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Relationship Between Teachers' Way of Expressing Anger, Professional Self-Esteem, and Voice Complaints

Öğretmenlerin Öfkeyi İfade Etme Biçimleri, Mesleki Öz Saygı ve Ses Şikâyetleri Arasındaki İlişki

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ABSTRACT Objective: Our research aimed to examine teachers' voice complaints, sustained anger status, anger internalization, anger projection, anger control, and professional self-esteem in terms of various variables such as teaching level and professional experience, and to examine the relationship between voice complaints and professional self-esteem and styles of expressing anger. Material and Methods: The study sample comprised 189 teachers, with 96 from elementary schools and 93 from secondary schools, all employed in Ankara. The demographic information form, Voice Handicap Index-10 (VHI-10), Trait Anger and Anger Expression Scale and Arıcak Professional Self-Esteem Scale were created and applied online to each teacher using Google survey forms. Research data were collected between February 2021-2022. The results obtained from the scales were compared based on teachers' professional years and education levels. Results: On the anger expression style scale, secondary school teachers had a mean score far greater than those of primary school teachers. No significant difference was found between the teachers' professional years and the mean scores obtained from the trait anger and anger expression scales and the Arıcak Professional Self-Esteem Scale. However, the mean scores of teachers with less than 5 years of experience were higher in the VHI-10. A significant relationship was observed between VHI-10, trait anger, anger-inward, and anger-outward. Conclusion: It has been observed that the ways in which secondary school teachers express anger are high. It will guide experts in ensuring that teachers are aware of the symptoms they experience when expressing anger, which can affect their voice and therefore help them control their emotional states.

Keywords: Anger; occupational stress; school teacher; voice

ÖZET Amaç: Araştırmamızda, öğretmenlerin ses şikâyetlerini, sürekli öfkeli olma, öfkeyi içe atma, öfkeyi dışa vurma, öfkeyi kontrol etme ve mesleki benlik saygılarını öğretim kademesi ve mesleki deneyimleri gibi çeşitli değişkenler açısından incelemek, ayrıca ses şikâyetleri ile meslek, benlik saygısı ve öfkelerini ifade etme tarzları arasındaki ilişkinin incelenmesi amaçlanmıştır. Gereç ve Yöntemler: Araştırmanın örneklemini, Ankara ilinde ilkokullarda görev yapan 96 ve ortaokullarda görev yapan 93 olmak üzere 189 öğretmen oluşturmuştur. Her öğretmene demografik bilgi formu, Ses Handikap İndeksi-10 (SHİ-10), Sürekli Öfke ve Öfke İfade Tarzı Ölçeği ve Arıcak Mesleki Benlik Saygısı Ölçeği Google anket formları oluşturarak çevrim içi uygulanmıştır. Araştırma verileri Şubat 2021-2022 tarihleri arasında toplanmıştır. Ölçeklerden elde edilen sonuçlar öğretmenlerin mesleki yıllarına ve eğitim düzeylerine göre karşılaştırılmıştır. Bulgular: Öfke ifade tarzı ölçeğinde, ortaokul öğretmenlerinin ortalama puanı ilkokul öğretmenlerinin puanlarından çok daha yüksekti. Öğretmenlerin mesleki yılları ile sürekli öfke ve öfke ifade ölçeklerinden ve Arıcak Mesleki Öz Saygı Ölçeği'nden elde edilen ortalama puanlar arasında anlamlı bir fark bulunmadı. Ancak, 5 yıldan az deneyime sahip öğretmenlerin ortalama puanları SHİ-10'da daha yüksekti. SHİ-10, sürekli öfke, öfke-içe dönük ve öfke-dışa dönük arasında anlamlı bir ilişki gözlendi. Sonuç: Ortaokul öğretmenlerinin öfkeyi ifade etme biçimlerinin yüksek olduğu gözlemlenmiştir. Bu, öğretmenlerin öfkeyi ifade ederken yaşadıkları semptomların farkında olmalarını sağlayarak seslerini etkileyebilecek ve dolayısıyla duygusal durumlarını kontrol etmelerine yardımcı ola-

