turnover consequences' model related to this study is presented to provide a theoretical background for this study. Next, based on the prior relevant studies and theoretical considerations we develop our model, followed by a description of the research method employed in this study. Lastly, we discuss the results of the data analyses and draw conclusions and implications from this study.

2. Literature review and theoretical consideration

Turnover has an impact on all types of organizations. It impacts the bottom line in profit organizations and service quality in non-profit organizations (Waldman, Kelly, Arora, & Smith, 2010; Abbott, De Cieri, & Iverson, 1998).

It is well known that employee turnover, may vary between companies, sectors, and industries, and by division, function, tenure, gender, race, and performance level within the same organization, and there are enormous adjustment costs any time an employee walks out the door (Abbasi & Hollman, 2000, p. 334).

Studies on turnover antecedents proposed plenty of theories and models, according to the study discipline. In comparison to the abundance of the theories and models explaining turnover antecedents, there is a complete lack of theories explaining turnover consequences. Modeling turnover consequences is a scarce area of research. According to Boudreau and Berger (1985) the research about turnover consequences has been very useful in directing scholar's attention towards the costs and the benefits of turnover, but "no systematic turnover utility model has been developed" (p. 581). Similarly, Mueller and Price (1989) stated that there are a large number of hypotheses about turnover consequences with little systematic theory and limited empirical results.

Even though, turnover research started as early as 1910 (Olsen, 2008), only four turnover consequences

models are known. These are: (1) Price's (1977) causal model of turnover, (2) Staw's (1980) model of turnover outcomes and their moderators, (3) Muchinsky and Morrow's (1980) unified model of turnover determinants and consequences, and (4) Price (1989). The theoretical framework of this study is based on Staw's (1980) model of turnover outcomes. Staw (1980) indicated that his model is "highly speculative since there has not been systematic research supporting each of the linkages" (p. 267). The lack of turnover theories is evident in the literature and Staw's (1980) model is the most applicable to the current study. This could be a good chance to validate this model or at least a part of it.

In his model, Staw (1980) proposed a direct relationship between past turnover and the increased mobility of the remaining employees. In Oman, teachers apply for quit/transfer form in their schools and wait for approval from the head offices in Ministry of Education (MOE). An approved quit/transfer form of one teacher creates a vacant position. If the leaver—by quit or transfer—is in a higher position (e.g., Head-teacher), vertical mobility could be initiated to fill the vacant position. But, even if the leaver is in a similar position, the vacant position will lead to a series of horizontal mobility. In this horizontal mobility, the vacant position will be filled by another teacher from another school in the same educational region or from other educational regions. This will increase transfer rate in the Omani schools which is a type of turnover as suggested by North et al. (2005).

In this study, there are three main variables: turnover of teachers, organizational climate, and future turnover that is measured as turnover intentions. These variables are discussed in the following sections.

2.1 Turnover of teachers

Based on the literature, turnover is generally defined as "voluntarily leaving the primary place of employment, including both internal transfer and leaving the organization" (North et al., 2005, p. 52). Boe, Cook, and Sunderland (2008) studied turnover of teachers and identify three types of turnover, in which every type affect the school differently. These types are attrition, transfer and teaching-area migration. Attrition is about leaving teaching employment permanently, transfer is about moving to a different school, while teaching-area transfer is about changing teaching assignment or teaching field, such as when a teacher transfer from an assignment in special education to one in general education (Boe et al., 2008). It is worth noting that turnover in the educational context is slightly different from the business context. Employee turnover in the business context is the flow of employees, into, within, and out of an organization (Garino & Martin, 2007). The flow-out type is called attrition, while the flow into and within is called transfer or migration. Transfer in the business context is of two types: (1) internal transfer that is within the boundaries of a single location of an organization, and (2) external transfer that is moving from one site to another site within the boundaries of an organization (Boe et al., 2008). The relationships of teacher turnover to other study variables are discussed in the following sections.

2.1.1 Turnover of teachers and organizational climate

It is well known in the literature, that turnover has a negative impact on the relationships between individuals working together. Turnover may: (1) affect the social dynamics of the work organization (Muchinsky & Tuttle, 1979); (2) hinders the formation of close friendships because "there is always someone new whom to interact" (Price, 1989, p. 463); (3) trust cannot be initiated between novice and veteran employees because veteran employees receive newcomers all the time (Guin, 2004); (4) impact group cohesion (Bae, Mark & Fried, 2010), (5) has a negative impact on organization working climate (Chalkiti & Sigala, 2010). Based on the above statements, it is logical to assume that public schools in Oman will suffer low levels of organizational climate in high turnover schools, and high levels of organizational climate in low turnover schools. Based on this, the first hypothesis in this study is as follows:

Hypothesis 1: There is a direct negative relationship between teacher turnover and organizational climate.

