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Negative Emotions in Children's Drawings and Their Emotion Regulation Strategies

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Abstract

This research was carried out in order to reflect the negative emotions of children on their paintings and to examine the strategies they use while regulating these emotions. The phenomenological design was adopted in this study in accordance with the qualitative research approach. The participants were chosen by means of homogeneous sampling and on a voluntary basis. The data of this study, which was conducted with a total of 50 children aged between 6 and 10 years, were obtained through drawing and interview techniques. The children were allowed to draw the emotions they assumed as negative in their natural environment without time limitation. Then, one-to-one semi-structured interviews were conducted with each child about the picture they drew. The obtained data were analyzed by content analysis method. As a result of the research, it was seen that there were no negative emotions such as anxiety and fear in the pictures and interviews of the six-year-old children. On the other hand, these feelings were encountered in ten-year-old children. According to another result, feelings such as jealousy, loneliness and insecurity were not encountered in children in the ten-year-old group, unlike the children in the six-year-old group. It was observed that children generally included feelings of sadness and anger in their drawings. In addition, it is noteworthy that ten-year-old children also include anxiety and fear. In the context of emotion regulation strategies, it was revealed that ten-year-old children used more emotion regulation strategies than six-year-old children.

Keywords: children's drawings, negative emotions, emotion regulation, examining drawing, emotion regulation strategies.

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Introduction

Emotions play a crucial role in an individual's survival, sustaining life, avoiding negative events, approaching positive events, interacting with others, and maintaining those interactions. The intensity and frequency of emotions are significant factors in individuals' ability to sustain their vital activities (Cole, Michel, and Teti, 1994). This intensity and frequency can positively or negatively impact individuals' experiences. For instance, when an individual becomes angry and reacts by hitting someone, it may lead to punishment, whereas anxiety about an upcoming exam can motivate the person to study. Humans are social beings and cannot be isolated from emotions. Additionally, to sustain life, individuals need to develop adaptive skills (Yüksel, 2004). These adaptive skills are linked to an individual's social development and subsequent emotional growth. The beginning of a child's education, spending more time in the school environment than with their family on many occasions, and interacting with peers and teachers contribute to the development of a child's social environment (Berk, 2015).

Children, during peer interactions, start to understand their own emotions, express themselves, comprehend others' emotions, and subsequently regulate their emotions. Emotion regulation involves strategies such as situation selection, situation modification, attentional deployment, cognitive change, and response modulation (Gross and Thompson, 2007). These strategies play an effective role in the experience, thinking, and transformation of emotions into action. By employing these strategies, children develop the skills to understand and express their own emotions, recognize others' emotions, and cope with their own emotions. Moreover, in the school environment, children learn how to focus on their emotions, express them, and manage them. The ways in which children communicate with their peers significantly impact their emotion regulation skills, as acceptance by peers is crucial during the school years. Sustaining interaction with peers progresses in parallel with the presence of appropriate emotion regulation strategies (Kopp, 1989). Difficulties in emotion regulation skills, especially during early childhood, can lead to behavioral problems in later life (Eisenberg and Fabes, 1992).

Problem Situation

The ability to regulate emotions is associated with better psychosocial and physical health. Successful emotion regulation, especially during adolescence, plays a role in an individual's mental health, contributing to subjective well-being (McRae et al., 2012), and is considered a significant mediator for positive developmental outcomes (Eisenberg, Sadovsky, and Spinrad, 2005). For a child to learn how to regulate their emotions successfully, it is essential for them to be aware of their emotional experiences (Cole, Martin, and Dennis, 2004). Understanding and being aware of both positive and negative emotions, known as emotional awareness, strengthens a person's ability to monitor their emotional experiences (Gratz and Roemer, 2004; Gross, 2015), positively affecting emotion regulation strategies. Individual differences can be observed in the use of emotion regulation strategies (Ochsner and Gross, 2007). These differences primarily involve individuals' cognitive and neural mechanisms, as well as their emotional response and emotional experience.

Research indicates that difficulties in emotion regulation are a risk factor for various psychiatric disorders such as substance use, eating disorders, anxiety, depression, and other personality disorders (Fox et al., 2007; Fox, Hong, and Sinha, 2008). Children who struggle

with regulating their emotions and cannot effectively use strategies may experience emotional negativity and, consequently, have difficulty establishing positive communication with their peers. As a result, they may encounter various problems in social acceptance by their surroundings (Santrock, 2011). Problems in emotion regulation can lead individuals to experience emotional and behavioral problems (Gross, 1998). Therefore, the positive development of emotion regulation skills plays a role in various aspects, including academic achievement and social adaptation.