Anahtar Kelimeler: Öfke; mesleki stres; okul öğretmenleri; ses

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For many people, the voice is an important tool in performing their job duties. Those who use their voice as the primary modality in performing their job duties are called occupational voice users. Professionals such as teachers, call center workers, radio presenters, and fitness instructors are a few examples of occupational voice users.1 It is reported that many people who are occupational voice users have a higher frequency of voice disorders due to overuse or misuse of their voice compared to those who do not use their voice for their occupation.2 Teachers are also considered at high risk of voice disorders from a professional perspective.³ The prevalence of voice disorders experienced by teachers at some point in their lives was reported to be 57.7%, and the prevalence of voice complaints experienced during their work was reported to be 54.6%.^{2,3} In a metaanalysis study on the risk factors for voice disorders in teachers, gender, caffeine consumption, loud speaking, upper respiratory tract problems, and the number of weekly lessons were reported as the main risk factors. Factors such as the person's age, number of children, smoking, alcohol and water consumption, singing habits, perception of noise in the school, number of daily lessons, and perception of noise in the classroom were also found to be important.4

Emotions are structured feelings that first occur internally in response to stimuli from a person's internal and/or external environment and then affect a person's body expression, posture, and behavior.⁵ Similar to emotions such as happiness, sadness, fear, hatred, and joy, anger is an emotional state that provides positive feedback when expressed naturally. However, when anger is uncontrolled, it can turn into destructive, aggressive behavior and ultimately lead to irreversible consequences. People's' professional environments are not independent of emotions. Emotions are felt more intensely, especially in intense and face-to-face interactions with people, such as in educational institutions.⁵ Various physical parameters such as blood pressure, heart rate and sensations of pain are experienced in the feeling of anger. When the relationship between anger expression style and health is examined, it is found that a) when the frequency and/or intensity of a person's anger stimulation is increased, this situation can lead to more health problems and b) increasing sensitivity to momentary anger experiences can lead to individuals experiencing more symptoms in response to anger stimulation. Currently, there are no studies on the relationship between teachers' anger management styles and voice complaints. A study including professional voice users indicated that religious workers with voice disorders had low emotional stability. It emphasizes that such conditions may result in professional voice users becoming more anxious, reclusive, or excessively reactive to external stimuli.8 In a systematic study examining individual factors such as voice use, psychosocial aspects and years of teaching in voice problems related to the work environment of teachers, it was stated that the relationship between individual factors and voice problems was not clear.9 Thomas et al. reported that there are indications that vocal load and environmental factors are more influential in teacher candidates with voice complaints and that there is a greater tendency toward psycho-emotional factors in teachers with voice complaints early in their careers. 10 Teachers who reported that they were under work pressure and used loud voices while teaching were more than three times more likely to have voice problems than their colleagues who did not have voice problems. 10,11

Professional self-esteem refers to the sense of adequacy or inadequacy in one's abilities and skills while fulfilling the responsibilities of one's profession.¹² In order for teachers to work efficiently and be successful in their professional duties, their professional self-esteem must be at a sufficient level.¹³ In a metaanalysis study, it was reported that self-esteem has a low relationship among the predictors of anger.¹⁴ On the other hand, Civitci states that self-esteem is a psychological structure that can make it easier to control anger.15 It is stated that the more positive attitudes a person has toward themselves and the higher their self-esteem, the more likely they are to control themselves when encountering problems, to show appropriate coping strategies and to exhibit less angry behaviors. Similarly, it is emphasized that when people with high professional self-esteem (especially teacher candidates) exhibit positive behavior toward their duties, they do their tasks willingly

and are successful in their professions.¹⁶ In this context, there are currently no studies on the negative impact on teachers' professional self-esteem and the way they express their anger and voice complaints. Rocha et al. found that general mental disorder is seen at a high rate among teachers, and voice disorder is a risk factor for developing general mental disorder in this group.¹⁷ In line with these studies, our study aimed to examine the traits of anger and anger expression styles of primary and secondary school teachers, their professional self-esteem and their perceptions of voice problems. The main questions in our study were;

