

Examining the Relationship Between the Teachers' Emotional Reactivity and Aggression Levels

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Abstract

Teachers have the basic role and responsibility in the provision of peace in schools. Therefore, in this study, it was investigated whether there was a relationship between the emotional reactions of the teachers and the level of aggression by gender and profession. The study was carried out on the data obtained from 266 teachers who participated in the study voluntarily. Pearson Product Moment coefficient and MANOVA analysis were performed on the data obtained. As regard the relationship between the teachers' reactance and aggression levels depending on the gender and the time spent in profession, there was a significant relationship for the former while there wasn't for the latter according to the findings obtained via statistical analysis.

Keywords: Emotional Reactivity, Aggression, Teacher

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INTRODUCTION

Educational environments are the second places where the child spends most of their time after home. Teacher's emotions and ability to express them are important in student's psychosocial and academic development as teacher functions as a guide both in the academic and emotional sense for students in the school environment (Yöndem & Bıçak, 2008). Attitudes and behaviors exhibited by the teacher who is a role model of students as well as academic gains have a key role in student's school life (Wentzel, 1998). The teacher faces several situations during the educational-instructional activities. These may cause feelings such as happiness, joy, or stress, anger or anxiety. One can say that managing and expressing such positive and negative emotions properly is one of the important personal skills for teachers who have important roles and responsibilities in the development of younger generations (Eskridge, & Coker, 1985).

Emotion is a complex, multi-component state which prepares individual for the action and causes individual to exhibit various reactions with interdependent components of objective reality that mobilize in the mind (Smith, Hoeksema, Fredrickson, & Loftus, 2012). This process which results in reaction can also be described as emotional reactivity. Emotional reactivity involves individual's emotions for a series of stimuli, intensity of these emotions, and the time passed until the individual goes back to the stimulation level which was before they encountered the series of stimuli that caused them to feel the emotion in question (Nock, Wedig, Holmberg, & Hooley, 2008). Positive emotional reactions can increase love, respect and confidence while negative emotional reactions can lead to negative consequences such as disappointment, anger and aggression (Wentzel, 1998).

When considering the role of ability to manage emotions functionally in social skills (Durdu, 2013), giving reactions in accordance with the context is even more important (Uz-Baş, 2010). Individuals who are emotional and have high levels of excitation may undergo more stressful experiences due to their insufficient levels of self-regulation. Due to selective perception (Cüceloğlu, 2018), reactions given by the individual who runs against countless stimuli during the day are for the stimuli which are important to them. In other words, things that make sense for the individual when interpreting the objective reality they are in lead to emotional reactivity (Smith, & Lazarus, 1990). Emotional process starts after the individual cognitively evaluates the stimuli around, and individual's cognitive structure is effective in the functionality of emotional reactions shown (Smith, Hoeksema, Fredrickson, & Loftus, 2012). Individuals who tend to experience emotions more aggressively and unbearably can resort to more extreme and maladaptive coping responses to regulate emotions (Karaoğlu, 2018). This lack of awareness of the emotion causes increased aggression as a result of a number of mechanisms (Robertson, Daffern, & Bucks, 2012). Emotional reactions can provide a series of information about the individual for explaining their behavioral differences (Seçer, Halmatov, & Gençdoğan, 2013). Social immaturity and impulsivity can be factors that escalate violence in complex relations (Close, 2005) and can also pave the way for aggressive behaviors. Therefore, such individuals are more likely to show aggressive behaviors (Sharron, 2005).

Aggression has been a concept existed since the beginning of human history. Aggression can be defined as any behavior that aims to hurt or harm the other side (Eron, 1987). It can be expressed as physical violence, verbal taunts, and even hostile feelings (Çayköylü, Coşkun, Kırkpınar, & Özer, 1995). When properly expressed, aggression can also play a role in individual's life as a behavior that allows them to protect their boundaries and oppose injustices (Gültekin, 2008). Aggression can be classified in many different ways. Hostile aggression refers to individual's losing temper and behaving impromptu to hurt. Instrumental aggression means that individual behaves in a planned way to achieve the goal of the individual and orientates toward behaviors that harm others (Bandura, 1973). Aggression can be also defined as being direct and structural. Direct aggression is aggressive behavior towards others. In societies where structural aggression prevails, inequality and injustice are experienced in expressing and satisfying the basic needs of people (Opotow, 2000). Aggression can be caused by alcohol or drug use, peer and parental relationships in infancy, and personal characteristics such as sensuality and rapid excitation.

