

Examination of the Relationship between Emotion Recognition/Regulation and Social Skills of 66-77 Months-Old Infants

Belgin Liman

Assistant Professor, Dr., Niğde Ömer Halisdemir University, Department of Child Development, Turkey, bliman@ohu.edu.tr

Abstract: *In the study, the relationship between children's emotion recognition/regulation skills and social skills is examined. The research is in the relational survey model. The study group consists of 172 infants aged 66-77 months. The data of the research study are obtained by using the "Emotion Recognition Test," "Emotion Regulation Scale" and "Social Skills Assessment Screening Scale." The data are evaluated according to the Pearson Correlation analysis. A significant and positive relationship between "Skills of Interpersonal Skills and Peer Pressure Refusal Skills" of Social Skills Assessment Screening Scale and Emotion Recognition is found, while there is no significant relationship between the subscales of "Anger Management Skills and Self-Control Skills." A significant and positive relationship between "Interpersonal Skills, Peer Pressure Refusal Skills, Self-Control Skills" subscale of Social Skills Assessment Screening Scale and the "Emotion Regulation" subscale of "Emotion Regulation" is found, whereas no significant relationship is found between "Anger Management Skills" mean score and "Emotion Regulation" subscale of Emotion Regulation Scale. A negative and significant correlation is detected between the mean score of the Social Skills Assessment Screening Scale regarding "Interpersonal Skills, Anger Management Skills, Peer Pressure Refusal Skills, Self-Control Skills" and "Variability-Negative" subscale of the Emotion Regulation Skills Scale.*

Keywords: Preschool, Emotion Recognition, Emotion Regulation, Social Skills.

1. Introduction

The individual encounters different emotional states due to his/her experiences since the day he/she came to the world as a social entity who faces many situations that require recognition and understanding of emotions, control, expressing their feelings appropriately, and at the same time recognizing the feelings of others throughout the process of harmonization with life (Başal, 2004).

Emotions which are defined as the feelings that are constituted by an object, event, or person in the mind of an individual (Güngör, 2005) tend to become functional since the experiences emerge as a reaction to the eventual occurrences (Levenson, 1994; Werner and Gross, 2010). Gross and Thompson (2007) claimed that emotions prepare behavioral, motor, and psychological reactions by influencing decision-making, memory, and social relationships. Emotion recognition involves the ability to recognize the feelings of another individual by evaluating his/her emotional facial expressions and clues (Gallese, 2003).

It can also be defined as the recognition of emotions given away along with such messages as a smile, frown, surprise, the tone of voice, etc. (Elksnin and Elksinn, 2003, *as cited in* Saltalı, 2010).

Emotions are mostly the processes which are reflected in facial expressions and gestures which are crucial in characterizing emotions along with other non-verbal communication elements (Çelik, Tuğrul, and Yalçın, 2002). Facial expressions play an important role in communicating emotional messages. It is suggested that people are biologically equipped for conveying their emotions via facial expressions (Çelik et al., 2002). The

ability to correctly recognize the emotional expressions of other individuals is a critical component of the nonverbal communication system; it is necessary for regulation of, as well as, adaption to the environment. The impacts of behaviors on people are understood through their reactions. Recognizing emotional expressions on the faces of others is the basis of emotion regulation. Children's understanding of facial expressions accelerates the development of emotional awareness and self-control skills (McClelland and Tominey, 2015). Koole (2009) stated that emotions affect cognitive processes such as decision-making and goal-setting. In cognitive processes, it seems important to recognize and define emotions and to establish connections between intellectual and emotional functions for the solution of problematic situations.

In the process of emotional regulation, an individual can change positive emotions by enhancing, and negative emotions by reducing and can regulate the duration for which this magnitude would last (Eisenberg and Spinrad, 2004). Research studies support emotional regulation, one of the self-regulating skills, as the basis for establishing the reactions approved by the social environment. Calkins (2010) considers emotional regulation as a process that helps the individual in controlling his/her complex and stressful environment. Liew, Eisenberg, and Reiser (2004) observed that behavioral patterns such as being easily disappointed, anger outbursts, and not being able to wait for something pleasurable, were associated with emotion regulation in their studies conducted on children. Among the variables that affect and accelerate the continuous interaction with the individual's social environment, social skills play an important role (Yüksel, 1999).