2.1.2 Turnover of teachers and future turnover (turnover intentions)

The relationship between teacher turnover and turnover intentions is well known in the turnover literature. Castle (2005) studied the relationship between turnover of nursing home's top management and turnover of caregivers (practical nurses and nurse aides). He found a direct positive relationship between the two, as top management turnover increases, caregiver turnover increases too. Similarly, Whitebook and Sakai (2003) studied the link between the characteristics and stability of the teaching staff and the retention of highly trained teachers in child care centers in United States. They found out that

Highly trained teachers were more likely to leave their jobs if they earned lower wages, worked in a climate with less stability of highly trained co-workers (Whitebook & Sakai, 2003, p. 273).

Based on the above statement, it is logical to assume that turnover intentions are higher in high turnover schools, and lower in low turnover schools. On this basis, the second hypothesis in this study is as follows:

Hypothesis 2: There is a direct positive relationship between teacher turnover and turnover intentions.

2.2 Organizational climate

Organizational climate is generally defined as how the organization is meaningful to its members (Austin & Harkins, 2008). In this study, organizational climate is defined operationally, as a general term that refers to the teachers' perceptions of their school relationship climate in relation to the three dimensions of organizational climate: (1) workplace cohesion, (2) collegial leadership, and (3) teacher professional behavior.

2.2.1 Organizational climate and turnover intentions

The relationship between organizational climate and intent to leave is a well-studied area in the educational contexts. According to Kukla-Acevedo (2009) some studies of teacher turnover emphasized that school characteristics such as location in a big urban city, large class sizes, and student characteristics such as socioeconomic status, ethnicity, poverty, and misbehavior are all related to teacher turnover. These findings did injustice to teachers because such findings increase the pressure on teachers and present them as bad people, whom prioritizing their personal gains before their students' gains. This view has been gone uncorrected for a long time. Horng (2009) in his study *Teacher tradeoffs: Disentangling teachers' preferences for working conditions and student demographics* makes an effort to correct this unfair image. He found out that,

by avoiding unattractive working conditions, teachers may inadvertently—rather than purposefully—be avoiding low-income students, low-performing students, and students of color (Horng, 2009, p. 693).

What teachers like is having clean and safe facilities, very good administrative support, and small class sizes (Horng, 2009), while to retain teachers in their positions, supportive work climate is required (Henkin & Holliman, 2009; Horng, 2009).

Based on the above argument, it is logical to assume that the organizational climate of schools (i.e., workplace cohesion, collegial leadership, and teacher professional behavior) influences teachers' future turnover. Schools having high levels of organizational climate would be expected to have low levels of turnover intentions, while schools having low levels of organizational climate would be expected to have high levels of turnover intentions. On this basis, the third hypothesis in this study is as follows:

Hypothesis 3: There is a direct negative relationship between organizational climate and turnover intentions.

2.2.2 The mediating role of organizational climate

Although, Staw (1980) in his model of turnover outcomes and their moderators hypothesized a moderating

effect of group cohesion (organizational climate) on the relationship between past and future turnover, in this study a mediating effect is tested for two reasons. First, the 1980s suffered from the issue of undifferentiating between a mediator and a moderator (Baron & Kenny, 1986), thus, Staw may mean either one of them. Second, there are no empirical studies testing the mediating effect of organizational climate on the relationship between past and future turnover, while there is one empirical study testing the mediating effect of group cohesion on the relationship between turnover and turnover intentions (Bae et al., 2010).

Bae et al. (2010) proposed a mediating effect of workgroup process (group cohesion, relational coordination and workgroup learning) on the relationship between nurse turnover and patients outcomes (patient average length of stay, patient falls, medication errors, and patient satisfaction scores). Group cohesion, relational coordination and workgroup learning represent the hospital climate in Bae et al.'s study, thus, this proposition is applicable to the current study. This study tests the mediating effect of organizational climate (workplace cohesion, collegial leadership and teacher professional behavior) on the relationship between teacher turnover and turnover intentions of the remaining teachers in public schools in Oman. Based on the hypothetical support provided by Bae et al.'s (2010) empirical study, the fourth hypothesis in this study is as follows:

Hypothesis 4: There is a mediating effect of organizational climate on the relationship between teacher turnover and turnover intentions.

2.3 Turnover intentions

Turnover intentions are the best predictors of the actual behavior of leaving (Holtom et al., 2008), and it gives the organizations the ability to predict turnover before it actually happens (Shuaibi, 1995). If organizations did not make any effort to manage their employee turnover, then this turnover will trigger additional turnover (Castle, 2005), and organizations may lose valuable and irreplaceable employees.

In this study, turnover intentions are studied in term of intentions to quit and intentions to transfer, because every type of turnover is believed to affect the schools differently (Boe et al., 2008). Because of measuring turnover intentions based on intentions to quit and intentions to transfer, study hypotheses 2, 3, and 4 are re-stated as follows:

Hypothesis 2:

2a: There is a direct positive relationship between teacher turnover and intentions to transfer.

