An Investigation on the Relationship between Maternal Education Level, Maternal Employment, and Emotional Intelligence Performance of 10 Years Old Children

Yücel Öksüz

Kerem Coşkun

Abstract

The present study seeks out investigating the relationship between mothers’ level of education, maternal employment and emotional intelligence performance of children who are at the age of 10. Emotional intelligence is described as construct including self-awareness, self-management, motivation, social skills, and empathy. Emotional intelligence is perceived as inseparable part of education process. The present study was designed in correlational research. Sample of the study consisted of 221 children. Data were collected through the Ten Years Emotional Intelligence Scale (TYEIS). Data were analysed through Spearman-Brown Rank Correlation and regression analysis. As a result of the study it was concluded that the higher level of education mothers has, the more their children have emotional intelligence performance; there is negatively low level correlation between maternal employment and emotional intelligence performance of their children. Results of the study were dealt with and discussed in accordance with mother-child interaction and emotional intelligence development of children.

Key Words: Emotional intelligence, Maternal employment, Mother-child interaction, Maternal education level
Introduction

Individual tries to adjust to social and physical environment by learning cognitive, emotional and motor skills by the time he is born. While cognitive learning includes skills such as speculation, relation, understanding, remembrance, inference, judgement, affective learning emphasizes skills such as recognition of emotions in self, appropriate expression of emotions, empathy, motivation, and management of emotions, social and relational skills. Motor learning consists of skills based on muscle coordination.

Mandatory education all process teaches those aforementioned skills in all three types of learning outcomes to generations. Affective learning is essential and inseparable parts of education because all learnings have affective basis, affective learnings play key roles in effectively utilizing cognitive skills (Vygotsky, 1986). Individual can establish good relationships with others, have better well-being, utilize effectively his cognitive capacity thanks to affective learning. Therefore affective learning must be systematically and conceptually constructed. Emotional intelligence (EI) is one of those concepts.

Emotional intelligence has increasingly become important since the beginning of the 1990’s. Three streams in the EI have emerged and described it in different ways. The ability model developed by Salovey & Mayer (1990) deals with as standard intelligence type from the Multiple Intelligence Theory by Gardner (1983). The EI is described as construct consisting of the skills such as generating emotions to help thought and access them, understanding and management of emotions. In other words the EI is a kind of mental performance rather than personality traits. The ability model hierarchically deals with the EI in four sub-skills. Those skills are perception of emotions, use of emotions, understanding of emotions, and management of emotions (Mayer, Salovey & Caruso, 2004).

Mixed models, another approach to the EI, claim that the EI is not solely composed of cognitive abilities, also related to factors such as personality, motivation, and emotional efficacy (Zeidner, Roberts, & Matthews, 2009). There are two models in the mixed models as Goleman Model and Bar-On Model. In the Goleman Model, the EI is determinant of how much individual utilizes his potentials including cognitive skills. Goleman (1995) suggests that emotional capabilities are joint of skills which are learnt through the EI. Goleman Model consists of five skills as self-awareness, self-management, motivation, empathy, and social skills. Bar-On is another mixed model. Bar-On (1997; 2006) describes the EI as interrelated social and emotional efficiencies as expression and understanding self, establishment of good relationships with others, coping with external demands. Bar-On Model consists of five skills. Those skills are intrapersonal, interpersonal, stress management, adaptability, and general mood.
Trait Emotional Intelligence, developed by Petrides (2006), is another stream in the EI. According to Trait Emotional Intelligence, the EI is personality traits rather than standard intelligence types. Petrides (2001) describes the EI as self-perceptions which are about emotional characteristics. Trait Emotional Intelligence consists of 15 skills as adaptability, assertiveness, emotional appraisal, emotion expression, emotion management, emotion regulation, impulsiveness, relationship skills, self-esteem, self-motivation, social competence, stress management, trait empathy, trait happiness, and trait optimism (Petrides, Sangareau & Furnham, 2006).