Social skills are described as verbal and nonverbal behaviors which initiate and maintain social relations; offer easy

solutions toward problems (Collins and Collins, 1992; Gülay and Akman, 2009), and they also include behaviors that are required to be exhibited in order for the individual to fulfill responsibilities and expectations set by the society (McFall, 1982; Avcıoğlu, 2009). Building satisfying and successful connections in social relationships is related to the correct interpretation of clues about emotional expression (Erol, Ünal, Gülpek and Mete, 2009). Emotions constitute the basis for the establishment of social ties. Nonetheless, emotions may result in problems when they are intensive, long-term, and not related to the situation (Werner and Gross, 2010). In this context, emotion regulation becomes the issue. Rothbart (1989) asserted that children's emotion regulation skills are a deterministic factor in social-emotional adaptation and interpersonal relationships. Individuals with improving social skills are apt to develop healthy relationships with their surroundings.

Individuals who recognize their emotions during the social process can make appropriate decisions by developing emotion regulation strategies (reducing negative emotions and increasing positive ones) in the presence of stressful situations, controlling emotion during stressful situations and expressing their emotions appropriately (Bronson, 2000; Denham and Burton, 2003; Carlson and Wang, 2007; Gülay and Akman, 2009).

It is important to note that the infant should be able to adjust emotional responses towards successful social functions (Denham et al., 2003). During the preschool period, the ability to describe basic emotional facial expressions is acquired (Pollak, Cicchetti, Hornung and Reed, 2000). Parents should be informed about the importance of having this skill and to understand how this skill can be better supported. Parents and teachers should encourage children to recognize and understand emotions, express emotions, and talk about emotions. It is crucial for the children's socialization process to establish positive relationships with the social environment, establish healthy communication, adapt to the rules, be sensitive to others, cope with the problems they face, control their emotions and develop self-awareness and self-confidence. In this context, it is aimed to investigate the relationship between the children's emotion recognition/regulation skills and their social skills.

2. Methodology

2.1 Research Model

This study which examines the relationship between emotion recognition/regulation skills and social skills of infants aged 66-77 months involves the relational survey model.

The study group is comprised of totally 172 infants (83 (48.3%) boys and 89 (51.7%) girls) aged 66-77 months attending to pre-primary education institutions representing different socio-cultural groups affiliated to the Provincial National Education Directorate.

2.2 Data Collection Tools

Three data collection tools are utilized in the research: "Emotion Recognition Test," "Emotion Regulation Scale" and "Social Skills Assessment Screening Scale."

Emotion Recognition Test: It was developed by Bruce et al. (2000) with the aim of measuring emotion recognition skills of children aged 3-12 years through facial expressions. "Emotion Recognition Test" contains three different applications.

Children are shown Exp-pair items first, and then they are asked to indicate which of the pictures meet the specified facial expression (e.g., the children are expected to choose "Which one of these two faces is sad?"). Exp-pair items are followed by Exp-match, Child items and Exp-match, adult items which reflect the adult facial expressions. In both Exp-match, child and Exp-match, adult tests, the children are shown a facial expression Picture, and they are asked to decide "which one of two other pictures at the bottom matches the first one regarding expressing the same feeling." At the beginning of these items, there is a sample application that can be used by the test conductor in order to explain to the children what they are required to do. Exp-match, adult and Exp-match, child tests are similar to each other. However, there is no sample application in Exp-match, adult test. Facial expressions are utilized in Exp-match, adult test. "1" point per correct response is added to the total score. "Emotion Recognition Test" is comprised of totally 19 items (Ergin, 2000).

Emotion Regulation Scale: Emotion Regulation Scale was developed by Shields and Cicchetti (1997) and was adapted to the Turkish language by Batum and Yağmurlu (2007). The scale consists of 24 items and two subscales, namely, "Emotion Regulation" and "Variability-Negativity" evaluating emotional responsiveness and emotional expression of preschool and school-age children in accordance with the conditions of the environment. Cronbach's Alpha reliability coefficients of the scale are estimated as .73 and .75 for the emotion regulation and the variability-negativity subscales, respectively. The scale is a 4-point Likert-type that is evaluated by the teachers of the children within the scope of the study. In this study, the reliability coefficient is calculated again for measuring the reliability of the scale, and the reliability coefficient is found to be .764.

