The Effects of the Schools' Humor Climates on Perceived Stress Levels of the Teachers

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Abstract

Purpose of the study is to determine the effects of the schools' humor climates on the perceived stress levels of teachers. The sample of the study, which is a predictive correlational study, is made up of 387 teachers. In data collection, the Humor Climate Scale and the Perceived Stress Scale were used. Consequently, constructive humor climates (positive humor and supervisor support) were more dominant in schools than the destructive ones (negative humor and outgroup humor). In addition, the perceived stress levels of teachers were not high; but they seldom experienced inadequate self-efficacy and sometimes stress/distress perception. The results of the study also revealed that negative humor and outgroup humor climates of the schools were significant predictors of the perceived stress/distress levels of teachers. In this case, we can conclude that the presence of negative humor climates and outgroup humor climates in schools, which are negative and destructive, increases the perceived stress/distress levels of teachers.

Key words: Teacher, Humor, Humor climate, Stress, Perceived stress

Introduction

One of the most disputed topics in today's world is stress. It has a direct impact on our quality of life by taking part in all areas of our daily life and business life. So much so that, stress is even described as the plague of our age (Armağan & Kubak, 2013; Balaban, 2000; Crum & Lyddy, 2014; Korkmaz & Ceylan, 2012; Yüksel, 2014). In fact, this is stemming from the negative effects of stress on human health and organizations.

Working life pushes a large part of individuals under stress (Aydın, 2004). However, some professions and jobs are more stressful than others. Teaching profession is one of them (Akpınar, 2008; Balaban, 2000; Greenberg, 2008; Griffith, Steptoe & Cropley, 1999; Harrington, 2012). The work performed in schools often leads to negative feelings such as anxiety and stress in teachers (Hurren, 2008). Harrington (2012) states that human-oriented service professions such as social workers, teachers and health workers are likely to experience high stress. Cemaloğlu & Şahin (2007) state that stress is observed more frequently in occupational groups requiring face-to-face and close communication with people. A study conducted in the United Kingdom (Jones & Hodgson, 1998) shows that among all the professions surveyed, teachers have the second highest rate of depression, anxiety and work stress (as cited in Harrington, 2012). In another report conducted in the United Kingdom which was the continuation of the same study and covering the years 2004-2005, the stress of the teaching profession groups was again found to be significantly higher than the rate of all other professions (Jones, Huxtable & Hodgson, 2006). Akpınar (2008) states that high-level stress is harmful to teachers and their students.

It is important to develop and implement stress prevention methods in order to eliminate the negative effects of stress in organizations (Aydın, 2004). Humor is reported to be one of the mechanisms that can be benefitted for this purpose in coping with stress (Abel, 2002; Cranwell-Ward, 2005; Kuiper, Martin & Olinger, 1993; Lefcourt & Martin, 1986). According to George & Jones (2012), making humor and entertainment a part of the working environment positively affects the mood of the employees.

The positive effect of humor can be explained by its role in the cognitive assessment of individuals in stressful

situations and the function of coping with stress in general (Abel, 2002). Humor acts as a buffer against the negative effects of stress to protect the individual from the destructive effects (Abel, 2002; Martin & Lefcourt, 1983); and it provides the individual with a cognitive and sensory change that makes the emotion accompanying the perceived threat less destructive and threatening (Abel, 2002). Similarly, in some studies, it is emphasized that humor and laughter have therapeutic properties in relieving tension and anxiety (Abel, 2002; Kuiper, Martin & Olinger, 1993; Martin & Lefcourt, 1983; Moran & Massam, 1999). It is also stated in different studies that positive and constructive humor has negative effects on stress (Blanchard et al., 2014; Cann et al., 2014; Mesmer-Magnus et al., 2012; Şahin, 2016), anxiety (Cann, Holt & Calhoun, 1999; Romero & Pescosolido, 2008) and tension (Blanchard et al., 2014; Mesmer-Magnus et al., 2012; Romero & Cruthirds, 2006).

Overall, it can be claimed that the organizational stress that teachers experience in their schools may cause negative consequences for teachers. The stress experienced by teachers in schools is an issue that needs to be taken into account organizationally and needs to be solved. However, stress does not always have negative effects. It is particularly desirable to have an optimum level of stress. In this respect, the aim of managing the stress levels of the employees in organizations is not to eliminate the work and work stress completely and but to keep the performance levels of the employees at the optimum level (Harrington, 2012). Humor can play a role as a coping mechanism and regulator at this point.

Stress

Almost everyone experiences stress intuitively (Greenberg, 2008; Harrington, 2012). However, when it comes to defining stress, it is not that easy (Gold, 2005; Greenberg, 2008; Harrington, 2012). Stress is described as an undetermined response developed by the body to environmental stimuli (Aydın, 2004; Selye, 1976). Donaldson-Feilder, Yarker, & Lewis (2011) describe stress as "negative reactions of people to extreme pressures or other demands on them". In short, stress is the individual's response to threatening environmental stimuli (Balcı, 2000). Stress is, in fact, an imbalance in the intellectual, emotional and physical state of the individual and it occurs as a result of the individual's perceptions of situations that result in physical and emotional reactions. Depending on the individual's assessment of the situation, stress can be positive or negative (Gold, 2005). Therefore, two types of stress can be mentioned as beneficial stress (eustress) and harmful stress (distress). Beneficial stress can lead to constructive consequences such as easy adaptation to change and improved performance in employees. Harmful stress, on the other hand, can result in loss of effectiveness, deterioration of health and depression as a result of excessive pressure (Selye, 1976; Şanlı, 2017). Based on these explanations, three main features of stress can be mentioned. These are: Stress (1) is caused and maintained by mental or cognitive processes that an individual wants to use, (2) is affected by our feelings and (3) affects our health or physical state(Gold, 2005).