In the literature it is emphasized that the higher emotional intelligence performance students have, they have better academic achievement, emotional management of strong emotions, better relationships among them, better social support, and less behavioural problems (Di Fabio & Kenny, 2011; Ferrando, Prieto, Almeida, Ferrandiz, Bermejo, Lopez-Pina, Hernandez, Sainz, Fernandez, 2010; Jellesma, Rieffe, Terwogt & Westenberg, 2011; Qualter, Whiteley, Hutchinson, & Pope, 2007; Rivers, Brackett, Reyes, Mayer, Caruso, & Salovey, 2012).

Purpose of human behaviours is to adjust social and physical environment and most of human behaviours are learnt through interaction with the environments. When infants are born, their mothers are the first person whom they interact with. Mother child interactions are an important indicator of development in cognitive and affective domains (Pianta & Egeland, 1994). Responsive, supportive, warm mother-parent child interactions are useful in predicting social, cognitive, and linguistic competencies of children (Baumrind, 1989; Gotmann, Katz, & Hooven, 1997) whereas nonintrusive behaviours of mothers (passive-withdrawn) were related to problematic behaviour in school and self-reported depressive behaviour in middle childhood (Easterbrooks, Bureau, & Lyons-Ruth, 2012). On the other hand child mother interactions can be based on several socioeconomic variables. Maternal employment is one of those socioeconomic variables. Maternal employment impact on children’s development has been a long-standing issue for developmentalists (Belsky & Pluess, 2013). Hoffman (1974) claimed that impact of maternal employment could vary according to working conditions of mothers, attitude of working mothers, social class, age and sex of children, family circumstances. Duration of working in a week is determiner. 20 or more hours per week of non-parental care in the first years of life increases possibility of lower social-emotional functioning and insecure attachments to their mothers, being disobedient toward adults and aggressive towards peers between 3 and 8 years old (Belsky, 1988; 1990; Belsky & Rovine, 1988; Haskins, 1985; Jacobson & Wille, 1984; Rubenstein & Howes, 1983; Schwarz, Strickland & Krolick, 1974; Vaughn, Gore, & Egeland, 1980). Belsky & Eggebeen (1991) found that maternal employment with long duration lead to noncompliant behaviours among children.
When developmental process is taken into consideration, it can be said that the EI can be influenced by interaction with familial environment. In other words, familial characteristics have either positive or negative impact on the EI development. Maternal education is one of the familial characteristics that may determine in children’s emotional intelligence performance. Mothers are influential in shaping their children’s childhood experiences, developing their children’s socio-emotional skills, preparing them for participation to larger society (Laosa, 1980). Maternal education was found to have impact on children’s socio-emotional skills (Laosa, 1980; 1982) and strongly predict children’s school success from the age of 6 (Haartman & Haavind, 1981).

**Hypothesis of the study:**

Emotional intelligence development on children is influenced by interaction with their mothers. On the other hand, the interaction between child and mother is shaped by maternal characteristics such as maternal employment and maternal education. Therefore, the two hypotheses were tested below:

**Hypothesis 1.** The more maternal education, the more emotional intelligence performance of children increases.

**Hypothesis 2.** Working mothers’ children have lower emotional intelligence performance than non-working mothers’ children.

**Method**

**Research Design**

The present study was conducted in correlation research design. In correlational research relationship and its size between two variables are tried to discover (Frankael, Wallen, & Hyun, 2012). In this study relationship between emotional intelligence performance of children who are at the age of 10, and maternal education and employment was aimed to determine.

**Sample**

Due to the fact that reaching every element in the population and list of every elements in the population were impossible, convenient sampling, one of the non-random sampling methods, was employed. 221 children, who are 10 years old, participated the study through convenient sampling.

**Instrument**

Ten Years Emotional Intelligence Scale (TYEIS), developed by Coskun, Oksuz, & Yilmaz (2017) was used to measure emotional intelligence performance of the participant students. The TYEIS consists of 10 items. It measures emotional intelligence performance through self-report. Its Cronbach
Alpha for internal consistency was found as .89. Extra information chapter about maternal employment and maternal education level was inserted into the TYEIS and thereby data about participant children’s maternal education and maternal employment were collected.

**Data Analysis**

Data were analysed through regression analysis and Spearman Rank Coefficient because of the fact that the relationship between two variables are aimed to find out.