An atmosphere dominated by structural aggression appears to be in contrast with the spirit of contemporary education. Contemporary education contributes to the formation of healthy societies by aiming to educate democratic individuals who can think freely, are tolerant and who can make their own decisions (Altunay-Şam, Çaypınar, & Alimçam, 2016). Democracy is a value that appreciates humans because they are human, questions and allows questioning, and it is against aggression and violence (Fromm, 1982). Aggression is the use of force that damages others by emotional, physical or verbal means. It is imperative that educational environments are the environments where both providers and beneficiaries of the services feel safe (Gökçiçek, 2015). Teachers provide a safe haven and a student-centered environment and should become an appropriate role model for all students, especially children who are emotional, sensitive and have difficulty with social skills (McGaha-Garnett, 2013). In this sense, teachers' emotional reactions and behaviors may have devastating effects on the educational atmosphere (Eskridge & Cocker, 1985).

Aggressiveness is exhibited either actively or passively and in a group at an individual or organizational level (Fleischer, 2017). Studies that investigate violence in workplaces in recent years point out that schools are not excluded from the context and it is important to examine the aggression behavior among teachers, who are the main actors there (Sasson, & Somech, 2015; Coskun, 2019). Like all other workplaces, mobing and bullying are among the types of aggression encountered in educational institutions (Keim & McDermott, 2010; King, & Piotrowski, 2015). One of the risk factors that increase aggression and violence in schools is the characteristics of the teacher (Yavuzer, 2011; Ünlü, 2019). Teachers can exhibit violence and aggression behavior just like students (Jackson, 2000). In this context, considering the findings that the emotional inconsistency situation in the person can increase the conflict (Bedirhanoglu, 2017). It is accordingly important to investigate how teachers' styles of coping with anger and frustration and their emotional reactivity levels affect the aggressive behaviors that may exhibit.

Teachers are some of the primary actors who are responsible for educating new members of society in a school climate where democracy and science dominate (Altunay-Şam, Çaypınar, & Alimçam, 2016; Yıldırım, Ünal, & Çelik, 2011). Teachers can run against countless situations which may arouse several emotional reactions in them in many cases in the classroom. Discipline is not a technical problem but a problem of attitude, and this attitude depends on unconditional positive respect and encouragement (Selçuk, 2001). In classroom, this attitude is subject to teacher's being aware of their emotions, able to manage them functionally, that is, to cope with stressors efficiently. The individual's emotional consistency tends to solve them by dealing with the problems they face effectively (Sun, & Jin, 2009). Therefore, consistency and skill in managing emotions are reflected in the performance of the individual in the business environment (Lounsbury, Sundstrom, Loveland, & Gibson, 2003). In such cases, emotional awareness and emotion regulation skills of teachers can be decisive in their behaviors (Bayındır, 2016). Hence, behaviors of teacher as the role model of students in case of stress and frustration can be effective in personality and identity of the child (Wentzel, 1998; Yavuzer, 2009). In this sense, investigating the relationship between teachers' levels of emotional reactivity and aggression for prevailing democracy and peace in classroom setting was the impetus of this study. It was also investigated in the study whether women and men have similarly different emotional reactivity in teaching as they have different awareness levels for their emotions, as reported in the literature.

To this end, the relationship between teachers' aggression and emotional reactivity levels was investigated in this research, for this purpose, the following questions were examined:

Is there a significant relationship between teachers' levels of emotional reactivity and aggression?

Do teachers' levels of emotional reactivity and aggression differ by gender?

Do teachers' levels of emotional reactivity and aggression differ by their year of professional experience?

METHOD

Research Design

This study is a descriptive study aimed at revealing the relationship between emotional reactivity and aggression of teachers. So relational survey model is used in this study to explore the relationship between teachers' levels of aggression and emotional reactivity as it is (Karasar, 2011).

Study Group

The sample of the study consists of 266 teachers working in Samsun, Çorum, Eskişehir and Amasya and who volunteer for the research. 50.8% of the participants are male and 49.2% are female. It takes about 15 minutes for the participants to complete the research forms. The distribution of the participants by their professional experience year and gender are shown in Table 1.

Table 1. Descriptive Statistics Table of Teachers' Professional Experience Year and Gender

	f	%
0-5 year	79	29.7
6-10 year	59	22.2
10-16 year	31	11.7
16-20 year	35	13.2
21-25 year	40	15
25+	22	8.3
Man	135	50.8
Woman	131	49.2
Total	266	100

Data Collection Tools

Personal Information Form. In the form is prepared by the researchers, there are two questions asking about the variables of gender and length of service.