After family and peer interactions, another factor influencing children's emotion regulation skills is teachers. It is known that there is a positive interaction between the quality of the relationship established by the teacher with the student and the child's emotion regulation skills (Pianta and Stuhlman, 2004). Many studies have demonstrated a connection between a child's early academic achievements and the development of emotion regulation skills (Graziano et al., 2007; Hughes, Cavell, and Jackson, 1999). Additionally, the teacher serving as a role model and guiding children in coping with problems and emotional situations is crucial for the child's ability to handle challenges (Graziano et al., 2007).

Children begin to engage in drawing with crayons or pencils after a certain psychomotor development. Initially, these drawings may be scribbles, but later they continue with line and figure experiments that reflect their inner world (Yavuzer, 2012). In addition to drawing facial expressions of emotions belonging to others, children may use drawing as a means of expressing their own emotions when they cannot verbally communicate them. Around the ages of 4-5, children start depicting facial features expressing emotional expressions related to human figures (Buckalow and Bell, 1985; Cox, 2005). In times when they struggle to express their own emotions, children can use drawing as a tool for relaxation and emotion regulation (Drake and Winner, 2013; Cox, 2005). Malchiodi (2013) categorizes children's artistic development into six stages: scribbling, basic shapes, starting human figures and schema, developing visual schema, realism, and adolescence. These stages have their own characteristics, and there may be transitions between some stages. The development of visual schema corresponds to the concrete operations period according to Piaget's cognitive development stages (Piaget and Inhelder, 1971). During this period, children make an effort to evaluate events or objects they see in their environment and assign meaning to them. Additionally, detailed and realistic drawings begin to increase, and children start depicting others, not just themselves, in their drawings, moving away from egocentrism (Yavuzer, 2012). During this period, children are more likely to include emotions and compositions involving emotions in their drawings (Golomb, 1992; Cox, 2005; Bonoti and Misailidi, 2006).

There are six basic emotions in humans: happiness, sadness, fear, anger, disgust, and surprise (Ekman, Friesen, and Ellsworth, 1972). Drawings of facial expressions corresponding to these emotions develop with age (Golomb, 1992; Bonoti and Misailidi, 2006). For example, children aged 4-5 can more easily draw the emotion of happiness. Following this, in the concrete operations period, emotions such as fear, anger, disgust, and surprise follow sadness (Bonoti and Misailidi, 2006; Brechet, Picard, and Baldy, 2007). Especially during the concrete operations period, children start to include depictions of emotions considered negative alongside positive emotions. Examining the literature, it is observed that many studies have explored various positive and negative emotions in children's drawings (Afşaroğlu Eren, 2017; Einarsdottir, Dockett, and Perry, 2009; Elma and Erzen, 2022; Öveç, 2012; Ramazan and Öveç, 2017; Yüksel et al., 2015).

The age range of 6-10 is considered a period of rapid development of children's artistic skills. During the preschool period, they move away from egocentric understanding, start associating their drawings not only with themselves but also with other entities and phenomena, and enter the developmental period of visual schemas. The fundamental problem statement of the research is to uncover which negative emotions 6-10-year-old children express in their drawings, how they convey these emotions, and how they employ regulation strategies. Examining the emotional expressions in the drawings of children in this age group is crucial for understanding the development of emotional regulation skills. Understanding what emotions children express in their drawings, evaluating their emotional development, and anticipating potential challenges are essential aspects addressed by this research.

Purpose and Significance of the Study

Many studies involving children indicate the use of drawings to express emotions. These drawings generally encompass the six basic emotions (happiness, sadness, fear, disgust, anger, and surprise) (Einarsdottir, Dockett, & Perry, 2009). When studies conducted after early childhood are examined, drawings of negative emotions such as depression and anxiety, in addition to these emotions, are observed (Çelik, 2018; Küçükşen Öner, 2010). A review of the literature reveals that emotion regulation is mainly studied with preschool children and adolescents. There has not been an extensive study on which negative emotions Turkish children in the age groups of six and ten focus on, how they convey these negative emotions in their drawings, and how they regulate these emotions. Particularly, understanding what negative emotions pre-adolescent children are aware of based on age and gender, how they regulate these negative emotions, is aimed to provide preliminary information for emotion regulation training programs that may be conducted in the future. Therefore, considering the studies conducted with children on emotions and emotion regulation strategies, there is a need for further research to reveal which negative emotions children express, how they convey these negative emotions in their drawings, and how they regulate these negative emotions.