2b: There is a direct positive relationship between teacher turnover and intentions to quit.

Hypothesis 3:

3a: There is a direct negative relationship between organizational climate and intentions to transfer.

3b: There is a direct negative relationship between organizational climate and intentions to quit.

Hypothesis 4:

4a: There is a mediating effect of organizational climate on the relationship between teacher turnover and intentions to transfer.

4b: There is a mediating effect of organizational climate on the relationship between teacher turnover and intentions to quit.

Figure 1, presents the proposed research framework for this study and the related hypotheses.

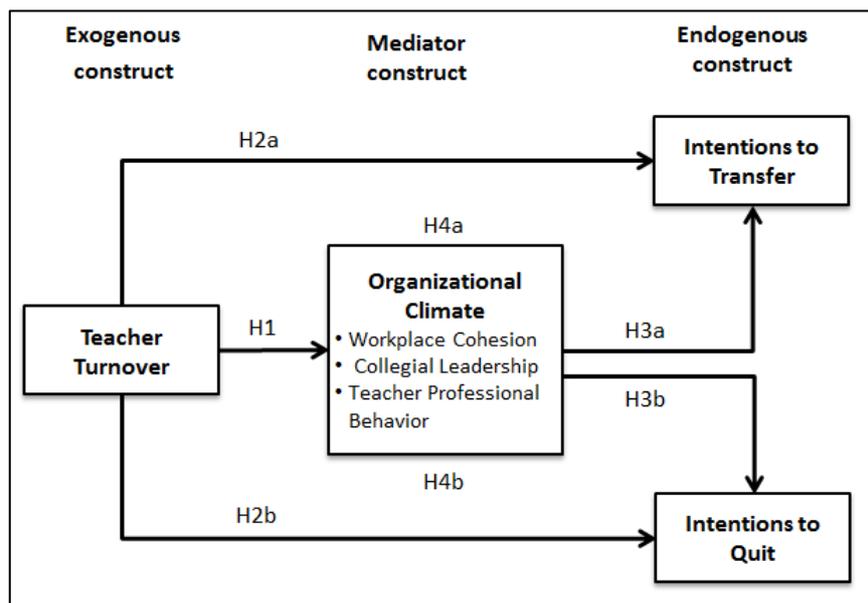


Figure 1. The proposed research framework.

3. Research method

In this section we describe the methods used to collect the data, and then we discuss the instrumentation used to measure the study variables.

3.1 Setting, population, and sample

Turnover in the teaching profession is high in several countries around the world, ranging from 11% on average for all teachers, up to 50% for new teachers in the United States (Ingersoll, 2001). High rates of teacher turnover make teachers and schools the best choice to study the organizational-level impact of turnover, thus, they were selected as the sample in this study.

The dataset for this study is obtained from a larger data pool collected for a doctoral thesis. The original study is conducted in public schools in the Sultanate of Oman. The total number of schools in Oman is 1052 schools (Ministry of Education, 2008a). A stratified random sampling was used to get a representative sample, since public schools are located in different educational regions and some differences between them may exist, due to the different geographical features of the regions. Stratified random sampling is a process of two stages, defining the strata and selecting a representative sample from each stratum (Cohen, Manion & Morrison, 2007). The first stratum was the educational region in which schools were classified based on their location in one of eleven educational regions existed in Oman (Muscat, Al Batinah North, Al Batinah South, Ad Dakhliyah, Ash Sharqiah South, Ash Sharqiah North, Ad Dhahirah, Al Buraimi, Musandam, Al Wusta, and Dhofar). The second stratum was school size, in which schools were categorized into one of four types (less than 100 students, 100-500 students, 500-1000 students, and more than 1000 students) following Ministry of Education's classification of schools (Ministry of Education, 2008b). A total of 214 schools were selected to get a good representation of all educational regions and school sizes in Oman.

3.2 Measurements

In this study, two instruments were used to collect data from schools, principal's questionnaire and teachers' questionnaire. Both were written in English language, while respondents in Oman are mostly speaking Arabic language. Thus, the instruments were translated to Arabic language using back-translation method following

Behling and Law (2000).

Principal's questionnaires were used to obtain all the needed school information to calculate teacher turnover rate, while teachers' questionnaires were used to obtain demographic information, teachers' perceptions about school's organizational climate, and their turnover intentions. The measurements used in this study are discussed in the following sections.

