Investigation of Pre-School Children’s Self-Concept in terms of Emotion Regulation Skill, Behavior and Emotional Status

Emel Arslan*
Necmettin Erbakan University (Turkey).

Abstract: The purpose of the present research is presenting the predictor relations between self-concept, emotion regulation, behaviour and emotional state among 5-6 years old children and test the model set in accordance with these relationships. The present research adopted the relational survey model, which is a sub-type of general survey model. The work group of the research consists of 263 children (136 boys, and 127 girls), who were selected among students of various pre-schools schools. Data collection tools utilized for the present research are Purdue Self Concept Scale For Preschool (PSCS), Emotion Regulation Checklist (ERC) and Preschool Behavioural and Emotional Rating Scale (PreBERS). Structural equation modelling analysis was conducted to present the predictor relationships between self, emotion regulation, behaviour and emotional state among pre-school students and to investigate their effects. Structural equation modelling analysis was conducted in AMOS 19 software program. In the final model obtained in the present research ($\chi^2 = 201.711, df = 71, p < .001$), there were four exogenous (physical, academic, social and mother acceptance) and six endogenous behaviour and emotional state, emotion regulation (dz, oh, sg, aao, emotion regulation and variability negativity) data. The Bentler-Bonett normed fit index (NFI), The Tucker-Lewis efficient fit index (TLI) and other fit indices showed that the model presented a good fit. According to the findings obtained with predictor relationships, there was a positive linear relationship between self and behaviour and emotional state and there was a positive linear relationship between self-concept and emotion regulation among pre-school students.

Keywords: Emotional regulation skills, Self-concept, Emotional status and children.

Introduction

Individuals are in interaction with their social environment as of birth. Experiences, stimulants and everyday affect during interactions with the environment affect children’s not only physical and mental development but also their self-concept. Self-concept refers to the perceptions related to strengths, weaknesses, skills, attitudes and values (Slavin, 2013). According to Rogers, self is the “hypotheses developed by individuals about themselves” (Cited in: Hamarta, Arslan and Yılmaz, 2014). While children develop ideas about themselves, the behaviors and attitudes of the people they care about, and how they perceive these are important. As a result of the interaction with the environment, children develop positive or negative opinions about themselves (Kılıçlasan, 2012; Kılıçcı, 1992; Geçtan, 1990; Cevher and Buluş, 2006; Zincirkiran, 2008; Yauzuver, 1998; Hamarta, Arslan and Yılmaz, 2014; Karaca and Aral, 2017). The concept of self is a social concept the develops and changes as a result of the interaction of inborn features with the environment (Hortaçsu 1991; Kuzgun, 1979). Rogers underlines the importance of sense of self and defines sense of self as how individuals perceive themselves (Cited in: Karaca and Aral, 2017).

The most critical period of human development in terms of growth and development is early childhood (0-6 years) period (Oktay, 2004; Zincirkiran, 2008; Kılıçlasan, 2012). The foundations of self-concept, which develops as a result of interaction with family environment as of birth, are laid in the family environment during early childhood (Yüksel and Kurtuluş, 2016; Turaşi, 2014; Sarıca and Yazıcı, 2013; Metin and Bencik Kangal, 2012). The experiences obtained during this period form the values and judgement of individuals about themselves (Hortaçsu, 1991). Individuals’ experiences, the feedbacks they receive and their interpretation of these during the formation and development of sense of self define...
According to research, pre-school period involves many important tasks in terms of development. Foundations of many behaviors are laid during these years (Dinç, 2002; Saltah, 2013; Karaca, Gündüz and Aral, 2011). Foundations of socio-emotional behaviors and emotional development are also set in this period (Saltah, 2013; Seven, 2007). During pre-school period, children develop skills of understanding feelings resulted from events as they develop skills of identifying emotions (Gallese, 2003). Underdeveloped emotional skills can produce negative consequences in terms of psychological health and social relations (Mecklem, 2008). Emotions help not only in regulating ourselves and our environments, but also in making meaning of life and focusing on the effects of such emotions as regret, sorrow and anxiety on the well-being of individuals (Greenberg, 2004). Emotional development is affected from other development areas and all the social, behavioral, cognitive and psychological features of individuals (Ribes, Bisquerra, Agullo et al., 2005). By helping children with exploring, expressing and sharing their emotions, we can help them understanding both themselves and others (Öztürk Samur, 2011). The skill of understanding emotions refers to realizing the underlying causes of emotions, that individuals can experience multiple feelings at once and how an emotion develops (Saltah, 2013). Expressing feelings is a skill that is positioned in the center of emotional skills and social relations, since the correct expression of feelings can develop relationships while wrong expression can deteriorate the communication (Cited in: Saltah 2013).