The significance of the research can be evaluated from several perspectives such as developing understanding for emotional development, guidance for educational practices, interventions for well-being, artistic expression and therapy, and awareness for family and society. Children's emotional development has a significant impact on their overall quality of life. This research, by understanding the negative emotions expressed in the drawings of children aged 6-10 and examining how they regulate these emotions, can contribute to a better understanding of their emotional development processes. The results of the research can provide guidance to teachers and professionals working with children in understanding and supporting children's emotional worlds. This is crucial for designing and implementing pedagogical strategies that support the development of emotional skills within the classroom. Emotional problems during childhood may be indicators of more serious difficulties that may arise in later years. Therefore, understanding and supporting children's emotional regulation skills can contribute to preventing mental health problems that may occur in later years. Children can express their emotional feelings easily through drawing. Understanding how emotions are expressed in drawings can contribute to psychological applications. Additionally, the results of the research can help parents better understand their children's emotional worlds. This information can increase awareness in society about supporting and understanding the emotional health of children. In conclusion, this research can be an important step in understanding children's emotional expression and regulation skills. Therefore, examining how

children reflect their negative emotions in their drawings and how they regulate these emotions constitutes the purpose of this study. In line with this purpose, the research aims to answer the following questions:

1. What are the negative emotions that children reflect in their drawings?
2. Is there a difference in the negative emotions indicated by children based on gender and age?
3. Is there a difference in how children reflect their negative emotions in drawings based on gender and age?
4. Do the environments where children live show differences in the negative emotions they reflect in their drawings?
5. Is there a difference in the strategies children use to regulate their negative emotions based on gender and age?
6. Are there differences in the negative emotions that children find challenging to regulate?

These questions aim to provide a more detailed understanding of children's emotional expression abilities, emotional awareness, and emotion regulation skills.

Method

Research Design

This research is a qualitative study conducted to examine the negative emotions portrayed in the drawings of children aged six to ten and to explore the strategies they use to regulate these emotions. The study is carried out following a phenomenological design. In qualitative research, phenomenology allows for the revelation of an individual's experiences related to a phenomenon, the understanding of the nature of their views on that phenomenon, and the description of these experiences in detail (Creswell, 2007; Merriam, 2013). The phenomenological approach is beneficial in the examination of children's drawings as it provides an opportunity to view the drawings holistically, facilitating the unveiling of the meanings attributed to what is depicted in the drawings, enabling communication with their inner worlds, and allowing the symbolization of interpersonal events by concentrating experiences on a single visual representation (Malchiodi, 2013). Based on this perspective, the phenomenological approach has been employed in the examination of children's drawings in this research.

Participants

This research aims to investigate the negative emotions expressed in drawings by children aged six to ten who reside in Eskişehir province. The participants of this study were a total of 50 children, 23 six-year-olds (13 boys and 10 girls) and 27 ten-year-olds (12 boys and 15 girls), living in the Eskişehir province of Turkey. The method of homogeneous sampling, which allows the formation of a subgroup with similar qualities or characteristics among the participants, has been employed in the selection process (Creswell, 2009).

The developmental stage considered as the period of the development of visual schemas (ages 6-10) witnesses a rapid improvement in children's artistic skills. During this phase, they tend to move away from egocentric structures and begin associating their

drawings not only with themselves but also with others. Moreover, they start using real schemas in the drawings of objects (Malchiodi, 2013). Gardner (1982) describes the age range covered by this period as the "golden age of expression through drawing," emphasizing the creative abilities of these children and their ability to express themselves without inhibition. Winner (1982) also states that the drawings of this age group resemble those of modern painters. Based on these expressions, the boundaries of the research group have been set by selecting the starting and ending age groups of the developmental stage of visual schemas, specifically six and ten years old. The study aims to observe whether there are differences based on age.

Data Collection Tools and Process

The data for this research were collected through drawing and interview techniques. Drawing serves as a criterion allowing the tracking of a child's developmental characteristics and is used as a method to help reflect the child's inner world (Yavuzer, 2012). Before starting the study, information such as the purpose of the study, estimated duration, and application method was discussed and explained to the parents. After obtaining approval from the parents, one-on-one interviews were conducted with the children. Appointments were scheduled with children who wanted to participate, and then discussions about negative emotions were held with the children. The negative emotions expressed by the children were noted. Each child was provided with a comfortable environment to draw without time constraints. The researcher provided A4-sized drawing paper and dry and pastel paints with various colors to each child. Subsequently, the children were asked to draw pictures related to negative emotions, and they were informed that they could draw more than one negative emotion if they wished. After the drawing session, individual interviews were conducted with each child. Questions such as "What can you name this drawing? Can you tell me about your drawing? What is happening in this picture? Which emotion did you draw?" were asked to initiate communication with the child. This allowed the child to express their emotions and explain the events depicted in the drawing from their perspective.