**Findings**

The Hypothesis 1 was tested. Findings about Hypothesis 1 were displayed in Table 1, Table 2, and Table 3.

**Table 1: Descriptive statistics according to maternal educational level**

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>f</th>
<th>%</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary School</td>
<td>44</td>
<td>19.9</td>
<td>23.25</td>
<td>2.80</td>
</tr>
<tr>
<td>Secondary School</td>
<td>42</td>
<td>19</td>
<td>25.07</td>
<td>2.69</td>
</tr>
<tr>
<td>High School</td>
<td>58</td>
<td>22.6</td>
<td>26.09</td>
<td>2.56</td>
</tr>
<tr>
<td>University</td>
<td>85</td>
<td>38.5</td>
<td>26.90</td>
<td>2.69</td>
</tr>
</tbody>
</table>

Findings about maternal education were shown in Table 1. 19.9 mothers graduated from primary school, 42 of them finished secondary school, 58 of them graduated from high school, and 85 of them finished university. Findings in the Table 1 indicated that students, whose mother graduated from university, received the highest emotional intelligence performance score from the TYEIS, while the students whose mother finished primary school, obtained the least emotional intelligence performance score from the TYEIS.

**Table 2: Correlation between maternal education level and students’ emotional intelligence performance score**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Education Level</td>
<td>221</td>
<td>.51*</td>
<td>.00**</td>
</tr>
<tr>
<td>Emotional Intelligence Performance Score of the Students</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: * Two-Tailed; **p < .01.*

Maternal education is such a categorical variable that the Spearman Rank Coefficient was used in the correlation analysis. The correlation coefficient was found as .51. Findings in the Table 2
revealed that there is positive, medium and significant correlation between maternal education and emotional intelligence performance score of the students \((r=.51; p<01)\). Furthermore, in order to create a model based on the two variables, regression analysis was conducted. Results of the regressions analysis were indicated on the Table 3.

Table 3: Results of regression analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Std. Error</th>
<th>(\beta)</th>
<th>(t)</th>
<th>(p)</th>
<th>(r)</th>
<th>(R^2)</th>
<th>(\Delta R^2)</th>
<th>(F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence Performance of the Students</td>
<td>22.51</td>
<td>.47</td>
<td>.51</td>
<td>46.6</td>
<td>.00</td>
<td></td>
<td></td>
<td>.25</td>
<td>68.71</td>
</tr>
<tr>
<td>Maternal Education</td>
<td>1.35</td>
<td>.15</td>
<td>.51</td>
<td>8.69</td>
<td>.00</td>
<td>.51</td>
<td>.25</td>
<td>.25</td>
<td>75.61</td>
</tr>
</tbody>
</table>

Regression model, which were based on the correlation between emotional intelligence performance score of the students and maternal education was observed to fit modestly to the data \((R^2= .25)\). This finding indicates that that maternal education level modestly predicts emotional intelligence performance score of the students. B coefficient for the maternal education was found as 1.35. B coefficient revealed that if maternal education level increases by one level, emotional intelligence performance score of the students rises by 1.35 points from the TYEIS. Hypothesis 1 was decided to be verified and accepted due to the relevant findings of the research.

It was aimed to discover correlation between maternal employment and emotional intelligence performance score of the students in the Hypothesis 2.

Table 4: Descriptive statistics according to maternal employment

<table>
<thead>
<tr>
<th>Maternal Employment</th>
<th>(f)</th>
<th>(%)</th>
<th>(M)</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students of non-Working Mothers</td>
<td>112</td>
<td>50.7</td>
<td>25.40</td>
<td>3.06</td>
</tr>
<tr>
<td>Students of Working Mothers</td>
<td>109</td>
<td>49.3</td>
<td>26.11</td>
<td>3.07</td>
</tr>
</tbody>
</table>

While 112 of students’ mothers do not work out of the home, 109 students’ mothers work out of the home in the research sample. Findings on the Table 4 indicated that working mothers’ students scored higher in emotional intelligence performance than non-working mothers' students contrary the Hypothesis 2.
Table 5: Correlation between maternal employment and students’ emotional intelligence performance score

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Employment</td>
<td>221</td>
<td>.14*</td>
<td>.00**</td>
</tr>
<tr>
<td>Emotional Intelligence Performance Score of the Students</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * Two-Tailed, **p < .05.

