

## ERGENLERİN ÇEVREYE YÖNELİK TUTUMLARI VE EMPATİK EĞİLİMLERİNİN İNCELENMESİ

### A STUDY ON THE ADOLESCENTS' ATTITUDES TOWARDS ENVIRONMENT AND THEIR EMPATHIC TENDENCY

Aysel KÖKSAL AKYOL<sup>1</sup> Özlem KÖRÜKÇÜ<sup>2</sup> Güneş SALI<sup>1</sup> Serpil SARIASLAN<sup>4</sup>

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**Özet:** Bu çalışmada ergenlerin çevreye yönelik tutumları ile empatik eğilimleri incelenmiştir. Araştırmanın çalışma grubunu Ankara'nın Çankaya İlçesi Anadolu Lisesi 9 ve 10. Sınıfa devam eden 438 öğrenciler oluşturmuştur. Veriler Kişisel Bilgi Formu, Çevresel Tutum Ölçeği (ÇTÖ), KA-Sİ Çocuk ve Ergenler İçin Empatik Eğilim Ölçeği-Ergen Formu ile toplanmıştır. Veriler Kolmogorov Smirnov ve Levene F Testi, t Testi ve Pearson Korelasyon Katsayıları ile analiz edildi. Sonuç olarak, ergenler çevresel sorunlara ve duygusal empati'na açıktır (P<.05). Sınıf düzeyi değişkenine göre, ergenlerin çevresel tutumları çevresel davranışları anlamlı ölçüde farklılaşmıştır (P<.05).

**Anahtar sözcükler:** *Ergen, çevre, çevreye karşı tutum, empatik eğilim.*

**Abstract:** In this study, the attitudes of adolescents towards the environment and their empathic tendencies were examined. The study group consisted of 438 students attending 9th and 10th grade in Anatolian High School in Çankaya District of Ankara. Data were collected by using Personal Information Form, Environmental Attitude Scale (CDI), KA-SI Empathic Tendency Scale for Adolescents and Adolescents .Data were analyzed with Kolmogorov Smirnov and Levene F Test, t Test and Pearson Correlation Coefficients. As a result, adolescents are open to environmental problems and emotional empathy (P<.05). The environmental behaviors of adolescents differed significantly according to the class level variable (P <.05).

**Keywords:** *Adolescen, environment, attitudes towards the environment, empathic tendency.*

Prof. Dr. Aysel KÖKSAL AKYOL Ankara Üniversitesi Sağlık Bilimleri Fakültesi Çocuk Geişimi Bölümü. ANKARA [koksalyysel@gmail.com](mailto:koksalyysel@gmail.com) ORCID ID: <https://orcid.org/0000-0002-1500-2960>

Doç. Dr. Özlem KÖRÜKÇÜ Pamukkale Üniversitesi Denizli Sağlık Hizmetleri Meslek Yüksekokulu Çocuk Bakımı ve Gençlik Hizmetleri Bölüm Kınıklı/DENİZLİ [ozlem.korukcu@pau.edu.tr](mailto:ozlem.korukcu@pau.edu.tr) [ozlem.korukcu@gmail.com](mailto:ozlem.korukcu@gmail.com) ORCID ID: <https://orcid.org/0000-0003-4340-1915>

Doç. Dr. Güneş SALI Yozgat Bozok Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Bölümü YOZGAT [gunes.sali@bozok.edu.tr](mailto:gunes.sali@bozok.edu.tr) ORCID ID: <http://orcid.org/0000-0001-5719-8618>

Uzm. Serpil Sariarslan Sıhhiye Adliyesi 34. Asliye Ceza Mahkemesi Sıhhiye ANKARA [serpilsariarslan@mynet.com](mailto:serpilsariarslan@mynet.com), ORCID ID: <https://orcid.org/0000-0003-0118-4422>

## Introduction

Maintaining a continuous contact with the environment, human beings influence or get influenced by the environment in both positive and negative ways. Therefore, human beings must keep a balanced relationship with and take positive attitudes towards the environment. The environment, with which the human beings are in perpetual interaction, can be defined as natural or artificial environment, or a natural, historical, cultural, and social environment (Dökmen, 2006; Willke, 1983). According to Sarıgöz (2013), environment is a notion used to define the field or fields in which the living creatures can live in interaction with each other in order to sustain a healthy life and easily meet their basic needs such as accommodation and food. Attitude towards the environment is defined as learned tendencies that manifest themselves in the form of demonstrating coherent positive or negative attitudes towards the environment (Pelstring, 1997).