Therefore, stress is not only limited to emotional experiences, but also includes physiological, behavioral and cognitive ones (Harrington, 2012). Thus, stressors, which are environmental or psychological triggers potentially activating the stress responses, cause cognitive, mental, physiological, and behavioral changes that can affect both our psychological and physical health negatively (Harrington, 2012; Harris, 2011). Examples of harmful cognitive changes include anxiety, memory loss, lack of concentration, and other mental changes as well as inability to make decisions. Anxiety, worry, irritation, rage, sorrow, shame, guiltiness and depression may all be emotional changes. Typically, physiological responses to stressors include the immune system, the autonomic nervous system, and the endocrine system as well as the central nervous system. These responses may include high blood pressure, increases in heart rate, muscle tension, dry throat and mouth, chills, grinding of teeth, headaches, fatigue, weakness, cold hands and feet, and common diseases (Harrington, 2012). Changes caused by stressors usually affect our relationships and business performance negatively (Harrington, 2012; Snell & Morris, 2019).

Donaldson-Feilder, Yarker and Lewis (2011) state that stress poses effects on physiological health (increased headaches, migraine, cardiovascular disease risk, digestive system disorders, musculoskeletal pain, fatigue, hypertension), on psychological health (increased risk for common mental health problems such as anxiety, depression, low concentration, forgetfulness, pessimism, loss of sense of humor, loss of tears, reduced self-esteem and confidence),on social interactional health (social interaction that may lead to breaks or problems in relationships with others), on professional health (psychological effects of contracts, the relationship between the employee and the employer, feelings of unfair treatment, morale, loyalty and reduced commitment) and on health-related unwanted behaviors (substance abuse, alcohol habit, eating disorders, sexual disorders, etc.).

In the literature, organizational stress, job stress and work stress are intertwined concepts. While organizational stress expresses how the structure and processes of the organization create stress, job stress is specific to the roles of a particular job, tasks and demands related to that job within an organization. Work stress is affected by organizational stress, but occurs at varying degrees depending on the nature of organizational stress and the jobs which are most affected within the organization. The term work stress is more general and applies to all work-related contexts, including informal work, self-employment, formal work or work stress in an organization (Harrington, 2012). In this study, perceived stress is considered as the stress that employees feel, including work and organizational stress-related work stress.

Stress is one of the inevitable phenomena for people working in organizational life (Aydın, 2004; Balcı, 2000). Work-related stress of employees is a quite challenging situation for organizations (Donaldson-Feilder, Yarker & Lewis, 2011) and also a costly one (Donaldson-Feilder, Yarker & Lewis, 2011; Greenberg, 2008; Harrington, 2012). Its destructive effects are quite high for both organizations and employees (Aydın, 2004). Organizational stress causes a series of hidden costs such as absenteeism, burnout, employees going to work despite health problems (presentism), turnover, stress-related accidents and injuries, loss of corporate reputation, poor decision-making, loss of work due to alcohol and substance dependence, difficulty in finding qualified employees and replacement of them, weakening investor relations, increased insurance costs, increased education costs and reduced productivity (Donaldson-Feilder, Yarker & Lewis, 2011; Greenberg, 2008; Harrington, 2012). Therefore, work stress can negatively affect our health and well-being (Harrington, 2012), and can create important organizational problems (Cemaloğlu & Şahin, 2007). However, the level of stress experienced by the employees is very important. It is stated that a certain amount of stress motivates employees and increases their performance levels; however, excessive stress can completely eliminate personal productivity (Aydın, 2002).

Humor and Humor Climate

Humor is an important part of our daily life as well as our business life and simply refers to positive attitudes towards daily events (Şahin, 2018). Laughing, which is an instinctive behavior, is a universal body language that shows the level of satisfaction of individuals about events. In short, humor is all situations that mediate humorous laugh and making others laugh (Altınkurt & Yılmaz, 2011; Kara, 2014; Oruç, 2010). Humor undertakes the task of making people think, entertain or laugh by highlighting the ridiculous, unusual and contradictory aspects of events (Akkaya, 2011; Güler & Güler, 2010; Kara, 2014; Yardımcı, 2010).

In organizational terms, humor includes fun and humorous communication which causes positive cognitions and emotions in employees (Romero & Cruthirds, 2006). However, humor may have positive or negative consequences for organizations by playing constructive or destructive roles at times between the parties (Cann, Watson & Bridgewater, 2014; Lyttle, 2007; Malone, 1980; Meyer, 2000). Therefore, the important thing for organizational sense is to maximize the positive effects of humor by using constructive humor instead of destructive humor. This makes the use of effective and conscious humor inevitable.

Humor affects the communication process with psychological, cognitive and emotional reactions. This shows that humor can shape the working environment climate as well (Decker & Rotonda, 2001). Therefore, it can be said that humor, which activates positive emotions in individuals, will also have a positive effect in the organizational atmosphere. In this context, we come across the concept of humor climate that emerges with the use of humor in organizations.

