INVESTIGATING MOTHERS’ EMPATHIC INCLINATION AND MIND READING LEVELS FROM EYES WHO HAVE CHILDREN WITH AUTISM AND TYPICALLY DEVELOPING CHILDREN

Alev Girli, Dokuz Eylul University Education Faculty, Izmir, Turkey, alev.girli@deu.edu.tr
Deniz Tekin, Phd. Student, Izmir, Turkey, xdeniztekinx@hotmail.com

Abstract

The purpose of this study was to investigate empathic inclination and mind reading levels from eyes of mothers’ who have children with autism (N=26) and typically developing children (N=28). It was a descriptive study which examines comparatively mind reading skills of mothers of children with autism and mothers of typically developed children. In order to assess mind reading skills of mothers “Eyes Test” was used. Also “Empathic Tendency Scale” was used for assessing empathic tendencies and skills of the mothers. According to results, mothers who have normally developed children performed better at mind reading from eyes, than mothers who have children with autism. On the other hand, there was no significant difference between two groups in empathic inclination results. This study has similar results with prior studies.

Key Words: autism, theory of mind, empathy, parents

INTRODUCTION

Autism is a genetic based, neuro-developmental disorder. Many studies conducted in order to investigate autism’s cognitive aspects. In this area, one of the most important theories is Theory of Mind (TOM). TOM is basically, the ability to understand other persons’ beliefs, feelings and thoughts (Premack & Woodruff, 1978). Studies reveal that TOM plays a very important role in developing communicational, social and affective communication with others (Perner, Frith, Leslie & Leekam, 1989; Watson, Nixon, Wilson, & Capage, 1999). Therefore, TOM has a crucial role in social life.

Typically developed children begin to develop TOM by themselves (Howlin, Baron-Cohen & Hadwin, 1999). On the other hand, children with autism have several TOM impairments (Baron-Cohen, Leslie, & Frith, 1985; Baron-Cohen 1989). Basically TOM has components and there are studies investigating these components with children with autism (for detailed information; Baron-Cohen, & Swettenham, 1996). Empathy is one of the most important components of TOM. Empathy is lack of understanding others’ emotions; understanding ones’ current state or perspective is called cognitive empathy and feeling ones’ emotional state is called affective empathy (Dökmen, 2000). Empathic skill impairments are one of the major impairments of children with autism (Baron-Cohen & Wheelwright, 2004; Blacker, Kraemer & Schalow, 2003).

The cause of the autism is yet unclear but most of the studies point out genes interacting with each other (Özbaran, Köse & Erermiş, 2009). There are theories on these studies and one of the most important theories is “Broad Autism Phenotype”. According to broad autism phenotype (BAP), relatives and families of people with autism share some of the traits of autism (Fombonne et.al., 1997; Piven et.al., 1997; Baron-Cohen & Hammer, 1997; Bolton, et.al, 1994). According to studies, families of people with autism, reveal impairments in some of the cognitive areas such as TOM and empathy, and some superior abilities such as finding embedded figures (Jonge, Kemner & Engeland, 2006; Losh & Piven, 2007).

Prior studies reveal that culture may have an effect on TOM (Wellman, Cross & Watson, 2001; Liu, Welman, Tardiff & Sabbagh, 2008). Different outcomes may occur with tests for West culture applied on East culture. The number of studies with Turkish sample in TOM is very limited (Examples; Baykara, Gencer, İlkin & Miray, 2008; Girli & Tekin, 2010; Tekin, 2010). The purpose of this study is
to investigate empathic inclination and mind reading levels from eyes of mothers’ who have children with autism and typically developing children. There were one study with Turkish sample in which parents of children with autism investigated in terms of executive functions and social cognition (Gökçen, et.al, 2009). Yet any study which investigates parents’ empathic inclinations and mind reading abilities could not found. By conducting this study with Turkish sample, it is expected that this study would fill this gap in the Turkish literature.

METHODS

1.1. Participants

There are two groups in the study. Mothers who have normally developed children (n=28) and mothers who have children with autism (n=26) have been participated. Snowball technique was used in order to reach participants. Mothers who have children with autism age ranged from 25 to 45 (M=38.23 sd =5,846) and mothers who have typically developed children age ranged from 25 to 45 (M=39.25 sd= 7, 306) . All children with autism with second group of mothers, diagnosed by qualified clinicians in university hospitals with DSM-IV criteria.

1.2. Study Materials

Demographic information gathered with forms which were prepared by researchers. In order to measure mind reading abilities from eyes, Eyes Test-Adult Version (Baron-Cohen, Wheelwright, Hill, Raste & Plamp, 2001) and in order to measure empathic inclination, Empathic Inclination Questionnaire (Dökmen, 2004) was used.

1.3. Procedure and Data Analysis

Tests were conducted one to one, in a quite environment by researchers. In the Eyes Test, researchers sit near participant and filled the sheet. Empathic Inclination Questionnaire and demographic information sheets were filled by participants. In data analysis, relationship between TOM variables and children’s diagnosis was tested with t-test for independent samples.

RESULTS

In order to analyze both groups’ difference on different tests, Kolmogorov-Smirnoff test was used. According to findings, there is a significant difference between two groups in mind reading performance [t (52) = 2.40, p=.020]. Mothers who have normally developed children have better performance (M=22.78) than mothers who have children with autism (M=20.34). There is no significant difference in terms of empathic inclination level [t (40) = .817, p=.419]. Although mothers who have normally developed children have slightly better performance (M=131.42) than mothers who have children with autism (M=126.50), difference was not statistically significant. Effect size of the mind reading levels of two groups was also calculated (Cohen, d=.29).

DISCUSSION

The purpose of this study was to investigate empathic inclination and mind reading levels from eyes of mothers’ who have children with autism and typically developing children. According to results, mothers who have normally developed children performed better at mind reading from eyes, than mothers who have children with autism. On the other hand, there was no significant difference between two groups in empathic inclination results. This study has similar results with prior studies (Baron- Cohen & Hammer, 1997; Gökçen et. al., 2009; Strayer & Roberts (2004). Mothers who have children with autism may have some cognitive problems in mind reading. As mentioned before, mind reading plays a very important role in socialization. Considering this and results of the study, one can say that, mothers of the children with autism may have social problems.

Second outcome of the study is no difference between two groups in terms of empathic inclination. Although both empathy and mind reading from eyes were components of TOM, studies show that persons may have impairments in some components while rest of the component stay untouched (Tager-Flusberg & Sullivan, 2000; Tekin & Girli, 2011). According to Tager-Flusberg &
Sullivan (2000), TOM has two main parts; socio-perceptional and socio-cognitive. Recognizing emotions from face or body is socio-perceptional and understanding concepts such as deception, irony and false belief is socio-cognitive.

This study is limited by participants were only mothers. Prior studies were conducted with fathers and siblings (Baron- Cohen & Hammer, 1997; Doris et.al., 2004), further studies in Turkish sample may include these groups also.

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