Social Skills Assessment Screening Scale (SSASS)

Social Skills Assessment Screening Scale (4-6 years of age) was developed by Avcıoğlu (2007) to measure the skills needed to increase social interaction. It is a 5-point Likert-type scale which consists of 62 items and nine subscales. These include Interpersonal Skills (IS), Anger Management Skills (AMS), Peer Pressure Refusal Skills (PPRS), Self-Control Skills (SCS), Verbal Communication Skills (VCS), Accepting Consequences Skills (ACS), Listening Skills (LS), Goal-Setting Skills (GSS) and Task-Completion Skills (TCS). Higher scores indicate the presence of adequate social skills, whereas lower scores indicate the presence of inadequate social skills.

2.3 Collecting Data and Data Analysis

Data are obtained from totally 172 infants aged 66-77 months included in the study group. The “Emotion Regulation Scale” and the “Social Skills Assessment Screening Scale,” which are used as data collection tools, are filled out by the teachers of the infants in the study group; the “Emotion Recognition Test” is filled out by the researcher for each infant. Emotion Recognition Scale, Emotion Regulation Scale (in Emotion Regulation and Variability-Negativity Subscales) and Social Skills Assessment Screening Scale (in Interpersonal Skills (IS), Anger Management Skills (AMS), Peer Pressure Refusal Skills (PPRS) and Self-Control Skills (SCS) subscales) are evaluated via SPSS 24 computer statistical software. In order to determine the methods to be used in the data analysis, the normal distribution of the data is checked by the Kolmogorov-Smirnov test. The test results indicate that total scores of both scale and subscales provide normal distribution. Therefore, parametric tests are preferred. Pearson Correlation analysis is performed in evaluating the data. The significance level is accepted as $p < .05$.

3. Findings

In this section, findings regarding the relationship between emotion recognition/ regulation skills and social skills of the participant infants are presented.

Table 1: Analysis Results for the Correlation between Children’s Emotion Recognition and Their Social Skills

		Interpersonal Skills	Anger Management Skills	Peer Pressure Refusal Skills	Self-Control Skills
Emotion Recognition	r	.176	.106	.206	.086
	p	.021*	.168	.007*	.264
	n	172	172	172	172

* $p < .05$

Upon examining Table 1, a positive and less significant correlation between the average scores of “Interpersonal Skills” ($r = .176$; $p < .05$) and “Peer Pressure Refusal Skills” ($r = .206$; $p < .05$) subscales of Social Skills Assessment Screening Scale is detected.

Accordingly, as the emotion recognition skills of 66-77 months-old infants increase, both interpersonal and peer pressure refusal skills also increase. Nevertheless, no significant relationship between the mean scores of “Anger Management and Self-Control Skills” and Emotion Recognition subscales of the Social Skills Assessment Screening Scale is detected ($p > .05$).

Table 2: Analysis Results for the Correlation between Children’s Emotion Regulation and Their Social Skills

		Interpersonal Skills	Anger Management Skills	Peer Pressure Refusal Skills	Self-Control Skills
Emotion Regulation	r	.534	.097	.323	.434
	p	.000*	.205	.000*	.000*
	n	172	172	172	172
Variability-Negativity	r	-.477	-.468	-.228	-.386
	p	.000*	.000*	.003*	.000*
	n	172	172	172	172

* $p < .05$

Table 2 indicates that positive and less significant correlation is detected between mean scores of “Interpersonal Skills” ($r = .534$; $p < .05$), “Peer Pressure Refusal Skills” ($r = .323$; $p < .05$), “Self-Control Skills” ($r = .434$; $p < .05$) subscales of Social Skills Assessment Screening Scale and mean scores of “Emotion Regulation” subscale of Emotion Regulation Skills Scale.

Accordingly, as the emotion regulation skills of the infants aged 66-77 months increase, their interpersonal, peer pressure refusal and self-control skills also increase. However, no significant relationship is detected between the mean score for “Anger Management Skills” subscale of the Social Skills Assessment Screening Scale and the mean score for “Emotion Regulation” subscale of the Emotion Regulation Skills Scale ($p > .05$).