3.2.1 Teacher turnover Rate

Based on the literature review, actual turnover is measured as a percentage of employees leaving their jobs (regardless of the reasons) in a specific period, especially in cases where it is not possible to get information about voluntary and involuntary leaves. In this study, teacher turnover is calculated using Bae et al.'s (2010) actual turnover formula, where the number of teachers who were teaching in their school in the previous year and they were no longer teaching for the current year, is divided on the total number of teachers employed in the school at the current year. The result of this division is multiplied by 100 to get the percentage of teacher turnover in each school. Formula was computed using SPSS 17.0 software to get teachers' turnover rate for each school.

3.2.2 Organizational climate

Organizational climate, in this study, is measured by one scale consisting of three subscales: (1) workplace cohesion, (2) collegial leadership, and (3) teacher professional behavior. The total items for organizational climate scale are 27 items, 12 items for workplace cohesion subscale, which is adopted from Morrison (2005), and Campion, Medsker and Higgs (1993), 8 items for collegial leadership subscale, which is adopted from Aldhafri (2006), and 7 items for teacher professional behavior, which is adopted from Aldhafri (2006). The instrument is based on 5-points Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The reliability of the scale dimensions and sub-dimensions is provided in Table 1.

Table 1

Cronbach's alpha values for organizational climate scale

Dimensions	Sub- dimensions	No. of Items	Score Range	Cronbach's α (previous studies)	Cronbach's α (Actual Study)
Workplace cohesion	Potency	3	1-5	.80 (Campion et al. (1993)	.746
	Social support	4	1-5	.78 (Campion et al. (1993)	.877
	Workload sharing	3	1-5	.84 (Campion et al. (1993)	.767
	Communication /cooperation at the workgroup	2	1-5	.81 (Campion et al. (1993)	.777
	Total Scale	12	1-5	.82 (Campion et al. (1993)	.920
Collegial leadership	-	8	1-5	.83 (Aldhafri, 2006)	.958
Teacher professional behavior	-	6	1-5	.83 (Aldhafri, 2006)	.912

3.2.3 Turnover intentions

In this study, intentions to quit construct is measured using 3-item scale adopted from Ovadje (2009), while intentions to transfer construct is measured using 4 items modified by the researchers to measure teachers' intentions to transfer in the Omani public schools. The instrument is based on 5-points Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Ovadje (2009) reported a reliability coefficient of .89 for intentions to quit scale, while in this study, the reliability was .82. The reliability coefficient of intentions to transfer was .97 in the study.

3.3 Data collection

In this study, two instruments were used to collect data from schools, school principal questionnaire and

teachers' questionnaire. The data collected from each of these questionnaires is explained in the following sections.

3.3.1 School principal questionnaire

School principal questionnaire was distributed to 214 public schools in Oman. In each questionnaire, information about the school, such as school name, location, type of education, working time shift, number of students, students' gender, number of total teachers, teachers' gender, number of new teachers, and number of teachers who are no longer working in the school are left blank, to be filled by the school principal or his/her deputy.

From 214 school principal's questionnaires distributed, 128 were returned, thus, the percentage of return is about 60%. To avoid dropping schools that provided teacher questionnaires and missed principal questionnaire, extra information about schools were requested from MOE officials at Educational Portal Department at March 2012, making the total number of schools available for analysis is 142 schools.

3.3.2 Teachers' questionnaire

Teachers' perceptions about organizational climate, intentions to transfer, and intentions to quit were collected by distributing teachers' questionnaire to the teachers working in the 214 public schools in all educational regions in Oman. From a total of 3,227 teacher's questionnaires that were initially distributed, 1,602 were collected, thus, the percentage of return was about 50%.

3.4 Data analysis

In this study, two-step structural equation modeling approach, and nested model comparison were used for data analysis. Prior to data analysis, data cleaning and preparing for data analysis is conducted as explained in the following sections.

3.4.1 Missing cases and outliers

This study is an organizational-level study, thus all individual responses will be aggregated to the organization level (school). Prior to data aggregation, the data set was tested for missing cases and outliers. All cases having missing values more than 10% of the total responses were deleted following Hair, Black, Babin, and Anderson (2010), while the cases having less than 10% missing were treated using imputation in AMOS 18.0 software. The presence of outliers is checked and four schools were considered multivariate outliers and deleted following Byrne (2010).

3.4.2 Aggregation

Individual responses obtained for organizational climate and turnover intentions were aggregated into school-level responses using within-group interrater agreement ($rwg_{(j)}$), following the formula of James, Demaree and Wolf (1984). Based on Brown and Hauenstein's (2005) levels of agreement, our data showed strong agreement with a mean rwg values of .950 and a median value of .959, which justify data aggregation to a higher level (Cohen, Doveh, & Nahum-Shani, 2009).