Humor climate in organizations is the effect of humor that employees do or live on the air of the organization. The emotions resulting from the ways that employees use, experience and perceive humor constitute the focus of humor climate in the workplace. In fact, humor climate refers to the atmosphere and situation created by the use of humor in the organizational climate. In this respect, humor climate in organizations can reflect both positive and negative aspects of humor. Humor climate is considered in four basic dimensions, such as positive humor, supervisor support, negative humor and outgroup humor. Positive humor and supervisor support indicate the presence of positive humor and negative humor and outgroup humor indicate the presence of a negative humor climate (Cann, Watson & Bridgewater, 2014).

Positive Humor

Positive humor is a form of humor that evokes constructive emotions and has and socializing effects on people

(Şahin, 2018). Employees of organizations where positive humor climate prevails have a positive humor point of view about life. While positive emotions are often emphasized in their humor, it is seen that they try to avoid negative emotions and improve social interaction within the group. The aim is to make humor without hurting anyone and to enable all parties to enjoy humor. Humor made in organizations where positive humor climates prevail is endorsed by the employees and they enjoy making humor. Since the use of aggressive and threatening language targeting the opposite side is avoided in jokes and humors. It is emphasized that positive humor is used to develop positive relationships between individuals, reduces stress, gives joy and makes work more cheerful (Cann, Watson & Bridgewater, 2014; Duncan, 2006; Şahin, 2018). Therefore, in a positive humor climate, participatory humor, which aims to socialize without excluding individuals and self-enhancing humor, which helps to cope with and stress, are predominantly used (Blanchard et al., 2014).

Supervisor Support

In a climate of humor dominated by supervisor support, humor made by employees is approved by managers and the use of humor in the organization is encouraged. Therefore, how humor made by employees is perceived by managers and how managers react to humor shape their level of support for humor (Şahin, 2018). In humor climates with supervisor support, it is not inconvenient for employees to make humor among them and that does not create a problem between employees and school administrators. It is stated that humor in such organizations will have a positive effect on a number of variables such as organizational commitment, satisfaction and job satisfaction of employees (Cann, Watson & Bridgewater, 2014).

Negative Humor

Negative humor is a form of humor that evokes destructive emotions on the opposite side. The humor includes aggressive, threatening, humiliating, deceiving, and disparaging elements (Şahin, 2018). Therefore, negative humor causes some employees to feel bad in organizations. In organizations where negative humor climate is dominant, humor is often used to intimidate, ridicule and despise each other. Hence, the presence of a negative climate in the work environment reduces the job satisfaction of employees (Cann, Watson & Bridgewater, 2014; Duncan, 2006) and induces stress (Blanchard et al., 2014; Cann et al., 2014; Mesmer-Magnus et al., 2012; Şahin, 2016) and anxiety (Cann, Holt & Calhoun, 1999; Romero & Pescosolido, 2008).

Outgroup Humor

Outgroup humor is humorous sharing in which employees target individuals or parties other than themselves. In these humorous shares, negative humor is predominant (Şahin, 2018). The humor targeting administrators is frequently made in organizations where the outgroup humor climate is dominant. Employees often mock managerial policies and practices. Therefore, outgroup humor targeting parties in the organization is considered as a negative type of humor because of its destructive effects. It is emphasized that the dominance of this humor climate in organizations may have negative effects on job satisfaction, organizational commitment and fairness (Cann, Watson & Bridgewater, 2014). However, outgroup humor targeting parties who are out of the organization can sometimes have a positive effect on the organization's employees (Şahin, 2018).

In fact, the use of humor in organizations and the humor climate that emerges in the working environment as a result of this use of humor may either take its place among the organizational stressors (which indicates the presence of a negative and destructive humor climate) or act as a coping mechanism for stress by relieving it or reducing its effects with its therapeutic effect. Therefore, the study is important in terms of creating a positive humor climate in schools, thus managing the stress levels of employees, and having a positive effect on organizational outcomes such as organizational health and organizational effectiveness. The aim of this study is to determine the effects of the humor climate of schools on the perceived stress levels of teachers.

For this general purpose, answers to the following questions were sought. According to teachers' opinions:
    1. What is the humor climate of schools; do the teachers' opinions differ according to gender, educational background and type of school?
    2. What are the perceived stress levels of teachers; do the teachers' opinions differ according to gender, educational background and type of school?
    3. What are the effects of the schools' humor climates on the perceived stress levels of teachers?

Method

Research Design

In the study conducted with the aim of determining the effects of the humor climate of schools on the perceived stress levels of teachers, a predictive correlational study design (Büyüköztürk et al., 2010) was used.

Population and Sample

The population of the study consists of 11216 teachers working in state schools in the central districts of Antalya metropolitan city (Muratpaşa, Kepez, Konyaltı, Aksu and Döşemealtı). In determining the sample size, using the formulas to determine the sample size for continuous variables (Büyüköztürk et al., 2010), a group of 372 teachers was found sufficient for the sample size according to 95% confidence level. However, as a measure against the risks of low and invalid surveys, the questionnaires were applied to a group of 406 teachers. In the determination of the sample, firstly by using the stratified sampling, one of the random sampling methods, the number of teachers to be included in the sample group according to the rate of representing the population in all central districts was determined. We first used the stratified sampling method since the districts in the metropolitan central area of Antalya has different socio-economic demographics which may affect the teachers differently. Then, by using simple random sampling method, one of the random sampling methods, final teacher group was determined randomly (Büyüköztürk et al., 2010). After invalid questionnaires were excluded, 387 questionnaire data were evaluated.

