

The Impact Of Playground Green Space To Supply Physical And Mental Needs Of 9-12 Years Old Children For Their Emotional, Social And Cognitive Development

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ABSTRACT: Childhood is a very important age period and often has been overlooked. As unawareness that many behavioral traits affect experiences of the early years of our lives so the environment in action and learning during the operation, play a crucial role. When it comes to in public areas and keeping with their peers, children could learn many life circumstances, known as social behaviors. This study aims to investigate the role of green space playgrounds in children's development. For this study, six playgrounds in Shiraz have been considered. This study is combinational and has used the library method for data collection, the indirect and field view. In the indirect method, 200 questionnaires were randomly distributed between parents and children 9 to 12 years in playgrounds, residential complexes, schools, parks. And then we try to analyze the data by using statistical methods and the SPSS20 software. The results of this research showed that green space in the playground has a great effect on the growth and development of children, and this has led to the emotional-social and cognitive development of children.

Keywords: *Cognitive development, Emotional development, Social behavior, Green space.*

INTRODUCTION

In recent years, attention has been increasingly paid to research on the nature of life quality of individuals and communities. Green environment and nature are useful for individual health and well-being (Ward Thompson & Aspinall, 2011). These spaces have the improving effects (Kaplan & Kaplan, 2011). For example, immersion in nature or landscapes of green space (Kinnafick & Thogersen-Ntounani, 2014) reduces fatigue and stress and enhances mood. Research about children and nature, has proven that nature is beneficial for child development (Ward Thompson & Aspinall, 2011). The rapid growth of urban populations in developing countries throughout the world harms children's connection with nature. (Freeman & Tranter, 2011; Louv, 2005). This leads to decrease the children's standard of living that is an Insufficiency and has been called as a lack of nature and as shown by Loof; scarcity or lack of relationship with nature have adverse effects to the norm on children's feelings and mood (Clements, 2004; Karsten, 2005). Natural environments are important for children. Although there is

more evidence for the role of green space in children's physical health rather than psychological health, there are some reasons why the adjacent green space can contribute to the growth and development of children. First, the suitable environment for children include natural elements (Evans, 2006); secondly, access to the outdoors and the natural environments would improve some of the children's consequences that are related to the compatibility like Attention (Fabert Taylor et al., 2001; Feber Taylor et al., 2002; Wells, 2000) Self-regulation (Feber Taylor et al., 2002; Kaplan, 2001) and Motor Skills (Fjortoft, 2004). For example, an international conference about behavioral environment studies in the UK in 2013 showed that the girls, who live in social housing that is closer to green space, have better attention abilities and compatibility (Faber Taylor et al., 2002). The lack of correlation between nature and children has adverse impacts on children's developmental needs. Thus, it is important to understand and recognize the effects of nature and the environment on children's developmental needs (coined by Louv (2005) as "Nature Deficit Disorder"). This paper provides an overview of the benefits of nature for the developmental needs

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of children. Moreover, it focuses on the children's experience in nature and the effects of disconnection with it. This leads to understand the correlation between children and nature to improve this link. It is recommended to design corresponds with the needs of today's children, which is suitable for the future. This study also has examined the importance of nature and green spaces on the growth and development of children in the playground. Theoretical studies show that today's children attention to the green spaces for playing and using it as a tool for growth has been very important. In addition, the nature has a lot of potential for the training child's skills and can be not only a tool for growth of children, but also an excellent platform to meet the children's needs. The presence of natural spaces causes mental relaxation, refresh space and can make a sense of property to space for children. The research hypotheses demonstrate firstly, green space has positive implications on the children relations with it and secondly, the nature and green spaces meet or eliminate physical and emotional needs of children. Furthermore, it refers to reports and articles in the field of green spaces, children's playgrounds, their growth and development. This study utilizes a combination of direct observation and questionnaire that is to collect the information, and can be divided into two parts. The first part is descriptive, based on systematic review methods. In this method, in order to describe the current situation and attitudes of specialists in environmental planning of urban open spaces for children's usage, relevant reports have been investigated. As well as specialized articles with the related topic, has been collected, studied and analyzed. In addition to the second way known as indirect way, 200 questionnaires were distributed randomly between parents of children 9-12 years and we use SPSS statistical software for analyzing these data.