In the second stage of the data collection process, interviews were conducted. The questions for the semi-structured interview form were initially prepared by the researcher and then presented to two different experts with a Ph.D. in the field for their opinions. After this stage, the final version was prepared. The researcher used the semi-structured interview form to ask questions to the children. The semi-structured interview allows flexibility and the opportunity to ask additional questions if needed, enabling in-depth acquisition of subjective information about the children (Merriam, 2013; Patton, 2014; Yıldırım and Şimşek, 2011). Using both drawing and interview techniques together provides complementary sources of information for forming judgments about the child (Halmatov, 2015). After the drawing narrative, the children were asked how they regulated these negative emotions. The answers given by the children were recorded. Additionally, the researcher took notes during the interviews. This comprehensive approach aimed to collect data on the topic. The data collection process of the study took approximately six months due to the one-on-one nature of the interviews and the determination of the data collection time and place by the children themselves.

Data Analysis

The data obtained through drawing and interview techniques were analyzed using content analysis. Content analysis allows for an in-depth examination of the data, helping to minimize overlooked codes and themes (Yıldırım and Şimşek, 2011). The data obtained through interviews were transferred to a computer environment in written form. The data were transformed into meaningful codes, and similar ones were classified. In this study, the technique of expert opinion was employed to enhance the credibility of the findings, which is one of the techniques used to increase the credibility of qualitative research (Twycross and Shields, 2005; Glesne, 2013). Data from 10 randomly selected children, who were part of the study, were provided to two experts with experience in content analysis. Barber and Walczak (2009) mentioned that having different experts code and categorize 20% of the data of the participants and then having the researcher and experts come together to reach a consensus on codes and themes is a method that increases the credibility of the study. The reliability formula of Miles and Huberman (2015) was used to calculate the reliability coefficient of the study. A reliability coefficient above 70% is considered sufficient for the study to be reliable. The reliability of this research was calculated as 98%, indicating high reliability. In cases where there was a disagreement among coders, a consensus was reached. Direct quotations from children's opinions were included to represent their views accurately.

Ethical Issues

In this study, all rules specified within the scope of the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were adhered to. In this context, ethical approval (approval number: 243334, approval date: 7.01.2022) was obtained from the Anadolu University Social and Human Sciences Scientific Research and Publication Ethics Board Ethics Committee. Regarding research ethics, parents of children planned to participate in the study were first informed about the purpose of the research, estimated duration, implementation method, and the role of their child in the research. The researcher provided contact information, such as a phone number and email address, to parents so that they could easily reach out if they had any questions. After obtaining consent from the parents, individual interviews were conducted with the children, explaining the purpose of the research and their role in it. It was emphasized that the child could leave the study at any time, take breaks if needed, and if they chose to withdraw from the study at the end, they could retrieve their artwork. Children were given the option to affix a sticker with a happy face emoji on the informed consent form if they wanted to participate or a sticker with a neutral face emoji if they did not wish to participate. The form included the parent's signature at the beginning, indicating their approval for their child's participation. Children who wanted to participate were informed that the study could be conducted in an environment of their choice, and the selection of time and place was left to the children's decision. Children were also shown the images included in the final version of the article, and their permission was sought to include these images in the article.

Findings

The findings were derived from the combined interpretation of the data from drawings and interviews. Therefore, the findings are presented under a single heading.

The first finding addressed in parallel with the research questions is the negative emotions expressed by children. Table 1 presents the names of the negative emotions expressed by children and the age groups in which these emotions were observed.

Table 1.

Negative Emotions Expressed by Children

Negative Emotions	Six-Year-Olds	Ten-Year-Olds
Sadness	X	X
Anger	X	X
Jealousy	X	-
Loneliness	X	-
Boredom	X	X
Insecurity	X	-
Fear	-	X
Anxiety	-	X

Note: "X" indicates the expression of the respective emotion in the drawings, "-" indicates the absence of the emotion

When children were asked the question "Which emotions are negative?", six-year-olds mentioned sadness, anger, jealousy, loneliness, boredom and insecurity. Ten-year-old children mentioned sadness, anger, boredom, fear and anxiety as negative emotions. Fear and anxiety were not mentioned by the six-year-olds, and jealousy, loneliness and insecurity were not mentioned by the ten-year-olds. Table 2 shows the negative emotions that children included in their drawings according to gender and age group.