In children, understanding extensive environmental issues, development of environmental concerns, and gaining attitudes towards the environment are closely related to their cognitive development. Studies suggested that attitudes towards the environment develop in early and middle childhood. Children develop a powerful emotional response to nature in the preschool period, and develop a more realistic orientation to the environment during the middle childhood. It was reported that children had higher levels of interest in the environment, further adopted ethical principles regarding the environment, and could have better understood the complex environmental problems thanks to the increase in the capacity of gaining information during the adolescence (Cevher Kalburan, 2009). In order for human beings can adjust their attitudes towards the environment, they must first be aware of, recognize and accurately perceive the environment, be familiar with issues regarding the environment, and be conscious about environmental protection. Piaget and Inhelder clearly emphasize that the psychological development of children is not only influenced by the social environment but also the spatial environment. Human beings and their environment are in a systematic interrelationship and the environment is necessary with regard to the human development (Gebhard, 2009).

In order the human beings can organize one's attitudes towards the environment, one should first be aware thereof, recognize and perceive it right, understand the issues regarding the environment, and protection thereof. For Miser (2010) Environment is a significant factor that organizes the behavioral strategies of an organism, and therefore human beings cannot exist independent of

their environment. It is imperative that human beings live in harmony with their environment in order for the life exists and human beings can subsist. Thus they need to have certain personal traits. Individuals with higher empathic levels behave more excusive in their relations (Taussaint & Webb, 2005). Thanks to the empathic skills, individuals tolerate the behaviors of others upon evaluation of the foregoing from their perspective. This facilitates adaptation to the environment. The value judgments and attitudes as developed especially in the childhood and youth are very important for the development of empathy in relationships with and love towards the nature in the early years. Development thereof means exhibiting environment-friendly behaviors for environmental protection (Erten, 2004; Karlegger & Cervinka, 2009). An individual, who tries to understand the nature and human beings as a whole, can be considered on the tracks of loving the environment. An individual, who can understand one's environment and develop empathy, are liked and accepted by one's environment. In general terms, empathy is to understand and share the emotional situation of the opposite person (Cohen & Strayer, 1996). Hoffman defines empathy as "an emotional response of an individual that is more appropriate for the situation of the opposite person than that of one's own." Such an emotional response does not need to be in exact concordance with the emotional situation of the opposite person. An emotional response that will be generally appropriate for the situation of the opposite person can be considered an empathic response (Davis, 1994). Empathy is considered the process of understanding the emotions and thoughts of other people or placing oneself in someone else's position (Tamborini, Stiff & Heidel, 1990), the skill of perceiving the world through the perspective of others (Barak, 1990), and responding to the emotional situation or condition of other people (Bengtsson & Johnson, 1992). One who can empathize with other people can also empathize with the nature (Dökmen, 2006). The more improved the empathic skills of the children, the more positive will be their attitudes towards the environment.

An overview of the relevant literature suggested that the majority of studies focused on empathic skills of children and their parents (Köksal Akyol, Salı, Körükçü & Yıldız Bıçakçı, 2013), or emphatic tendencies and self-concept of adolescents with regard to such variables as collaboration (Dereli & Alpay, 2012; Salı, 2012, 2013), or evaluation of attitudes of children or adolescents by certain variables, determining the development of their interest in nature and their information about nature (Aydın & Çepni, 2012; Gezer, Çokadar, Köse & Bilen, 2006; Karlegger & Cervinka, 2009). However no study was found to have examined attitudes of adolescents

towards environment and empathic skills thereof. Thus, this study aimed to examine attitudes of adolescents towards environment and their empathic tendencies, to determine whether the sex and grade led to any difference with regard to attitudes toward environment and empathic tendencies, and to raise awareness with regard to environment and empathy so as to contribute in a scarce number of studies.

### **Method**

This study aimed to examine the attitudes of adolescents towards environment and their empathic tendencies. Surveys collect data at a particular point in time to describe the nature of existing conditions, or to identify standards against which existing conditions can be compared, or to determine the relationships that exist between specific events (Cohen, Manion & Morrison, 2005; 170).

### **Research Design**

This is a descriptive study to examine attitudes of adolescents towards environment and their empathic tendencies and to determine whether the sex and grade led to any difference with regard to attitudes toward environment and empathic tendencies.

### **Study Group**

The study group was composed of a total of 438 adolescents of 248 girls and 174 boys attended to 9<sup>th</sup> and 10<sup>th</sup> grades of two Anatolian High Schools located in Çankaya, Ankara, Turkey. 52.7% of the adolescents were attending to 9<sup>th</sup> grade, where 47.3% attended to 10<sup>th</sup> grade. 15.8% of the adolescents involved in the study had one, 68% had two, and 16.2% had three or more siblings. 58.4% of the adolescents were the firstborns, where 7.8% were middle children or one of the middle children, and 33.8% were the last born. It was seen that the majority of the mothers involved in the study were university graduates (54.6%), where 29.7% graduated from high school, and 15.7% from primary school – secondary school; and as for the educational status of the fathers, again, majority of them were graduated from university (69.6%), 21.9% from high school, and 8.4% from primary school – secondary school.