Table 1. Demographic Information of the Participants

		n	%			n	%
Gender	Female	225	58.1		Kindergarten	24	6.2
	Male	162	41.9	School	Primary School	100	25.8
Education Status	Associate Degree	18	4.7	Type	Secondary School	158	40.8
	Bachelor's Degree	344	88.9		High School	105	27.1
	Graduate	25	6.5				

In this study, 387 teacher questionnaires were evaluated. Of the teachers that participated in the study, 225 (58.1%) of them were female and 162 (41.9%) were male. According to the school types, 24 (6.2%) of them were kindergarten, 100 (25.8%) of them were primary school, 158 (40.8%) of them were secondary and 105 (27.1%) of them were high school teachers. According to their educational status, 18 (4.7%) teachers were with an associate degree (two-year degree), 344 (88.9%) teachers were with bachelor's degree (undergraduate) and 25 (6.5%) teachers were graduates.

Data Collection Tools

Humor Climate Scale

In order to collect data concerning the humor climate of schools the Humor Climate Scale (HCS), which was developed by Cann, Watson and Bridgewater (2014) and adapted to Turkish by Şahin (2016), was used. In the Turkish version of the measurement tool, a 5-point Likert-type rating scale ranging from "Never (1)" to "Always (5)" was used (Şahin, 2016).

In order to determine whether HCS's factor structure is a valid model, confirmatory factor analysis was carried out with 387 pieces of questionnaire data. When the unity indexes that were acquired from the confirmatory factor analysis analyzed, it was observed that X^2/df (2.41), GFI (.93), AGFI (.90), IFI (.96), CFI (.96), NFI (.93), NNFI (.95), RMSEA (.061), RMR (.061) and standardized RMR (.063) values were in unity at a perfect level while RFI (.91) value was at a favorable level of unity. In this context, Humor Climate Scale's structure of 16 items and 4 dimensions can be claimed to have been confirmed (Çokluk, Şekercioğlu & Büyüköztürk, 2010; Hair, Anderson, Tahtam & Black, 1998; Seçer, 2015).

In reliability studies, internal reliabilities (Cronbach's Alpha) were as follows: For the positive humor dimension (four items) 0.71; for the negative humor dimension (four items) 0.78; for the outgroup humor dimension (four items) .77; and for supervisor support dimension (four items) .68. The internal reliability (Cronbach's Alpha) for the overall scale was 0.78.

The high score in the positive humor climate dimension indicates that there is more positive humor in schools and that in the outgroup humor dimension refers to the humor in the working environment is supported by the administrator. The high score in negative humor climate dimension indicates that there is more negative humor in schools and that in the outgroup humor dimension, the administrators and the supervisors outside the organization are targeted more often with negative humor by the employees. Examples of different items on humor at different dimensions are as follows: at the positive humor climate dimension, *"The humor that is done among the personnel at school makes the work more cheerful.",* at the supervisor support dimension *"Our administrators place emphasis on creating a serious working atmosphere at school.",* at the negative humor climate dimension *"The personnel at school sometimes use humor to intimidate each other in the group."* and at the outgroup humor climate dimension *"The policies and practices of the school administrations can often be a target for jokes or ridicule among my coworkers.".* The items at the supervisor support dimension are reverse scored.

Perceived Stress Scale

At this study, the 14-item long form of the Perceived Stress Scale (PSS), developed by Cohen, Kamarck and Mermelstein (1983), was used to define to what level of stress the teachers perceive the events and situations in their lives.

In order to determine whether PSS's factor structure is a valid model, confirmatory factor analysis was carried out with 387 pieces of questionnaire data. When the unity indexes that were acquired from the confirmatory factor analysis analyzed, it was observed that GFI (.92), IFI (.95) and CFI (.95) values were at an excellent level; X^2/df (3.32), AGFI (.88), RMSEA (.078), RFI (.91), NFI (.93), NNFI (.94), RMR (.060) and standardized RMR (.082) values were in unity at a favorable level. In this context, Perceived Stress Scale's structure of 14 items and 2 dimensions can be claimed to have been confirmed (Çokluk, Şekercioğlu & Büyüköztürk, 2010; Hair, Anderson, Tahtam & Black,1998; Seçer, 2015).

In the reliability studies, internal reliabilities (Cronbach's Alpha) were as follows: for the stress/discomfort perception dimension (seven items) 0.85; and for inadequate self-efficacy perception (7 items) 0.83. The internal reliability (Cronbach's Alpha) for the overall scale was 0.79.

A high score stands for the excess of a person's stress/distress or inadequate self-efficacy perception. In the perceived stress/distress dimension *"How often have you felt tense and stressed for the last month?",* and in the perceived inadequate self-efficacy *"How often have you felt that you cannot control the important things in your life for the last month?"* and such questions are included. The items that are in the perceived inadequate self-efficacy dimension are reverse scored.