3.4.3 Structural equation modeling (SEM)

SEM is a collection of statistical techniques that allow a set of relationships between one or more independent variables (exogenous), and one or more dependent variables (endogenous) to be examined simultaneously (Tabachnick & Fidell, 2007). SEM examines the structure of interrelationships expressed in a series of equations, similar to a series of multiple regression equations (Hair et al., 2010). In this study, two-step approach was used to solve all the issues of model fit in the measurement model before validating the structure model. To evaluate SEM models in this study, chi-square (χ^2) and several other fit indices such as comparative

fit index (CFI), goodness of fit index (GFI), normed fit index (NFI), and root mean square error of approximation (RMSEA) are used (Tabachnick & Fidell, 2007). The cut-offs points of goodness-of-fit indices (i.e., p value more than .05 for χ^2 , more than .90 for GFI and CFI, and less than .08 for RMSEA) are used to indicate the model fit (Hair et al., 2010).

3.4.4 Nested model comparison

In this study, organizational climate is hypothesized to mediate the relationship between teacher turnover and turnover intentions. Nested model comparison using multi-group analysis in AMOS was carried out to test for the indirect relationship between teacher turnover and turnover intentions through organizational climate (Ho, 2006). Bootstrapping method is used to check the significance of the indirect effect (Shrout & Bolger, 2002). Based on Baron and Kenny approach, when all the tested variables are significantly related to each other, it is possible to test for mediating effect (Hair et al., 2010; Baron & Kenny, 1986). But, when some of the related variables are significant and others are not, even if the indirect effect is significant, this cannot be classified as mediating effect (Mackinnon, 2008).

4. Results

In The following sections, the descriptive and inferential statistics results are displayed.

4.1 Descriptive statistics

This research was conducted in 2011 as part of a full-time PhD study program. The participants, after checking SEM assumptions were 1,319 teachers working in 136 public schools in Oman. The descriptive statistics of teachers and schools are provided in the following sections.

4.1.1 Descriptive statistics of teachers

The majority of respondents were females (65%), with an average age of 32 years (34 for males and 30 for females), married (79%), Omanis (87%), holding a bachelor degree (83%), teaching for 5 years ($SD=3.733$) in their current schools, and 9 years ($SD=6.352$) in the profession. The demographic information of teachers is presented in Table 2.

4.1.2 Descriptive statistics of schools

In this study, school is the unit of analysis and teachers are the representatives of their schools. Thus, responses at higher levels (school level) were achieved by aggregating teachers' responses. Schools as identities by themselves have special characteristics, such as location, size and type of education. The demographic information of a sample of 136 schools is presented in Table 3. The majority of schools who participated in this study were small in size (students between 100 and 500; 44%), have a mixture of students based on gender (56%), have female teaching staff (54%), applying basic education system (54%), and working in morning time-shift (81%).

4.2 Measurement models (Confirmatory factor analysis)

Measurement Model describes the connections between latent variables and their indicators (Arbuckle, 2007). In this study, confirmatory factor analysis (CFA) was performed for each construct to assess the constructs' validity. Several constructs needed parceling to improve their model fit since modification indices did not improve the model fit substantially.

Table 2*Demographic characteristics of teachers*

Characteristics	Category	Percentage	Mean	SD.
Gender	Male	34.3		
	Female	64.6		
	Missing	1.1		
Age (Years)	20-29	37.2	32	6.204
	30-39	34.8		
	40-49	10.2		
	50-59	0.7		
	Missing	17.1		
Marital Status	Single	17.9		
	Married	79.2		
	Divorced	1.1		
	Widowed	0.1		
	Missing	1.8		
Nationality	Omanis	87.1		
	Non-Omanis	10.6		
	Missing	2.3		
Academic Degree	Diploma	11.4		
	Bachelor	82.9		
	Master	1.7		
	Doctorate	0.0		
	Missing	4.3		
Teaching experience In the current school (Years)	1-9	83.6	5	3.733
	10-19	11.3		
	20-29	0.3		
	30-39	0.0		
	Missing	4.8		
Teaching experience In total (Years)	1-9	59.6	9	6.352
	10-19	29.0		
	20-29	7.7		
	30-39	0.5		
	Missing	3.3		
Total		100%		

Table 3*Demographic characteristics of schools*

Characteristics	Category	Percentage
School Size	Very small (1 to 99 students)	11.4
	Small (100 to 499 students)	44.3
	Medium (500 to 999 students)	40.7
	Large (More than 1000 students)	3.6
Students Gender	Male Students	27.9
	Female Students	16.4
	Both	55.7
Teachers Gender	Male Teachers	32.9
	Female Teachers	54.3
	Both	12.9
Education System	Basic Education	53.6
	General Education	19.3
	Both	25.7
	Not Reported	1.4
Time-shift	Morning	80.7
	Evening	10.7
	Not Reported	8.6
Total		100%

4.3 Measure validation

The study instruments were validated using SPSS and AMOS softwares. The validation is explained in the following sections.