- To compare the trait anger and anger expression styles of primary and secondary school teachers, their professional self-esteem and their perceptions of voice problems,
- To compare teachers' traits of anger and anger expression styles, professional self-esteem and perceptions of voice problems according to their professional years,
- To examine the relationship between teachers' perceptions of voice problems and their trait of anger and the way they express their anger.

MATERIAL AND METHODS

A descriptive screening model was used in this study to examine the relationship between the anger expression styles of primary and secondary school teachers and' their professional self-esteem and voice perception.

STUDY DESIGN AND PARTICIPANTS

The researchers created an informed consent and demographic information form explaining the purpose of the study and who would be included. These forms along with the scales used in the study were created using "Google Forms" (Google, USA). Before starting the research, ethical approvals were obtained from the ethics committee and the Ministry of National Education. Subsequently, the requisite information and authorization were obtained from the principals of the primary and secondary schools in Ankara, and the Google Form was disseminated to the teachers by the school administrators. Participants

were first asked to provide informed consent by answering a yes-no question. Informed consent was obtained from all participants. Participants who agreed to participate in the study then completed the demographic information forms and scales. The study was conducted in accordance with the principles of the Declaration of Helsinki. Data were collected between February 2021-2022.

The population of the study consisted of 189 participants, including primary school (n=96) and secondary school (n=93) teachers affiliated to the Ministry of National Education in Ankara Province. The average age of all teachers participating in the research was 40.03±8.381; the average age of primary school teachers was 42.42±8.495 (minimummaximum: 23-61) and the average age of secondary school teachers was 37.56±5.43 (minimum-maximum: 24-59). Seventy-six percent (n=73) of primary school teachers were women and 24% were men, while 71% of secondary school teachers were women and 29% were men. Participants in the study a) were teachers continuing to work in primary and/or secondary schools affiliated to the Ministry of Education; b) had no previous history of voice-related surgery, c) had no history of diagnosed voice disorder and no previous voice therapy/psychotherapy, d) were nonsmokers, and e) had no hearing loss and/or known neurological disease. Out of the 202 participants who volunteered for the study, 189 met the inclusionary criteria and were included in the study.

DATA COLLECTION TOOLS

A Demographic Information Form, Voice Handicap Index-10 (VHI-10), Trait Anger and Anger Expression Scale, and Professional Self-Esteem Scale developed by the researchers were used in the study to obtain information about participant's demographic characteristics.

Demographic Information Form

Includes questions about personal information, medical history, daily life and voice characteristics, as well as teachers' occupation (professional years, primary or secondary school teacher, class hours, etc.).

VHI-10

VHI-10 is a Likert-type scale in which the participant self-assesses their voice problem. The scale consists of 3 subdomains: functional, physical and emotional and consists of 10 questions. The scale is scored on a total score of 0-40. Higher scores indicate more problems. ^{18,19} Teachers were asked to rate each question item on a scale of 0-4 based on their understanding of the voice problems.

Trait Anger and Anger Expression Scales

Trait Anger (T-Anger) and Expression of Anger Scales (AngerEX) was developed in order to measure the continuum parameter of anger in individuals and the suppression and expression of anger, as well as defenses such as rationalization, suppression, and denial.²⁰ Özer adapted the AngerEx scale into Turkish as T-Anger and AngerEX.21 He stated that the T-Anger and AngerEX scales are valid and reliable for Turkish-speaking individuals. The AngerEX scale is assessed with the anger-control subscale, which measures anger control (Anger-Control), the anger-inward (Anger-In) subscale, which measures anger internalization, and the anger-outward (Anger-Out) subscale, which measures anger externalization. The T-Anger and AngerEX scales consist of 34 items and are a 4-point Likert-type scale. Scale items measure the presence of anger rather than its absence.²¹

Arıcak Professional Self-Esteem Scale: was developed in order to measure the respect and attitudes toward the preferred profession of individuals over 17 years of age.²² The scale consists of 30 items, 14 of which are positive and 16 of which are negative statements. The scale is structured as a 5-point Likert-type scale. The scale scores range from 30 to 150.