Data Analysis

In the analysis of the data concerning the first and second sub-problems, descriptive analyses such as percentage, frequency and arithmetic means were used. We also used independent samples t-test, one-way ANOVA for the first two sub-problems. After it was seen that the assumptions of parametric tests were met, the analysis was started. Moreover, Büyüköztürk (2001) states that regarding the analysis of the dependent variable, it is difficult to meet the assumption that subgroups exhibit normal distribution in their populations, in education and behavioral sciences. Therefore, neglecting this assumption will not have a significant effect on the results if each data number of the subgroups of the variable is 15 or more (p.34-35). However, in the independent samples t-test, if the Levene test was greater than the determined level of significance, the "equal variance assumed" approach was used, if it was less than the significance level, the "equal variance not assumed" approach (The situation in which the assumption of homogeneity of variance couldn't be achieved) was used to compare the two groups (Akgül & Çevik, 2003; Büyüköztürk, 2003; Cohen, Manion & Morrison, 2007). Significance levels of p <.05 and p <.01 were taken as basis. In the analysis of the data concerning the third sub-problem, multiple linear regression analysis was applied. Since there was no prior idea on the relationship between independent

variables and dependent variables, the standard approach was used as a base in the analysis of multiple linear regression analysis (Leech, Barrett & Morgan, 2005).

In multiple linear regression analyzes, the analysis was continued when it was seen that the relationship between predictor variables was below .80, D-W coefficient was around 2, tolerance values were greater than .10 and VIF values were below 2 (Akgül & Çevik, 2003; Büyüköztürk, 2003; Gordon, 2015; Hair, Anderson, Tahtam & Black, 1998; Muijs, 2004; Secer, 2015). Since the aim of the multiple linear regression analysis models, which were used in the study, was not an estimation but explanation, all the significant models were interpreted.

Findings

The Humor Climate of Schools and the Perceived Stress Levels of Teachers

The frequency, arithmetic mean and standard deviation values concerning the humor climate of schools and the perceived stress levels of teachers are presented in Table 2.

Table 2. The Humor Climate of Schools and the Perceived Stress Levels of Teachers

Dimensions	N	$\bar{X}$	sd
Positive Humor	387	3.8540	.65653
Supervisor Support	387	2.7287	.70460
Negative Humor	387	2.4735	.78653
Outgroup Humor	387	2.6273	.80263
Perceived Inadequate Self-Efficacy	387	2.4182	.57823
Perceived Stress /Distress	387	3.0491	.66361

According to teachers' views, the most dominant humor climate in schools was positive humor climate ($\bar{X}$=3.85). Positive humor was followed by supervisor support ($\bar{X}$=2.72), outgroup humor ($\bar{X}$=2.62), and finally negative humor ($\bar{X}$=2.47) respectively. This result shows that constructive humor climate types (positive humor and supervisor support) are more dominant in schools than destructive humor climate types (negative humor and outgroup humor).

It has been observed that the stress perceptions of teachers regarding perceived stress levels ($\bar{X}$=3.04) were higher compared to their perceptions regarding inadequate self-efficacy ($\bar{X}$=2.41). The teachers stated that they rarely experienced inadequate self-efficacy perception and sometimes stress/distress perception

Table 3. Teachers' Views According to Gender

Dimensions	Gender	N	$\bar{X}$	sd	t	df	p
Positive Humor	A- Female	225	3.7933	.68061	-2.153	385	.032
	B- Male	162	3.9383	.61368			
Supervisor Support	A- Female	225	2.6856	.67378	-1.421	385	.156
	B- Male	162	2.7886	.74328			
Negative Humor	A- Female	225	2.4422	.73192	-.899	312.533	.369
	B- Male	162	2.5170	.85707			
Outgroup Humor	A- Female	225	2.4989	.79321	-3.771	385	.000
	B- Male	162	2.8056	.78366			
Perceived Inadequate Self-Efficacy	A- Female	225	2.4743	.59294	2.259	385	.024
	B- Male	162	2.3404	.54952			
Perceived Stress /Distress	A- Female	225	3.0908	.64738	1.459	385	.145
	B- Male	162	2.9912	.68330			

According to the findings seen in Table 3, according to gender variable the views of teachers have presented significant differences at positive humor dimension [$t_{(385)}$=-2.153; p<.05], outgroup humor dimension [$t_{(358)}$=-3.771; p<.01], and perceived inadequate self-efficacy dimension [$t_{(385)}$=-2.259; p<.05].

The scores of male teachers regarding both positive humor and outgroup humor climates were significantly higher than those of female teachers. According to views of male teachers, positive humor and outgroup humor climates in their schools were significantly higher compared to those of female teachers.

As for the outgroup humor it can be said that while the female teachers ($\bar{X}$=2.49) and male teachers ($\bar{X}$=2.80) were observed to be indecisive, male teachers have positive views at a significant level according to independent samples t-test results.

The scores of female teachers were significantly higher than the scores of male teachers regarding perceived inadequate self-efficacy. This aspect shows that female teachers had significantly higher inadequate self-efficacy perception compared to male teachers.

Significant differences cannot be observed at two of the humor climate dimensions which are supervisor support [$t_{(385)}$=-1.421; p>.05] and negative humor [$t_{(312.533)}$=-.899; p>.05]. In addition, there was no significant difference in the perceived stress/distress dimension [$t_{(385)}$=1.459; p>.05].