Literature

So far, in European and American societies, a lot of research on the promotion of urban spaces and designing a new generation of playgrounds is done and various solutions have been proposed. However, in the Eastern countries, especially in Iran, there has not been a comprehensive study that focuses on children's playgrounds, especially the age group 5 to 12 years. Sometimes in these countries few actions have been done with delays in the form of renovated and improved projects according to Western societies and experiences. The research examined by the Environmental Protection Agency of the United Kingdom as "children play" was done in 2006. This leads to studying the behaviors of more than 50000 children for many years, which shows with the increment of restrictions, the presence of children in informal play spaces dropped from 75 to 15 percent between 1973 and 2006. Thus, parks and playgrounds in the neighborhood have got more attention. The number of children who are taken to school by their parents had a significant increase induces the declining number of children walking and increased parental concern. The results showed that the barriers cause the absence of children in local parks, is:

- Traffic and speed of cars
- The crime rate, delinquency, strangers, etc.
- Residents dissatisfaction in the case of playing children in the streets and neighborhood
- Changing in game types and prevalence of video games (Beckwith, 2010)

This is followed by comments to creating safe zones in an urban contemporary home, for the first time began in 1970 with the idea of residential yard in the Netherlands, which aims to transfer the street into a community location with a variety of applications such as children's games. Traffic relaxation is another plan which aims to reduce mortality from vehicle collisions with pedestrians, especially children during gameplay. This is because of the high speed and the lack of preventive restrictions on local streets. In 2000, the British government placed incentive programs to achieve this objective. After those people, voluntary organization as Sustrans DIY Street, created under similar idea Home zone in England to have more attractive, safer and more sustainable local streets by participating together and the lowest cost (Lacey, 2007), and Green Street movement, which was popular in North America, aims to become a pleasant place for the residents of the streets. As opposed to merely crossing or parking and Los Angeles, Seattle, Chicago are pioneers of this idea. Green Highways project in Canada, including linear open spaces that connect the city's hotspots such as schools, parks, playland, public transport stations, therefore, children will be able to walk or ride a bike in complete security in the city space. In 2006, the National Center for Safe Routes to School as SRTS to encourage kids to walk and bike was founded in collaboration with the University of North Carolina and Central federal transportation of America (Hakami, 2011). Now, in many cities, the bus project is considered as a part of the international movement to promote safety. As well as principles for the design of playgrounds managed by the Association of the British game that some of them are:

- Be designed due to the potential of the site and layout be appropriate.
- Natural elements such as plants, rocks, etc. to be used in its design.
- Providing a wide range of game experiences and creating opportunities for challenge.
- Be able to have the presence of a disabled child along with other children
- Meet the needs of the community, including children and their parents and put different age groups together.
- Discussion of sustainability in design is concerned, have the ability to gradual evolution, and it is seen as a process (Shackell et al., 2008).

Theoretical Foundations

Children

Determining the age range of children is various in different countries. In the first article of the Convention on the Rights

of the Child, a child is individuals under 18 years. In the first article of law to protect the rights of children that passed in 1381, an individual less than 18 years of age has been set as a child. (Pakzad & Bozorg, 2011)

Grouping of age:

Young children: 0-2 years;

Pre-school age group: 5 -2 years;

School age: 5-11 years;

Teen: 14-11;

Teen: 14-18.