A negative and significant correlation is detected between mean scores of “Interpersonal Skills” ($r = -.477$; $p < .05$), “Anger Management Skills” ($r = -.468$; $p < .05$), “Peer Pressure Refusal Skills” ($r = -.228$; $p < .05$), “Self-Control Skills” ($r = -.386$; $p < .05$) subscales of Social Skills Assessment Screening Scale and mean scores of “Variability-Negativity” subscale of Emotion Regulation Skills Scale. As the variability and negativity of infants aged 66-77 months decrease, their social skills increase.

4. Discussion and Conclusion

Upon investigating research studies conducted on emotion recognition/regulation skills, which are the integral parts of social relations, it is seen that merely a limited number of studies are found in Turkey. From this point of view, the relationship between emotion recognition/regulation skills and social skills is investigated for infants aged 66-77 months. According to the results obtained from the research study, as the emotion recognition skills of children increase, their peer pressure refusal skills are also increased.

In other words, it can be said that these children are able to demonstrate the skills that are important for sustaining social interaction and the ability to cope with various pressures that individuals may encounter during their social interactions. Moreover, as the variability and negativity decrease, social skills are also increased. Accordingly, social skills increase as children exhibit varying emotions in response to events and give less angry-furious reactions. Today, in order to be successful in social life and academic environment, it is increasingly become important to have social skills as well as scientific skills. Social relations tend to change and develop with the environment. Upon examining the literature, it is indicated that adults and adolescents who do not have social skills are likely to become risk groups in terms of anti-social behavior and aggressiveness (Walker, Cobin and Ramsey, 1995, *as cited in* Palut, 2003).

Many conducted studies indicate that successful emotion regulation affects children’s behavioral, academic, and social skills (Kalpidou, M. D., Power, T. G., Cherry, K. E., and Gottfried, N. W., 2004; Pauli-Pott, U., Haverkock, A., Pott, W., and Beckmann, D., 2007; Leerkes, E. M., Paradise, M., O’Brien, M., Calkins, S. D., and Lange, G., 2008). There are many studies showing that early behavioral and

emotional problems play a decisive role in children's future life experiences (Calkins, S. D., Gill, K. L., Johnson, M. C., and Smith, C. L., 1999; Lavigne et al., 2001). Pre-school children's emotion regulation skills are associated with social functions such as peer relationships, shyness, and sympathy (Eisenberg et al., 2002).

It is clear that emotion regulation can have a negative impact on the social cohesion of the individual in the long-run when taken into account along with research findings that indicate that the aggression observed during the preschool period is related to antisocial behavior in adolescence and even adulthood (Lavigne et al., 2001).

Rothbart (1989) stated that children's emotion regulation skills are a decisive factor in social-emotional adaptation and interpersonal relationships. Individuals with improving social skills can develop healthy relationships with their surroundings. Similar results are also obtained in another study.

Individuals who recognize their emotions in the social process can make proper and rational decisions by developing emotion regulation strategies (reducing negative emotions and increasing positive ones) in the face of stressful situations, controlling emotion during stressful situations and expressing their emotions appropriately (Bronson, 2000; Denham and Burton, 2003; Carlson and Wang, 2007; Gülay and Akman, 2009). A study by Eisenberg et al., (2000) indicated that children with negative emotions are more likely to exhibit behavioral problems, and children with a tendency to externalized behavior problems experience problems with attention control. These results also coincide with the results obtained regarding the basic problem of the research. In summary, it is seen that children who have problems in recognizing and regulating emotions cannot exhibit appropriate social skills.

In this respect, the following suggestions can be made in compliance with the results of the research study:

- Training programs for parents can be arranged about how they can support their children's emotion recognition/regulation skills.
- Teachers, the school environment and educational programs can be improved as the means of enriching children's emotion regulation skills.
- Children with lower social, emotion recognition and emotion regulation skills are affected by different variables (gender, number of siblings, parental education, socio-economic status, etc.).
- In particular, the impacts of the training programs prepared for emotion recognition/regulation skills on the social skills of pre-school children can be investigated.