Table 4. Teachers' Views According to Education Status

Dimensions	Education Status	N	$\bar{X}$	sd	F	p	Significant Difference*
Positive Humor	A- Associate Degree	18	3.6944	.63336	.558	.573	-
	B- Bachelor's Degree	344	3.8612	.66391			
	C- Graduate	25	3.8700	.57337			
Supervisor Support	A- Associate Degree	18	2.6528	.86661	1.449	.236	-
	B- Bachelor's Degree	344	2.7485	.69724			
	C- Graduate	25	2.5100	.66724			
Negative Humor	A- Associate Degree	18	1.9583	.69266	4.200	.016	A-B A-C
	B- Bachelor's Degree	344	2.4942	.77753			
	C- Graduate	25	2.5600	.86987			
Outgroup Humor	A- Associate Degree	18	2.0972	.67595	4.942	.008	A-B A-C
	B- Bachelor's Degree	344	2.6395	.79274			
	C- Graduate	25	2.8400	.89233			
Perceived Inadequate Self-Efficacy	A- Associate Degree	18	2.3095	.69339	1.299	.274	-
	B- Bachelor's Degree	344	2.4348	.57529			
	C- Graduate	25	2.2686	.52053			
Perceived Stress /Distress	A- Associate Degree	18	2.4762	.65190	7.264	.001	A-B A-C
	B- Bachelor's Degree	344	3.0768	.66002			
	C- Graduate	25	3.0800	.54567			

* Scheffe test was conducted to determine which group/s caused the significant difference.

In Table 4 the views of teachers concerning the humor climate at schools show no significant differences according to school type variable at positive humor [$F_{(2-384)}$=.558; p>.05] and supervisor support [$F_{(2-384)}$=1.449; p>.05] dimensions. They present significant differences as for negative humor [$F_{(2-384)}$=4.200; p<.05] and outgroup humor [$F_{(2-384)}$=4.942; p<.01] dimensions.

Scheffe test was conducted to determine the significant difference among the groups related to negative humor climate. The scores of teachers with an associate degree, concerning negative humor dimension, were observed to be significantly lower compared to the views of teachers with bachelor's and graduate degrees.

As for the outgroup humor dimension, the scores of teachers with an associate degree, concerning out-group humor, were observed to be significantly lower compared to the views of teachers with bachelor's and graduate degrees.

The perceived stress levels of teachers did not present a significant difference at perceived inadequate self-efficacy dimension [$F_{(2-384)}$=.274; p>.05] according to educational status. As for perceived stress/distress [$F_{(2-384)}$=7.264; p<.01] dimension, a significant difference was observed.

For the perceived stress/distress dimension, Scheffe test was conducted to determine the significant difference among the groups. The scores of teachers with associate degree, concerning the perceived stress/distress, were observed to be lower compared to the views of teachers with bachelor's and graduate degrees.

Table 5. Teachers' Views According to School Type

Dimensions	Education Status	N	$\bar{X}$	sd	F	p	Significant Difference*
Positive Humor	A- Kindergarten	24	3.7083	.64127	4.641	.003	D-B D-C
	B- Primary School	100	3.9650	.61445			
	C- Secondary School	158	3.9241	.65430			
	D- Anatolian High School	105	3.6762	.66860			
Supervisor Support	A- Kindergarten	24	2.1563	.75474	11.212	.000	A-C A-D B-C B-D
	B- Primary School	100	2.5400	.68601			
	C- Secondary School	158	2.8560	.70727			
	D- Anatolian High School	105	2.8476	.60397			
Negative Humor	A- Kindergarten	24	2.0833	.77202	8.648	.000	A-C A-D B-C B-D
	B- Primary School	100	2.2150	.69178			
	C- Secondary School	158	2.5918	.78214			
	D- Anatolian High School	105	2.6310	.79971			
Outgroup Humor	A- Kindergarten	24	2.1979	.91182	5.810	.001	A-C A-D B-D
	B- Primary School	100	2.4550	.74737			
	C- Secondary School	158	2.6946	.78887			
	D- Anatolian High School	105	2.7881	.79495			
Perceived Inadequate Self-Efficacy	A- Kindergarten	24	2.4762	.72191	.237	.871	-
	B- Primary School	100	2.4300	.66589			
	C- Secondary School	158	2.4259	.55116			
	D- Anatolian High School	105	2.3823	.49268			
Perceived Stress /Distress	A- Kindergarten	24	3.0179	.47719	1.619	.184	-
	B- Primary School	100	2.9300	.76285			
	C- Secondary School	158	3.1112	.66021			
	D-Anatolian High School	105	3.0762	.59302			

* Scheffe test was conducted to determine which group/s caused the significant difference.

In Table 5, the views of teachers show significant differences concerning humor climate according to school type at all dimensions as positive humor [$F_{(2-383)}$=4.641; p<.01], supervisor support [$F_{(2-383)}$=11.212; p<.01], negative humor [$F_{(2-383)}$=8.648; p<.01], and outgroup humor [$F_{(2-383)}$=5.810; p<.01] dimensions.

Scheffe test was conducted to determine the significant difference among the groups related to positive humor climate. The scores of teachers working in Anatolian High Schools, concerning positive humor climate dimension, were observed to be significantly lower compared to the views of teachers working in primary and secondary schools.

The significant differences observed between the groups regarding the dimension of supervisor support were due to the difference between the views of the kindergarten teachers and secondary school teachers, and the difference between the views of the kindergarten teachers and Anatolian high school teachers. The scores of teachers working in Kindergartens, concerning supervisor support, were observed to be lower compared to the views of teachers working in secondary schools and Anatolian High Schools. What's more, there were significant differences between the views of teachers working in primary schools and the ones working in secondary schools, and between the views of teachers working in primary schools and Anatolian High Schools. The scores of teachers working in primary schools, concerning supervisor support, were observed to be lower compared to the views of teachers working in secondary schools and Anatolian High Schools.