According to a breakdown of age groups for children's characteristics of different ages, observations show that play spaces or park facilities are suitable for preschool children and adult sports ground that children, 9 to 12 years, are rejected. Besides, the smaller playgrounds are not attractive for this age group. The lack of play spaces in this age group in urban areas is the emphasis of this. (Pakzad & Bozorg, 2011)

The Impact of Green Spaces on Children

Many children in urban environments do not have access to green spaces. Many parents prohibit their children from exploring wild natural areas because parents and children have little familiarity with green spaces, parents have concerns about children's safety, and children experience academic pressures and other demands on their time (Louv, 2005). The reduced contact with green spaces may influence children's development. Empirical research has demonstrated that experience with green spaces has a positive influence on children. Davis, Rea, and Waite (2006) suggested that spending time outdoors might help children develop positive values about green spaces; however, Wells (2000) suggested that children whose home environments improved the most concerning greenness after relocation were more likely to have higher levels of cognitive functioning after relocation. Wells and Evans (2006) indicated that green spaces environments can increase children's psychological well-being. Children whose homes were close to nature coped better with stress compared to those living far away from natural places. (Judith Chen & Martha, 2012)

Theoretical Approach to the Game

To any physical or mental activity targeted to be done individually or in groups, causing pleasure in children. (Motlaghzade, 1999) Theoretical approaches about children's plays have divided into classic theories (surplus energy theory, the theory of renewable energy, leisure and recreation theory, the theory of preparing for adulthood) and modern (reduce anxiety, cognitive theory of self, creating opportunities for skills acquisition and consolidation of previous knowledge and learning new things) theories. (Izadpanah Jahromi, 2002) Play spaces) review under two groups:

1. Formal play spaces like parks and playgrounds are known

traditional children's playgrounds such as swings, slides, etc. Contemporary playing field has various functions, creative and adventure playground including seemingly worthless pieces, such as scrap tires, wood, which gives children the possibility of making a new layout. In addition to this, its flexibility with the demands of children, is very effective in their physical and cognitive development environment. Adventure game gardens including factors such as trees, water, sand, animals that due to the diversity and variability, are suitable for local prosperity. (Izadpanah Jahromi, 2002)

2. Informal play spaces such as courtyards, the space between buildings, spaces near the entrance to houses, walk widescreen, deadlocks, local streets and alleys.

Play Impact on the Relationship between Children and Nature Children play in green spaces less today than they did in previous generations (Clements, 2004; Hofferth & Sandberg, 2001). Significant physical, mental and psychological changes may result from decreased contact with nature and the lack of unstructured play. In the last ten years, many grassroots efforts and federal initiatives have started to combat, what Louv (2008) calls "nature deficit disorder" through a growing "children and green spaces" movement. Research suggests this movement may improve child health and foster environmental stewardship. Unstructured outdoor play may improve classroom behavior (Barros et al., 2009) and self-esteem, as well as decreasing anxiety. Time in nature may decrease symptoms of attention deficit disorder (Fabert Taylor et al., 2002) and increase higher motor function and concentration (Grahn et al., 1997). Nature play may promote highly intense and dynamic physical exercise (Fjortoft & Sageie, 2000). Unstructured time in nature when young may also encourage adult environmentally aligned attitudes and behaviors (Bixler et al., 2002; Chawla, 1992; Lohr & Pearson-Mims, 2005; Thompson et al., 2007; Wells & Lekies, 2006). One increasingly popular technique of "connecting" children with nature is the construction of nature play areas. These areas offer children opportunities to play in natural spaces that their parents feel are safe and comfortable. They are often located in protected areas where managers balance recreation with associated environmental impacts.