As a result of the correlation analysis, it was identified that there is negative, weak and significant correlation between maternal education and emotional intelligence performance score of the students (r = -.14; p < .05). Maternal education such weakly correlated to emotional intelligence performance score of the students that regression model cannot be generated. Owing to weak and negative correlation between the variables, it was decided that the Hypothesis 2 was rejected.

Discussion and Conclusions

Results about the Hypothesis 1 revealed that better maternal education level leads to better emotional intelligence performance among the students. Maternal education is one of the key elements that make child-mother interaction better. Better child-mother interaction makes children socially and emotionally competent (Denham & Renwick, 1991; Pianta, Nimetz, & Benett, 1997). In the study maternal education may have developed the students’ interactions with their mothers and resulted in better emotional intelligence performance. Carneiro, Meghir & Parey (2011; 2013) claimed that maternal education is effective in reducing children’s behavioural problems. Harding (2015) concluded that children, whose mothers have higher education level, have less social and emotional problems. Itenbach & Harrison (1990) found that children with better maternal education have better social and self-skills. Laosa (1980; 1982) found that maternal education has positive outcomes on children’s social and emotional development. Maternal education makes mothers more sensitive and responsive to their children (Johnston, Murray, Hinshaw, Pelham, & Hoza, 2002). Maternal sensitiveness and responsiveness develop positive sense of self and others, secure attachment among children which in turn allows children to be socially and emotionally competent (Bohlin, Hagekull, & Rydell, 2000; Bowlby, 1973). In the study, mothers who have higher maternal education level, may have responded positively and sensitively to their children’s needs. This positive and sensitive responsiveness of the mothers may have increased the student’s emotional intelligence performances.

Another explanation of contributions of maternal education to the students’ emotional intelligence performance is about parenting styles. Maternal education positively moderates parenting styles (Fox, Platz, & Bentley, 1995). Mothers with higher education level have more positive parenting
styles. In turn positive parenting styles develops children’s’ emotional intelligence (Alegre, 2011). In the study the students’ mothers who have higher maternal education level, may have had positive parenting styles and so they may have developed their children’s emotional intelligence performances.

Results about the Hypothesis 2 revealed that maternal employment is negatively and slightly correlated with emotional intelligence performance of the students’. In the literature several research findings reported that maternal employment has negative and deteriorating impact on children’s social and emotional skills. Belsky & Eggebeen (1991) reported that the children whose mothers are employed full-time, experience adjustment difficulty within their first 2 years of life and maternal employment makes them more noncompliant than their agemates whose mother don’t work. Belsky (1988; 1990) found that the children whose mothers have work out of their home 20 hours or more per week, behave aggressively to their peers, become more disobedient towards their parents and adults. Han, Woldfogel, & Gunn (2001) concluded that maternal employment increases possibility of behavioural problems among children who are the age of 7 and 8. On the other hand, maternal employment in the first years of life has more damaging effect on socio-emotional skills than later maternal employment that begins thereafter (Bates, Marvinney, Kelly, Dodge, Bennett, & Pettit, 1994; Baydar, Brooks-Gunn, 1991; Belsky & Eggebeen, 1991; Haskins, 1985). Emotional intelligence is such a joint of socio-emotional skills and competence that maternal employment is expected to damage the emotional intelligence performance of the students in the study. In contrary, results of the study indicated that maternal employment is not strongly correlated with emotional intelligence performance of the students and don’t explain the emotional intelligence performance. There may be mediational variables that buffer damaging effects of the maternal employment. According to Hoffman (1974) effect of the maternal employment differs according to nature of maternal work, family circumstances, and social class. Buehler, O’Brien, Swartout, & Zhou (2014) reported that part-time employed mothers have more emotionally and cognitively supportive parenting style than non-employed mothers. Maternal employment may have functions that constitute supportive, sensitive and positive family settings for children. It offers more resources that increase supportive, sensitive and positive parenting, reduces financial strain, greater family life satisfaction (Coley & Lombardi, 2013; Perry-Jenkins & MacDermaid Wadsworth, 2013). Emotional intelligence performance of the students does not vary according to maternal employment variable in the study. Maternal employment may heal and compensate damage on emotional intelligence performance of the students through its positive characteristics for family life.