Emotional Reactivity Scale. The Emotional Reactivity Scale was developed by Nock, Wedig, Holmberg and Hooley (2008) was adapted to Turkish by Seçer, Halmatov and Gençdoğan (2013). The scale is a four-point Likert-type scale consisting of 17 items. The subscales consist of three factors: emotional sensitivity, emotional reactivity and psychological resilience. The highest score that can be obtained from the scale is 64 while the lowest is 17. The total score of the scale and subscale scores can be calculated. The total score refers to the participants' emotional reactivity scores. The internal consistency coefficient for the overall Emotional Reactivity Scale was calculated to be .82. The coefficients were calculated to be .82, .76. and .71 for emotional sensitivity, emotional reactivity and psychological resilience, respectively (Seçer, Halmatov, & Gençdoğan, 2013). Alpha for current study is .72.

Aggression Questionnaire. The questionnaire was developed by Buss and Perry (1992) and later revised by Buss and Warren (2000). Adaptation of the scale to Turkish was performed by Can (2002). Consisting of 34 items, the Aggressiveness Questionnaire is a five-point Likert-type instrument with five subscales. The subscales are physical aggression, verbal aggression, anger, hostility and indirect aggression. Scores of the whole scale and its subscales can be calculated, and the lowest possible score is 34 points while the highest is 170 points. 58 points and below refers to low, 59 to 110 points to normal, 110 points and above to high aggression level (Yavuzer, 2009).

Procedure

The research was performed in the academic year of 2017-2018. 266 teachers working in Samsun, Çorum, Eskişehir and Amasya participated in the research voluntarily. The instruments were applied face-to-face to some of the participants and online to the others on voluntary basis with email. The participants were informed of the purpose and scope of the study before the procedure by the researcher. Information was thereby given about the purpose of the research, the application procedure, and the principles of privacy and voluntary participation. The data were then collected from teachers who volunteered to be involved in the research. The entire procedure took approximately 10 to 15 min.

Data Analysis

First, the kurtosis and skewness values of the data were calculated and also Kolmogorov-Smirnov test was performed to determine whether the data were normally distributed. The normality hypothesis values and descriptive values of the data are shown below (Table 2).

Table 2. The Normality Hypothesis Values and Descriptive Values

Variables	n	\bar{X}	S	Min.	Max.	Swekness	Kurtorsis
Aggression	266	88.46	22.06	39	140	.116	-.531
Emotional Reactivity	266	39.57	11.36	19	64	.345	-.892

Since the skewness and kurtosis values varied between -1.96 and + 1.96, the data are normally distributed (Tabachnick, & Fidell, 2012) (Table 2). So, Pearson's Product Moment Correlation Coefficient and MANOVA analysis were used to analyze the research findings in accordance with the purpose of the research. Pearson's Product Moment Correlation Coefficient test was performed to test the relationship between teachers' levels of aggression and emotional reactivity. The MANOVA analysis was carried out to test whether the relationship between the levels of aggression and emotional reactivity varied by some variables. Manova is used to test whether groups formed according to one or more factors differ significantly in terms of more than one dependent variable (Büyüköztürk, 2012). The data were analyzed in SPSS 20 software package.

FINDINGS

Is there a significant relationship between teachers' levels of emotional reactivity and aggression?

The relationship between emotional reactivity and aggression scores of the teachers was tested with Pearson's Product Moment coefficient due to the normal distribution of data.

Table 3. Correlation Analysis Results for the Relationship Between Emotional Response Level and Aggression Level

Variable	Aggression
Emotional reactivity	.324*

*p<.01

According to Table 3, it is possible to say that there was a significant relationship between the teachers' scores of emotional reactivity and aggression ($r = .324$, $p < .01$). Generally, when we look at the literature, we find that aggression varies according to gender. While physical aggression is significant in men, verbal and indirect aggression is higher in women. One reason for this may be that women's verbal and social skills developed earlier and faster than men (Zhang, Lui, & Zhang, 2020). Arriaga and Aguiar (2019) concluded that women tend to exhibit less aggressive behavior when they perceive anger and sadness than men (Arriaga, & Aguiar, 2019). Emotional impulse scores in women.

Considering that reactivity indicates the level of responses appropriate to the situation, they may result from being more sensitive to the mimic signs of sadness and anger.

Do teachers' levels of emotional reactivity and aggression differ by gender?

The MANOVA analysis was performed to determine whether the levels of emotional reactivity and aggression differed significantly by gender. The values achieved in the analysis are given in Table 4.