4.3.1 Reliability

Cronbach's α was conducted to examine the reliability of the constructs. Each construct obtained a value that is more than 0.70 on Cronbach's α score, which indicates a high level of reliability (as seen in Table 1). Principal component analysis (PCA) with Varimax rotation was conducted to extract the factors that had an eigenvalue of more than one. PCA results indicated high intercorrelations between several constructs. High intercorrelations can be resolved by dropping or combining the highly interrelated variables (Stevens, 2002). In this study, deleting several items, and combining several workplace cohesion's dimensions with 'teacher professional behavior' into one single construct solved the issue of high intercorrelations. It is worth noting that the combined variable was renamed 'Professional Behavior and Cohesion Climate' (PB&CC). It is logical to have similarities between the items of workplace cohesion and teacher professional behavior, because they are used to measure the teachers' perceptions about their school climate.

4.3.2 Composite and convergent reliabilities

In this study, all composite reliabilities were more than .7, which indicates a good reliability (Hair et al., 2010). It also indicates that the internal consistency exists for each construct. Convergent validity is assessed using factor loading magnitude and average variance extracted (AVE). In this study, all factor loadings were more than .5, and all latent constructs have an AVE value that is more than .5, which indicates a high convergence of indicators on each latent construct (Hair et al., 2010). The discriminant validity is assessed by comparing AVE values to the squared correlation estimates. If $AVE > \text{squared correlation estimate}$, then the construct have discriminant validity (Hair et al., 2010). Based on the rule of thumb, AVE for each construct must be larger than the squared correlation estimate of other constructs for discriminant validity to exist. In this study, all AVE values were more than the squared correlation estimate for each construct, which indicates that discriminant validity exists for all constructs.

Table 4, presents Cronbach's α , composite reliability, AVE, correlation estimates and squared correlation estimates for all study constructs.

Table 4

Cronbach's α , composite reliability, AVE, correlation estimates and squared correlation estimates

Latent constructs	Cronbach's alpha	Composite reliability	PB&CC	WLS	Coll	ItoQ	ItoT
Professional behavior and cohesion climate (PB&CC)	.919	.953	(.835)	.557	.341	.117	.181
Workload sharing (WLS)	.767	.784	.746	(.555)	.310	.132	.125
Collegial leadership (Coll)	.911	.947	.584	.557	(.900)	.095	.088
Intentions to quit (ItoQ)	.818	.828	-.342	-.364	-.308	(.616)	.007
Intentions to transfer (ItoT)	.965	.967	-.425	-.353	-.296	.083	(.879)

Note. AVE values (in the diagonal), correlation estimates (below the diagonal) and the squared correlation estimates (above the diagonal).

4.4 Overall measurement model

For the assessment of the overall measurement model fit, the fit indices indicated that not all the criteria met the required levels. Parceling was used to improve the model fit. Organizational climate's dimensions were parceled using partial aggregation model as recommended by Coffman and MacCallum (2005). After the parceling of the organizational climate's dimensions, the model fit indicated that the obtained fit indices were good (i.e., $\chi^2 = 58.552$, $\chi^2/df = 1.501$, GFI = .931, IFI = .984, CFI = .984 and RMSEA = .061), which indicates

that the model fits the data.

4.5 Structural model and hypotheses testing

Based on the literature, the structural model is used to specify the relationships between the constructs by representing the interrelationships between the variables (Hair et al., 2010). For the assessment of the model fit for the baseline structural model, the model fit and most fit indices indicated acceptable model fit (i.e., $\chi^2 = 58.810$, $\chi^2/df = 1.470$, GFI = .931, IFI = .985, CFI = .984 and RMSEA = .059).

The structural model indicated that 39% of intentions to transfer’s variance ($R^2=.39$) and 15% of intentions to quit’s variance ($R^2=.15$) are explained by two predictors, teacher turnover and organizational climate. Figure 2, presents the structural model, while Table 5 presents the regression weights for all the paths in the structural model.