Cognitive Development

Cognitive development includes intellectual, thinking, problem-solving skills, attention, and concentration (Duerden & Witt, 2010; Kellert, 2002). Previous studies have demonstrated that direct and indirect experience with nature increase and improve children's cognitive level, including concentration, attention abilities, performances, and thinking skills. Children experience nature through exploration and play immediately. Playing in the natural environments that offer various possibilities stimulate their sense and further improve and develop their cognitive skill. Children's attention in pre-school improves after staying and playing in green outdoor environments with a greater amount of vegetation,

shrub and terrain compared to other settings with less amount of green (Martensson et al., 2009). Children's cognitive beliefs also increase through direct experience in nature in a summer camp, which further influences their environmental attitude and behavior (Collado et al., 2013). A study in a pre-move and post-move by (Wells, 2000) on indirect experience found that middle childhood children whose move living close to nature increased in cognitive level than before, living surrounded with less amount of nature (Wells, 2000). Studies also demonstrated that even views towards nature positively affect children's cognitive level. Girls, living in an apartment with a view towards nature through window reportedly, having greater concentration abilities (Fabert Taylor et al., 2002). Another study with undergraduate students has also shown the same result. Students, in dormitory with natural view, through windows have greater attention abilities than those with no natural views (Tennessen & Cimprich, 1995). Indirect experiences in nature can positively affect children's performance. Views toward a greater amount of trees and shrubs from the cafeteria and classroom are associated with

high academic scores, graduation rates, and reduction of their involvement in immoral activities (Matsuoka, 2010). Critical thinking skills of students who participated in the environment-based programme also increase compared to students in traditional environmental science classes (Ernst & Monroe, 2006).

Nature impact on the growth and development of children: Researchers from different range of disciplines include education, psychology, and landscape design have described the importance of nature on children. The literature in environment and behaviour, environmental health, environmental education and environmental psychology, have demonstrated that connection, experience and engagement to nature have positive effects on children's cognitive, physical, social, emotional and spiritual development. The biophilia hypothesis explains the relationship between nature and children's needs. It indicates human has an inherent affinity for nature and need nature for aesthetics, intellectual, cognitive and spiritual meaning (Kellert & Wilson, 1993). In developmental psychology, children are divided into toddlerhood, early childhood, middle

Table 1: Trend of studies on benefits of nature to children's developmental needs

Benefits of nature on developmental needs	Years	Authors	Description
Cognitive	1995-1999	Tennessen & Cimprich, 1995	Study examined indirect experience in nature to children's attention abilities
	2000-2009	Wells, 2000; Martensson et al, 2009; Matsuoka, 2010; Ernst & Moor, 2006; Faber Taylor et al., 2002.	Studies examined the benefits of direct and indirect experience in nature on concentration, attention, abilities and performance.
		Faber Taylor et al, 2001; Kuo & Faber Taylor, 2004; Faber Taylor & Kuo, 2009.	Studies focused on benefits to nature on children with disabilities ADD and ADHD
	2010-2013	Collado & Corraliza, 2012	Study investigated direct experience in nature (nature camp) benefits on children cognitive belief.
Physical	2000-2013	Fjortoft & Sageie, 2000; Fjortoft, 2004; Said, 2012.	Studies investigated direct experience in nature benefits on motor fitness and motor development
Social	2000-2009	Prezza et al., 2001; Arbogast et al., 2009.	Studies demonstrated direct experience in nature benefits on independent mobility and social skills development.
	2010-2013	Laaksoharju et al., 2012; Said, 2012.	Studies demonstrated the benefits of direct and indirect experience in nature: playing in forest and orchard, gardening and being in sensory garden on children's social skills
Emotional	2000-2009	Wells & Evans, 2003. Laaksoharju et al., 2012	Studies investigated the benefits of direct and indirect experience in nature on anxiety and stress
	2010-2013	McCurdy et al., 2010; Corraliza et al., 2012; Roe & Aspinall, 2011.	Studies investigated direct and indirect experience in nature on restorative affect, stress, negative emotions and behaviour, as well as, its relationship with environmental behaviour

Continuie of Table 1: Trend of studies on benefits of nature to children's developmental needs