## Research Instruments

Following data collection tools were used in the study: Personal Information Form as developed by the researchers to collect information about the adolescents; Environmental Attitude Scale to determine the perception of adolescents towards environment; and KA-Sİ Child and Adolescent Empathic Tendency Scale - Adolescent Form to find out the empathic tendencies of adolescents.

**Personal information form.** The Personal Information Form as developed by the researchers to collect information about the adolescents and their parents included question regarding the sex, grade, number of siblings, and birth order of the adolescent together with the educational statuses of mothers and fathers.

**Environmental attitude scale (eas).** “The Environmental Attitude Scale for Secondary Education Students” as developed by Uzun & Sağlam (2006) was used in order to ascertain the behaviors and thoughts of adolescents towards the environment. The scale is comprised of two subdomains, i.e. the “Environmental Attitude Subscale” and the “Environmental Thought Subscale.” The first factor load values of all the items of the “Environmental Attitude Subscale” are .584 and above. Furthermore, it was recommended that the scale could be used as single-factor due to fact that the variance accounted by the first factor before rotation was 41.417%. The Cronbach alpha internal consistency coefficient that was computed with regard to the reliability of the scores obtained from the scale, was found to be  $\alpha = .88$ , where the Spearman Brown two split-half test correlation was .81 and the item-total correlations for the items were between .51 and .66. Moreover the t-test analysis results with regard to comparison of the scores of the upper 27% and lower 27% groups in the scale were found to be significant.

On the other hand the "Environmental Thought Subscale" is comprised of closed-ended questions. The total variance of the scale was found to be 44.405%. The reliability of the Environmental Thought Subscale was computed through two methods: Firstly, the Cronbach alpha reliability coefficient was calculated ( $\alpha = .80$ ), and secondly the reliability was tested via split-half method and that the Spearman Brown split-half test correlation was found to be .75. Furthermore, mean, standard deviation, item-total correlation values were measured and it was found that the item-total correlations of the items included in the scale were between .33 and .51. Due to the fact that

the items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11 in the scale express negative thoughts the scores were calculated inversely.

Uzun and Sağlam (2006) developed the “Environmental Attitude Scale” by first forming an item pool that measures the attitudes towards the environment and then preliminary test form of the scale was completed upon expert opinions. Subsequent to preliminary application, the scale was finalized and applied to 969 students attending to various secondary education institutions in Çankaya. Upon factor analysis performed on the data in hand, it was seen that the scale was bi-dimensional, and that the items included in the first dimension measured the attitudes of adolescents towards environment, where the second measured their thoughts regarding the environment. Therefore the scale was considered and evaluated as two sub-scales (Environmental Behavior Subscale and Environmental Thought Subscale). It was observed that both scales gathered under three factors with eigenvalues greater than one and clearly visible in the line graphics. Where the Environmental Behavior Subscale was composed of “Environmental Interest,” “Environmental Awareness,” and “Environmental Consciousness” factors, the Environmental Thought Subscale was composed of “Environmental Opinion,” “Environmental Pollution,” and “Environmental Problems” factors. Besides, a positive and linear relation was found between the students’ scale scores and the factors of the scales. Therefore it was suggested that the subscales and factors were coherent (Uzun & Sağlam, 2006).

While the content and face validity of the scale was tested in line with expert opinions, the construct validity of the scale was tested by factor analysis, and Cronbach alpha and Spearman Brown two split-half correlations were used for the reliability analysis (Uzun & Sağlam, 2007). The computed reliability coefficients of Environmental Attitude Scale were  $\alpha = .80$  and  $r_{SB} = .76$  (Spearman Brown two split-half correlations), where that of Environmental Behavior Subscale were  $\alpha = .88$  and  $r_{SB} = .81$  (two split-half correlations) and that of Environmental Thought Subscale were  $\alpha = .80$  and  $r_{SB} = .75$  (two split-half correlations). Besides, it was observed that the data collected by the Environmental Attitude Scale had a normal distribution with regard to both the mean/median relation, coefficient of skewness, and the histogram graph. These findings suggested that the scale data met the normal distribution precondition for the comparative tests such as t-test and variance analysis. Therefore the findings showed that the scale can be reliably used in assessment of attitudes towards environment and that it was also appropriate to utilize the

“Environmental Behavior Subscale” and the “Environmental Thought Subscale” independent of each other. Composed of 27 items, the five-point Likert-type Environmental Attitude Scale, scored between “Strongly agree” (1) and “Strongly disagree” (5), had 13 items in the Environmental Behavior Subscale, and 14 items in the Environmental Thought Subscale (Uzun & Sağlam, 2006; Uzun & Sağlam, 2007).