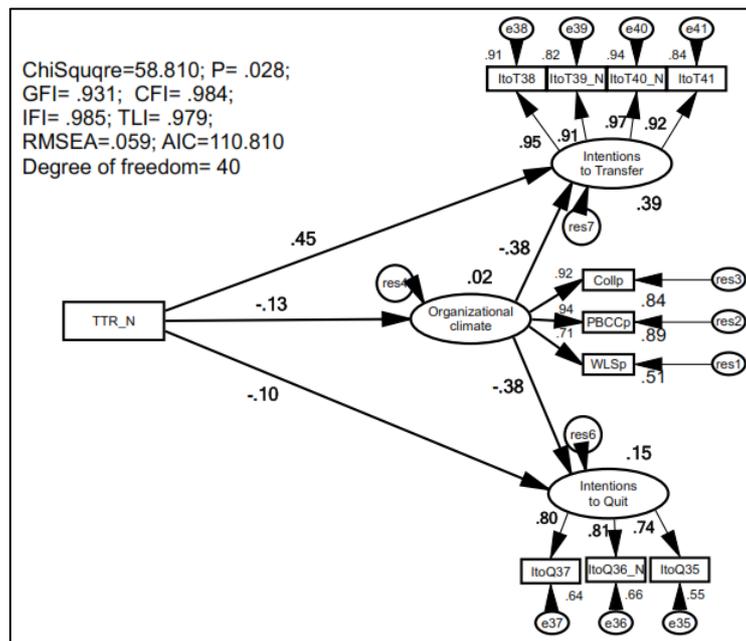


Figure 2. The structural model

Table 5

Path coefficients in the structural model

Regression Weights: (Group number 1 - Default model)							
			Estimate	S.E.	C.R.	P	Label
Organizational_climate	<---	Teacher_Turnover	-.159	.110	-1.442	.149	H1
Intentions_to Quit	<---	Organizational_climate	-.187	.051	-3.707	***	H3b
Intentions_to Transfer	<---	Organizational_climate	-.332	.069	-4.804	***	H3a
Intentions_to Transfer	<---	Teacher_Turnover	.480	.076	6.320	***	H2a
Intentions_to Quit	<---	Teacher_Turnover	-.061	.055	-1.112	.266	H2b

4.5.1 Direct Hypotheses

Hypothesis 1 examines the direct negative relationship between teacher turnover (TTR) and organizational climate (OC). The regression weight for TTR in the prediction of OC is not significantly different from zero at 0.05 level ($\beta = -.159$; $p = .149$). Therefore, hypothesis 1 is not supported because teacher turnover does not contribute significantly towards organizational climate at .05 level of confidence.

Hypothesis 2a examines the direct positive relationship between TTR and intentions to transfer (ItoT). The

regression weight for TTR in the prediction of ItoT is significantly different from zero at 0.001 level ($\beta = .480$; $p < .001$). Therefore, hypothesis 2a is supported in the same hypothesized direction. Based on hypothesis 2a, there is a significant large positive relationship between TTR and ItoT at .001 level of confidence that is when TTR goes up by 1 SD, ItoT goes up by 0.480. This result is consistent with previous research such as Castle (2005) and Whitebook and Sakai (2003). They both found out that turnover causes more turnover.

Hypothesis 2b examines the direct positive relationship between TTR and intentions to quit (ItoQ). The regression weight for TTR in the prediction of ItoQ is not significantly different from zero at 0.05 level ($\beta = -.061$; $p = .266$). Therefore, hypothesis 2b is not supported, because teacher turnover does not contribute significantly towards intentions to quit at .05 level of confidence.

Hypothesis 3a examines the direct negative relationship between OC and ItoT. The regression weight for OC in the prediction of ItoT is significantly different from zero at 0.001 level ($\beta = -.332$; $p < .001$). Therefore, hypothesis 3a is supported in the same hypothesized direction. Based on this hypothesis, there is a significant medium negative relationship between OC and ItoT that is when OC goes up by 1 SD, ItoT goes down by 0.332.

Hypothesis 3b examines the direct negative relationship between OC and ItoQ. The regression weight for OC in the prediction of ItoQ is significantly different from zero at 0.001 level ($\beta = -.187$; $p < .001$). Therefore, hypothesis 3b is supported in the same hypothesized direction. Based on this hypothesis, there is a significant small negative relationship between OC and ItoQ that is when OC goes up by 1 SD, ItoQ goes down by 0.187. The results of hypotheses 3a and 3b are consistent with previous research such as Langkamer and Ervin (2008), who found a significant negative relationship between psychological climate and intent to leave the army in US army captains.

4.5.2 Indirect hypotheses (mediation effect)

Hypothesis 4a investigates the mediating effect of OC on the relationship between TTR and ItoT. Testing the presence of the indirect effect is carried out using nested models comparisons (Ho, 2006). The result indicated that the direct model fitted the data significantly better than the indirect model. To follow Baron and Kenny's (1986) approach for testing the mediating effect, all related variables should be significantly related to each other before testing the mediating effect between them. This assumption is not met in TTR-OC-ItoT relationships, because TTR is not significantly related to OC ($\beta = -.159$; $p = .149$) as seen from Table 5. Therefore, hypothesis 4a is not supported.

Hypothesis 4b investigates the mediating effect of OC on the relationship between TTR and ItoQ. Testing the presence of indirect effect is carried out using nested models comparisons (Ho, 2006). The result indicated that the indirect model fitted the data significantly better than the direct model. Bootstrapping was used to test the significance of the indirect model. Bootstrapping results indicated that the indirect effect of teacher turnover on intentions to quit through organizational climate is not significant ($p = .056$). To follow Baron and Kenny's (1986) approach for testing the mediating effect, all related variables should be significantly related to each other before testing the mediating effect between them. This assumption is not met in TTR-OC-ItoQ relationships, because TTR is not significantly related to OC ($\beta = -.159$; $p = .149$). Therefore, hypothesis 4b is not supported.