According to Scheffe test results, the significant differences observed between the groups regarding the dimension of negative humor were due to the difference between the views of the kindergarten teachers and secondary school teachers, and the difference between the views of the kindergarten teachers and Anatolian school teachers. The scores of teachers working in Kindergartens, concerning negative humor dimension, were observed to be lower compared to the views of teachers working in secondary schools and Anatolian High Schools. Moreover, there were significant differences between the views of teachers working in primary schools and the ones working in secondary schools, and between the views of teachers working in primary schools and Anatolian High Schools. The scores of teachers working in primary schools, concerning negative humor, were observed to be lower compared to the views of teachers working in secondary schools and Anatolian High Schools.

Regarding the outgroup humor, Scheffe test was conducted to determine from which group/s caused the significant difference. There were significant differences between the views of the kindergarten teachers and secondary school teachers, and between the views of the kindergarten teachers and Anatolian high school teachers. The scores of teachers working in Kindergartens, concerning outgroup humor, were observed to be lower compared to the views of teachers working in secondary schools and Anatolian High Schools. Besides, there was a significant difference between the views of teachers working in primary schools and Anatolian High Schools. The scores of teachers working in primary schools, concerning outgroup humor, were observed to be lower compared to the views of teachers working in Anatolian High Schools.

The perceived stress levels of teachers did not present a significant difference in both dimensions as perceived inadequate self-efficacy [$F_{(2-383)}=.237$; $p>.05$] and perceived stress/distress [$F_{(2-383)}=1.619$; $p>.05$] with regards to the school type variable.

The Effects of the Schools' Humor Climates on Perceived Stresses of the Teachers

The findings related to the prediction of the perceived stress levels of teachers, according to the humor climate of schools (positive humor, negative humor, outgroup humor and supervisor support) are presented in Table 6 and Table 7.

Table 6. Regression Analysis Results for Predicting the Perceived Inadequate Self-Efficacy

Variable	B	Standard Error$_B$	β	t	p	Correlations Zero-order	Partial
Constant	2.736	.232		11.781	.000		
Positive Humor	-.091	.046	-.103	-1.958	.051	-.092	-.100
Supervisor Support	-.059	.048	-.072	-1.232	.219	-.013	-.063
Negative Humor	.039	.047	.053	.820	.413	.060	.042
Outgroup Humor	.037	.046	.052	.816	.415	.043	.042
$F_{(4-382)}= 1.530$ $p=.193$ $R=.126$ $R^2=.016$							

According to multiple linear regression analysis results in Table 6, the scores of teachers belonging to positive humor, supervisor support, negative humor, outgroup humor and their perceived inadequate self-efficacy were not interpreted significantly ($R=126$; $R^2=.016$; $F_{(4-382)}= 1.530$; $p>.05$).

Table 7. Regression Analysis Results for Predicting the Perceived Stress/Distress

Variable	B	Standard Error$_B$	β	t	p	Correlations Zero-order	Partial
Constant	2.263	.255		8.868	.000		
Positive Humor	-.012	.051	-.011	-.226	.822	-.029	-.012
Supervisor Support	.063	.053	.067	1.201	.230	.197	.061
Negative Humor	.156	.052	.185	3.010	.003	.284	.152
Outgroup Humor	.104	.050	.125	2.072	.039	.251	.105
$F_{(4-382)}= 10.307$ $p=.000$ $R=.312$ $R^2=.097$							

According to multiple linear regression analysis results in Table 7, the relations among positive humor, supervisor support, negative humor, outgroup humor and perceived stress/distress were analyzed. The model of positive humor, supervisor support, negative humor and outgroup humor climates, gave a low but significant relationship in relation to the perceived stress/distress of teachers ($R=.312$; $R^2=.097$; $F=10.307$; $p<.01$). Positive humor, supervisor support, negative humor and outgroup humor climates collectively explained 9.7% of the total variance of the perceived stress/distress of teachers.

According to the standardized regression coefficient (β), the relative significance order of the interpretive variables on the perceived stress/distress was as follows: Negative humor, outgroup humor, supervisor support, and positive humor. It was found that negative humor and outgroup humor seem to be important interpreters of perceived stress/distress each according to the results of the t-test regarding the significance of the regression coefficients. As for positive humor and supervisor support, they had no significant impact.

Discussion and Conclusion

This study is an important step in understanding how the humor climate affects perceived stress levels of teachers in state schools. As a matter of fact, in the literature, there are no studies that directly investigate the humor climate and perceived stress levels of teachers. In the study, the humor climate of the schools and perceived stress levels of the teachers were determined according to the variables of gender, education status and school type of teachers; then, the relationship between the humor climate of schools and the perceived stress levels of teachers was examined.

In schools, the constructive humor climates (positive humor and supervisor support) were more dominant than the destructive humor climates (negative humor and outgroup humor). In another study conducted in primary schools by Şahin (2016), it was determined that negative humor and outgroup humor, from negative humor climate types, were felt at a lower level compared to positive humor climate types. This case may point out that, there is an appropriate and convenient working atmosphere in order to increase joy and interpersonal relations in schools. In the study it was observed that the perceived stress levels of teachers were not high. The teachers stated that they experienced rarely perceived inadequate self-efficacy and sometimes perceived stress/distress. Nevertheless, their feeling of perceived stress/distress at a higher level compared to perceived inadequate self-efficacy is an attention-grabbing situation.