**Ka-si child and adolescent empathic tendency scale - adolescent form.** Developed by Kaya and Siyez (2010) in order to determine the empathic tendencies of the Adolescents, the KA-Sİ Child and Adolescent Empathic Tendency Scale - Adolescent Form is composed of two factors, namely emotional empathy (10 items) and cognitive empathy (7 items). The reply form of KA-Sİ Child and Adolescent Empathic Tendency Scale - Adolescent Form was designed so as to accommodate a four-grade structure: “(1) Not suitable for me at all, (2) Can be suitable for me a little, (3) Quite suitable for me, (4) Completely suitable for me.” The lowest and highest limits of scores from emotional empathy sub-dimension are 10 and 40, where that of from cognitive empathy sub-dimension are 7 and 28, with the lowest and highest scores of empathic tendency are 17 and 68. A higher score reveals a higher the level of empathic tendency, and vice versa (Kaya & Siyez, 2010). Separate factor analyses were conducted first for each grade level in the scope of the construct validity studies of the KA-Si Child and Adolescent Empathic Tendency Scale - Adolescent Form, and then, data from the 6<sup>th</sup> to 12<sup>th</sup> grades were combined and the factor analysis was repeated. The factor loads of the 10 items included in the emotional empathy sub-dimension varied between .49 and .66; the correlation thereof with the total score of the relevant sub-dimension varied between .51 and .83; and that of with the total scores of the scale varied between .52 and .79. Whereas, the factor loads of the 7 items included in the cognitive empathy sub-dimension varied between .56 and .76; the correlation thereof with the total score of the relevant sub-dimension varied between .52 and .81, and the correlation thereof with the total scale score varied between .47 and .70. As a result of the studies performed to assess the reliability of Empathic Tendency Scale – Adolescent Form, Cronbach Alpha coefficient, which indicated internal consistency, was found to be .87 for total scale, .82 for emotional empathy, and .82 for cognitive empathy sub-dimension. The test-retest reliability coefficient of the scale was .75 for the totality of the scale, .73 for emotional empathy, and .69 for cognitive empathy sub-dimension (Kaya & Siyez, 2010).

## **Data Collection Method**

Upon receipt of necessary legal permissions of Ankara Provincial Directorate of National, the principals of the two Anatolian High Schools located in Çankaya, Ankara were briefed about the importance of the survey, the aim thereof, and how the survey would be conducted. Subsequently, the teachers at the Anatolian High Schools were met, briefed about the survey, and the suitable class hours thereof were determined. The classes were visited accompanied by Guidance Counsellor within the suitable class hours of the teachers. The Personal Information Form, Environmental Attitude Scale, and KA-Si Child and Adolescent Empathic Tendency Scale - Adolescent Form were applied to the adolescents, who attended to 9<sup>th</sup> and 10<sup>th</sup> grades in both high schools and were volunteered to be involved in the study. All the classroom applications were conducted by the researchers and that before the startup the adolescents were informed that they would not be graded for the application and the accordingly obtained data would be used for the purpose of research only. Adolescents that were willing to take part in the survey filled in the data collection tool in an average duration of 25 – 30 minutes.

## **Data Analyses**

The purposive data collected in the survey were scored and then analyzed using the SPSS program. Before the onset of the analyses, normality hypothesis test was conducted for each independent variable by both the Q-Q plots and the Kolmogorov Smirnov test. Furthermore, the assumption of homogeneity of variance, i.e. the variances regarding the independent variable within each of the populations is equal, was examined by Levene's F test. Parametric tests were used on the grounds that both the normality hypothesis and the assumption of homogeneity of variance were met. T-Test was used to determine whether the sex and grade variables created any significant difference in the scores of Environmental Behavior and Environmental Thought sub-dimensions, and KA-Sİ. Pearson Correlation Coefficient was calculated in order to determine the degree of relation between the continuous variables in order to find out whether there was a relation between Environmental Attitude (Environmental Behavior and Environmental Thought) and Empathic Tendency (Cognitive Empathy and Emotional Empathy) (Büyüköztürk, 2002).

## Findings and Results

The findings of the study aimed at to determine the environmental attitudes and empathic tendencies of adolescents were provided in tables and discussed as supported with sources.

Table 1

*Mean, Standard Deviation, and T-Test Results of Environmental Attitudes of Adolescents by Sex*

Dimensions	Sex	N	$\bar{X}$	S	sd	t	p
Environmental Behavior	Girls	264	37.81	9.6	436	2.31	.02
	Boys	174	35.58	10.34			
Environmental Thought	Girls	264	64.34	5.61	436	4.73	.00
	Boys	174	61.23	7.37			

\* $p < 0.05$

As seen in Table 1, environmental attitudes of adolescents suggested a significant difference in Environmental Behavior subscale by sex variable [ $t(436) = 2.31, p < .05$ ]. It was seen that the adolescent girls ( $\bar{X} = 37.81$ ) scored higher in the Environmental Behavior subscale compared to adolescent boys ( $\bar{X} = 35.58$ ). It was found that the adolescents showed significant difference in the Environmental Thought subscale by sex [ $t(436) = 4.73, p < .05$ ]. It was seen that the adolescent girls ( $\bar{X} = 64.34$ ) scored higher in the Environmental Thought subscale compared to adolescent boys ( $\bar{X} = 61.23$ ).