One of the main elements of emotional development is emotional regulation skill (Koçyiğit, Sezer and Yılmaz, 2015). Gross (1998) summarizes emotional regulation as the ability to affect and express the emotions we have (Cited in: Karaçaoğlan, 2015). The process of regulating emotions involves being aware of the emotions, identifying and directing emotions, having the ability to adapting to the emotions and effectively using them with emotional maturity (Töremen and Çankaya, 2008). Regulating emotions refers to the efforts paid by individuals to affect the emotions they have, how they experience and express their emotions (Şarlak, 2008). Children’s experiencing different affectivities, increasing or decreasing the intensity of the emotions created by a certain situation, managing the duration of the emotional intensity and transferring from one emotion to another are all related with their emotional regulation skills (Saltah, 2013). Emotional regulation skills include being able to decrease or increase the intensity of the emotions in accordance with objectives or just staying in the same condition (Şarlak, 2008; Cicchetti, Ganiban and Barnet, 1991) Emotional skills play an important role in development of social skills, preventing behavioral problems, peer relations and academic achievement among children (Denham, 1998; Saltah, 2013; Durmuşoğlu Saltah and Deniz, 2010). Socially and emotionally strong individuals are more successful in solving social problems, self-knowledge and understanding, interpersonal relations and many other areas (Kabakcı and Korkut, 2008).
Children with underdeveloped emotional regulation skills experience problems in socialization, academic failures and behavioral problems in school environment (Calkins & Howse, 2004; Campbell 2002; Hyson, 2004; Walker and Golly, 1999; Novick, 2004; Duncan et al., 2007). Socially and emotionally well-adjusted children are more successful, have higher self-confidence, better human relations and communications (Öztürk Samur, 2011).

The sense of “interference” during pre-school period plays an important role in the positive development of self. The behaviors are venturous and sociable. If children are criticized too much for their behaviors and interests during this period, they lose their interference strength and develop sense of guilt. When children are discouraged or punished frequently for their interference and interests, they develop an unconfident identity and disvalue what they do. If children form such a sense of self, they can grow out to be over timid individuals, who lack sense of interference, which results in timidity and dependence during adulthood (Güngör 1993). It is believed that the sense of self developed by children affect their emotions and behaviors at an important extent. Accordingly, the purpose of the present research is presenting the predictive relations between emotional regulation skills and sense of self; and behaviors and emotional state among children and investigating the effects of these.

The purpose of the present research is presenting the predictor relations between self, emotion regulation, behavior and emotional state among pre-school students and test the model set in accordance with these relationships.

Method

Research Model

The present research adopted the relational survey model, which is a sub-type of general survey model. Relational survey model is utilized to define the relationships between two or more variables and to obtain clues related to cause and effect (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz and Demirel, 2008).

Study Group

The work group of the research consists of 136 boys, 127 girls, and the total of 263 5-6 years old children, who were selected through convenience sampling method among children of various pre-schools. The children to whom the scales are applied have an identified emotional disorder or learning disorder, etc. has no problems. Applications were made with the permission of the children’s parents.

Instruments

Purdue Self Concept Scale For Preschool (PSCS). Purdue Self Concept Scale For Preschool (PSCS) was developed by Cicchetti (1974). The scale was translated and adapted into Turk-

ish by Özcan, Eren-Gümüş, Kotil and Sarca (2009). PSCS is a 16-items and consists of four subscales. Subscales names are physical efficiency, academic efficiency, social efficiency and mother acceptance. The internal consistency coefficients of the scale were found to be .55 for the physical efficiency, .80 for academic efficiency, .74 for social efficiency and .56 for mother acceptance. The internal consistency coefficient of the scale is .74.

