The Relationship between Depressions in Children with Perceptual-Motor Skills

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ABSTRACT The aim of this study was to investigate the relationship between depressions with perceptual-motor skills in elementary school children. There were randomly participated 100 primary school students of Khorramabad in the study. Children's Depression Inventory (CDI) of Maria Kuas and Lincoln Oseretsky Scale were used to assess depression in children and adolescents and to perceptual-motor abilities respectively. Pearson's Correlation and regression were used to analyze data. The results showed a significant negative relationship between depressions in children with developing perceptual motor skill.

KEYWORDS Depression, Developing Perceptual-Motor Skills, Children.

INTRODUCTION

Depression is a mental illness that sometimes affects children and makes them sad, angry and frustration for a long time. In the past, experts did not believe that children may be depressed, but now scientists believe that acute depression is common among children. According to the released statistics by National Union of Mental Illness in the United States, about 2% of children with 6-12 years and 4% of adolescents suffer from acute depression (Thompson et al, 2009). The prevalence of major depressive disorder in adolescent girls and adult women is two times than teenage boys and adult men. Of course, boys and girls are equally affected by the disorder before puberty such that the disorder in men and women is 25-45, which it is the highest level (Galahoo, 2004). Children can be reliable reporters about their behaviors, emotions, relationships and problems of mental-social performance. However, they may present their depression in different names; therefore, it is necessary to ask questions about feelings of sadness, emptiness, boredom, unhappiness, desire to weep and sense of inner sadness that is always available (Eley, 1997). Motor development is an age-based process. It is continuous with frequently that a human being progresses from involuntary and reflexive movements to primary voluntary movements and finally, very regular movements and complex motor skills –which they are followed in old age. This process is not limited only to period of physical development, but it is continued during human life. Motor development can be explained as appearing new skills, refining patterns of motor skills or producing movements. Normally, motor development of infants is evaluated by appearing new motor skills; while motor development of children is measured by refining how implement and produce movements. All these processes occur during period of infancy and childhood, although learning and refining skills vary in different people (Malina, 2002). When children are close to the second anniversary of their birth, it can be seen significant changes in how they relate to their surroundings. By ending the second year, they will be skilled in rudimentary movement abilities that had grown up in infancy. The motor abilities form basis of the developed and refined abilities, so-called fundamental motor skills, that a child has learned them in the first period. They form specific
motor skills for ending children and adolescents period (Isaacs and Payne, 2002). In recent years, researchers have considered developing fundamental movement skills and their influencing factors. Fundamental movement skills are base for advanced athletic skills. Moreover, developing the skills can be useful in everyday life movements of people (Zarezadeh, 2009). Although mature and aging can cause develop the skills, but these factors cannot grow fundamental skills alone. Environment is another factor that plays an essential role to develop children’s motor development. If there is a rich learning environment and opportunities for physical experiences, fundamental motor skills will be grown up (Aslankhani, 1999). The main elements are motor development of fundamental movement skills. The skills are divided into two major groups: skills of handling and manipulating. They are bases of developing daily life movements and sports’ skills; such that lack of pattern of fundamental movements has a direct consequence on person’s ability to do next movement skills. Childhood is a period to emerge radical movements’ pattern. The skills are bases of sport skills development. Like building blocks, they are efficient and effective movement skills that are ways for children to search and acquire knowledge in their around world (Pizza & Rob, 2012). Their development allows children to communicate with their environment independently. Evidence suggests developing fundamental movement skills (FMS) can play an important role in childhood to prevent physical inactivity in adulthood. As the specialized movements are periods to refine basic skills and incorporate these skills to use in different situations life, most experts believe that period of fundamental movements is an especial and important period in a child's motor development. The important role of basic skills is not for their basis in specialized motor skills, but it is relevant to secondary effect of weakness or strength of these skills on academic achievement and mental skills. Based on evidence, weakness in basic skills and subsequently, specialized motor skills will fail child in sports activities successively (Sigmundsson et al., 2003). This failure reduces the child's sense of competence and his unwillingness to participate in sport activities. Reducing child’s sense of competence and his rejection by peers as an inefficient playmate leads to his depression (Miller et al., 2001). The depressed child cannot have enough attention and as a result, he will fail in education and learning motor and base skills. As developing FMS is one of important steps for motor development in childhood, it can play an important role in motor development on next years and learning complex motor skills including sport or motor activities, but children’s wear can affect it. Therefore, the present study seeks to answer the question whether there is a relationship between depressions in children with their perceptual-motor skills.

MATERIALS AND METHODS

There were randomly participated 100 primary school students of Khorramabad in the study. Perceptual-motor skills and depression were considered as criterion and predictor variables respectively. In the phase of study after getting permission from Education Office of Lorestan, there were randomly selected three schools. In implementation phase of the research, after primary explanation about the purpose and measuring instrument of the test, there was described how to answer for the participants in detail. About ethical considerations, after obtaining letter of satisfaction and providing necessary information, they were ensured that the received information will be only used in this research and of will be kept from any misuse.