When the opinions of teachers were examined in terms of gender, there was a significant difference only in positive humor and outgroup humor dimensions. It can be stated that male teachers have more positive opinions about the presence of both positive humor and outgroup humor compared to female teachers.

The difference in the outgroup humor climate can be attributed to the fact that male teachers' being more critical of political and current issues, their questioning systems and administrations more, and making these situations a subject of humor (Şahin, 2016). A significant difference among the perceived stress/distress scores of teachers according to gender variable has not been observed. The perceived inadequate self-efficacy scores of female teachers were significantly higher compared to those of male teachers. This aspect shows that female teachers experience significantly higher perceived inadequate self-efficacy compared to male teachers. In Turkish society feminine roles being more severe than masculine roles; occupational workload and workload in private life may be a cause of this result. As a matter of fact, women have to struggle more than men to get a place and carry on in working life; and in our society, it is thought that women cannot be as productive as men because of their physical characteristics (Yılmaz, 2018). All these aspects may cause female teachers to experience more inadequate self-efficacy perception.

When the opinions of teachers were examined in terms of educational status variable, there was a significant difference only in negative humor and outgroup humor dimensions with regards to the opinions about humor climate. Scores of the teachers with associate degrees concerning both the negative humor and outgroup humor climate were defined lower compared to the ones with graduate and postgraduate degrees. This fact shows that teachers with associate degree education avoid using destructive humor styles compared to other teachers. The fact that teachers with associate degree education are older and have more experience compared to other teachers can be explained by their making more humor and taking care not to create destructive and negative atmosphere in the organizational climate. When the opinions regarding perceived stress are scrutinized, only the perceived stress/distress levels of the teachers show a significant difference according to the educational status variable. The stress/distress scores of associate degree teachers were lower compared to the ones with graduate and post graduate educational background. It can be said that the teachers with associate degree education experience the perceived stress/distress at a lower level. This case can be associated with their being older and having more occupational experience. Having more experience may lead to their coping with the problems easier and thus feeling less stress/distress. Şanlı (2017) in his study, in which he analyzed the perceived stress levels of teachers, similarly found that the teachers with 21-30 years of occupational experience have less stress/distress perception compared to the teachers with 1-10 years of occupational experience, as well.

The opinions of teachers about humor climate differed significantly in all humor climate dimensions according to school type variable. The scores of the teachers working in Anatolian high schools regarding the positive humor climate dimension were lower compared to the opinions of teachers working in primary and secondary schools. This shows that the positive humor climate in Anatolian high schools is lower compared to the one in primary and secondary schools.

It has been determined that the scores of the teachers working in kindergartens regarding the supervisor support dimension were lower compared to the opinions of teachers working in secondary and Anatolian high schools.

Besides, it has been observed that the scores of the teachers working in primary schools concerning the supervisor support dimension are lower compared to the opinions of teachers working in secondary and Anatolian high schools.

It has been observed that the scores of the teachers working in kindergartens regarding the outgroup humor climate were lower compared to the opinions of teachers working in secondary and Anatolian high schools. What's more, the scores of outgroup humor of the teachers working in primary schools were lower compared to the opinions of teachers working in Anatolian high schools. Perceived inadequate self-efficacy and perceived stress/distress levels of the teachers did not differ significantly according to the school type variable.

In the context of the relationship between humor climate of schools and the perceived stress levels of teachers, while the research results showed that positive humor, supervisor support, negative humor and outgroup humor climate together were important predictors of perceived stress/distress of teachers; it has been concluded that they were not important predictors of the perceived inadequate self-efficacy. Negative humor and outgroup humor climate were important predictors of perceived stress/distress. As for the climates of positive humor and supervisor support, they did not have a significant effect on perceived stress/distress.

In this case, it can be concluded that the presence of negative humor and outgroup humor climates as negative and destructive humor climates in schools increases the perceived stress/distress of teachers. Negative humor climate may be leading to negative assessment, emotional pressure, and weakening of coping strategies for teachers concerning the situations in which they are. Thus, the teachers may be mostly experiencing perceived stress/distress. Griffith, Steptoe and Cropley (1999) state in their studies that, the demand and pressure in the working conditions may cause stress for the teachers. In one of his studies, Abel (2002) found that those with a high sense of humor experienced less stress than those with a low sense of humor although they had similar number of problems within two-month-period. This result indicates that, those with a high sense of humor are more likely to use positive re-evaluation, more problem-solving and coping strategies than those with a low sense of humor. Therefore, the teachers' experiencing high levels of stress/distress perception in negative humor and outgroup climates where the sense of humor is negative and destructive, may stem from negative evaluation, emotional pressure, and efforts to cope with weaker problems concerning the situations in which they are.

The Limitations of the Research

First of all, the results of the research reflect the views of 387 teachers working in Muratpaşa, Kepez, Konyaltı, Döşemealtı and Aksu central districts of Antalya. Secondly, the research data were collected in 2018 and the results are limited only to this period. Thirdly, since there was no relevant data in our study, the mediating effect of the humor climate of schools on the perceived stresses of teachers could not be evaluated. In addition to these, since there are no direct studies about the humor climate and the perceived stress levels of teachers, the results could not be fully discussed. However, this study will serve as a reference for the future studies that will be done on this subject.

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