Following conclusions can be drawn on from the results of the study:
• Separation of mothers with their children within the first years of life has more negative impacts on children’s affective and cognitive development. However, this negative impact seems to decrease and vanish in later years of life. Therefore, regulations which reduce duration in the workplace must be enacted for mothers who have children.

• Maternal education must be encouraged and mothers are offered more educational opportunities because maternal education results in positive impacts on children’s cognitive and socio-emotional development.

References


İlkokul Dördüncü Sınıf Öğrencilerinin Duygusal Zeka Düzeyi İle Annenin Eğitim ve Çalışma Durumu Arasındaki İlişkinin İncelenmesi


Duyguzal zeka ile ilgili modellerin ortaya koyduğu faktorlar, birbiri ile örtüşmektedir. Bütün modeller, kişiler arası ilişkilere, empatiye, duyguların doğru olarak ifade edilmesine ve yönetimine ön plana çıkarmaktadır. Modellerdeki farklılıklar duyguzal zekaya ilişkin özelliklerin ölçme şeklinin, duyguzal becerileri biliş ve kişiliğin etkili olduğunu ve sosyal ilişkilerden ileri gelmektedir.

Çalışmada, anne-çocuk etkileşim kalitesinin en önemli yordayıcı olan annumun eğitim düzeyi ile ilkokul dördüncü sınıf öğrencinin duyguzal zeka düzeyi arasındaki ilişki incelenmiştir. Birey doğumdan itibaren duygularını ne boyutta yaşayacağını, nasıl ifade edeceğini, yöneteceğini ve sosyal ilişkilerinde duygusal ve sosyal becerilerini nasıl kullanacağını ilk olarak anne-çocuk etkileşimi sürecinde öğrenir.

Kaliteli anne-çocuk etkileşimi, çocuğun sosyal yeterliliğini artırır, problemli davranışlara sahip olma düzeyini azaltır, çocuğun akranlarına karşı agresif ve saldırgan davranışını önler, sosyal uyumunun kolaylaştırır, depresif semptom düzeyini azaltır, çocuğun sosyal-duygusal yeterliliği ve iyi oluş düzeyi üzerinde olumlu etkiye sahiptir.


Çalışma ilişkisel desende yürütülmüştür. İlişkisel desende iki değişken arasındaki ilişkinin yönü ve düzeyinin kesin tespit edilmesi amaçlanır. Araştırmının evrenini ilkokul dördüncü sınıfına özgü olarak örneğin görmekte olan öğrencilere oluşturmuştur. Evrende yer alan bütün öğrencilere ulaşmanın imkansız olması nedeniyle, evren temsil edecek, örneklemeye yöntemlerinden yararlanılmıştır. Çalışmada
seçkisiz örnekleme yöntemlerinden uygun örnekleme tekniği kullanılmıştır. Çalışmaya Samsun ve Artvin illerinde öğrenim görmeyle olan 221 öğrenci katılmıştır.


Değişkenlere bağlı olarak oluşturulunan regresyon modelinin varyansı orta düzeyde açıkladığı gözlenmiştir ($R^2 = .25$). Bu bulgu, annenin eğitim düzeyinin öğrencinin duyguçal zeka düzeyini orta düzeyde yordadığı söylenebilir. Ayrıca annenin eğitim düzeyinin bir kademe yükselmesi durumunda, öğrencinin duyguçal zeka düzeyi 1,35 puan artış göstermektedir. Bu bulgulara dayanarak araştırmacının birinci hipotezinin doğrulandığı sonucuna ulaşmıştır.

Araştırmacının ikinci alt problemine ilişkin elde edilen bulgular, annenin çalışma durumu ile öğrencinin duyguçal zeka düzeyi arasında negatif yönde zayıf düzeyde bir ilişki olduğunu tespit etmiştir ($r = -.14$). Bulguya bağlı olarak araştırmacının ikinci hipotezinin reddedilmesine karar verilmiştir.