Table 4. Results of Multivariate ANOVA Analysis Conducted for Scores of The Research Variables by Gender

Variables	Gender	n	\bar{X}	S	sd	F	p
Aggression	W	131	81.08	20.90	1-264	32.29	.000
	M	135	95.62	20.83			
Emotional Reactivity	W	131	43.02	11.62	1-264	26.01	.000
	M	135	36.22	10.06			

Considering the MANOVA analysis results in Table 4, it was found that the emotional reactivity and aggression levels of the teachers significantly differed by gender [Wilks' Lambda $\lambda = .850$, $F(1, 263) = 26.01$, $p < .001$; $F(1, 263) = 32.29$, $p < .001$]. Accordingly, while aggression and emotional responsiveness scores are high in both genders, it can be said that aggression score is higher in men and emotional reactivity in women. Accordingly, while aggression and emotional reactivity scores are high in both genders, it can be said that aggression score is higher in men and emotional reactivity in women. This may be due to the fact that women are more adequate in recognizing and analyzing emotions than men and that they enable them to suppress aggression more strongly than men (Coping, 2017).

Do teachers' levels of emotional reactivity and aggression differ by their professional experience year?

The MANOVA test was performed to determine whether the levels of emotional reactivity and aggression differed by the professional experience year. The findings related to the analysis are given in Table 5.

Table 5. Results of Multivariate Anova Analysis for Points Taken from Research Variables by Time of Professional Experience Year

Variables	Professional Experience year	n	\bar{X}	S	sd	F	p
Aggression	0-5 year	79	88.22	23.933	5-260	.719	.610
	6-10 year	59	91.96	22.076			
	11-15 year	31	85.61	19.97			
	16-20 year	35	89.82	23.24			
	21-25 year	40	87.9	20.45			
	25 +	22	82.81	19.17			
	Emotional Reactivity	0-5 year	79	38.26			
Reactivity	6-10 year	59	38.08	9.96			
	11-15 year	31	44.00	11.05			
	16-20 year	35	39.08	10.25			
	21-25 year	40	39.9	11.85			
	25 +	22	42.22	13.97			

According to the results of MANOVA analysis performed to find an answer to the third hypothesis in Table 5, the levels of aggression and emotional responsiveness did not differ significantly by teacher professional experience year [Wilks' Lambda $\lambda = .962$, $F(5, 255) = 1.632$, $p > .05$; $F(5, 255) = .719$, $p > .05$]. Since the difference was not significant, post hoc test values were not examined. According to this finding, no difference was found in aggression and emotional reactivity in comparison to the time spent in the profession.

DISCUSSION AND CONCLUSION

The research concluded that there was a significant relationship between the teachers' levels of emotional reactivity and aggression. Cognitive patterns of individual are effective in the performance of aggression (Kutlu-Samet, 2018). How individuals evaluate the context they are in plays a decisive role in their choices. Spielberger, Jacobs, Russell, & Crane (1983) stated that the emotion which underlies aggression to a large extent is anger (as cited in Ersan, 2019). There are studies noting the relationship between emotional reactivity and anger which is felt against frustrations and disappointments (Parneix, Péricaud, & Clément, 2013). Teaching is a very important and laborious profession. Teacher, who is happy with the development of the students, sometimes finds it difficult to deal with the intensity of daily life and the momentary situations in the classroom. Indeed, as one of the places where interaction with people occurs most intensely (Barut, & Kalkan, 2002), educational environments are areas of life where there is a constant dynamic interaction between teacher's personal characteristics and contextual challenges (Chaaban, & Du, 2017). How this dynamic interaction results against teacher's favor is described as burnout (Ören, & Türkoğlu, 2006). According to Konter (1995), when they get exhausted and frustrated, individuals may snap and have difficulty with self-control (as cited in Gökçiçek, 2015). Emotional reactivity of teachers who experience such exhaustion can lead to positive or negative consequences in classroom setting (Wentzel, 1998). Success in the teacher's emotional regulation strategies can prevent them from acting aggressively in the event of frustration and stress in the classroom (Cengiz, 2017). Considering the fact that aggression can be caused by frustration and consequent inability to regulate the negative emotions that an individual has encountered, the research result that a positive significant relationship between the negative emotional reactions and aggression is supported by the literature (Elmas, 2017; Wentzel, 1998).