Preschool Behavioral and Emotional Rating Scale (PreBERS). The preschool behavioral and emotional rating scale was developed by Epstein ve Synhorst (2009). The scale was translated and adapted into Turkish by Öztürk-Samur, Deniz, Durmuşoğlu-Saltah, and Arı (2009). The scale consists of four subscales and a total of 42 items. The internal consistency coefficients of the scale were found to be .96 for the emotional regulation dimension, .96 for school readiness, .91 for social confidence, and .62 for family involvement. High scores obtained for each subscale indicate that behavioural and emotional traits are highly rated (Öztürk-Samur et al., 2009).

Emotion Regulation Checklist. Emotion regulation checklist was developed by Shields and Cicchetti (1997). The scale was translated and adapted into Turkish by Batum and Yaşmurlu (2007). The Emotion Regulation Checklist is a 24-item questionnaire that yields two subscales: the Negativity/Lability scale, which represents negative affect and mood lability, and the Emotion Regulation scale. The internal consistency coefficients of the scale for Turkish version were found to be for emotion regulation subscale .73 and .75 for Negativity/Lability subscale.

Procedure

When starting to work, permission was obtained from the preschools for the application. In schools where application permission was obtained, the study was implemented after the parents were informed and the permissions were obtained. The scales used for the research were applied by the researcher. Scales were applied to 288 children. However, 25 data sets that were incomplete and incorrectly filled were excluded from the study. As a result, the scale data of 263 children were analyzed in the study.

Data Analysis

Structural equation modelling analysis was conducted to present the predictor relationships between self, emotion regulation, behaviour and emotional state among pre-school students and to investigate their effects. Structural equation modelling is a statistical approach that reveals causative relations and correlations between observed and latent variables to test a hypothetical model (Shumacker and Lomax, 2004). Structural equation modelling analysis was conducted in AMOS 19 software program.
Results

Descriptive statistics for the scales used in the study are as in the table below.

Table 1. Descriptive statistics.

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>n</th>
<th>SD</th>
<th>Mean</th>
<th>Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion regulation</td>
<td>263</td>
<td>4.99</td>
<td>18.64</td>
<td>.71</td>
</tr>
<tr>
<td>Negativity/Lability</td>
<td>263</td>
<td>6.08</td>
<td>11.11</td>
<td>.73</td>
</tr>
<tr>
<td>Emotional regulation</td>
<td>263</td>
<td>7.40</td>
<td>31.37</td>
<td>.88</td>
</tr>
<tr>
<td>School readiness</td>
<td>263</td>
<td>7.00</td>
<td>33.15</td>
<td>.91</td>
</tr>
<tr>
<td>Social confidence</td>
<td>263</td>
<td>4.37</td>
<td>22.88</td>
<td>.87</td>
</tr>
<tr>
<td>Family involvement</td>
<td>263</td>
<td>3.28</td>
<td>18.34</td>
<td>.59</td>
</tr>
<tr>
<td>Physical efficiency</td>
<td>263</td>
<td>1.01</td>
<td>4.13</td>
<td>.53</td>
</tr>
<tr>
<td>Academic efficiency</td>
<td>263</td>
<td>0.73</td>
<td>2.49</td>
<td>.75</td>
</tr>
<tr>
<td>Social efficiency</td>
<td>263</td>
<td>0.89</td>
<td>4.48</td>
<td>.71</td>
</tr>
<tr>
<td>Mother acceptance</td>
<td>263</td>
<td>0.58</td>
<td>2.74</td>
<td>.55</td>
</tr>
</tbody>
</table>

In the final model obtained in the present research (X² = 201.711, df = 71, p < .001), there were four exogenous (physical, academic, social and mother acceptance) and six endogenous behaviour and emotional state, emotion regulation (dz, oh, sg, aao, emotion regulation and variability negativity) data. Every way presented in the model was statistically significant. The Bentler-Bonett normed fit index (NFI), The Tucker-Lewis efficient fit index (TLI) and other fit indices showed that the model presented a good fit (Table 1). All of the two-way correlations between endogenous data in the model have high values and are statistically significant. This finding is affected from the correlation values between the sub-dimensions of the scales used in the present research.