Table 2.

*Mean, standard deviation, and t-test results of environmental attitudes of adolescents by grade levels*

Dimensions	Grade Level	N	$\bar{X}$	S	sd	t	p
Environmental Behavior	9	231	38.02	10.64	436	2.45	.01
	10	207	35.70	8.99			
Environmental Thought	9	231	63.42	6.51	436	1.08	.28
	10	207	65.76	6.56			

\* $p < 0.05$

Environmental attitudes of adolescents suggested a significant difference in Environmental Behavior subscale by grade level variable [ $t(436) = 2.45, p < .05$ ]. It was found that the adolescents attending to 9<sup>th</sup> grade ( $\bar{X} = 38.02$ ) agreed more frequently with the items included in the Environmental Behavior Subscales compared to those attending to 10<sup>th</sup> grade ( $\bar{X} = 35.70$ ).

(Table 2). The grade levels significantly influenced the level of agreement with the phrases included in the Environmental Behavior Subscale in favor of 9<sup>th</sup> graders. The attitudes of adolescents did not show any significant difference in the Environmental Thought Subscale by grade levels [ $t(436) = 1.08, p > .05$ ].

Table 3

*t-Testi results regarding KA-Sİ Adolescent Form by sex*

Dimensions	Sex	N	$\bar{X}$	S	sd	t	p
Cognitive	Girls	264	23.79	5.53	436	6.80	.00
Empathy	Boys	174	20.79	6.40			
Emotional	Girls	264	33.45	3.93	436	9.32	.00
Empathy	Boys	174	27.93	4.85			

\* $p < 0.05$

A review of Table 3 suggested a significant difference by sex in Cognitive Empathy Subscale score of adolescents [ $t(436) = 6.80, p < .05$ ]. Upon review of the means, it was observed that the adolescent girls ( $\bar{X} = 23.79$ ) agreed more frequently with the phrases included in Cognitive Empathy Subscale compare to adolescent boys ( $\bar{X} = 20.79$ ). The t-Test revealed a significant difference in Emotional Empathy Subscale by sex [ $t(436) = 9.32, p < .05$ ] in favor of girls. In other words, it was found that the adolescent girls ( $\bar{X} = 33.45$ ) agreed more frequently with the phrases included in Emotional Empathy Subscale compared to adolescent boys ( $\bar{X} = 27.93$ ).

Table 4

*t-Testi results regarding KA-Sİ Adolescent Form by grade level*

Dimensions	Grade Level	N	$\bar{X}$	S	sd	t	p
Cognitive	9	231	22.44	4.81	436	-0.77	.44
Empathy	10	207	22.78	4.26			
Emotional	9	231	30.98	6.68	436	-0.95	.44
Empathy	10	207	31.57	6.23			

Upon review of Table 4 no significant difference was found in Cognitive Empathy [ $t(436) = -0.77, p > .05$ ] and Emotional Empathy [ $t(436) = -0.95, p > .05$ ] Subscales by grade level. It can be concluded that attending to different grades had no effect on the attitudes of adolescents in both subscales of the KA-Sİ Adolescent Form.

Table 5.

*Results of Significant Test of Correlation Coefficient regarding the Adolescents' Scores on Subscales*

			Empathic Tendency Scale	
			Cognitive Empathy	Emotional Empathy
Environmental Attitude Scale	Environmental	r	0.28	0.32
	Behavior	p	0.00*	0.00*
		N	438	438
	Environmental	r	0.29	0.30
	Thought	p	0.00*	0.00*
		N	438	438

\* $p < 0.05$

Upon review of Table 5, it was found a significant and low level of relation between the scores of Environmental Behavior and Cognitive Empathy ( $r=0.28$ ;  $p<.05$ ). There was a significant and moderate of relation between the scores of Environmental Behavior and Emotional Empathy ( $r=0.32$ ;  $p<.05$ ). There was a significant and low level of relation between the scores of Environmental Thought and Cognitive Empathy ( $r=0.28$   $p<.05$ ). There was a significant and moderate of relation between the scores of Environmental Thought and Emotional Empathy ( $r=0.30$ ;  $p<.05$ ). In conclusion, it can be said that the relation between the scores of Environmental Behavior and Emotional Empathy were higher than the others or that the scores obtained in these subscales were more similar.

### Conclusions and Recommendations

**1-** It was concluded that the attitudes of adolescents differed both in the Environmental Behavior and Environmental Thought subscales by sex, and that the said difference was in favor of girls. The reason for the fact the adolescent girls scored significantly higher compared to boys, may arise from the fact that in our society girls are raised more emotional, and more meek and responsible by their parents compared to boys, while the boys are raised to be more enduring and strong against occurrences. It is seen upon review of other studies regarding the environmental attitude that similar results were obtained. Gezer *et al.* (2006) found in their study on adolescents attending to high school that adolescent girls had more positive attitudes towards environment. In a study by Kaya, Akıllı & Sezek (2009), which examined the attitudes of high school students

towards environment by sex, it was seen that the girls had adopted more positive attitudes towards environment compared to boys.