DATA COLLECTION PROCESS

Necessary approvals were obtained from Ankara Yıldırım Beyazıt University Ethics Committee prior to data collection (date: January14, 2021, no: 26). After obtaining permission from the Ministry of Education, the principals of primary and secondary schools in Ankara province were met, and the purpose and methods of the research were explained. Institutional administrators were given a Google form

link to the survey, which was then forwarded to the teachers by the administrators.

DATA ANALYSIS

Data analysis was carried out in 2 stages. First, the scores of the scales used in the study were obtained, and data were recorded on a computer with the SPSS 26.00 (IBM SPSS 26.00 statistical program USA). statistical program. Normality tests were then performed, but Skewness and Kurtosis coefficients were used in the final decision. Accordingly, Skewness and kurtosis coefficients in the range of +2 and -2 were considered not to deviate significantly from the normal distribution.²³ In this study, the independent t-test and analysis of variance were used for the analysis of normally distributed values, and the Kruskal-Wallis and Mann-Whitney U test were used for the analysis of nonnormally distributed values. In addition, Tukey's post hoc test was used to analyze significant differences between the groups. In addition to independent 2- and 3-group comparisons, Spearman correlation analysis was performed in the study. The significance level was set at 0.05.

RESULTS

A total of 189 primary and secondary school teachers participated in our study. Descriptive statistics of the teachers' weekly teaching hours and professional years are shown in Table 1.

As shown in Table 1, 84.4% of primary school teachers have 25-40 hours of weekly lessons, while 60.2% of secondary school teachers have 10-25 hours of weekly lessons. In terms of professional working years, 82.3% of primary school teachers had over 10 years of working years, while 55.9% of secondary school teachers had over 10 years of working years.

When comparing the scores of primary and secondary school teachers on anger-out, a significant difference was found (p=0.020). As shown in Table 2, the average score of secondary school teachers on the anger-out subscale (M=13.88) is higher than that of primary school teachers (M=12.84) (Table 2).

As shown in Table 3, no statistically significant difference was found in terms of the scores of the

TABLE 1: Descriptive statistics of teachers' weekly teaching hours and professional years									
Weekly Teaching Hours		<10 hours	10-25 hours	25-40 ho	25-40 hours				
Primary	n	9	6	6 81					
	%	9.4	6.3	84.4					
Secondary	n	10	56	56 27					
	%	10.8	60.2	29.0					
Total	n	19	62 108						
	%	10.1	0.1 32.8 57.1						
Professional years		<5 years	6-10 years	11-20 years	>20 years				
Primary	n	7	10	39	40				
	%	7.3	10.4	40.6	41.7				
Secondary	n	8	33	32	20				
	%	8.6	35.5	34.4	21.5				
Total	n	15	43	71	60				
	%	7.9	22.8	37.6	31.7				

TABLE 2: Comparison of primary and secondary school teachers in terms of their scores on VHI-10, T-Anger and AngerEX scales, and Arıcak Professional Self-Esteem Scale $\overline{\mathbf{X}}$ SD Group Test value p value VHI-10 96 2.47 3.645 Primary -0.221b 0.825 Secondary 93 3.24 5.257 T-Anger Primary 96 16.16 4 358 0.063a 0.217 Secondary 93 16.96 4.530 96 Anger-in Primary 14.14 3.930 0.964 0.077 Secondary 93 15.14 3.832 Anger-out Primary 96 12.84 3 058 0.097a 0.020 Secondary 93 13.88 3.021 Anger-control Primary 96 22.83 6.639 0.477 1.317a Secondary 93 22.18 5.875 Primary 96 123.51 16.455 3.604a 0.111 93 119.40 18.774 Secondary

teachers' years of service and the trait anger/anger expression style scales and the Arıcak Professional Self-Esteem Scale (p>0.05). However, a statistically significant difference was found in terms of the scores of the teachers' years of service and the VHI-10 scale (p=0.009). Accordingly, it can be said that teachers with less than 5 years of service received higher scores on the VHI-10 than teachers with more than 5 years.