Measuring Tools

Scale of Depression in Children and Adolescents: In this study, Children's Depression Inventory (CDI) of Maria Kuas was used to assess depression in children. The questionnaire contains 27 questions. The questionnaire’s items, which they have been extracted from Beck Depression Questionnaire, measure components of negative mood, interpersonal problems, frustration feeling, lack of pleasure and low self-esteem.

Motor Development Scale of Lincoln Oseretsky: Lincoln Oseretsky Scale was used to measure perceptual-motor abilities. The scale corrected form contains 6 subscale and 36 subtests, which they measure different aspects of perceptual-motor abilities in children with 5-14 years old. The subscales include: 1) static general coordination; 2) dynamic general coordination; 3) dynamic hand coordination; 4) speed; 5) voluntary synchronous-symmetric movements; and 6) voluntary asynchronous-asymmetric movements. The test subscales are scored from zero to three. The test reliability has been reported 0.97
for all age range of girls. Pearson correlation was used to analyze data. In all analyzes, p <0.05 was considered as significance level.

RESULTS

Table 1 presents the mean and standard deviation of the variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>16.17</td>
<td>7.14</td>
</tr>
<tr>
<td>Perceptual-motor skills</td>
<td>13.94</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Kolmogorov-Smirnov Test showed normal distribution of data (p> 0/05). Pearson correlation was used to study the relationship between the research variables. Table 2 presents the results. It is observed that there is a significant negative relationship between depression in children with developing perceptual-motor skills (Table 2, p< 0.01, r= -0.56).

Table 2. Results of Pearson correlation test.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Perceptual-motor skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

There was used linear regression to study prediction. Due to significant of F-test (p< 0.01, F= 45.10), it can be said that the model is significant (Table 3).

Table 3. Results of F-test to evaluate the research regression model.

<table>
<thead>
<tr>
<th>Model</th>
<th>sum of squares</th>
<th>Degrees of freedom</th>
<th>Mean square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1592.95</td>
<td>1</td>
<td>1592.95</td>
<td>45.10</td>
<td>0.001</td>
</tr>
<tr>
<td>Remaining</td>
<td>3461.16</td>
<td>98</td>
<td>35.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5054.11</td>
<td>99</td>
<td></td>
<td>45.10</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Results of simple bivariate linear regression in Table 4 show that developing perceptual-motor skills (p= 0.001, t= 6.72) can predict depression in children.

Table 4. Results of regression analysis.

<table>
<thead>
<tr>
<th>Symmetry regression</th>
<th>Not standardized coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>B 38.53</td>
<td>Std. Error 3.38</td>
<td>Beta -0.56</td>
<td>11.39</td>
</tr>
<tr>
<td>Developing</td>
<td>Developing perceptual-motor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>skills</td>
<td></td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>-9.62</td>
<td>1.43</td>
<td>-6.72</td>
<td>0.001</td>
</tr>
</tbody>
</table>

DISCUSSION AND CONCLUSION

The aim of this study was to investigate the relationship between depressions with perceptual-motor skills in children. Results showed a significant negative relationship between depressions with developing perceptual-motor skills in children. Among children and adolescents, depression is an important psychiatric disorder that affects their psychological-social performance considerably and it may result to suicide actions. Depression is a psychological disease that sometimes affects children and causes that they
feel sadness, anger and failure for a long time. In the past, experts did not believe that children may be depressed, but now scientists believe that acute depression is common among children. According to the released statistics by National Union of Mental Illness in the United States, about 2% of children with 6-12 years and 4% of adolescents suffer from acute. Over the past two decades, depression in children has been increasingly considered. According to evaluations, 2.5-4 percent of children are clinically depressed. The fact is very important that average period of depression is 7-9 months among children and adolescents because a child’s depression may not be treated during academic year and to disrupt his learning. In general, emotional symptoms of depression in children are emerged as sadness, social resignation or withdrawal, physical complaints, low anorexia or bulimia, incontinence, reluctance to go to school and lower school performance (Kennedy et al., 2002). Although depression in childhood and adolescence has been considered in recent years and childhood depression is not well defined, it is estimated that 60% of children may show depression in special education programs, in addition to other problems. Girls are exposed at risk of depression more than boys. Depression may be associated with low self-esteem, social skills, problem solving, and inability to regulate personal behaviors to cope with stress, negative thoughts and the learned helplessness (Afruz, 2002). Fundamental motor skills are refined and combined to form athletic and other special movement skills. Most children are potentially in mature phase of fundamental motor skills in 6 years old and are ready to transit to specialized movements. In most of fundamental motor skills, achieving in mature phase depends on evolving neural structure, anatomical and physiological features and perceptual-motor abilities. However, many youths are immature in terms of motor abilities because they had few opportunities for regular practice, poorly trained or not trained and low encouraging or no encouragement (Schmidt, 2003). Some institutions such as Ministry of Education, Ministry of Sports and Youth and Department of Education in schools play a determinant role in physical and mental training of children. The research findings provide useful information for schools and education managers in Iran. It will help the managers to be familiar with impact of perceptual-motor skills on depression of children and its growth in schools. Accordingly, they can make decisions to grow up children psychologically and physically. They also can be familiar with priorities in perceptual-motor skills. The results can help managers on how manage depression by reducing or increasing perceptual-motor skills and control the parameters optimally.

REFERENCES