**2-** In conclusion, it was found that the grade level had an impact on Environmental Behavior but did not have a significant effect on their attitudes regarding the phrases included in Environmental Thought Subscale. A study by Eser (2012), which aimed to determine the environmental attitudes of students attending to the second stage of primary education, and another study by Gök (2012), which aimed to determine the environmental knowledge and attitude levels of 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade primary school students and the impact of the current environmental education found no significant difference in environmental attitudes by grade levels.

**3-** Sex variable is a determinant variable for cognitive and emotional empathy tendencies and that adolescent girls had more positive attitudes in both subscales. Studies on empathic skills suggested that sex created difference with regard to empathic skills. Kalliopuska (1983), examining the relationship between empathy and ethical judgment, found that the empathy scores of girls were significantly higher than that of boys. Bryant (1982), on the other hand, observed in a study, which aimed to develop an empathy scale to be used in children and adolescents, that girls were more empathic than boys. Köksal Akyol, Salı & Körükçü (2011) concluded in line with their findings on a study examining the empathic tendencies of children that the sex of children had an effect on their empathic tendencies.

**4-** Piaget asserts that children develop the skill to see things through the perspective of others with increasing age and that the foregoing skill emerges in the concrete operational stage (age 7 – 11) (Hoffman 1987). However it was observed in the study that grade level had no effect on the level of empathy. This can be attributed to the fact that the ages of the adolescents were very close and that both 9<sup>th</sup> and 10<sup>th</sup> grader adolescent groups were in the concrete operational stage. Upon overview of relevant studies, Dereli & Aypay (2012) observed in their study, on empathic tendency and collaboration in secondary education students, that the foregoing characteristic traits did not demonstrate any significant difference by grade level. Similarly, Köksal (2000) in her study examining empathic skills and adaptation levels of adolescents by musical education, sex, and grade levels, concluded that grade level did not lead to any difference in line with the findings of this study.

**5-**Human beings cannot exist independent from their environment. Human beings and environment have mutual effect on each other. Also as a result of this study it was found that there was a significant relation between Environmental Behavior and both Cognitive Empathy and Emotional Empathy subscales. Ardahan (2012) examined emotional intelligence and life satisfaction of individuals dealing with mountaineering/rock climbing, riding bicycles, and trekking and as a result of the study a statistically significant difference in mean scores was found in favor of the individuals, who deal with the foregoing activities, with regard to both Emotional Intelligence and its sub-dimensions (ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth), and Life Satisfaction Levels ( $p<0.05$ ). Based on aforementioned findings it was concluded that dealing with mountaineering/rock climbing, riding bicycles, and trekking activities or participating therein positively influenced the Emotional Intelligence and Life Satisfaction Levels (Ardahan, 2012). Palmberg & Kuru (2000) suggested upon their study, which accommodated such environmental education programs as field visits, trekking, camping, and adventure activities, that nature experience improved self-confidence of children, made them especially more willing to participate in extracurricular activities in the future, and that children exhibited more social behaviors and ethical judgments by having strong and empathic relations with nature. Especially the value judgments and attitudes as emerge in childhood and youth are very important for empathy can be developed in relation with nature and nature love can be created in early ages (Erten, 2004). An individual who can empathize with people can also empathize with nature, and therefore sufficiently adapt oneself to nature (Dökmen, 2006). Therefore, the more improved the empathic skills of the children, the more positive will be their attitudes towards the environment. It was found in the study that there was a significant relationship between Environmental Behavior and both Cognitive Empathy and Emotional Empathy subscales. Gaining environmental awareness and promoting love for nature in the early ages can be possible by development of empathic skills of human beings. Today, protecting the nature, the source of life, is one of the most important tasks to be conducted for the sake of future generations. Gaining love and respect for nature and protecting nature means exhibiting environment-friendly attitudes. Developing sensitivity towards natural environment and caring for others' health to the degree one cares for one's own, and taking precautions for their future can only be realized by empathic attitudes.

As a result of this study, which aimed to examine attitudes of adolescents towards environment and their empathic tendencies, to determine whether the sex and grade led to any difference with regard to attitudes toward environment and empathic tendencies, it was found a significant difference in Environmental Behavior and Environmental Thought subscales, and Cognitive Empathy and Emotional Empathy subscales in favor of adolescent girls. Upon correlation analysis, a significant and low relationship was found between Environmental Behavior and Cognitive Empathy; a significant and moderate relationship was found between Environmental Behavior and Emotional Empathy; a significant and low relationship was found between Environmental Thought and Cognitive Empathy; and a significant and moderate relationship was found between Environmental Thought and Emotional Empathy. In line with the aforementioned results following recommendations can be made:

✓ The study suggested that there was a relationship between the attitudes of adolescents toward environment and their empathic tendencies. Educational programs can be developed in support of both the attitudes of children and parents towards environment, and their empathic tendencies.