As shown in Table 4, a positive significant relationship was obtained between the scores obtained from the VHI-10 scale and the T-Anger (r=0.206; p=0.004), anger-in (r=0.231; p=0.001) and anger-out

(r=0.145; p=0.0.47) variables. A positive relationship was obtained between T-Anger and VHI-10 (r=0.206; p=0.004), anger-in (r=0.551; p=0.000), anger-out (r=0.602; p=0.000) and a negative relationship was obtained with anger-control (r=-0.293; p=0.000). A positive relationship was obtained between professional self-esteem and anger-control (r=0.244; p=0.001).

DISCUSSION

Teachers are at a greater risk for voice disorders compared to the general population. In particular, hoarseness, discomfort and increased effort when using the

^bMann-Whitney U test; ^aIndependent t-test; SD: Standard deviation; VHI-10: Voice Handicap Index-10

TABLE 3: Comparison of VHI, T-Anger and AngerEX scales, and Arıcak Professional Self-Esteem Scale according to teachers' professional years

		n	$\overline{\mathbf{X}}$	SD	Minimum-maximum	Test value	p value	"post hoc" analysis
T-Anger	<5 years	15	15.73	2.764	12-21	1.515ª	0.212	
	6-10 years	43	17.00	5.192	10-30			
	11-20 years	71	17.17	4.772	10-34			
	>20 years	60	15.70	3.684	10-27			
Anger-in	<5 years	15	14.20	2.859	10-22	1.528a	0.209	
	6-10 years	43	15.30	4.285	8-29			
	11-20 years	71	14.99	4.020	8-25			
	>20 years	60	13.83	3.637	8-23			
Anger-out	<5 years	15	13.13	2.326	9-17	0.979ª	0.404	
	6-10 years	43	13.72	2.831	8-22			
	11-20 years	71	13.62	3.109	8-23			
	>20 years	60	12.83	3.351	8-23			
Anger- control	<5 years	15	25.53	5.263	10-32	2.356ª	0.073	
	6-10 years	43	22.72	6.181	10-32			
	11-20 years	71	22.94	5.490	8-32			
	>20 years	60	21.10	7.142	8-32			
Professional	<5 years	15	129.00	11.880	103-143	1.529ª	0.208	
Self-Esteem	6-10 years	43	123.77	16.756	83-147			
	11-20 years	71	119.55	19.396	74-146			
	>20 years	60	120.27	17.182	77-146			
VHI-10	<5 years	15	6.60	7.229	0-28	6.911b	0.009	<5 years>6-10 years
	6-10 years	43	2.93	4.968	0-19			<5 years>11-20 years
	11-20 years	71	2.70	3.900	0-14			<5 years>20 years
	>20 years	60	2.02	3.553	0-16			

^aAnalysis of variance; ^bKruskal-Wallis; "post hoc" analysis: Tukey. SD: Standard deviation

TABLE 4: The relationship between teachers' VHI-10, T-Anger and AngerEX scales, and Arricak Professional Self-Esteem Scale VHI-10 T-Anger Anger-in Anger-out Anger- control Professional Self-Esteem VHI-10 1.000 0.206** 0.231** 0.145* -0.041 -0.102 r value p value 0.004 0.001 0.047 0.572 0.164 0.206** 1.000 0.551** 0.602** -0.293** -0.079 Trait anger r value 0.004 0.000 0.000 0.000 0.277 p value 1.000 -0.118 Internal anger 0.231** 0.551** 0.559** -0.004 r value 0.001 0.000 0.000 0.958 0.105 p value External anger r value 0.145* 0.602** 0.559** 1.000 -0.121 -0.053 0.047 0.000 0.000 0.098 0.470 p value 0.244** -0.041 -0.293** -0.004 -0.121 1.000 Anger control r value 0.572 0.000 0.958 0.098 0.001 p value 0.244** Professional Self-Esteem 1.000 r value -0.102 -0.079 -0.118 -0.053 p value 0.164 0.277 0.105 0.470 0.001