Benefits of nature on developmental needs	Years	Authors	Description
Spiritual	1995-1999	Tennessen & Cimprich, 1995	Study examined effects of direct and indirect experience with nature on environmental behavior;
	2000-2009	Lohr & Pearson mims, 2005; Wells & Lekies, 2006; Thompson et al., 2007.	Studies investigated benefits of direct and indirect experience in nature during childhood on attitude and behaviour towards nature;
		Larson et al., 2009; Bixler et al., 2002.	
	2010-2013	Cheng & Monroe, 2010 Collado et al., 2013.	Study focused on benefits of direct experience in nature in developing affinity and connection to nature, interest in nature activity based and environmental behavior;
Veselinovska et al., 2010; Duerden & Witt, 2010.		Study demonstrated benefits of direct and indirect experience in nature in developing empathy to nature and environmental awareness attitude	

childhood, and adolescence. This review highlights the benefits of nature on children in every stage except toddlerhood, which involves direct and indirect engagement in different settings such as home and neighborhood (Corraliza et al., 2012; Prezza et al., 2001; Fabert Taylor et al., 2002; Wells & Evans, 2003; Wells, 2000), preschool and school (Arbogast et al., 2009; Collado & Corraliza, 2012; Corraliza et al., 2012; Ernst & Monroe, 2006; Matsuoka, 2010; Roe & Aspinall, 2011) and also direct engagement through nature camp and recreation activities in wild nature (Bixler et al., 2002; Collado et al., 2013; Larson et al., 2009; Said, 2012; Thompson et al., 2007; Wells & Lekies, 2006). Researchers also have explored the benefits of nature to children with disabilities such as Attention Deficit Disorder (ADD) and Attention Deficit Hyperactive Disorder (ADHD) (Kuo & Faber Taylor, 2004; Faber Taylor et al., 2001; Faber Taylor & Kuo, 2009). Table 1 shows Trend of studies on benefits of nature to children's developmental needs.

Physical Development

Physical development in children improves from direct experience in nature through play and exploration. (Bell et al., 2008). Children are physically active when playing outdoors compared to those playing indoors. Abilities (Fjortoft & Sageie, 2000; Fjortoft, 2004; Said, 2012) Physical development of children mostly has been studied using the theory of affordances by Gibson (1979). Affordance theory explains that children value places or environments that allow them to engage with activities and play (Gibson, 1979).

Social Development

Playing develops children's social skills by enhancing their language and communication skills through interaction with

their peers. (Laaksoharju et al., 2012) Natural environments offer diverse, imaginative and creative play that stimulate and develop social interaction, independent social skills and environmental socialization between children (Bixler et al., 2002; Prezza et al., 2001).

Emotional Development

Emotional development categorized by expressions and mental states. Nowadays, children are facing various mental health issues like stress. Children with stress will have issues in the cognitive aspects of concentration and giving attention. Since nature functions as a restorative environment, studies on nature benefits on childhood mental issues have become an increasing issue of concern for the past few years (McCurdy et al., 2010; Habibi, 2010).

Spiritual Development

Spiritual development has been described as one's belief, value and meaning on something. About nature, it comprises appreciation of nature of life, feeling oneness with the environment and part of nature. (Veselinovska et al., 2010). Most research on nature and children's spiritual development relates to children's belief, interest, care and love to nature. (Veselinovska et al., 2010).

MATERIALS AND METHODS

The sample value depends on how accurately we want to generalize the results of the sample survey to the entire statistical population. The greater the accuracy and reliability, the greater the sample size required and vice versa. However, it is challenged how many people can be designated as a sample. This means that the sample size and number should be multiple

to allow the researcher to confidently generalize the results and calculated indices to the study population. This is because the statistical population is unlimited. To determine the sample size (n) is used the unlimited Cochran formula1.

$$n = \frac{Z^2 p q}{d^2}$$

Formula1: Cochran formula for sample size

n= Sample value

Z= The standard deviation of the standard unit variable, which is 95% confidence level of 1.96

P= The value of the attribute ratio in the community If not available it can be set to 0.5. In this case the amount of variance reaches its maximum value.