Table 2. Statistical Values Related to the Structural Equation Model’s Fit Index.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Good fit</th>
<th>Acceptable fit</th>
<th>Fit Index Values of the Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>X²/df</td>
<td>≤ 3</td>
<td>≤ 4-5</td>
<td>3.85</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.05</td>
<td>0.06-0.08</td>
<td>0.57</td>
</tr>
<tr>
<td>SRMR</td>
<td>≤ 0.05</td>
<td>0.06-0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>NFI</td>
<td>≥ 0.95</td>
<td>0.94-0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.97</td>
<td>≥ 0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.90</td>
<td>0.89-0.85</td>
<td>0.93</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0.90</td>
<td>0.89-0.85</td>
<td>0.93</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0.95</td>
<td>0.94-0.90</td>
<td>0.90</td>
</tr>
</tbody>
</table>

The fit values presented in Table 2 are; X²/df = 3.85, RMSEA = 0.57, SRMR = 0.050, NFI = 0.90, CFI = 0.93, GFI = 0.95, AGFI = 0.93 and TLI = 0.90. These show that the model has the desired fit values (Bollen, 1989; Browne and Cudeck, 1992; Byrne, 2010; Hu and Bentler, 1999; Kline, 2011; Tanaka and Huba, 1985). Single-factor model tested in the present research is shown in Figure 1. All ways presented in the model are significant at 0.001 level.

Table 3. Model on predictor relations among emotional regulation, self-concept, and behavior and emotional status in pre-school children.

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Dependent Variable</th>
<th>Total Effect</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Standard Error</th>
<th>Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-concept</td>
<td>Behavior and emotional status</td>
<td>.043</td>
<td>.043</td>
<td>0</td>
<td>0.35</td>
<td>4.15*</td>
</tr>
<tr>
<td>Self-concept</td>
<td>Emotional regulation</td>
<td>.010</td>
<td>.010</td>
<td>0</td>
<td>0.87</td>
<td>1.67*</td>
</tr>
<tr>
<td>Emotional regulation</td>
<td>Behavior and emotional status</td>
<td>.23</td>
<td>.23</td>
<td>0</td>
<td>0.61</td>
<td>5.49*</td>
</tr>
</tbody>
</table>

*Total Effect = Direct Effect + Indirect Effect, *p < .01, **p < .05.

According to the model presented in Figure 1, the most important independent variable of self (t = 4.15, p < .01) affecting behaviour and emotional state is values. Correlation coefficient related to this factor was found as β = -0.43. Predictor relations between self and behavioural and emotional state among pre-school children showed that there was a positive linear relation. In other words, the increase in the sense of self among pre-school students will increase their behaviour and emotional states.

The model also shows that the most important independent variable affecting emotion regulation (t = 1.67, p < .01) is self concept. Correlation coefficient related to this factor was found as β = 0.10. The predictor relationships between sense of self and emotion regulation among pre-school students present a positive linear relationship. In other words, as sense of self increases among pre-school students, their emotion regulation increases accordingly.

Additionally, the tested model shows that the second most important variable affecting behaviour and emotional state (t = -3.91, p < .01) is emotion regulation. Correlation coefficient related to this factor was found as β = 0.23. The predictor relationships between emotion regulation and behavioural and emotional state among pre-school students present a positive linear relationship. In other words, as emotion regulation increases among pre-school students, their sense of self increases accordingly.
Discussion

Structural equation modelling analysis was conducted in order to present the predictor relations between self, behavioural and emotional state and emotional regulation among pre-school students and to investigate the effects of these relations. According to the obtained findings, predictor relations between self and behavioural and emotional state among pre-school students presented a positive linear relationship. This finding shows that as sense of self increases, behavioural and emotional state increases accordingly among pre-school students.