n=189 teachers; r: Spearman's rho

voice, changes in voice quality and/or fatigue after a short period of use, difficulties in projecting the voice, problems in maintaining a smooth and relaxed singing or speech, loss of singing range, etc. are more probable in teachers. Furthermore, teachers' voice problems limit their ability to perform certain professional tasks.³

Risk factors for teachers with voice problems include vocal load, physical (neck/shoulder pain, general fatigue, throat fatigue, heartburn, cough, throat clearing, etc.) and environmental factors (workplace acoustics, room humidity, presence of dust, heating, cooling, fan, chalk used by the teacher, exposure to chemicals and cigarette smoke, etc.). These symptoms are reported to be higher in teachers with voice problems than those without voice problems. These factors can contribute to the development of voice disorders, especially in teachers.2 In South Africa, occupational voice users average 36.5 hours of voice use per week due to their occupation, while a study of primary school teachers reported 5-6 hours of daily professional voice use (25-30 hours per week) and little or no rest from voice use. 24,25 In our study, it was found that the majority of primary school teachers (84.4%) attend classes between 25-40 hours per week, while 60.2% of secondary school teachers attend classes between 10-25 hours. Considering these data, it can be concluded that the workload of primary school teachers is more than that of secondary school teachers. Teachers with more than 20 years of teaching experience are 1.7 times more at risk than those with less than 20 years of teaching experience.²⁶ In our study, it is noteworthy that most teachers had more than 5 years of teaching experience. The majority (82.3%) of primary school teachers had more than 10 years of experience and 69.9% of secondary school teachers had 6-20 years of experience. Also, in our study, the VHI-10 scale scores were 2.47 for primary school teachers and 3.24 for secondary school teachers. In another study conducted with secondary school teachers, the mean VHI-10 scores of teachers with and without voice disorders were 15.73-2.83, respectively.²⁷ Lu et al. also reported that teachers with voice disorders scored higher on the VHI-10 scale than those without voice disorders.²⁸ Similar findings were obtained in studies with faculty members.²⁹ In line with our findings, teachers' perceptions of voice problems were quite low due to the lack of a self-reported voice disorder diagnosis. Teachers' awareness of voice use is reported to be higher in older teachers than in younger teachers in terms of age. Voice problems are also more common in the first 10-15 years of the teaching profession.³⁰ Kooijman et al. emphasized

that teachers in the first 4 years of their professional career had more voice complaints than teachers with more than 4 years of professional career.³¹ In our study, similar findings were obtained for teachers with less than 5 years of professional experience.

Teacher stress is a condition in which teachers experience negative emotions such as anger, tension, frustration, anxiety, or depression as a result of some aspects of their teaching profession.³² van Dick and Wagner state that teachers experience more physical symptoms such as heart problems, fatigue, headaches, shoulder and stomach pains due to workload and work-related mobbing, leading to the dysfunction of the general stress response.³³ Stress factors in teachers include sociodemographic factors such as gender, age, educational background, schooling, and related factors such as school year, class size, job satisfaction, and subjects taught.34 Şanlı reported that teachers with 1-10 years of professional experience at the primary, secondary, and high school levels had higher levels of perceived stress/anxiety than teachers with 21-30 years of professional experience.35 In another study, primary and secondary school teachers' T-Anger scores were 18.5-21.7, anger-in scores were 15.4-17.7, anger-out scores 14.3-16.6, and anger-control scores were 21.7-23.9. This study also found that teachers aged 40-49 had healthier levels of anger-control. It was concluded that teachers in this age range have a higher level of anger-control because they have reached a certain level of expertise in the teaching profession.³⁶ People with voice disorders may have stronger emotional responses to events because they are more persistent and reactive. Professional voice users report an increase in perceived stress when faced with time pressure, increased vocal load, and unsuitable working conditions. One study has emphasized that singers with voice disorders are not only individuals who react much more strongly to stressful stimuli but are also less resistant to their effects and more likely to remember negative events.³⁷ In our study, secondary school teachers were found to anger-out more than primary school teachers. Studies in the literature have investigated the relationship between stress, various working conditions, and different communication parameters such as time pressure and voice complaints.