Table 2.

Negative Emotions In Children's Drawings

Negative Emotions Drawn	Six-Year-Olds			Ten-Year-Olds			Final Total*
	Girl	Boy	Total	Girl	Boy	Total	
Sadness	8	12	20	5	9	14	34
Anger	2	4	6	3	7	10	16
Fear	-	-	-	3	1	4	4
Anxiety	-	-	-	1	2	3	3

**Since the children drew more than one negative emotion, the final total was more than the total number of children.*

The table presents the negative emotions expressed in drawings by children, categorized by age group and gender. In Table 2, when the drawings depicting negative emotions by children are examined, it is observed that the majority of children (f: 34) drew the emotion of sadness. Additionally, another prominent negative emotion encountered in the drawings is anger (f: 16). Unlike the drawings of children in the six-year-old group, the drawings of children in the ten-year-old group include the emotions of fear (f: 4) and anxiety (f: 3). Below are examples of some negative emotions depicted in the drawings of six-year-old children (6G1, 6G10):

Figure 1.
Negative Emotions In Six-Year-Olds' Drawings (6G1, 6G10)



I get sad when I can't go to my grandmother. That's why I drew sadness.



...(child's name) took my water bottle. I scream at him to give it back. I am angry.

Below are examples of negative emotions expressed by ten-year-old children (10B5, 10B11, 10G3, 10G6):

Figure 2.
Negative Emotions In Ten-Year-Olds' Drawings (10B5, 10B11, 10G3, 10G6)



I cried a lot when my grandfather died. To relieve my sadness, I hugged my toys, went out to the balcony and got some fresh air.



My sister slaps me. I was so sad, I cried



Darkness scares me so much because I can't beat it



I get very stressed while taking exams. I'm breathing deeply but my heart is beating so fast. 'I'm having a hard time'

Table 3. presents the environments in which children stated that they experienced negative emotions in their drawings.

Table 3.

Environments Where Children Experienced Negative Emotions In Their Drawings

Six-Year-Olds	School Environment			Outdoor Environment			House Environment			
	Friend	Alone	Total	Family	Friend	Alone	Total	Family	Alone	Total
Sadness	10	-	10	-	5	-	5	3	2	5
Anger	4	-	4	-	1	-	1	-	1	1
Fear	-	-	0	-	-	-	0	-	-	0
Anxiety	-	-	0	-	-	-	0	-	-	0
Ten-Year-Olds	School Environment			Outdoor Environment			House Environment			
	Friend	Alone	Total	Family	Friend	Alone	Total	Family	Alone	Total
Sadness	1	-	1	1	4	1	6	4	3	7
Anger	5	-	5	1	3	-	4	1	-	1
Fear	-	-	0	-	1	-	1	2	1	3
Anxiety	1	1	2	-	-	-	0	-	1	1

When Table 3 is examined, the environments in which children express their negative emotions vary, including the school environment, outdoor environment, and home environment. Children in the six-year-old group have depicted the feeling of sadness more often in the school environment (f: 10), particularly with their friends. Following that, there are depictions in the outdoor environment (f: 5) and home environment (f: 5). The feeling of sadness is illustrated with friends in the school environment (f: 10) and in the outdoor environment (f: 5). In the home environment, it is depicted as feeling lonely (f: 2) or with family members (f: 3). The six-year-old group has represented the feeling of anger in the school environment with friends (f: 4), in the outdoor environment with friends (f: 1), and alone in the home environment (f: 1). There are no depictions of anxiety and fear in the drawings.

Ten-year-old children have depicted the feeling of sadness in the school environment (f:1), outdoor environment (f: 6), and home environment (f: 7). In the school environment, the feeling of sadness is illustrated with friends (f: 1), in the outdoor environment with friends (f: 4) and family (1), both alone (f: 1), and in the home environment with family members (f: 4) and alone (f: 3). The feeling of anger is depicted in the school environment with friends (f: 5), in the outdoor environment with family (1) and friends (3), and in the home environment with family members (f: 1). The feeling of fear is illustrated in the outdoor environment with friends (f: 1), in the home environment with family members (f: 2) and alone (f: 1). There is no depiction of fear in the school environment. The feeling of anxiety is illustrated with friends (f: 1) and alone (f: 1), and alone (f: 1) in the home environment. Anxiety is not depicted in the outdoor environment. When Table 3 is generally examined, it is observed that both six and ten-year-old children give more place to friend figures when depicting negative emotions in their drawings. Unlike the six-year-old group, the ten-year-old group tends to depict the feeling of fear more in the home environment and the feeling of anxiety more in the school environment.