Q = Percentage of people who lack that trait in society) (q =1-p)

d= Allowed error value = 0.05

$$n = \frac{(1/96)^2 (0/05 \times 0/01)}{(0/05)^2} = 198/23$$

To review the impact of green space in the social-emotional growth and the development of children's playgrounds, 200 questionnaires were randomly distributed between parents and children 9 to 12 years in playgrounds, residential complexes,

schools, and park. This is followed by analyzing the data by using statistical methods and SPSS20 software. To assess the validity of questionnaires, the correlation coefficient between the statements of each subscale was calculated for each subscale with total scores by using statements analysis, which the results of that are shown as the lowest and highest correlation coefficient items in each subscale in Table 2. All statements were valid, due to a significant correlation with their respective subscale scores. (lot = 5, 4 = high, medium = 3, 2 = low, very low = 1)

Questionnaire Data Analysis

The data analysis (in table 3) related to factors affecting the social and emotional development of children. This part of the study shows the weight of social and emotional growth factors (factors amount affecting social and emotional growth) in children, 9-12 years, in green play spaces in Shiraz, the weighted average of excitement among children is more than other factors (3.9861). These values had obtained according to the results of Likert five-items.

To obtain the role of social factors in affecting children's emotional growth, single-sample T-test was used. This is a test which shows the average of a society according to the distribution of T and examines to what extent the average of a society is more or less a fixed amount. Moreover, the number 3 selected as the Middle theoretical factors affecting the development of children's social-emotional in Shiraz. The results (in Table 4) indicate that the average of excitement and friendship as one of the factors, affecting the social and emotional development of children in the playground was higher than this amount (3. 9861.3.8722) and this reflects the

Table 2: Correlation coefficients range of questions in the questionnaire

Cognitive Development	Social Development	Emotional Development	Subscales
0/79	0/76	0/87	Correlation
0/0000	0/0001	0/0000	Significance level

Table 3: The weighted average effective factors on children's social-emotional growth

Factors	Number	Average	Standard deviation
Excitement and joy	200	3.9861	.72571
Friendship	200	3.8722	.84312
Competition	200	3.8438	1.01031
Teamwork sympathy	200	3.5244	1.24007
Sympathy	200	3.4326	1.25917

Table 4: single-sample T-test factors affecting children's social-emotional growth

Factors	T	Difference in averages	Confidence interval difference 95
Excitement and joy	10.826	.2731	.6809 1.6745
Friendship	10.117	.8233	.8426 1.4504
Competition	9.4125	.8796	.7914 1.0341
Teamwork sympathy	8.7721	.9322	.6122 1.0621
Sympathy	7.2335	.9492	.5391 1.0344

significant impact excitement and friendship of children in the playground.

Analysis of data (in table 5) related to factors affecting the children's cognitive development:

To get the factors affecting the cognitive development of children in the playground, we used from the weighted average (The amount of the factors affecting the cognitive development of children) that shows 9-12 years' children in green play spaces in Shiraz; the weighted average visualize among children is more than other factors (3.7547). These values had obtained according to the results of Likert five-items (lot = 5, 4 = high, medium = 3, 2 = low, very low = 1)

A Single-sample T-test was used for a more favorable outcome,

which shows the average of a society according to distribution of T and examines to what extent the average of a society is more or less a fixed amount, and number 3 selected as the middle theoretical factors that affecting theoretical factors influencing the cognitive development of children in the playground. The results (in table 6) show that the average of incarnation as one of the factors affecting the cognitive development of children in the playground was higher than this amount (3.7547), which represents a significant effect of children's embodiment on cognitive development in the playground.