There may also be a relationship between emotional states and voice complaints in teachers who are professional voice users. For example, anger management may seem to be a more deficient part in teachers, and the inability to manage anger may create a suitable ground for the misuse of voice. In this respect, inferences can be made regarding the practices of speech and language therapist (SLP) or the prevention of possible voice disorders in teachers.

Professional self-esteem allows professionals to understand their values, evaluate their own expertise, and adapt to their environment. The perception of professional self-esteem is very important among professionals because of the self-defense of professionalism.³⁸ Studies conducted with teachers and/or candidates have reported that their subjects have an adequate level of professional self-esteem.³⁹ It has also been reported that the professional self-esteem of female secondary school teachers is higher than that of male teachers. Considering these results, there is little doubt that professional self-esteem is important for teachers. It allows them to advance in their profession with confidence and stay committed without fear of failure. However, teachers need to have a positive attitude in order to develop their professional self-esteem.³⁸ In our study, most participants (71-73%) were female teachers, and it was observed that the professional self-esteem of primary and secondary school teachers was similar. In addition, it was found that the mean scores obtained by teachers from the professional self-esteem scale (119-123 points) were close to the highest score of the scale. This finding suggests that teachers have positive attitudes toward themselves and their profession.

It has been reported that voice-related emotional states are affected more in teachers with voice disorders than in those without voice disorders. The literature also highlights a significant correlation between voice symptoms and mental disorders. Furthermore, a negative correlation was observed between general mental disorders and voice self-control. Occupations with high labor demand, especially those with emotional demands and a lack of awareness about voice use, have been shown to be at greater risk of general mental disorders. How-

ever, no correlation was found between the teachers' perception of voice problems and anger and self-esteem. In our study, a low positive correlation was observed between the VHI-10 mean scores and anger-in, anger-out, and T-anger.

Future studies can further contribute to the literature by examining the relationship between voice symptoms and anger measures between males and females. In addition, it would be interesting to examine whether there are differences between teachers with and without voice disorders in terms of anger expression styles, trait anger, and professional self-esteem.

CONCLUSION

In conclusion, the present study adds new information to the literature regarding the relationship between teachers' emotional states, professional self-esteem, and voice. Secondary school teachers had high levels of anger expression. Teachers were also found to manage their anger more effectively as they reached a certain level of maturity in the teaching profession. Furthermore, a positive correlation was found between the perceptions of voice problems and feelings of anger. These findings can guide clinicians in providing teachers with awareness of how anger outbursts can affect their voice and possibly be used to guide emotional regulation.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm

Authorship Contributions

Idea/Concept: Elife Barmak, Halil Tayyip Uysal; Design: Elife Barmak, Halil Tayyip Uysal; Control/Supervision: Elife Barmak, Mariam Kavakçı; Data Collection and/or Processing: Elife Barmak, Halil Tayyip Uysal, Mariam Kavakçı; Analysis

and/or Interpretation: Elife Barmak, Halil Tayyip Uysal, Mariam Kavakçı; Literature Review: Elife Barmak, Mariam Kavakçı; Writing the Article: Elife Barmak, Halil Tayyip Uysal, Mariam Kavakçı; Critical Review: Elife Barmak, Halil Tayyip Uysal, Mariam Kavakçı.

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