Table 4 and Table 5 provide information on the strategies for regulating negative emotions based on the gender of six-year-old children.

Tablo 4.*Strategies Used By Six-Year-Old Girls To Regulate Negative Emotions*

Situation Selection	Situation Modification	Attentional Deployment	Cognitive Change	Response Modulation
<i>Avoidance (Forgetting or disregarding the situation)</i> -Trying to forget about it	<i>Changing the Environment</i> -Going somewhere else	<i>Diverting your attention to something else</i> -Counting numbers (silently, up to 10) -Keeping oneself busy with something else (drinking water) -Focusing on other things (checking the bag)	<i>Evaluation (Thinking about the Cause-Effect)</i> -Talking about the event that caused the emotion -Talking to the teacher (complaint) -Talking to someone	<i>Exercise</i>
	<i>Getting Support</i>	<i>Distracting One's Mind (Having Fun)</i> -Playing with a stress wheel -Listening to funny things -Playing a Game (Alone or with friends)	<i>Changing the Significance of the Situation</i>	<i>Relaxation</i> -Sitting down -Shouting when no one is around
		<i>Reflection</i> -Hold back so as not to cry	<i>Encouraging Oneself</i> -Telling oneself not to cry	
			<i>Positive Thinking</i> -Thinking about things that make one happy (Thinking about one's babyhood)	

Note: Emotion regulation strategies are titled according to Gross' (1999) strategies.

Tablo 5.*Strategies Used By The Six-Year-Old Boys To Regulate Negative Emotions*

Situation Selection	Situation Modification	Attentional Deployment	Cognitive Change	Response Modulation
<i>Avoidance (Forgetting or disregarding the situation)</i>	<i>Changing the Environment</i> -Going somewhere else	<i>Diverting your attention to something else</i> -Helping someone (mom) -Engaging in something else (eating, drinking water, washing one's face)	<i>Evaluation (Thinking about the Cause-Effect)</i> -Talking to the teacher (complaint) -Talking to someone -Apologising	<i>Exercise</i> -Taking deep breaths
	<i>Getting Support</i>	<i>Distracting One's Mind (Having Fun)</i> -Playing a Game (Alone or with friends)	<i>Changing the Significance of the Situation</i>	<i>Relaxation</i> -Sitting down -Resting
		<i>Reflection</i> - Showing physical reactions (clenching one's teeth or body)	<i>Encouraging Oneself</i>	
			<i>Positive Thinking</i> -Thinking about what makes one happy (mom making the favourite cake)	

Note: Emotion regulation strategies are titled according to Gross' (1999) strategies.

As is seen in Tables 4 and 5, the six-year-old girls and boys used similar techniques, except for exercise (response modulation) and self-encouragement (cognitive change) strategies. Some of the female students stated that they encouraged themselves by saying 'I prevent myself from crying and I tell myself not to cry' when they were faced with the emotion of sadness. The male students said that they used breathing exercises by saying, 'I take deep breaths to relieve my sadness', 'I breathe quickly to avoid crying' and 'If I am at school, I want my crying to stop and then it does stop when I take deep breaths', when they feel sad.

In Table 6 and Table 7, strategies for regulating negative emotions are presented for the ten-year-old children based on gender.

Table 6.

Strategies Used By The Ten-Year-Old Girls To Regulate Negative Emotions

Situation Selection	Situation Modification	Attentional Deployment	Cognitive Change	Response Modulation
Avoidance (Forgetting or disregarding the situation) -Not seeing the dark -Trying to forget (wiping it out of head)	Changing the Environment -Going somewhere else (to some place calm / another place by running away from what one fears)	Diverting your attention to something else -Counting numbers (silently, up to 10) -Keeping oneself busy with something else (doing homework) -Not paying attention physically (Closing eyes) -Thinking about other things	Evaluation (Thinking about the Cause-Effect) -Doing self-talk -Trying to solve the problem -Talking to the teacher (complaint) -Talking to someone	Exercise -Taking deep breaths
	Getting Support -Hugging the parent	Distracting One's Mind (Having Fun) -Playing a Game (Alone or with friends) -Doing activities (drawing a picture, reading a book) -Occupying oneself with technological devices (watching television)	Changing the Significance of the Situation -Trying to deal with fear (saying oneself that he/she'll beat the darkness) -Comforting oneself (you can do this)	Relaxation -Shouting at oneself (or scream) in front of the mirror
		Reflection -Hitting something (hitting a toy, squeezing the dough) - Showing physical reactions (pinching oneself or clenching one's fist)	Encouraging Oneself -Telling oneself positive things (there were times you got better scores)	
			Positive Thinking -Thinking about things that make one happy (Thinking about happy memories)	

Note: Emotion regulation strategies are titled according to Gross' (1999) strategies.