5. Discussion and Conclusion

The current study provides advances in our general understanding of turnover phenomena in the consequences arena. This study added to the existing body of knowledge in many several ways. First, although turnover is not a Western phenomenon (Mobley, 1982), the literature review indicated that turnover was mostly studied in Western contexts, with few published studies about turnover in the Arabic context. Even though, some studies of turnover in the Arabic context exist, these studies were all about turnover antecedents. Thus, the current study, added to the body of knowledge by studying turnover in non-Western context (Sultanate of Oman). In addition, this study is the first turnover consequences' study in the Arabic context and the first in teachers too.

Being a first of its kind, as a turnover consequences' study, may provide a better understanding of turnover consequences studies in the Arabic and Western contexts as well. Second, several gaps in turnover research are indicated, such as: (1) negligence of turnover consequences in an abundance of turnover antecedents studies, (2) public organizations attract less attention, and (3) less concentration on organizational-level studies. Thus, this study tried to fill the gaps by focusing on turnover consequences instead of turnover antecedents, in public organization employees (teachers) instead of business or private organizations, and aggregate the data to gain more understanding of turnover consequences at the organizational-level. Third, this study provides further support for Mobley's (1982) and Staw's (1980) propositions that the complexity of turnover stems from the fact that many of turnover antecedents can be turnover consequences.

In this study, data were collected from 142 public schools in Oman, to investigate the impact of teacher turnover on organizational climate and turnover intentions. SEM and nested model comparison were used to analyze the data collected through questionnaires. The overall measurement model yielded adequate model fit indices. Instrument validity and reliability indicated that the used instruments have sound psychometric properties, especially after deleting and combining highly interrelated items. The structural model showed acceptable model fit indices.

This study has several important findings. First, teacher turnover and organizational climate together as predictors, explained 39% of the variance in intentions to transfer ($R^2=.39$), and 15% of the variance in intentions to quit ($R^2=.15$). Second, organizational climate did not mediate the relationship between past and future turnover.

Empirically, this study added to the body of knowledge in four main areas related to turnover consequences: (1) significant positive relationship between teachers' turnover and turnover intentions (future turnover), (2) significant negative relationship between organizational climate and intentions to quit, (3) significant negative relationship between organizational climate and intentions to transfer, and (4) no mediating effect of organizational climate on teacher turnover-turnover intentions relationship.

The findings of this study are consistent with Staw's (1980) proposition that past turnover has a direct positive effect on future turnover. In this study, teacher turnover had a direct positive impact on intentions to transfer, where high turnover causes high intentions to transfer. This result is also consistent with Castle (2005) and Whitebook and Sakai (2003) propositions, that turnover may trigger additional turnover. This significant relationship makes turnover intention a predictor and outcome of turnover at the same time, since turnover intentions are the best predictors of turnover behavior (Holtom et al., 2008). The finding of this study is also consistent with Bae et al.'s (2010) study on nurses, that group processes such as cohesion did not mediate the relationship between nurse turnover and patients outcomes.

5.1 Implications

One of the main findings of this study is how turnover intentions are predicted by teacher turnover and organizational climate. Teacher turnover has a positive relationship with intentions to transfer, while organizational climate has a negative relationship with it, making these two (teacher turnover and organizational climate) look like they are contradicting each other. Thus, human resource development and educational administration practitioners may play an important role in decreasing future turnover by improving the organizational climate. They may also play a role in decreasing teachers' intentions to quit teaching profession by improving schools' organizational climate. In this study, the suggestions to improve teachers' organizational climate (climate of relationships) are based on supportive school administration, high cohesion between teachers, high workload sharing, and high professional behavior.

5.2 Limitations and recommendations for future research

The current study was designed to investigate the impact of teacher turnover in public schools in Oman.

Thus, the study is limited to public schools in Oman, and generalization on private schools in Oman is not recommended since there may be some differences between them. Large sample size is a prerequisite for robust results (Hair et al., 2010). In this study, the data from 138 schools were analyzed. Even though, the sample size was not a problem in this study, because of the low numbers of variables and items, caution should be considered in the generalization of the study results, due to the sample size.

Research is a continuous and collaborative effort. For the sake of future research, we have several recommendations for researchers interested in this topic. First, although turnover literature proposed the existence of a mediating effect of organizational climate on the relationship between past and future turnover, this propositions were not supported in this study. We recommend a replication of this study in another setting in Oman, such as nurses, to find a better understanding of why turnover does not impact organizational climate. Second, a replication of this study with larger sample size is recommended, to provide further support for the study model. Third, since the mediating effect was not supported, it is merited to test for the moderating effect as hypothesized by Staw (1980).

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