Children learn to express their emotions during pre-school period (Karaca and Aral, 2016). Children are expected to establish strong emotional bonds with their parents during early childhood (Koçyiğit, Sezer and Yılmaz, 2015). Reassuring, supporting and tolerant approach from parents is the most ideal way of interaction for the social and emotional development of children (Kandır and Alpan, 2008). Mothers can help the self-development of their children by playing games with them. Children with positive sense of self can overcome dilemmas, have confidence of their skills and don’t suppress their feelings. They don’t avoid producing new things (Karaca and Aral, 2016). Research on the self-esteem among children shows that parents play an important role especially during early ages (Sarıyüce Körükçü, 2004). Providing children with experiences, which can affect their sense of self positively during pre-school period, can contribute to their behavioural and emotional development. Children with positive perceptions of themselves exhibit more confident behaviours and they are expected to be better at identifying and expressing feelings.

Emotions cover the complex interactions including the affective element of human experiences, emotions, biological, psychological and environmental factors. Research shows that emotions have important functions in interpersonal relations and that emotions show us what or who is important for us (Southam-Gerow, 2014). Development of emotions also involves the development of self and accordingly the individuals’ feelings related to themselves. Therefore, development of behaviours and emotions is related with the development of self.

Another finding of the present research is that, predictor relations between sense of self and emotion regulation among pre-school students present a positive linear relation-
ship. This suggests that as sense of self increases emotion regulation increases accordingly among pre-school students. The number of studies on emotional regulation has increased in recent years. Emotional regulation occurs in many areas and goes through some processes. Procedural/development model and developmental model are two views put for emotional regulation. Procedural/development model of emotional regulation consists of five categories suggested by Gross and Thompson (2007). These are situation selection, situation modification, attention deployment, cognitive changes-appraisals and response modulation. Developmental model of emotional regulation relates the skill of expressing emotions during early period with basic cognitive skills and involves learning strategies (Cited in: Southam-Gerow, 2014).

Emotions generally occur during social interactions and are regulated during these interactions (Şarlak, 2008). Preschool period is important for both the development of self and the acquisition of skills, which are important for emotional regulation. Experiences during this period are important for children in terms of identifying and expressing their relations with their environment, sense of self and learning where and how to use their emotions. Children, who can develop a positive sense of self, can identify their emotions.

One other finding of the present research is that according to the predictor relations found between emotion regulation and behavioural and emotional state among pre-school students, there is a positive and linear relationship. As emotional regulation increases among pre-school school children, their behavioural and emotional state increases accordingly. Pre-school period is important for the development and regulation of emotions as well. Primarily parents, secondly the environment plays an important role in the healthy development of children. Errors in parent attitudes and negative environmental conditions affect the development of children negatively. Kandır and Alpan (2008) reported that especially during pre-school period, social and affective development was very important for children in terms of developing a healthy personality and establishing a positive interaction with their environment. Seven (2007) found that family related factor affected social behaviour problems among six years old pre-school children and social behaviour problems increased in crowded families. For emotional regulation, learning to express and identify emotions and to decide what to do about emotions during early ages is very important (Southam-Gerow, 2014).

Consequently, increase in the sense of self among pre-school children affects behavioural and emotional state and emotional regulation skills positively. Additionally, development of emotional regulation skills increases behavioural and emotional state. These findings present the importance of development of sense of self among pre-school children. Positive development of sense of self requires healthy relations with everyone interacting the children, especially their parents. Providing children with positive environmental conditions is also of great importance.

Conclusion and Recommendations

According to the obtained findings, predictor relations between self and behavioural and emotional state among pre-school students presented a positive linear relationship. Another finding of the present research is that, predictor relations between sense of self and emotion regulation among pre-school students present a positive linear relationship. One other finding of the present research is that according to the predictor relations found between emotion regulation and behavioural and emotional state among pre-school students, there is a positive and linear relationship. Depending on the results of the research, the following suggestions can be presented.

- It is necessary to raise the awareness of families for positive self-development. The explanation about what parents should be careful in this topic will contribute positively to the development of children.
- Trainings for children and families should be given about the acquisition and development of emotion regulation skills.
- Families and people who deals with children should be informed about the fact those preschool years are significant in the development of children in various ways (through education, social media, and technical tools). Thus, the awareness should be raised.
- The numbers of such studies need to be increased in order to be detected in situations that affect the child’s development and are of importance in the pre-school period.
- It needs to be continued that this study should lead to further work. Also, the studies that other variables are determined should be continued.

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