Tablo 7.*Strategies Used By The Six-Year-Old Boys To Regulate Negative Emotions*

Situation Selection	Situation Modification	Attentional Deployment	Cognitive Change	Response Modulation
Avoidance (Forgetting or disregarding the situation) -Trying to forget (wiping it out of head) -Trying not to think about something	Changing the Environment -Going somewhere else (in class)	Diverting your attention to something else -Counting numbers (silently, up to 10) -Not paying attention physically (Closing eyes)	Evaluation (Thinking about the Cause-Effect)	Exercise -Taking deep breaths
	Getting Support -Going to a parent (when scared)	Distracting One's Mind (Having Fun) -Being engaged with technological devices (video games, listening to songs, watching movies, playing games on the phone)	Changing the Significance of the Situation	Relaxation -Sitting down -Taking a bath -Looking around -Hug a toy
		Reflection -Hitting something (hitting the table, armchair or punching bag) -Hitting a friend -Making physical contact with oneself (hitting oneself, pressing on one's eyes)	Encouraging Oneself	
			Positive Thinking -Thinking about things that make one happy (Thinking about happy memories)	

Note: Emotion regulation strategies are titled according to Gross' (1999) strategies.

The ten-year-old girls, unlike their male peers, used techniques within cognitive change strategies such as evaluating, changing the importance of the situation, encouraging oneself, and thinking about positive things. Cognitive change as one of the emotion regulation strategies was not expressed by the ten-year-old boys.

An overall evaluation of the emotion regulation strategies used by six- and ten-year-old children from negative emotions shows that ten-year-old children used more emotion regulation strategies. Moreover, both age groups explained the strategies of response modulation (breathing exercise, sitting down, shouting when no one is present), changing the environment as situation modification (going elsewhere), attracting one's attention to something else as attentional deployment (counting numbers, dealing with something else) and distraction (playing games) by using similar expressions. However, while the ten-year-old children talked about using technology as a technique to distract their mind, the six-year-olds did not. In reflection as an attentional deployment strategy, the six-year-old children had physical contact with themselves (clenching their teeth and body), the ten-year-old children hit a chair, a toy, a

punching bag or a friend in addition to having physical contact with themselves (clenching their fist, pinching themselves).

The children were asked whether there were any negative emotions in which they had difficulty in regulating, and these emotions are presented in Table 8.

Tablo 8.

Negative Emotions Children Had Difficulty In Regulating

Negative Emotions	Six-Year-Olds			Ten-Year-Olds			Final Total
	Girl	Boy	Total	Girl	Boy	Total	
Difficult to Regulate							
Sadness	1	1	2	1	1	2	4
Anger	1	8	9	3	7	10	19
Fear	-	-	-	1	-	1	1
Anxiety	-	-	-	1	2	3	3

Note: Six-year-old children were not evaluated with regard to fear and anxiety since they did not mention these emotions in their interviews and drawings.

The children in both age groups stated to have difficulty in regulating anger with statements such as 'I can't stop my anger, I hit something', 'When someone hits me, I'll hit too, I don't stop my anger', 'I not able to stop my anger'. For regulating sadness, they said, 'I try not to cry but I can't help it', 'I was very sad when my grandfather died. I couldn't breath properly as I was constantly crying. I couldn't stop being sad.' The ten-year-old children state that they had difficulty by saying, 'I get very stressed while taking an exam. I'm breathing deeply, but my heart is beating so fast. I'm having a hard time', 'I'm so afraid of exams that I once had a nosebleed. I can't do anything'. A girl who had difficulty in regulating fear said, 'Darkness scares me a lot because I can't beat it.' Overall, the children were observed to have difficulty in regulating anger. Unlike the six-year-olds, the ten-year-old children stated that they had difficulty in regulating their emotions of fear and anxiety as well.

Conclusion, Discussion and Implications

Many findings were reported in this study that aimed to examine how children reflect their negative emotions in drawings and the strategies they use when regulating these emotions. The results of these findings are addressed and discussed below in line with the literature.