✓ The study suggested that adolescent girls had higher levels of empathic tendencies compared to boys. Programs can be developed to positively change the empathic tendencies of adolescent boys.

✓ Experimental researches can be planned with an aim to improve attitudes of adolescents towards environment and their empathic tendencies.

✓ The study group was composed of adolescents. Further studies may also enroll preschool and school-age children to determine attitude towards environment and empathic tendencies.

✓ Further studies can be performed to determine the relation between the attitudes of parents towards environment with that of children.

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## Geniş Özet

### Giriş

Yaşamı boyunca çevresi ile ilişki içinde olan insan kimi zaman olumlu, kimi zaman da olumsuz bir şekilde çevreyi etkilemekte ve çevreden etkilenmektedir. Çevreye yönelik tutumu ise çevreye karşı tutarlı, olumlu veya olumsuz tavırlar sergileme biçiminde kendini gösteren öğrenilmiş

eğilimler olarak tanımlanmaktadır Araştırmalar çevreye karşı tutumların erken çocukluk ve orta çocukluk arasında geliştiğini göstermiştir. Okul öncesi dönemde çocuklar doğaya güçlü bir şekilde duygusal yanıt vermekte, orta çocuklukta çevreye karşı daha gerçeğe dayalı yönelim geliştirmektedirler. Ergenlik çağında ise, çevresel ilgi düzeylerinin yükseldiği ve çevreyle ilgili etik prensipleri daha çok kabullendikleri, bu çağda bilgi edinme kapasitelerinin artmasıyla birlikte, karmaşık çevresel sorunları anlayabildikleri ifade edilmektedir. Yaşamın var olabilmesi ve insanın varlığını sürdürebilmesi için insanın çevre ile uyum içinde yaşama zorunluluğu vardır. Bunun için de bazı kişilik özelliklerine sahip olması gerekmektedir. Empatik beceri sayesinde bireyler diğerlerinin davranışlarını onların bakış açısından değerlendirerek diğerlerinin davranışlarını tolere edebilir. Bu ise çevreye uyumu kolaylaştırır. Özellikle çocukluk çağında ve genç yaşta oluşan değer yargıları ve tutumlar, erken yaşlarda doğayla olan ilişkilerde empatinin gelişmesi ve doğaya karşı sevginin oluşmasında oldukça önemlidir.

### **Amaç**

Bu araştırma, ergenlerin çevreye yönelik tutumları ile empatik eğilimlerinin incelenmesi, cinsiyet ve sınıf düzeyi değişkenlerinin ergenlerin çevreye yönelik tutumlarında ve empatik eğilimlerinde farklılığa neden olup olmadığının belirlenmesi amacıyla yapılan bir çalışmadır.

### **Yöntem**

Ergenlerin çevreye yönelik tutumları ile empatik eğilimlerinin incelenmesi, amacıyla yapılan betimsel çalışmada; ergenler hakkında bilgi toplamak amacıyla araştırmacılar tarafından hazırlanan Kişisel Bilgi Formu, ergenlerin çevreye yönelik algılarını belirlemek amacıyla Çevresel Tutum Ölçeği (ÇTÖ), ergenlerin empatik eğilimlerinin belirlenmesi amacıyla ise KA-Sİ Çocuk ve Ergenler İçin Empatik Eğilim Ölçeği-Ergen Formu kullanılmıştır.

Ankara İl Milli Eğitim Müdürlüğünden gerekli yasal izinler alınarak; Ankara İli Çankaya İlçesine bağlı iki Anadolu Lisesinin müdürleriyle görüşülerek, bu araştırmanın önemi, amacı ve uygulamanın nasıl gerçekleşeceği ile ilgili bilgiler verilmiştir. Daha sonra Anadolu Lisesindeki öğretmenlerle tanışılarak yapılacak çalışmayla ilgili bilgi verilmiş ve öğretmenlerin uygun oldukları ders saatleri belirlenmiştir. Öğretmenlerin uygun oldukları saatlerde sınıflara Rehber Öğretmen eşliğinde gidilmiştir. Sınıflardaki bütün uygulamalar araştırmacılar tarafından yapılmış

ve uygulama öncesinde ergenlere, bu uygulamadan not verilmeyeceği ve elde edilen verilerin sadece araştırma amacıyla kullanılacağı belirtilerek açıklamalar yapılmıştır. Çalışmaya katılmaya istekli ergenler, veri toplama araçlarını ortalama 25-30 dakika içinde doldurmuşlardır.