References

- [1] Avcıoğlu, H. (2007). Sosyal Becerileri Değerlendirme Ölçeği (4-6 yaş) Geçerlilik, Güvenilirlik Çalışması. *AİBÜ, Eğitim Fakültesi Dergisi*, 7(2), 87-101.
- [2] Avcıoğlu, H. (2009). *Etkinliklerle Sosyal Beceri Öğretimi*. Ankara: Kök Yayıncılık.

- [3] Başal, H. A. (2004). *Gelişimvepsikoloji: Nasılmutlubiçocuk yetiştirebiliriz?.* İstanbul: Morpa KültürYayıncılık.
- [4] Batum, P. ve Yağmurlu, B. (2007). What counts in externalizing behaviors? The contributions of emotion and behavior regulation. *Current Psychology*, 25(4), 272-294.
- [5] Bronson, M. B. (2000). *Self-regulation in early childhood: Nature and nurture*. New York: Guilford Press.
- [6] Büyüköztürk, Ş. (2011). *Sosyal Bilimler İçin Veri Analizi El Kitabı*. Ankara: Pegem Akademi.
- [7] Calkins, S. D., Gill, K. L., Johnson, M. C., ve Smith, C. L. (1999). Emotional reactivity and emotional regulation strategies as predictors of social behavior with peers during toddlerhood. *Social Development* 8(3), 310-334.
- [8] Calkins, S. D. (2010). Commentary: Conceptual and methodological challenges to the study of emotion regulation and psychopathology. *Journal of Psychopathology and Behavioral Assessment*, 32(1), 92-95.
- [9] Carlson, S. M. ve Wang, T. S. (2007). Inhibitory control and emotion regulation in preschool children. *Cognitive Development*, 22, 489-510.
- [10] Collins, J. ve Collins, M. (1992). *Social skills training and skilled helper*. West Sussex, England: Wiley and Sons Press.
- [11] Çelik, E., Tuğrul, B. ve Yalçın, S. S. (2002). Dört - altı yaşlar arasındaki anaokulu çocuklarının duygusal yüzüfadesiyle kendilerini, anne-babalarını ve öğretmenlerini algılaması. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 22, 29-39.
- [12] Denham, S. ve Burton, R. (2003). *Social and Emotional Prevention and Intervention Programming For Preschoolers*. New York: Kluwer Academic Plenum Publishers.
- [13] Denham, S. A., Blair, K. A., DeMulder, E., Levitas, J., Sawyer, K., Auerbach-Major, S. ve diğerleri., (2003). Preschool emotional competence: pathway to social competence? *Child Development*, 74(1), 238-256.
- [14] Eisenberg, N., Guthrie, I. K., Fabes, R., Shepard, S., Losoya, S., Murphy, B. C., Jones, S., Poulin, R., ve Reiser, M. (2000). Prediction of elementary school children's externalizing problem behaviors from attention and behavioral regulation and negative emotionality. *Child Development*, 71, 1367-1382. [Available online at: <http://www.jstor.org>], Retrieved on August 2, 2014.
- [15] Eisenberg, N., Fabes, R. A., Guthrie, I. K., ve Reiser, M. (2002). *The role of emotionality and regulation in children's social competence and adjustment*. In L. Pulkkinen, ve A. Caspi (Eds.), *Paths to successful development: Personality in the life course* (pp. 46-70). New York: Cambridge University Press.
- [16] Eisenberg, N. ve Spinrad, T. L. (2004). Emotion-related regulation: Sharpening the definition. *Child Development*, 75(2), 334-339.
- [17] Ergin, H. (2000). *İletişim Becerileri Eğitim Programının Okulöncesi Dönem Çocuklarının İletişim Becerileri Düzeyine Etkisi*. Yayınlanmamış Doktora Tezi, İstanbul Üniversitesi, İstanbul.