The first result of the study is that children include the emotion of sadness in their drawings more than other emotions (See Table 2). This result is also supported by the previous studies in the literature. Studies on the representation of emotions in drawings have shown that children can draw happiness and sadness emotions much earlier than emotions like fear, anger, or disgust (Bonoti & Misailidi, 2006; Brechet, Picard, & Baldy, 2007). According to another result, it was observed that there was a difference and an increase in the rate of drawing the emotion of anger, which comes after sadness, according to age and gender (See Table 2). Similarly, in a study conducted by Brechet (2013) with 6-8-year-old children, it was found that boys depicted the emotion of anger more than girls, and there was an increase in expressing and representing the emotion of anger with age. Gür and Koçak (2016) also found

gender differences in depicting negative emotions, such as anger, in a study with a five-year-old age group, indicating that boys depicted this emotion more frequently.

According to another result, anger is the emotion that children have the most difficulty in regulating (see Table 8). In line with this result, many studies in the literature show that the expression of anger increases with age. It is seen that the frequency of anger turning into aggressive behavior increases intensely especially towards middle childhood, and the reason for this is the problems experienced with peers (Hubbard, 2001; Dougherty, 2006; Oolup, Brown, Nowicki, & Aziz, 2015; Rohlf, Busching, & Krahe, 2017).

In the study, it was concluded that six-year-old children did not include anxiety and fear in their drawings and did not mention these emotions in the interviews (See Table 2). When the drawings of ten-year-old children were analyzed, it was seen that exam anxiety was included as a sense of anxiety. In Turkey, ten-year-old children attend the last grade of primary school and take more courses. The difficulty level of the exams of the courses they take increases and teachers rely heavily on these exams for grading. In addition, ten-year-old children's awareness of centralized exams is increasing and all these may lead to an increase in children's anxiety levels about exams. Therefore, it is thought that exam anxiety is expressed by children. When the studies in the literature are examined, it is seen that there are six basic emotions (happiness, sadness, fear, disgust, anger and surprise) in the drawings of children in early childhood (Elma & Erzen, 2022; Öveç, 2012; Ramazan & Öveç, 2017; Yüksel et al., 2015), but in studies conducted with older age groups, it is seen that in addition to these emotions, anxiety is also included in children's drawings (Afşaroğlu Eren, 2017; Çelik, 2018).

It was observed that the six-year-old children had higher rates of drawing emotions related to friendships in their drawings compared to the ten-year-old children (See Table 3). Additionally, the six-year-old group drew sadness and anger more often in the school environment, while the ten-year-old group drew sadness at home and anger at school more frequently. Rosenberg (1979) stated that children in the early childhood period interpret their emotions by associating them with their close environment, such as family and friends. Especially during this period, children are in close contact with their immediate environment and gradually begin to establish relationships with more distant surroundings as they age (Gülçay, 2009; Gültekin Akduman, 2012). Children who start primary school give more importance to their social relations and show an opening from the family to the society. By the age of ten, children tend to choose a specific number of friends and make efforts to feel belonging to a group. However, friendships in this age group are relatively short-lived, with approximately 50-70% of them lasting for a year (Berndt, 2004; Santrock, 2021). Therefore, it is thought that in the drawings of the six-year-old group, children are more influenced by their close environments, showing a greater emphasis on their friends, but this emphasis on friendship in drawings decreases with age. The fact that ten-year-old children depict sadness more in the home environment, especially in boys, is considered to be related to the fear of situations such as rejection or bullying by friends, leading them to reflect this emotion in their own homes (Smith, Shu, & Madsen, 2001; Kring & Gordon, 1998).

When looking at the overall use of emotion regulation strategies for negative emotions by children, it is observed that the ten-year-old group tends to use more emotion regulation strategies (See Table 6-7). A review of the literature indicates statements about individuals' emotion regulation skills developing in association with age (Berk, 2015; Gross, 1999; Santrock, 2011). The findings presented in this study align with the existing literature. In addition to age-related accumulation of emotional experiences, factors such as temperament,

parenting, culture, and individual differences also influence emotion regulation strategies (Eisenberg & Zhou, 2000). The age factor considered in this study is thought to be influential in the diversity of employed emotion regulation strategies.

In conclusion, it has been observed that the expressed and depicted emotions vary according to age. While sadness is the most depicted emotion, an increase in the expression of anger with age and challenges in regulating anger have been identified. Additionally, it has been determined that emotion regulation strategies used by children also increase with age. Based on the results of this study, some recommendations can be made. In this context, it is suggested to conduct supportive training for regulating negative emotions such as anger and exam anxiety in children, and research on how children depict positive emotions and how these emotions change with age is recommended.

Conflict of Interest Statement

This study declares that there is no financial conflict of interest with any institution, organization, or individual.

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