Given that the main purpose of this research is the role of green space in the development of children's playgrounds, in this part (in table 7) of the study, we examine the features of

Table 5: The weighted average effective factors on children's cognitive development

Factors	Number	Average	Standard deviation
Visualization	200	3.7547	.80591
Understand the details	200	3.6541	.85131
Understand directions	200	3.4531	1.32937
Creativity	200	3.5003	1.23108

Table 6: single-sample T-test factors affecting children's social-emotional growth

Factors	T	Difference in averages	Confidence interval difference95
Visualization	10.487	.4789	.5210 1.4842
Understand the details	10.389	.7198	.9424 1.5413
Understand directions	9.4125	.9651	.8615 1.7652
Creativity	10.7993	.2300	.6243 1.4581

Table 7: significant relation between features of green space in the playground and factors that affecting children's social-emotional growth.

Existing green space feature on the playing field	Spacing space	Natural light	Color
Excitement and joy	0/01*	0/02*	0/01*
Friendship	0/31*	0/32*	0/21*
Competition	0/53*	0/34*	0/61*
Teamwork sympathy	0/04*	0/27*	0/53*
Sympathy	0/44*	0/34*	0/14*

Table 8: significant features of green space in the playground on the factors that affecting the child's cognitive development

Existing green space feature on the playing field	Spacing space	natural light	Color
Excitement and joy	0/01	0/01	0/02
Friendship	0/01	0/01	0/02
Competition	0/01	0/01	0/57
Teamwork sympathy	0/36	0/17	0/68

*Significance level 0/5

Table 9: significant correlation between physical and spiritual needs of children in playgrounds, and green space

Title	Physical needs	Spiritual needs
Correlation	0/73	0/81
Significance level	0/0000	0/000

green play spaces in a significant level of emotional and social growth of children. As a result, excitement is one of the factors affecting children's social-emotional growth, associated with the expansion of space, natural light and colors that is available in the game space. Teamwork is involved in the expansion of space.

Given that competition, teamwork, compassion and friendship, cause more relationships between children, review and results obtained in the above show that features of green play spaces had no significant relation with these factors. The significance level of them is more than 0.05; as a result, the number one assumption (green space is effective in the children relations) of study is rejected.

In the following table 8, we examine the significance level of green space features and children's cognitive growth. Consequently, creativity and visualization the main factors which affect children's cognitive growth, are associated with the expansion of space, natural light and colors available in the game space. Understandings of details are associated with the vastness of space and natural light.

For the second hypothesis (Nature and green spaces provide both physical and spiritual needs of children) by referring to the questionnaire. We mostly found a significant association between the physical and spiritual needs of children and the role of green space by the Chi-square test. The study (in table 9) showed that the results of the test between two variables, both physical -spiritual needs and green space – playground, among the 200 responsive have the correlation coefficient 0.73 for physical requirements and 0.81 for emotional requirements and calculated in the significant level of 0.0001 and 0000. These levels are significantly smaller than the 0.05 level, so we have enough evidence to reject the null hypothesis. As a consequence, there is a significant positive relationship between physical and emotional needs of children with green space.

RESULT AND DISCUSSION

By examining the relationship between factors influencing emotional- social development and cognitive development of children in green space to play, excitement and joy can be concluded. These two factors affect the children's emotional development on green spaces, and friendship between children will affect social development. As well as other factors such as creativity, visual green space are effective in cognitive development among children.

CONCLUSION

The obtained information shows that green space is an important factor in the growth and development of children. All these factors demonstrate that all features in green spaces, such as the expansion of space, natural light, the color cause the excitement and joy of children and affect their emotional-social development and children have a strong desire to be located in these areas. As well as green space in the children's playground has causes cognitive development with creativity, and embodiment. In addition to the items listed above, physical and psychological needs of children provided by creating cognitive and emotional development in their society that due to the least of parents' daily involvement. Then, according to the analysis of questionnaires can be said that the two main hypotheses of the study include 1. Green space acts effectively in the children's relations. 2. nature and green spaces, supply the physical and emotional needs of children. This shows that green space is effective in the playground on the growth and development of children.

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