According to the findings of this study, the teacher's emotional reactivity levels significantly differed by gender. Accordingly, the female teachers' mean scores of emotional reactivity were higher than the male teachers' mean scores. Emotional reactivity indicates increased anxiety and stress (Yumuşak, 2019). The fact that female teachers have higher emotional intensity and relevant emotional reactivity in interpersonal relationships than male teachers is supported by several research studies (Hasta, & Güler, 2013; Yurdakul, & Üner, 2015; Çakmak, 2018). Higher levels of tolerance towards stress as one of the primary causes of these intense emotions among women than among men can explain higher levels of emotional reactivity among female teachers (Pederelli et al., 2018). Similarly, Labouvie, Lumley, Jain, & Heinze (2003) stated that reaction of anger was on higher levels among women than among men. Cognitive flexibility described as a cause of negative emotional reaction increases individuals' positive emotional reactions (Canas, Quesada, Antoli, & Fajardo, 2003) and their levels of thinking about events and phenomena multi-dimensionally (Kutlu-Samet, 2018). It can be argued that multi-dimensional thinking can expand the behavioral repertory which may be the reflection of anger and cause more positive reactions rather than aggression. In other words, flexibility and richness of behavioral repertory indicate the success in emotional regulation skills. Stress can lead to affective fluctuations in individual (Eskridge, & Cocker, 1985). Ability to notice these fluctuations in emotion and cope with anger and rage caused by disappointments and fluctuations as a result of stress point to the importance of emotion regulation skills (Ersan, 2019). Yumuşak (2019) called attention to the relationship between emotion regulation skill and emotional reactivity and concluded that emotional reactivity was higher among women. Teaching is a profession in which individuals can encounter several stressful situations and which therefore requires using emotion regulation skills all the time (Chan, 2003), and higher emotional reactivity among female teachers can be explained by the fact that women may have difficulty with their emotional regulation skills compared to men in general (Pederelli et al., 2018).

The male teachers' mean scores of aggression level were found to be higher than the female teachers' mean scores. This finding also corresponds with the studies conducted by Kurtyılmaz (2005) and Doğan, Karacan-Doğan and Kayışoğlu (2017) who examined the relationship between preservice teachers' aggression level and various variables. Both studies observed higher aggression levels of male preservice teachers than the levels of female preservice teachers. Similar results were achieved by studies on samples from teaching profession (Altunay-Şam, Çaypınar, & Alimçam, 2016; Yöndem, & Bıçak, 2008). In general, social gender roles allow men to express emotions such as anger and frustration more easily and aggressively than women (Hasta, & Güler, 2013). This might have been associated with male teachers' higher aggression levels achieved in this study compared to female teachers. Moreover, how men's social gender roles facilitate expressing their reactions through aggressive behaviors in the cases of frustration may have been effective in higher mean scores of aggression among male teachers.

It was concluded that the teachers' levels of emotional reactivity and aggression did not differ significantly by their length of service. This hypothesis prepared on the basis of the consideration that teachers with longer length of service along with age and experience would have more advanced emotional regulation skills (Kunzmann, Kupperbusch and Levenson, 2005) was not supported by the research findings. Schweizer et al. (2019) concluded that there was no increase in positive emotional reactivity and that there was a decrease in the skill of negative affect regulation with aging. That is to say, no increase was observed in positive reactivity and ability to coping with negative affect with the years of experience in profession. In fact, there are studies indicating that type of aggression changes as the age advances. Here, the change is not in the quantity but in the quality of aggression with the improving cognitive and social skills. How this study did not investigate the change in quality of aggressive behaviors can be shown among the reasons for the fact that no significant difference was observed in mean scores of aggression by the length of service.

Mean scores of aggression refer to the sum of scores obtained in five subscales. Total score achieved from the scores of physical aggression, verbal aggression, hostility, anger and indirect aggression subscales was high. Again, emotional reactivity levels of participant teachers were evaluated with their total scores of the scale. Emotional reactivity was evaluated with the total score of emotional sensitivity, emotional reactivity and psychological resilience subscales. However, the fact that no comparison was made on the level of subscales to explore the effect of verbal and social skills of female and male participants that may change with age (Walker, & Richardson, 1998; Öcel, 2011) on their aggressive behaviors and emotional reactivity is one of the limitations of the research.

It is thought that testing the hypotheses of this research on a larger sample can support the generalizability of these research results. A similar study can be conducted on a sample out of teaching profession but with similar demographics to examine the relationship between emotional reactivity and aggression among vocational groups. The fact that this research was performed on a sample involving the members of the same profession is another limitation of this research.

Facing obstacles and experiencing conflict is by nature of being a human. In such cases, teachers' ability to recognize and manage their own feelings in a healthy manner is an important skill for an environment which facilitates the achievement of the desirable and expected goals of education, and it can be a preventive factor for violence in schools. In this context, psychological counselors can organize trainings for teachers in emotion awareness and management in schools.

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