- [18] Erol, A., Ünal, E. K., Gülpek, D. ve Mete, L., (2009). Yüzdedişa vuranduygularıntanınmasıveayırtedilmesitesterinin türktoplumundagüvenilirlikvegeçerlilikçalışması. *Anatolian Journal of Psychiatry*, 10, 116-123.
- [19] Gallese, V. (2003). The roots of empathy: the shared manifold hypothesis and the neutral basis of intersubjectivity. *Psychopathology*, 36, 171.
- [20] Gülay, H. ve Akman, B. (2009). *OkulÖncesiDönemdeSosyal Beceriler*. Ankara: PegemAkademi.
- [21] Güngör, A. (2005). *DuygusalGelişim. GelişimveÖğrenme*. Ulusoy, A. (Ed.). Ankara: AnıYayıncılık.
- [22] Gross, J. J. ve Thompson, R. A. (2007). *Emotion regulation: Conceptual foundations*. J.J.Gross Ed., *Handbook of Emotion Regulation* (s. 3-24). New York: Guilford Press.
- [23] Kalpidou, M. D., Power, T. G., Cherry, K. E., ve Gottfried, N. W. (2004). Regulation of emotion and behavior among 3- and 5-Year-Olds. *The Journal of General Psychology*, 131(2), 159-178.
- [24] Karasar, N. (2012). *Bilimselaraştırmayöntemi*. Ankara: Nobel Yayınları.
- [25] Koole, S. L. (2009). The psychology of emotion regulation: An integrative review. *Cognition and Emotion*, 23, 4-41.
- [26] Lavigne, J. V., Cicchetti, C., Gibbons, R. D., Binns, H. J., Larsen, L., ve DeVito, C. (2001). Oppositional defiant disorder with onset in preschool years: Longitudinal stability and pathways to other disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40, 1393.
- [27] Leerkes, E. M., Paradise, M., O'Brien, M., Calkins, S. D., ve Lange, G. (2008). Emotion and cognition processes in preschool children. *Merrill-Palmer Quarterly*, 54(1), 102-124.
- [28] Liew, J., Eisenberg, N., ve Reiser, M. (2004). Preschoolers' effortful control and negative emotionality, immediate reactions to disappointment, and quality of social functioning. *Journal of Experimental Child Psychology*, 89(4), 298-319.
- [29] McClelland, M. M. ve Tominey, S. L. (2015). *Stop, Think, Act: Integrating Self-regulation in the Early Childhood Classroom* (s. 62). New York and London: Routledge Taylor ve Francis Group.
- [30] McFall, W.T. (1982). Tooth loss in 100 treated patients with periodontal disease, a long-term study. *Journal of Periodontology*, 53, 539-549.
- [31] Rothbart, M. K. (1989). Temperament in childhood: A framework. In G. Kohnstamm, J. Bates, and M. K. Rothbart (eds.), *Temperament in childhood* (pp. 59-73). Chichester, UK: Wiley.
- [32] Palut, B. (2003). *SosyalGelişimveArkadaşlıkİlişkileri. M. Sevinç (Ed.). ErkenÇocukluktaGelişimveEğitimdeYeni Yaklaşımlar*. İstanbul: MorpaKültürYayınları.
- [33] Pauli-Pott, U., Haverkock, A., Pott, W., ve Beckmann, D. (2007). Negative emotionality, attachment quality, and behavior problems in early childhood. *Infant Mental Health Journal*, 28(1), 39-53.
- [34] Pollak, S. D., Cicchetti, D., Hornung, Katherine ve Reed, A. (2000). Recognizing Emotion in Faces: Developmental Effects of Child Abuse and Neglect. *Developmental Psychology*, Vol:36, No:5, 679-688.
- [35] Saltalı, N. D. (2010). *DuyguEğitimininOkulöncesiDönem Çocuklarının Duygusal Becerilerine Etkisi*. YayınlanmamışDoktoraTezi, SelçukÜniversite, Sosyal BilimlerEnstitüsü, Konya.
- [36] Yüksel, G. (1999). Sosyal Beceri Eğitiminin Üniversite Öğrencilerin Sosyal Beceri Düzeylerine Etkisi. *TürkPsikolojikDanışma RehberlikDergisi*.2, (11).
- [37] Werner, K. ve Gross, J. J. (2010). *Emotion Regulation and Psychopathology: A Conceptual Framework*, (Edited by Anna M. Kring and Denise M. Sloan), *Emotion Regulation and Psychopathology*. New York: Guilford Press.