Araştırmada amaca yönelik olarak toplanan veriler puanlanmış ve SPSS programı kullanılarak analiz edilmiştir. Analizden önce her bir bağımsız değişken için normallik varsayımının sağlanması durumu hem Q-Q grafikleri hem de Kolmogorov Smirnov istatistikleri ile incelenmiştir. Ayrıca diğer bir varsayım olan bağımlı değişkene ilişkin varyansların her bir örneklem için eşit olması durumu (varyansların homojenliği) ise Levene F testi ile incelenmiştir. Hem normallik hem de varyansların homojenliği varsayımı sağlandığı için parametrik testler kullanılmıştır. Ergenlerin Çevresel Davranış ve Çevresel Düşünce boyutlarından ve KA-Sİ'den elde edilen puanlarında cinsiyet ve sınıflara göre anlamlı farklılığın olup olmadığını tespit etmek için t-testi kullanılmıştır. Çevresel Tutum (Çevresel Davranış ve Çevresel Düşünce) İle Empatik Eğilim (Bilişsel Empati ve Duygusal Empati) arasında İlişki olup olmadığını ortaya koymak için, bireylerin sürekli değişkenler arasındaki ilişkinin derecesini belirlemek amacıyla Pearson Korelasyon katsayısı hesaplanmıştır.

## **Sonuç**

Ergenlerin çevreye yönelik tutumları ile empatik eğilimlerinin incelenmesi, cinsiyet ve sınıf düzeyi değişkenlerinin ergenlerin çevreye yönelik tutumlarında ve empatik eğilimlerinde farklılığa neden olup olmadığını belirlemek amacıyla yapılan bu araştırma sonucunda, ergenlerin Çevresel Davranış ve Çevresel Düşünce alt boyutları ile Bilişsel Empati ve Duygusal Empati alt boyutlarında kızlar lehine anlamlı bir farklılık olduğu tespit edilmiştir. Sınıf düzeyi değişkenine göre ise ergenlerin Tutumlarının, Çevresel Davranış alt boyutunda 9. Sınıflar lehine anlamlı bir farklılık gösterdiği belirlenmiştir. Yapılan korelasyon analizi sonucunda, Çevresel Davranış ile Bilişsel Empati arasında anlamlı ve düşük düzeyde bir ilişki; Çevresel Davranış ile Duygusal Empati arasında anlamlı ve orta düzeyde bir ilişki; Çevresel Düşünce ile Bilişsel Empati arasında anlamlı ve düşük düzeyde bir ilişki ve Çevresel Düşünce ile Duygusal Empati arasında anlamlı ve orta düzeyde bir ilişki olduğu belirlenmiştir.

Araştırmada; Çevresel Davranış ile hem Bilişsel Empati alt boyutu, hem de Duygusal Empati boyutunda anlamlı ilişki olduğu saptanmıştır. Erken yaşlarda doğayla olan ilişkilerde, doğaya

karşı farkındalık kazanmak ve doğa sevgisinin oluşumunu sağlamak insanların empatik becerilerinin gelişmesi ile gerçekleşebilecektir. Günümüzde, insanın yaşam kaynağı olan doğayı koruması, gelecek nesiller için yerine getirilmesi gereken en önemli görevlerden biridir. Doğaya karşı sevgi ve saygının oluşturulması, çevrenin korunması, çevre dostu davranışların gösterilmesi anlamına gelir Doğal çevreye karşı duyarlılık geliştirerek kendi sağlığı kadar başkalarının sağlığını düşünmek ve onların geleceği için önlemler almak ise ancak empatik tutum ile gerçekleşecektir.

Elde edilen bu sonuçlar doğrultusunda bazı önerilerde bulunulabilir:

- ✓ Yapılan araştırmada, ergenlerin çevreye yönelik tutumları ile empatik eğilimleri arasında ilişkinin olduğu belirlenmiştir. Çocukların ve ergenlerin hem çevreye yönelik tutumları hem de empatik eğilimleri desteklemeye yönelik eğitimler düzenlenebilir.
- ✓ Bu çalışmada, kız ergenlerin empatik eğilimlerinin erkek ergenlere göre daha yüksek olduğu sonucuna ulaşılmıştır. Erkek ergenlerin empatik eğilimlerini olumlu yönde etkileyecek uygulamalara yer verilebilir.
- ✓ Ergenlerin çevreye yönelik tutumları ve empatik eğilimlerini geliştirilmesine yönelik deneysel araştırmalar planlanabilir.
- ✓ Bu araştırmada ergenler ile çalışılmıştır. Başka çalışmalarda okul öncesi ve okul çağı çocuklar ile de çevresel tutum ve empatik eğilimleri belirlemeye yönelik çalışmalar yapılabilir.
- ✓ Anne babaların çevreye yönelik tutumlarının çocuklarının çevreye yönelik tutumları arasındaki ilişkiyi belirlemeye yönelik araştırma yapılabilir.